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Developing Country Participation: The Kyoto-Marrakech Politics

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HWWA Discussion Paper

Developing Country Participation: The Kyoto-Marrakech Politics

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Developing Country Participation: The Kyoto-Marrakech Politics

ABSTRACT

The US has repeatedly criticized the lack of “meaningful participation” of developing countries in the Kyoto Protocol. I discuss the course of negotiations on developing country participation between the conferences at Kyoto in 1997 and Marrakech in 2001. The reluctance of developing countries to enter into discussions on quantitative emissions targets can be explained by the principle of “common, but differentiated responsibilities” enshrined in the UN Framework Convention on Climate Change and the fact that both per capita cumulative emissions and per capita income are still much lower in developing countries than in the industrialized world. Moreover, the Clean Development Mechanism that generates emissions credits for projects in developing countries clearly has led to a participation of developing countries in greenhouse gas mitigation. However, one major problem for the negotiation strategy of developing countries has been the internal diversity ranging from OPEC countries that actively fight climate policy to the small island states extremely vulnerable to sea level rise. Especially the rapidly industrializing countries China, India, Brazil and Indonesia played a key role, stressing their voluntary activities to reduce energy intensity and subsidies for fossil fuels. Least developed countries were unable to muster a common voice. Thus, it was not possible to leverage resources for adaptation to climate change impacts apart from some voluntary pledges.

Keywords: International climate policy, Kyoto Protocol, developing countries

JEL classification: Q 540, Q 560

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"The idea that developing countries ... must share the blame for heating up the earth and destabilizing its climate ... is an excellent example of environmental colonialism." — (The Late) Anil Agarwal and Sunita Narain, Global Warming in an Unequal World: A Case of Environmental Colonialism. Center for Science and Environment, New Delhi, 1991.

1. Whose Meaningful Participation?¹

The call for “meaningful participation” of “key” developing countries in the Kyoto Protocol has been one of the most important issues in the climate negotiation in the period 1997-8, from COP3 in Kyoto, Japan (December '97), to COP4 in Buenos Aires, Argentina, in November 1998. The issue was raised internationally by the United States, though the term “meaningful participation” has never been clearly defined, nor is it easy to establish which developing countries could be considered “key”.²

The underlying motivation behind the demand for developing country participation is the fear that emissions from developing countries have grown more than twice as rapidly as those from the industrialized world — a 4.8 percent per year increase in carbon dioxide between 1900 and 1995, as opposed to 2.1 percent from industrialized countries included in Annex I of the United Nations Framework Convention on Climate Change (UNFCCC). Some projections suggest that, if not controlled, emissions from developing countries will surpass those from industrialized countries within the next two decades.³

¹ Some of the arguments in this section have been published as Sari, A.P., “On Equity and Developing Country Participation”, in Jepma, C., and W. van der Gaast. On The Compatibility of the Flexibility Instruments. Kluwer Academic Publishing, Dordrecht and Boston, 1999. For the purpose of this discussion paper, however, not only have the data been updated, but also the structure of the arguments has been adjusted and expanded.

² In his memo to the US senate, dated March 13, 2001, the US President George W. Bush stated that he opposes the Kyoto Protocol because “it exempts 80 percent of the world, including major population centers such as China and India, from compliance,” and “would cause serious harm to the US economy.” Further President Bush also suggests that there is an “incomplete state of scientific knowledge of the causes of, and solutions to, global climate change and the lack of commercially available technologies for removing and storing carbon dioxide.” See Chapter 1 on the events surrounding the US withdrawal.

³ See Chapter 1 under the session about emissions trends and scenarios, that cites Nakicenovic, N., O. Davidson, G. Davis, A. Grübler, T. Kram, E. Lebre La Rovere, B.

But what do these emission figures tell us? In 1990, housing only 20 percent of the world population, the 36 Annex I countries emitted 60 percent of the world's emissions. Conversely, the rest of the world, with 80 percent of the world's population, was only responsible for 40 percent of the emissions. Even if we take no account of population growth, if, as predicted, emissions from both geopolitical hemispheres converge in 2010, the 20 percent living comfortably in the industrialized world will emit the same amount of carbon dioxide as the other 80 percent living in far less salubrious circumstances. Clearly, if emissions from developing countries were to exceed those from industrialized countries, it would be hardly be extraordinary; if anything, the 80 percent of the world population in the developing countries should be allowed to emit 80 percent of the world's greenhouse gases.⁴

In sum, pressures for early developing country participation are based on the following arguments. Firstly, emissions reduction in developing countries are less costly, so any expenditure will make a greater contribution to the reduction in the global total emissions, in turn it will reduce the risks of climate change where developing countries are most vulnerable. Second, early commitments will accelerate the attainment of "secondary benefits" from emission reductions. Third, there will be increased potential for financial flows, in terms of foreign direct investment and overseas development assistance, most of which will be linked to climate policies.

However, developing countries have forceful responses to these arguments. First, the low-cost action in the short-term could render longer-term progress more expensive (the "low-hanging fruits" have been picked first, leaving only that which is hard to reach). Second, developing countries may anyway take action on local pollution abatement and other secondary benefits. In fact, whereas the primary benefits of these domestic actions by developing countries are reduced local pollution and enhanced sustainable development, the climate benefits can be considered secondary.⁵ Third, developing countries' confidence that foreign assistance will in fact materialize is at an all-time low. In spite of the promise, following pleas at the 1992 Rio Earth Summit, to increase

Metz, T. Morita, W. Pepper, H. Pitcher, A. Sankovski, P. Shukla, R. Swart, R. Watson, D. Zhou, Special Report on Emissions Scenarios. Intergovernmental Panel on Climate Change, Geneva, 2001; and Philibert, C., and J. Pershing, Beyond Kyoto: Energy Dynamics and Climate Stabilization. International Energy Agency, Paris, 2002.

⁴ Sari, A.P., 1999. See footnote 1.

⁵ Biagini, B. (ed.), Confronting Climate Change: Protecting the Climate while Enhancing Economic Development. National Environmental Trust and Pelangi, Washington, DC, and Jakarta, 2000.

development assistance to 0.7 percent of industrialized countries' national income, development aid has continued to decline in recent years, and this has deeply undermined trust. Finally, developing countries continue to argue that, as the primary emitters both now and even more so historically, industrialized countries should be the ones to act first.⁶

1.1 Whose Emissions Are They Anyway?

The arguments for the exclusion of developing countries from quantified emissions caps as in Annex B of the Kyoto Protocol are largely based on the fact that their cumulative emissions to date are relatively low (responsibility), and that their economies are weak and need to grow to meet their development objectives (capability). These factors define the principle of "common but differentiated responsibilities and respective capabilities".⁷

Atmospheric greenhouse gas concentrations have increased steadily over the last two centuries, as a result of the industrial revolution. In this period the concentration of carbon dioxide (CO₂), the most well-known greenhouse gas, has increased by one-quarter, from roughly 285 parts per million by volume (ppm) to roughly 360 ppm today. During this time, concentrations of methane (CH₄) and nitrous oxide (N₂O) have also increased rapidly. These increased concentrations have been followed by an increase in Earth's temperature.

The 285 ppm concentration can be roughly translated as 600 billion tons (Giga tons, GT) in terms of carbon, considered to be the normal background quantity of carbon dioxide from natural processes. This concentration is necessary for the Earth to remain habitable as we know it: otherwise it would be much colder. The increase over the last two centuries represents about 150 GT (in carbon), leading to a total of approximately 750 GT in 1990.

The excess carbon dioxide (i.e. more than the 'natural' quantity) in the atmosphere in 1990 was the product of cumulative historical emissions, traceable even before the industrial era. Nevertheless, many have argued that, although the causal correlation between the level of carbon dioxide concentration and the temperature of the atmosphere was demonstrated by Arrhenius as long ago as 1896, nations should not be punished for mistakes made in the past due to lack of adequate scientific knowledge. Many others however suggest that the high-emitting industrial processes established during

⁶ Philibert, C., and J. Pershing, 2002. See footnote 3.

⁷ UNFCCC (United Nations Framework Convention on Climate Change), Article 3.

the period of “ignorance” were also the sources of great wealth, and that the industrialized countries, still enjoying this legacy, should be held accountable. Following a ‘middle path’, in the steps of Smith, I have used carbon dioxide emissions and cumulative figures since 1950.⁸ In this year, the level of carbon dioxide concentration in the atmosphere had already reached 310 ppm, correlating to approximately 650 GT in total. Up to that year therefore, 50 GT can be said to have been human-induced. This amount might be considered “sunk”, or “unaccounted for” cumulative emissions due to ignorance.

In 1950, annual emissions from the industrialized countries in Annex I were already more than 1.3 GT, ten times those from the rest of the world, which were a tiny 0.13 GT. Emissions from the industrialized countries were growing at 2.1 percent on average, those from the rest of the world at 4.8 percent. By 1990, global emissions were 6.5 GT, and carbon buildup had increased by a further 110 GT. Of this increase since 1950, the industrialized countries were responsible for 85 GT, approximately 82 percent, and developing countries 25 GT, a mere 18 percent of the global total. It was this wide gap in historical emissions between the industrialized and developing world that instigated the UNFCCC’s inclusion of the principle of “common but differentiated responsibilities and respective capabilities”.

These figures show that, by 2010, even though annual emissions from developed and developing countries may have drawn level, the accumulated level or buildup of carbon dioxide from developing countries will not yet have reached that from industrialized countries. Indeed, the total accumulated atmospheric quantity from developing countries’ emissions would reach 5 - 8 billion tons sometime in 2005 - 2010 about the same amount as those of Annex I in the same year.⁹ Since climate change is caused by the amount of carbon dioxide currently in the atmosphere built up over more than a century, and not merely caused by a particular year’s emissions, it is justified to hold industrialized countries collectively accountable for most of the excess carbon dioxide in the atmosphere today.

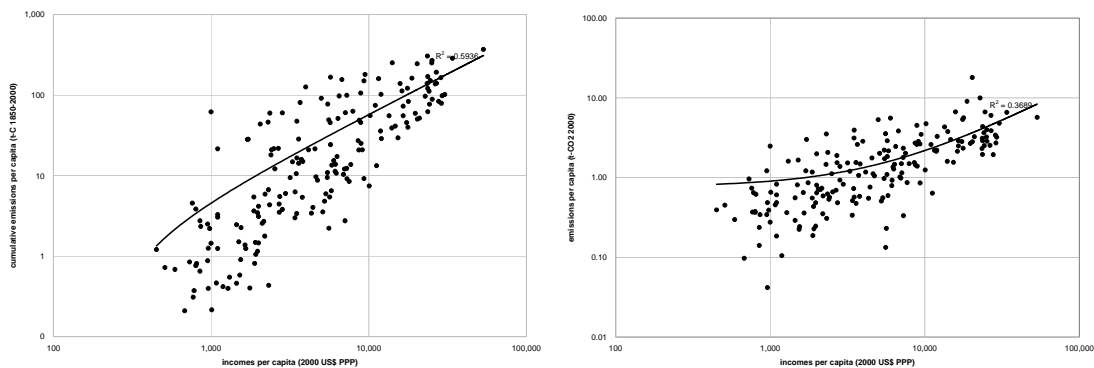
⁸ Smith, K., J. Swisher, and D. Ahuja, “Who Pays (To Solve the Problems and How Much)?” In Hayes, P., and K. Smith, The Global Greenhouse Regime: Who Pays. United Nations University, Tokyo, 1993; also, Smith, K., “The Natural Debt: North and South”, in Giambelluca, T.W., and A. Henderson-Sellers, Climate Change: Developing Southern Hemisphere Perspectives. John Wileys and Sons, Chichester, New York, Brisbane, Toronto, and Singapore, 1996.

⁹ Nakicenovic, N., O. Davidson, G. Davis, A. Grübler, T. Kram, E. Lebre La Rovere, B. Metz, T. Morita, W. Pepper, H. Pitcher, A. Sankovski, P. Shukla, R. Swart, R. Watson, D. Zhou, Special Report on Emissions Scenario. IPCC, Geneva, 2001.

1.2 Who Should Pay? Who Could Pay?

The “common but differentiated responsibilities and respective capabilities” principle has in its term the notion of responsibility (or “who should pay”) and capability (or “who could pay”). The responsibility to pay and the ability to pay, while correlating strongly, are two different concepts. Some countries with less responsibility may be more able to pay, and vice versa.¹⁰ Nevertheless, the amount of carbon dioxide emissions or buildup generally correlates almost perfectly with the wealth of the countries (indicated by either PPP-adjusted incomes or a human development index), although there are differences and discrepancies between them (as there are outliers).¹¹ It is arguable that the high levels of per capita income in the currently industrialized countries are the result of an industrialization path starting in or before the mid 20th century fueled by cheap fossil resources such as coal and oil, without any regard to greenhouse gases, hence the high correlation between per capita cumulative emissions and per capita income. This is illustrated in Fig 2.1(a), with an R^2 value of 0.6.

Figure 2.1
Per capita income in vs cumulative per capita emissions and per capita emissions



Source of data: WRI Climate Analysis Indicators Tool (CAIT ver. 1.5.). Cumulative emissions per capita is denoted in tons of carbon per person since 1850, and income per capita is denoted in dollars per person, with purchasing power parity adjustment.

¹⁰ Smith, K., et al., 1993. See footnote 8. Also, Smith, K., 1996. See footnote 8.

¹¹ Using a simple log-linear regression, Smith demonstrates the strong correlation between “natural debts” — a comparable concept as carbon buildup — in the period between 1950 and 1990 and the countries’ wealth indicated by their Human Development Index, with an R^2 value of 0.8. The R^2 value is the same for log-linear correlation between emissions and wealth, 0.80. Smith suggests that, even when the correlations are equally strong by using

The correlation between income and emissions is still strong, but less apparent if, instead of per capita cumulative emissions, we use per capita emissions in any given year (R^2 value = 0.36, Fig. 2.1b). Different countries' relative "score" changes too. Using cumulative emissions per capita, Luxembourg, the United Kingdom (UK) and the United States of America (US) take the top three places. But using emissions per capita in 2000, they are replaced by Qatar, the United Arab Emirates, and Kuwait. It is likely therefore that there will be differences between countries as to which approach to use.¹² However, while both methods show some definite correlation, it would seem that the combination of per capita cumulative emissions and per capita income is a better indicator of the principle of "common but differentiated responsibilities and respective capabilities".

1.3 On Developing Country Participation

It is instructive to observe in more detail the process that took place at COP3 in Kyoto in 1997 regarding developing country participation. There were at least two provisions within the then text under negotiation for the Kyoto Protocol that would have included developing country participation: a "clean development mechanism" and "voluntary participation".

To deal first with the clean development mechanism: at COP3, there was prolonged discussion on developing countries and "joint implementation" (JI) — a mechanism under Article 4.2(a) of the UNFCCC in which Annex I countries can implement their emission reduction commitments "individually or jointly", the latter referring to investments abroad that lead to reduced emissions in recipient countries. Industrialized countries proposed that developing countries could act as hosts for such investments, whereas developing countries argued that such a process could only take place between two Annex I countries, as developing countries have no commitments to reduce emissions, and therefore cannot "jointly" implement non-existent commitments.

It became clear that negotiation on this issue would not get far. Although some developing countries, especially those in Latin America, supported JI between Annex I and developing countries, the joint position of the G77 and China (the umbrella negotiating group for developing countries) was to reject it outside of Annex I countries. This position was held so strongly that it was considered that further negotiation on the subject would not be productive.

¹² Smith, K., et al., 1993. See footnote 8. Also, Smith, K., 1996. See footnote 8.

At the same time, Brazil had put together a proposal, endorsed by the G77 and China, for a “clean development fund”. Put simply, this would have involved penalties for an Annex I country’s non-compliance with its reduction commitments under the Kyoto Protocol: a sum correlating to its quantified excess emissions would be paid to a clean development fund. This fund would then be used by developing countries to finance clean development projects.¹³

This proposal was quickly taken up by Annex I countries, but turned on its head to become something very hard to distinguish from “joint implementation” with developing countries. The original idea of a clean development fund became the Protocol’s Clean Development Mechanism, in which the link to non-compliance has completely disappeared, and Annex I countries can immediately “buy” emission credits, in the form of certified emission reductions produced by projects in developing countries.¹⁴ Later, the Clean Development Mechanism emerged as one of the three so-called “flexibility” mechanisms — alongside joint implementation and emissions trading — which allow Annex I countries to meet their emissions limitation and reduction commitments in other countries. It is the only one of these mechanisms that involves developing countries.

The second issue was the potential inclusion in the Protocol of so-called “voluntary participation” by developing countries.¹⁵ This was made prominent by the United States, who stated that without such a provision, the Protocol would not be “ratifiable” by the US Congress.

These two items were key throughout the final evening of negotiation in Kyoto, until it became apparent that, if the Protocol was to be agreed in the remaining time available, one of these provisions would have to be dropped. In the end, a strongly-worded intervention from the Chair, Ambassador Raul Estrada Oyuela of Argentina, it was decided to scrap the provision for voluntary commitments and retain the Clean Development Mechanism.

¹³ Sari A., and S. Meyers. Clean Development Mechanism: Perspective from Developing Countries. Lawrence Berkeley National Laboratory, Berkeley, 2000.

¹⁴ Sari and Meyers, 2000. See footnote 13.

¹⁵ See Chapter 2 on the dynamics of the negotiation on this issue at COP3, which concluded with the Article being deleted from the draft protocol.

2. Entry into Force of the Kyoto Protocol

The withdrawal of the United States (US) from the Kyoto Protocol has posed a new challenge to the international regime to curb global warming. This withdrawal represents 25 percent of global carbon dioxide emissions, or 36 percent of the total 1990 emissions of the industrialized countries (those listed under Annex I of the UNFCCC which have accepted quantitative emission limitations and reduction commitments under Annex B of the Kyoto Protocol (the “Annex B” countries). The exclusion the biggest emitter from global collective action will make the goal of reducing global emissions much tougher to achieve.

The principle of “common but differentiated responsibilities and respective capabilities”, as embodied in the UNFCCC, requires that industrialized countries be the first to act in reducing their emissions; it has been agreed that evaluation of such action will determine the next steps, including those taken by developing countries. These are key conclusions underpinning the Berlin Mandate, agreed at COP1 in Berlin, Germany, in 1995, and they can also be clearly seen in the Kyoto Protocol: its Annex B only commits industrialized countries to quantified emission limitation and reduction objectives. However, pressures for developing country participation continued to grow in the period between Kyoto (1997) and Marrakech (2001).

Even before US withdrawal, the negotiation process towards a ratifiable Kyoto Protocol was not particularly easy. The difficulties have included the initial failure of the Sixth UNFCCC Conference of the Parties (COP6), held in The Hague in November 2000. This was in spite of the fact that many key issues were resolved in dealings between the US and the European Union (EU) (though even more were never even put on the table for developing countries). Eventually, a second session was organized, the so-called COP6-bis in Bonn, Germany, July 2001. There, a political agreement was reached that resolved the contentious issues that led to the earlier breakdown., This opened the way towards agreement on the rules for implementation, finally agreed at COP7 in Marrakech, Morocco, in November 2001.

There may be plus sides, however, to the US withdrawal from the Protocol. First, unlike his predecessors, President Bush has made the US position very clear. Second, the US has become effectively marginalized, even from its allies in the climate process, the so-called ‘Umbrella Group’, which originally comprised the US, Canada, Australia, Japan, Iceland, Norway, New Zealand, Russia and the Ukraine. The fact that the US was on the sidelines at COP6-bis allowed the rest of this group to take more progressive attitudes, and created a political situation more conducive for resolution of many of the contentious

issues.¹⁶ Finally, the US decision greatly increased public awareness of climate change — from then on, international media references to the Kyoto Protocol became commonplace.¹⁷

2.1 Kyoto Targets and Timetables

Through their commitments to the Kyoto Protocol, Annex I countries will reduce their collective greenhouse gas emissions by 5 percent from 1990 levels in the first commitment period (2008 – 2012).¹⁸ In absolute terms, the collective 5.2 percent emission reductions to which Annex I countries have committed under the Kyoto Protocol (listed under Annex B of the Protocol) would constitute about 931 million tons of carbon dioxide (MT) per annum. The total change is from 17,884 MT emissions in 1990 to about 16,953 MT annually in the first commitment period (2008 – 2012).

Without these reductions, by 2010 — the median of the first commitment period — emissions of carbon dioxide from Annex I countries would have been expected to reach 18,973 MT, about 1,080 MT higher than their 1990 levels. The Kyoto Protocol, therefore, will commit the Annex I countries to a collective reduction of 2,020 MT per annum, approximately 11.3 percent, as compared to their business-as-usual emission levels in the first commitment period. The following table shows the emissions of key regions and negotiating blocs in 1990 and 1998, together with projected business-as-usual emissions for 2010, according to the National Communications of the Annex I countries.¹⁹

¹⁶ Babiker M.H., H.D. Jacoby, J.M. Reilly, and D. Reiner. The Evolution a Climate Regime: Kyoto to Marrakech. MIT Joint Program on the Science and Policy of Global Change, Cambridge, Massachusetts, 2002.

¹⁷ Vrolijk, C., Meeting Report: President Bush Might Have Done Kyoto A Favor. Royal Institute for International Affairs, London, 2001.

¹⁸ The actual commitments embodied in Annex B of the Protocol yield the figure of 5.2 percent from 1990 levels by the first commitment period.

¹⁹ UNFCCC (United Nations Framework Convention on Climate Change), Second Compilation and Synthesis of Second National Communications, Review of the Implementation of Commitments and of Other Provisions of the Convention: Review of Information Communicated Under Article 12, National Communications from Parties Included in Annex I to the Convention, Tables of Inventories of Anthropogenic Emissions and Removals (FCCC/CP/1998/11/Add.2). UNFCCC, Bonn, 1998. The 2010 figure for EIT countries except for Ukraine is derived from extrapolation, because those countries do not provide prediction of emissions for 2010.

Table 2.1.
Business-as-Usual emissions trends from key negotiating blocs, 1990 - 2010

	1990	1998	2010
Annex I total	17,884	16,759	18,973
United States of America	6,049	6,727	7,134
Japan	1,213	1,330	1,425
Russia	3,040	1,962	2,912
Umbrella excl. US, Japan, Russia, Ukraine	1,140	1,287	1,315
Europe excl. EU, Norway, Switzerland, EIT	3	3	3
EIT incl. Ukraine	2,230	1,318	2,212
European Union	4,208	4,131	3,972

Note: figures are in million tons of carbon dioxide.

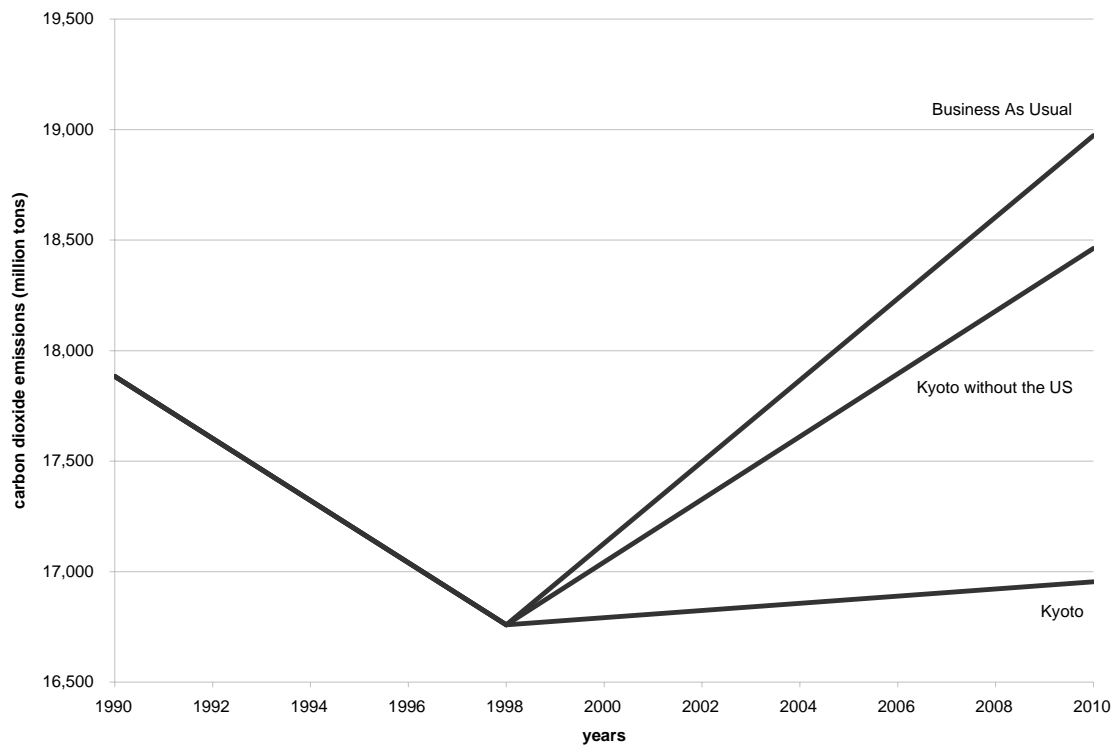
Source: UNFCCC, 1998. See footnote 19.

These figures, however, show that emissions from the industrialized countries exhibited a decrease between 1990 and 1998, particularly in the European Union (this was mainly in Germany and the United Kingdom), and especially in economies in transition due to their massive economic downturn in the early 1990s. Their emissions in 1998 were already about 6.3 percent lower than 1990 levels. For the industrialized world taken together therefore, achieving the Kyoto targets, involves only a slight increase in emissions on 1998 levels.

The withdrawal of the US makes the ongoing negotiation for a ratifiable Kyoto Protocol an entirely different game. First, the US is the largest emitter of greenhouse gases: on a per capita basis, on an absolute basis, and on a historical basis. Second, even if all other countries except the US were to ratify the Protocol, the amount of emissions reduced would be severely decreased. Australia, a member of the Umbrella Group, has already stated that it would not ratify the Protocol without the US. At the time of writing, the status of Russian ratification remains unclear.

What would a Kyoto Protocol look like without the US? Figure 1, below, shows different scenarios of the emissions from Annex I. The highest-emission scenario is business as usual, where emissions increase as depicted in Table 1, above, without any mitigation efforts. The lowest-emissions scenario is the full implementation of the Protocol. The one in between is Kyoto when implemented without the US.

*Figure 2.2.
Emissions scenario to 2010 with and without the US*



Source: UNFCCC, 1998. See footnote 19.

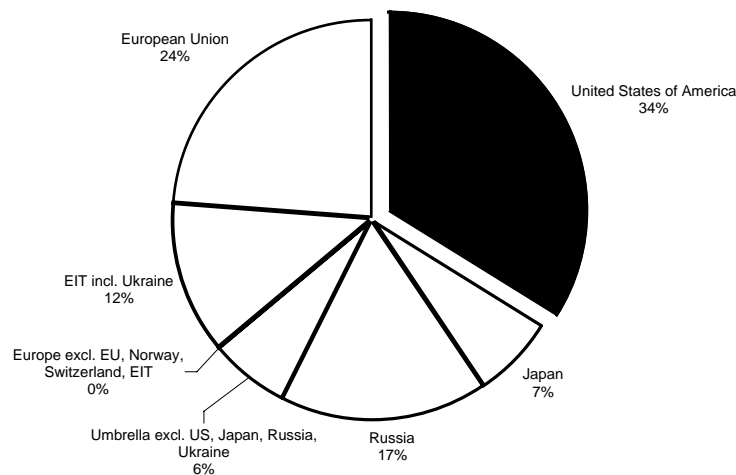
Figure 2.2., above, shows that the Kyoto Protocol commits Annex I countries to reduce their annual emissions by 5.2 percent from 1990 levels in the first commitment period. By 2010, about 2,020 MT emissions would be reduced from business-as-usual levels to meet the Kyoto target. Of this total, about 1,509 MT were to be reduced by the US alone. This means that if the US is not on board, emissions will increase by 578 Mt, or about 3 percent above 1990 levels.

2.2 The Protocol's Entry into Force

With the current US opposition to the Kyoto Protocol, entry into force became a tougher challenge and took six years. The Kyoto Protocol had to be ratified not only by 55 countries, but also by sufficient Annex I countries to represent 55 percent of Annex I total emissions in 1990. With a 62.7 percent contribution to Annex I emissions in 1990, the Umbrella Group was in the driver's seat. The Kyoto Protocol could not have entered into force if the

Umbrella Group collectively had refrained from ratifying it. Figure 2, below, shows the composition of 1990 emissions of Annex B countries.

*Figure 2.3.
Share of emissions from Annex B in 1990*



Source: UNFCCC. 2000. Second Compilation and Synthesis of Second National Communications (FCCC/CP/1998/11/Add.2). Bonn: UNFCCC.

Figure 2.3., above, shows that the only way the Protocol could enter into force was if the rest of the Umbrella Group act independently from the US. However, the withdrawal of the US might actually have facilitated this as the EU was able to convince Russia that ratification was in its interest.

3. Contesting Interests in the Negotiations

To understand the negotiating positions of the existing blocs and other actors, it would be instructive to take a closer look at the competing interests among them in the context of ratification of the Protocol.

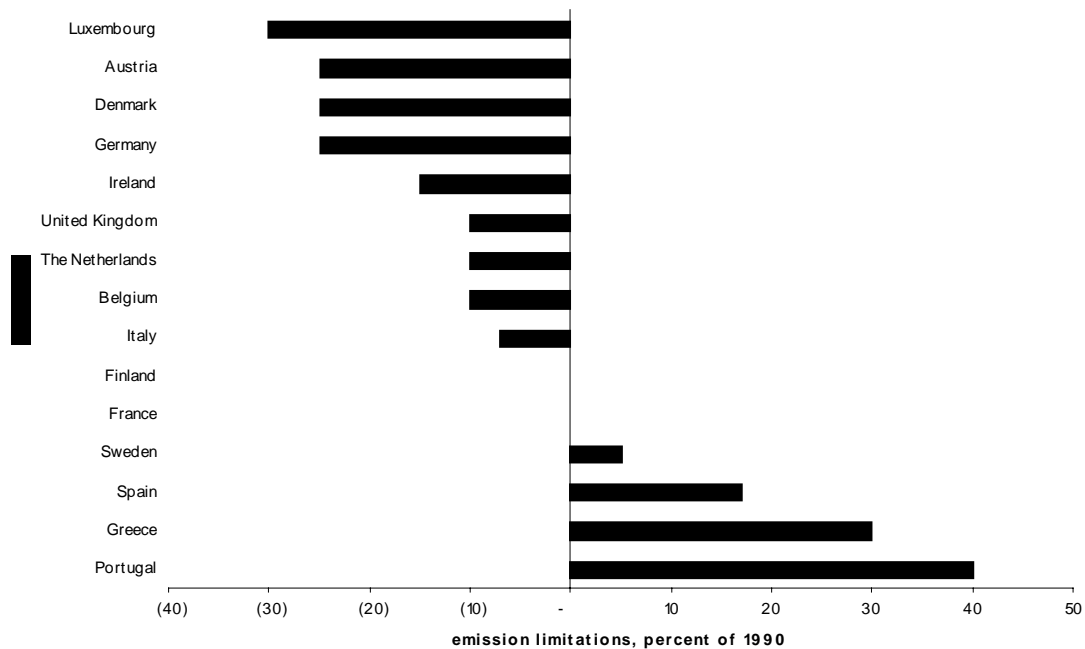
3.1 The European Union

The European Union (EU) has come into being as a result of a process of cooperation and integration that began in 1951 between six countries (Belgium, Germany, France, Italy, Luxembourg and the Netherlands). There have been four waves of accessions (1973: Denmark, Ireland and the United Kingdom; 1981: Greece; 1986: Spain and Portugal; 1995: Austria, Finland and Sweden); after some 50 years, there are now 15 members. It is now preparing for its fifth enlargement, this time towards Eastern and Southern Europe, after which the EU will consist of 25 countries. For the purposes of its Kyoto Protocol commitment, however, only the 15 member countries are included.

These 15 are committed collectively to an 8 percent reduction of greenhouse gas emissions in the first commitment period from their 1990 levels. From a total of 4,208 MT of carbon dioxide emitted in 1990, emissions from the EU member countries collectively will have to be reduced to 3,825 MT. As stated above, however, between 1990 and 1998 EU emissions decreased, to 4,131 MT. This was almost entirely from Germany and the United Kingdom (UK) which reduced emissions by 189 MT and 62 MT respectively, followed some way behind by Luxembourg with 3 Mt. All other member countries demonstrated steady increases, with Spain showing the largest increase of 64 Mt.²⁰

²⁰ Synthesis and Compilation of National Communications from Annex I Countries by the Secretariat of UNFCCC (FCCC/CP/1998/11/Add.2).

*Figure 2.3.
Differentiated emission limitation and reduction commitments among EU member countries
as stipulated in the EU burden-sharing agreement*



In order to reach the EU's collective Kyoto commitment, it has reached an internal burden-sharing agreement, as illustrated in figure 2.3. The differentiation ranges from reductions of 35 percent for Luxembourg or 30 percent for Austria, Denmark, and Germany, to increases of 5 percent for Sweden, 17 percent for Spain, 30 percent for Greece, and a generous 40 percent for Portugal. In absolute amounts, however, at 302 MT, Germany's 30 percent reduction far outweighs all the other countries combined amounting to about 2.5 times the total emission increases. Overall, the EU burden-sharing agreement will commit the EU member countries to about a 9 percent reduction (1 percent more than their collective commitments under the Kyoto Protocol).

Germany has already shown a massive downward trend in its emissions over time, and its emissions are expected to be still lower in the future. Its National Communication states that emissions will decrease by 19 percent, from 1,209 MT in 1990 to 1,020 MT in 1998, continuing to fall to about 979 Mt in 2010 — the median of the first commitment period. So, how large a burden is Germany actually bearing, if its reduction commitments are compared to business-as-usual emissions in 2010? It turns out that even with its already

massive downward trend, Germany is still bearing the heaviest burden among the European countries, aiming to cut 73 MT. On a percentage basis, however, this only represents a 6 percent cut in its business-as-usual emissions in 2010 to achieve its target. In total, the EU member countries are committed to 148 MT, or 3.5 percent, emission reductions from their collective business-as-usual emissions to achieve their Kyoto targets.

3.2 Russia, Ukraine, and the Economies in Transition

The key factor with respect to emission trends for Russia, Ukraine, and other economies in transition (EIT) is the collapse of their economies after the breakup of the Soviet Union. This economic downturn has resulted in dramatic decreases in their greenhouse gas emissions, with Latvia the most extreme at 68 percent, and Slovenia the exception in showing no decrease between 1990 and 1998. Table 2, below, shows the emission decreases in this region.

*Table 2.2.
Emissions from Russia, Ukraine, and other economies in transition
1990 - 2010*

	1990	1998	Percent	BAU	Reduction
	(MT CO₂)	(MT CO₂)	Changes	Emissions	from BAU
				2010	
Russian Federation	3,040	1,962	- 35	2,911,800	(128,262)
Ukraine	919	455	- 51	767,540	(151,680)
Poland	564	402	- 29	<i>682,553</i>	<i>152,124</i>
Romania	265	164	- 38	<i>278,169</i>	<i>34,480</i>
Bulgaria	157	84	- 46	<i>142,992</i>	<i>(1,531)</i>
Hungary	101	84	- 18	<i>141,906</i>	<i>46,371</i>
Slovakia	76	53	- 31	66,975	(3,225)
Lithuania	51	24	- 54	42,208	(5,216)
Estonia	41	22	- 47	<i>36,896</i>	<i>(566)</i>
Slovenia	19	19	-	<i>32,581</i>	<i>14,906</i>
Latvia	36	11	- 68	20,139	(12,676)

Note: Figures in italics are derived from extrapolation, because those countries do not provide prediction of emissions for 2010.

Source: UNFCCC, Second Compilation and Synthesis of Second National Communications. Review of the Implementation of Commitments and of Other Provisions of the Convention: Review of Information Communicated Under Article 12, National Communications from Parties Included in Annex I to the Convention, Tables of Inventories of Anthropogenic Emissions and Removals (FCCC/CP/1998/11/Add.2). UNFCCC, Bonn, 1998.n

On average, emissions from these countries decreased by about 38 percent between 1990 and 1998, and they are expected to still be about 2.8 percent below 1990 levels by 2010. As this is greater than their collective Kyoto commitments, this means that these countries will at this point have 303 MT of unused carbon dioxide emissions in their combined assigned amounts. Of this, Russia and Ukraine alone account for 128 MT and 152 MT, respectively. There is no prediction yet for most of the other EIT countries' emissions in 2010. However, if trends between 1990 and 1998 continue, the EIT countries taken together, including Russia, will emit about 5,124 MT in 2010. Reaching their Kyoto targets will require a combined reduction of 248 MT. This reduction would most likely have to be made by Poland, Romania, Hungary, and Slovenia, since emissions in other EIT countries are likely to remain below 1990 levels in 2010. The extreme downward trends of their emissions provide them with significant unused assigned amounts of emissions, colloquially known as "hot air." Russia, for example, is committed to stabilizing emissions at 1990 levels in the first commitment period, but its emissions in 1998 were already 35 percent below 1990 levels. Russia's economy is expected to recover soon, so its emissions in 2010 are projected to be higher than 1998 levels, at 2,912 Mt, or 4 percent below the 1990 level. This gives about 128 Mt of unused assigned emissions, or hot air, which can be traded with other Annex I countries under Article 17 of the Kyoto Protocol. Similarly, Ukraine's emissions in 2010 will be about 152 Mt lower than its Kyoto target.

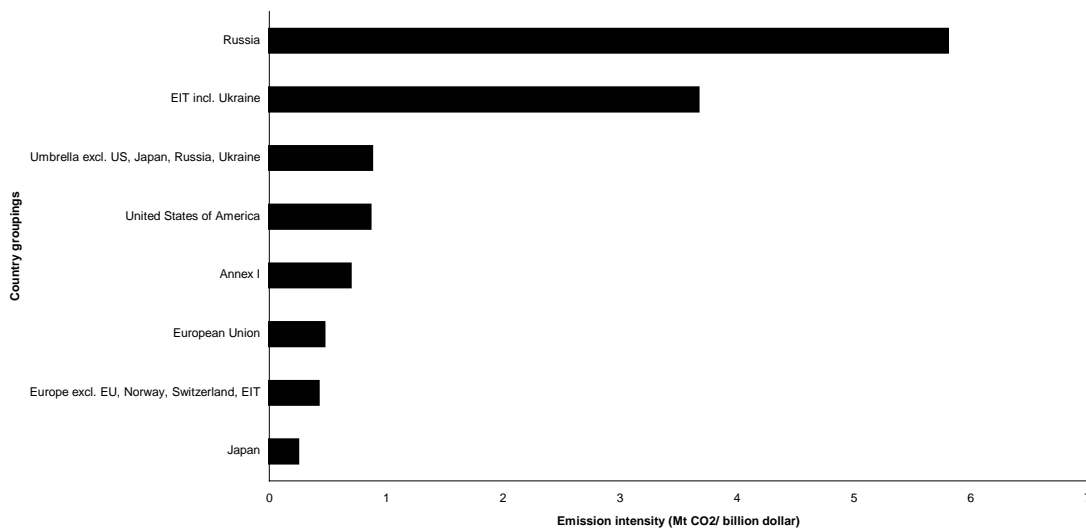
According to Russia's National Communication, its assigned amount under the Protocol in the first commitment period is 3,040 MT, but its actual emissions in 2010 are forecast to be only 2,900 MT. Thus, 128 MT of its total assigned amount would be unused each year, about 650 Mt during the entire first commitment period. This unused portion of Russia's assigned amount could be sold on the emissions trading market (under Article 17) for any price that is lower than the other flexibility mechanisms. For example, at \$1 per ton, Russia would get some \$650 million for doing nothing.

For these countries, whose economies have been plummeting almost continuously since 1992, the potential to pull in this massive transfer of resources cannot be ignored. Also, unlike the European Union with its burden-sharing agreement, each EIT countries has its individual emission targets. In this regard, the hot air will not be offset by unmet reductions elsewhere. Instead, this hot air can be traded for cash with other Annex I countries: presumably the richer ones. Thus, the total emission reduction to be achieved by the EIT countries is likely to be only 248 MT. The 303 MT of

Parties' assigned amounts that are unused will be sold to other Annex I countries.

The economies in transition are also characterized by their inefficient energy use. The following Figure shows a key indicator of energy intensity, demonstrating the low levels of efficiency in these countries compared with the rest of the industrialized world.

Figure 2.4.
Emission intensity in 1998 (Emissions / GDP)



Note: Emission figures are for 1998, whereas GDP figures are for 1997. Source of emission figures is UNFCCC. 1998. Second Compilation and Synthesis of Second National Communications (FCCC/CP/1998/11/Add.2). Bonn: UNFCCC. Source of GDP figures is WRI. 2000. World Resources. Washington, DC: World Resources Institute.

Figure 4, above, shows that for every US dollar of GDP, the Russian economy produces emissions about 1.6 times higher than the average emissions from other EIT countries, 6.7 times those of the US, 14 times those of the Annex I average, or 23 times those of Japan (the most emission-efficient economy). The other EIT countries are similarly emission-intensive, with an average of 4.3 times the emissions per dollar GDP of the US, 5.5 times those of average Annex I countries, and 14.7 times those of Japan — though they are more efficient than Russia.

The relatively high emission intensity — indicating very low level of energy efficiency — in Russia and other EIT countries indicates the abundant

potential for Joint Implementation projects in the energy sector. The room for efficiency improvement is enormous. For example, making the Russian economy only twice as efficient will save about 1 billion tons of emissions.

3.3 Japan

Since Japan's economy leads the world in energy efficiency, reducing its emissions to reach the Kyoto target is a real challenge. This difficulty was a major motivating factor for Japan joining the Umbrella Group. Moreover, at COP6 Japan was one of the few countries that advocated a compliance mechanism for the Kyoto Protocol that would not be legally binding. Japan's emissions in 1990 were 1,213 MT. The Kyoto Protocol will require Japan to reduce its emissions by 6 percent to 1,140 Mt in 2010. Japan's emissions in 2010 are forecast to be 1,425 MT. The Kyoto commitment, therefore, obliges Japan to reduce 284 MT, or 23 percent, of its emissions from its business-as-usual levels during the first commitment period.

Japan's immediate concern is to be allowed to use its vast domestic sinks as a means for complying with the Protocol — indeed, as a means for effectively renegotiating its Kyoto commitments. The Bonn Agreement, reached at COP6-bis, provides Japan with a generous allowance to use its domestic sinks to meet its Kyoto commitments.

Another factor influencing Japan's decision-makers is simply nomenclature. Japan is proud of the fact that the Protocol takes its name from the Japanese city of Kyoto, and this is a strong incentive for wanting it to succeed. Conversely, it would be an embarrassment if Japan were responsible for the failure of a prestigious international agreement named for Kyoto. As a result, domestic pressure in Japan to save the Protocol may be overwhelming.

3.4 Developing Countries

The key concerns of developing countries are equity and sustainable development. Three crucial factors have shaped the negotiations with respect to the role to be played by developing countries in the Climate Convention. These are their low per capita emissions, their need for development, and the historical fact that the currently high global concentration of greenhouse gases is overwhelmingly due to past emissions from the Annex B countries. These factors are at the root of the widespread acceptance of the “common but differentiated responsibilities and respective capabilities” principle embodied in

the Climate Convention. This principle was strengthened in the Berlin Mandate and then applied in the Kyoto Protocol, by having only Annex B countries take the first step in committing to limitation and reduction of emissions.

But developing countries do not form a single monolithic bloc. Their interests range from the hardline Middle-Eastern oil-producing countries to the vulnerable small island states. This differentiation is crucial in understanding their positions, especially with regard to the issue of developing country participation. Section 4, below, deals with this further.

3.5 The Non-State Actors

3.5.1 The Business Sector

The types of business sector interests that are represented in the politics of the negotiations, can mainly be divided in two: namely those that oppose policies to limit greenhouse gas emissions and those that support them. Those that impede progress are mainly fossil-fuel related companies and organizations, whereas those that promote action mainly represent new renewable energy and the insurance industry. There is also a small number that fit in neither category, including for example the nuclear industry.

The oil industry is particularly strong in its lobbying efforts. But its approaches to climate change are, interestingly, not homogenous. There are at least three types of oil companies that are actively involved: the skeptics, the “wait-and-see”, and the proactive companies, represented respectively by the likes of ExxonMobil, TotalFinaElf, and BP.²¹

The skeptics almost invariably challenge the science of climate change as inadequate and too uncertain to warrant expensive changes in public policy. Their main line is that that any emissions reduction policy, such as the Kyoto Protocol “has powerful implications in economics, investment, trade competitiveness, and employment terms”.²² But they have also engaged in what appears to be deliberately destructive tactics: it was they who were responsible for making developing country participation a conditionality for US

²¹ Van den Hove, S., M. Le Menestrel, and H-C de Bettignies, “The Oil Industry and Climate Change: Strategies and Ethical Dilemmas, in *Climate Policy* 2 (1), 2002.

²² Brian Flannery, ExxonMobil, quoted as saying in Van den Hove, et al., 2002. See footnote 21.

ratification, but at the same time they urged developing country governments to resist climate change policy, as it would “strangle economic growth”.²³

Another frequent tactic is to attack the credibility of scientific institutions such as the Intergovernmental Panel on Climate Change (IPCC). This scientific body is and has been the most authoritative resource for climate science; it comprises 2,500 of the leading figures in the field from around the world. Robert Watson, its former Chair was a powerful voice in publicizing the science and promoting action to stop climate change. Only days after President Bush, Jr., entered office, Arthur Randall III, a Senior Environmental Advisor for ExxonMobil, sent a memo to the White House asking whether Watson could be “replaced at the request of the US”.²⁴ This memo allegedly influenced the campaign by the US to unseat Watson and replace him with the Indian candidate R.K. Pachauri, who, while undoubtedly a capable scientist, maintains a much lower public profile. Partly as a result of tactics like this, Greenpeace has labeled ExxonMobil as “Environmental Criminal No. 1”.²⁵

The companies that oppose emission reduction have usually campaigned collectively under a union or a coalition. A prime example was the Global Climate Coalition (GCC), “an organization of trade associations established in 1989 to coordinate business participation in the international policy debate on the issue of global climate change and global warming”, in which ExxonMobil played a leading role.²⁶ Its website remains online, stating its position, which strikingly resembles the content of the April 13 memo from President George W. Bush to the US Senate: it “opposed Senate ratification of the Kyoto Protocol that would assign such stringent targets for lowering greenhouse gas emissions that economic growth in the US would be severely hampered and energy prices for consumers would skyrocket”. It also “opposed the treaty because it does not require the largest developing countries to make cuts in their emissions”.²⁷ Indeed, the GCC was influential in the passing of the Byrd-Hegel resolution: in the run-up to its passing, its lobbyists had regular meetings

²³ Lee Raymond, the Chief Executive Officer of ExxonMobil, at the World Petroleum Congress in Beijing in October 1997, cited in Hamilton, K., The Oil Industry and Climate Change: A Greenpeace Briefing. Greenpeace International, Amsterdam, 1998.

²⁴ Randall III, A.G., memo to the President of the United States George W. Bush, Jr., (February 6), 2001.

²⁵ Greenpeace website, www.greenpeace.org/international_en/reports/more-reports?archived=&campaign_id=3937&start=3 (as of November, 2003).

²⁶ GCC (Global Climate Coalition) website, www.globalclimate.org (as of November 2003).

²⁷ GCC, 2003. See footnote 26.

with members of the US Congress to promote it.²⁸ It was also influential in defeating Clinton's 1993 BTU tax proposal in the US.²⁹

The GCC has now been dissolved, after a short period as a coalition of industry groupings rather than of companies as before. One by one, the more proactive members such as BP had left. The differing approaches and positions among its members could not be sustained by a coalition that took such a single approach. But it left strong fingerprints in US domestic politics as well as in the international arena on climate change. In particular, the GCC succeeded in contributing significantly to the agenda on developing country participation.

Another important name in this area has been the Climate Council. This shadowy organization, which refuses to divulge its membership, has been influential largely through the prominent activities of its main representative, Donald Pearlman of Washington law firm Patton Boggs. In providing advice and support to the OPEC countries, particularly those from Saudi Arabia and Kuwait, on matters of importance to the interests of the oil industry, he has helped them to achieve a disproportionate status in the conduct of the negotiations. By carefully observing the development of key countries' positions, and skillfully analyzing what they meant to the oil industry, he was able to advise the oil-exporting countries, on alternative positions and strategies. Pearlman became an institution in himself, showing what one astute man and a small number of closely collaborating countries could do to influence the whole negotiations.

The "wait and see" group of companies can be exemplified by TotalFinaElf. This company was a result of the merger of the three eponymous companies. Before the merger, the Chief Executive Officer of Elf Aquitaine, Philippe Jaffre, announced that Elf was prepared to commit to a 15 percent reduction of carbon dioxide emissions by 2010 (at the time the EU had called for this to be the worldwide reduction target). However, after the merger, nothing more was heard of this earlier commitment. Later, Jaffre stated that his announcement was conditional on, among others, Elf could only fulfill this commitment if it included its worldwide activities, not just those in Europe. With the exception of Jaffre's 1997 announcement, TotalFinaElf has mostly taken a low key

²⁸ As told by William O'Keefe, former Vice President of the American Petroleum Association and Chairman of the GCC, quoted in Van den Hove, et al., 2002. See footnote 21.

²⁹ As told by Rafe Pomerance, former Assistant Deputy Secretary of State of the United States, quoted in Van den Hove, et. al., 2002. See footnote 21.

approach. It has taken no credit for any influence on the scientific or political debates, and it has characterized its position as moderate, “between two extreme positions”, with ExxonMobil on the one side and BP Amoco on the other.³⁰

Finally, there is the proactive type of oil company. In 1996 BP left the GCC, and took up a progressive position promoting the creation of what was to become the Kyoto Protocol, although before this date its position was not too different from other members of the GCC. Apparently the company takes seriously the concept of “corporate responsibility”. In 2001, BP established a climate change action plan that included an internal greenhouse gas reduction target of 10 percent below 1990 levels by 2010, an internal emissions trading system, collaboration to create energy-efficient new technologies, the promotion of market-based mechanisms, and active participation in the climate change policy debate.³¹

There are other companies that have been more proactive in terms of promoting international emission reduction policy in the climate treaties. The first set comprises those that would most obviously suffer significant losses from the effects of climate change, namely the insurance industry. Climate change is likely to be responsible for increased “natural” disasters; with an obvious resulting increase in costs to the insurance industry. Munich Re, one of the world’s largest reinsurance companies, observes that of 8,820 loss events between 1985 and 1999, 85 percent were weather related, as were 75 percent of the economic losses and 87 percent of the insured losses.³² Some companies have taken definitive precautionary positions in stating that there is a material threat.³³ Losses as a result of natural disasters appear to be doubling every decade and have reached \$1 trillion in the past 15 years. According to Swiss

³⁰ Van den Hove, et al., 2002. See footnote 21. Quotations were from interview with Bernard Tramier as quoted in Van den Hove, et al.

³¹ BP Amoco website, http://www.bp.com/environ_social/index.asp (as of November 2003).

³² Munich Re, Topics 2000: Natural Catastrophes, the Current Position. Munich Reinsurance Group, Geoscience Research Group, Munich, 1999; see also, Munich Re, Topics: Annual Review of Natural Disasters 1999. Munich Reinsurance Group, Munich, 2000.

³³ Swiss Re, Climate Change: Element of Risk. Swiss Reinsurance Company, Zuerich, 1994.

Re, the cost of financial losses from events such as the 2002 floods in Central Europe was estimated at \$150 billion over the next 10 years.³⁴

The second set of proactive companies is those that would expect to benefit from strong emission reduction regimes, such as those in the renewable energy sector. While they have lacked the organizational resources of the fossil fuel corporations, at a certain point they have begun to unite under the umbrellas of the Business Council for Sustainable Energy, and its European counterpart, the European Business Council for Sustainable Energy Future. Some of them have even joined forces with the NGOs in promoting their businesses: for example the European Wind Power Association, teamed up with Greenpeace to publish a report suggesting the potential for wind power to generate 12 percent electricity by 2020 worldwide.³⁵ There are also other companies who are more comfortable affiliated with the World Business Council for Sustainable Development, a much more neutral body.

Finally there are those businesses which would profit from the Protocol's entry into force. These are the consultants who would be required to facilitate projects under the CDM, under other mechanisms, or involving other funds within the Kyoto Protocol framework. Examples are PriceWaterhouseCooper, KPMG, and Det Norske Veritas (DNV), who are some of the largest and best-known companies in this field, as well as smaller ones such as 500ppm. There are even two industry associations currently dealing with emission offset markets: the International Emissions Trading Association and the Emissions Marketing Association.

3.5.2 The Non-Governmental Organizations

While the international politics of climate change are dominated by state actors, non-governmental organizations (NGOs) have been instrumental in influencing the outcomes of the negotiations. Indeed, the environmental NGOs, as part of larger civil society, have become increasingly globalized in response to more global environmental problems. Lipschutz further groups these NGOs into those that deal with ecosystem management and restoration, with local environment or development projects, with environmental

³⁴ Swiss Re, Climate Change and the Financial Services Industry. Swiss Reinsurance Company and the United Nations Environment Program, Zuerich, 2002.

³⁵ European Wind Energy Association and Greenpeace, Wind Force 12: A Blueprint to Achieve 12 Percent of the World's Electricity from Wind Power by 2020. Greenpeace, Amsterdam, 2003.

education, and with national and transnational networks and alliances.³⁶ There are inevitable overlaps among these classifications, however, as some NGOs choose to pursue their issues through multiple avenues.

In the climate change context, the NGO community is very diverse. To start with, there is a range of political approaches among NGOs, from the radical to the more moderate. There are those who specialize in advocacy, and others who play advisory roles. There are single-issue groups, as well as ones working on multiple issues. In terms of scope, there are international, national and local organizations. Geographically, there are NGOs from both developing and the industrialized countries.

For an example of radicalism you need only to look at Rising Tides, a United Kingdom-based volunteer group. Their actions have included, among others, storming and halting a negotiation session in The Hague, instead making speeches and engaging in heated debate with the Chair. Some of them took more extreme action: protesting naked in the hallways of COP6 in The Hague and COP6bis in Bonn. This group's behavior is such that Greenpeace, itself usually considered radical, felt the need to announce that it had no association with Rising Tides.

The majority of the NGOs working on climate, however, have taken a more moderate political line and have favored a science-based approach. This is especially true of those from the industrialized countries. Even Greenpeace, elsewhere known for its focus on direct action, has strongly concentrated on providing negotiators with scientifically-sound advice. There are also groups specifically considered to be scientific organizations: these include the Union of Concerned Scientists, the Natural Resources Defense Council, and the World Resources Institute from the US; the Wuppertal Institute and the Hamburg Institute for International Economics in Germany; the International Institute for Sustainable Development (IISD) in Canada, and the International Institute for Environment and Development (IIED) in the United Kingdom. Some of these have been based in, or affiliated with a University system.

Representatives of NGOs that provide scientific advice can often be found as members of their country delegations. Cases in point are the Pembina Institute in Canada, Centro Clima in Brazil, and Pelangi in Indonesia. There are also NGO representatives who actually negotiate on behalf of the governments of certain countries: specifically the Foundation for International Environmental

³⁶ Lipschutz, R.D., with J. Mayer, Global Civil Society and Global Environmental Governance: The Politics of Nature from Place to Planet. State University of New York Press, Albany, 1996.

Law and Development (FIELD) in the delegations of Nauru, Niue, and Samoa, and Greenpeace Australia in Tuvalu.

The likes of Greenpeace, Friends of the Earth (FOE), and the World Wide Fund for Nature (WWF) are multinational groups. They have a presence in many countries around the world. While very active on climate change, these organizations also work on other environmental and developmental issues. Most other groups, however, are nationally-based.

The representation of NGOs that are registered under the UNFCCC demonstrates a strong bias towards the industrialized world. Of the 539 NGOs accredited with the UNFCCC Secretariat, 82 percent are from Annex I countries, and roughly half of these are based in the EU.³⁷

The largest organizing network is the Climate Action Network (CAN), whose membership includes nearly all the environmental groups working on climate change and attending the negotiations. It has regional and sub-regional offices in 13 locations: two in North America, in Western and Eastern Europe, in Australia, in four regions in Africa, in two sub-regions in Asia, in Latin America, and elsewhere. While CAN as a whole has been influential during negotiation sessions, national networks are particularly active in organizing members in between the negotiation sessions. Key international groups such as Greenpeace, Friends of the Earth, and World Wide Fund for Nature are also key members of CAN.

The first CAN node was established in Europe by Annie Roncerel (presently with the UN Institute for Training and Research) in March 1989. This was followed by the establishment of a US node in Washington, DC, with others being created around the world thereafter. CAN has been actively monitoring and seeking to influence the climate negotiations, as well as climate-related policies and measures at the national and international levels. It is the recognized umbrella NGO in the international negotiations, through which environmental groups work.

CAN has become by far the most well-organized NGO coalition working on an international issue, even though its operation has been characterized by informality. It holds coordination and strategy meetings prior to the negotiating sessions, and also meets daily during the sessions. There are also occasional intersessional “summits” and other meetings on particular topics.

³⁷ Mueller, B., with J. Drexhage, M. Grubb, A. Michaelowa, and A. Sharma, Framing Future Commitments: Pilot Study on the Evolution of the UNFCCC Greenhouse Gas Mitigation Regime. Oxford Institute for Energy Studies, Oxford, 2003.

CAN works on influencing the outcomes of the negotiation through multiple channels. The most apparent is through the publication of ECO, the (usually) daily newsletter. While providing analytical reports on the results of the negotiations, ECO also produces opinion and editorial on key issues relevant to the day's negotiating topics. ECO is well-read by the negotiators, and is for some a main source of information and ideas. Opinions in ECO have been frequently cited or quoted by the negotiators.

A less obvious way for CAN to influence outcomes is by direct lobbying. Members of CAN are in frequent contact with delegates from their own and other countries, discussing and trying to influence country positions. It has been said that positions of the EU have been particularly enhanced by NGO input.

Another way for CAN to affect the process is by “shaming”, i.e., by publicizing actions by particular countries or groupings that may weaken the outcome of the negotiation. For this, CAN uses the “Fossil of the Day Award”. Every day at 6 pm, NGO representatives — usually from the recipient countries — will announce the awards, and the reasons for them. This is also distributed to the international press, and is publicized on a website.³⁸

Yet another approach has been taken by the Pew Center, a new NGO established by former US Undersecretary of State Eileen Claussen. It has begun an outreach program towards progressive world businesses that support the Kyoto Protocol. This move differentiates progressive from regressive companies, showing – especially to the US Government – that even some of the industry majors are supportive of the Protocol.

NGOs have been split on issue of developing country participation. The overwhelming majority of the NGOs from developing countries took a similar position to their governments: that it should not be in the Kyoto Protocol, nor should it be considered at least until “demonstrable progress” by industrialized countries (as stipulated by Article 3.2 of the Protocol) is evaluated in 2005. These NGOs were unable to carry out any informed analysis that would enable them to go beyond simple rejection, however. Only NGOs from the industrialized countries have been able to analytically evaluate the issue in order to provide options for the inclusion of the developing countries in the future emission limitation regime.³⁹

³⁸ www.fossil-of-the-day.org (as of November 2003).

³⁹ For example, the World Resources Institute. See also the six paper series by the Pew Center.

4. Differentiation of Interests among Developing Countries

Both the UNFCCC and its Kyoto Protocol differentiate countries only in terms of industrialized and developing countries, formalized as Annex I and the rest of the world respectively. The Annex I countries are further subdivided into Annex II and other Annex I countries. Annex I countries are all industrialized countries, namely those which are members of the Organization of Economic Cooperation and Development (OECD) as well as the economies in transition. Annex II are basically the “rich” subset of Annex I countries, namely the OECD members. This blanket division, while useful, nonetheless fails to sufficiently reflect the “differentiated responsibilities and respective capabilities” principle.⁴⁰

Among Non-Annex I developing countries, interests are widely varied, from the hard-line Middle-Eastern oil-exporting countries to the vulnerable small island states. Their national circumstances provide a background and an explanation for their negotiating positions. The following suggests the rough groupings of interests among developing countries.

What is interesting is that each of the groupings, at least informally, could include Indonesia. Indonesia was the fourth largest-emitting developing country, after China, India, and Brazil (it is also the third-largest developing country in terms of population). Indonesia is also an oil-exporting country and a member of OPEC. While not actually a member of the Alliance of Small Island States (AOSIS), Indonesia does consist of more than 17,000 islands large and small, and its small islands are as vulnerable to climate change as the small island states. Again, with the world’s second largest forest area – and the fastest rate of deforestation – Indonesia could also fit into the interest grouping of the Latin American countries.

4.1 The Large, Rapidly Industrializing Countries

These are primarily China, India, Brazil, and, to some extent, also Indonesia. These — especially China and India — are the ones that have been targeted for voluntary commitments. In his memo to the Senate, US President George W.

⁴⁰ Oberthuer, S., and H. Ott, The Kyoto Protocol: International Climate Policy for the 21st Century. Springer, Berlin, Heidelberg, and New York, 1999.

Bush expressly included China and India as examples of countries that should have had commitments similar to the industrialized countries.

Indeed, the list of the world's 20 largest-emitting countries includes some developing countries. Of these, the top five are China, India, Brazil, Indonesia, and Mexico. These all share similar characteristics, in that they are highly populated, and have rapidly-growing, fast industrializing economies. On a per capita basis, emissions from these countries are still low compared to their industrialized counterparts. But, because of their large populations, these small per capita emissions add up to significant absolute amounts. The following table shows the emissions of these five countries in 2000.

*Table 2.3.
Table Emissions from the Largest Developing Countries, 2000*

	Emissions (million tons)	Percent of the World	Annual Increase 1990 - 2000	Income (million \$)	Percent of the World	Annual Increase 1990 - 2000
China	1,344	14.3	3.4	4,724,163	10.7	10.1
India	491	5.2	5.1	2,772,730	6.3	5.4
Brazil	304	3.2	4.4	1,233,633	2.8	2.7
Indonesia	170	1.8	7.0	613,299	1.4	4.2
Mexico	151	1.6	2.2	839,150	1.9	3.5

Source: WRI, Climate Indicators Analysis Tools (version 1.4., beta), as of 2003.

With 1.3 billion tons, China leads the pack, followed by India, then Brazil, Indonesia, and Mexico. The emissions ratings almost parallel incomes, except that Indonesia and Mexico are reversed, apparently due to the Indonesian economic downturn. Indeed, emissions from these countries will catch up with those from Annex I countries in the not too distant future. This is especially true in China where the economy has grown at an astronomical rate of more than 10 percent per year, even between 1995 and 2000 when for a short time emissions actually decreased. With current trends, it will not be long before China becomes the world's largest emitter of greenhouse gases.

These countries are fully aware, not only of the size of their populations, their economies, and their emissions, but also of their strong positions relative to the rest of the developing world. China, for example, while always siding with the G77, has never really been a member of the group. In fact, their international political clout, has allowed them to act relatively independently from other

developing countries; in many instances it has also enabled them to offer leadership.⁴¹

These countries are in favor of strong instruments to control greenhouse gas emissions, but — having been put in the spotlight themselves on this matter — strongly reject developing country participation, at least during the first commitment period up until 2012, and most especially until the industrialized countries — who according to them need to act first — show their own demonstrable progress in reducing emissions.

4.2 The Oil-Producing Countries

While rarely using the Organization of Petroleum Exporting Countries (OPEC) as a formal umbrella for negotiation, these countries are mostly key members of OPEC. Eleven countries are currently members. Six are in the Middle-East (Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates), two in North Africa (Algeria and Libya), one in West Africa (Nigeria), one in Asia (Indonesia), and one in Latin America (Venezuela). Saudi Arabia and Iraq hold the largest deposits of oil: at current global production rates, in the next four decades or so they will become the world's sole oil producers.

Their economies are almost all highly dependent on oil export revenues, with the notable exception of Indonesia.⁴² Libya, for example, relied on oil for more than 96 percent of its export earnings in 2000, as did Nigeria for almost 95 percent. Table 2.4., below, summarizes oil dependency among OPEC member countries.⁴³

⁴¹ As an example, China and India led the historic “Green Group” that split the rest of the G77 from the Middle-Eastern OPEC members at COP1 in Berlin, Germany, in 1995. This led to the adoption of the Berlin Mandate and eventually to the Kyoto Protocol. The Berlin Mandate itself was rooted in a draft position known as the “China-India paper”.

⁴² Even so, while other sectors have caught up as sources for income for Indonesia's economic growth, oil still contributed significantly in the pre-crisis era, and continues, post-crisis, to aid its economic recovery.

⁴³ OPEC (Organization of Petroleum-Exporting Countries), *2002 Annual Statistical Bulletin*, Organization of Petroleum-Exporting Countries, Vienna, 2002.

Table 2.4.
Dependence on Oil Exports of OPEC Member Countries, 2000

	Total Exports (million \$)	Petroleum Exports (million \$)	Percent of Oil Exports in Total Exports	Percent of Oil Exports among OPEC
Algeria	21,650	12,920	59.7	5.2
Indonesia	62,124	10,935	17.6	4.4
Iran	28,345	25,443	89.8	10.2
Iraq	20,603	18,150	88.1	7.3
Kuwait	19,436	18,184	93.6	7.3
Libya	12,697	12,230	96.3	4.9
Nigeria	21,114	20,040	94.9	8.0
Qatar	11,593	7,834	67.6	3.1
Saudi Arabia	77,583	70,960	91.5	28.4
United Arab Emirates	40,231	26,148	65.0	10.5
Venezuela	31,802	26,755	84.1	10.7
Total OPEC	347,178	249,599	71.9	100.0

Note: Figures are for the year 2000, and are nearly all higher than those for 2001 and 2002. For the arguments in this paper, the 2000 data, rather than the latest from 2002, are used.

Source: OPEC, 2002. See footnote 43.

While all other OPEC countries relied on oil for more than half of their 2000 export earnings, Indonesia stands out, with oil contributing less than 18 percent of its exports. In absolute terms, Saudi Arabia was OPEC's largest oil exporting country, at about \$71 billion in value, representing 28 percent of OPEC's 2000 oil exports.⁴⁴

Saudi Arabia is often considered the informal "leader" of this group. This dates back from the early years of OPEC when, to protect the cartel from cheats among its members, Saudi Arabia became known as the "swing" producer, adjusting its output based on the whole group's actual production rates (often several times larger than that of its members) so that total production could still meet the agreed quota targets. Being the largest producer, Saudi Arabia was in the best position to do this.⁴⁵ In the climate negotiations, Saudi Arabia has also taken a leadership role among the oil-producers, its representatives being drawn from Aramco, a large Arab-based oil company.

⁴⁴ OPEC, 2002. See footnote 43.

⁴⁵ Sawidji.

The common position of these countries has been outright rejection both of the Climate Convention and the Kyoto Protocol, unless they are to be given compensation for the economic impacts imposed on them due to the implementation of these treaties. They are convinced that a regime that requires greenhouse gas emission reductions will hurt their economic interests. A study carried out in 1993 by OPEC, for example, justifies this position by showing that the reduced demand for oil resulting from limitation commitments under the treaties will harm the member countries' oil-dependent economies. In the negotiating sessions, they always assert the inclusion of this "compensation" for the "impacts of response measures" alongside the negotiation of impacts of climate change.⁴⁶

Often, criticism of OPEC has been because its member countries are not perceived to be particularly poor. Looking at Qatar, for example, its \$31,000 average per capita income is surely above the average for Annex I countries. Other member countries, however, such as Nigeria and Indonesia, are relatively poor, at a little more than \$300 and \$700 per capita annual income, respectively. The average income in OPEC countries is about \$8,200⁴⁷, though may not reveal much, as these countries are almost invariably non-democratic, with the oil wealth concentrated among sultanate family members or the cronies of corrupt top government officials. Those in the inner circle of the government are by no means "poor", in the way they portray their countries in the negotiations.

4.3 The Forested Countries

The debate surrounding the role of forests in climate change — and their potential in providing solutions — dates back to negotiation sessions prior to 1992. However, this was one of the main issues that prevented a successful outcome at COP6. Historically, it has been the Latin American countries, with the curious exception of Brazil and to some extent Peru, who have persistently promoted the use of forests as sinks, to remove the buildup of carbon dioxide in the atmosphere. Some of them, such as Costa Rica, have even promoted the inclusion of forest conservation as a mechanism for this, characterizing it as "avoiding emissions from deforestation".

⁴⁶ OPEC, *The Impact of Environmental Measures on OPEC*, a report by the Energy Studies Department (October). OPEC, Vienna, 1993.

⁴⁷ OPEC, 2002. See footnote 43.

These countries have been instrumental in inclusion of forest activities such as afforestation and reforestation as mitigation measures under the Kyoto Protocol. As a consequence, they have contributed to the Protocol's inclusion of domestic sinks in fulfilling Annex I countries' quantitative emission limitation and reduction commitments. At the time of writing of this paper, rules regarding the use of forest-based activities under the CDM had yet been settled at COP9 in Milan, Italy, in 2003.

4.4 The Small Island Countries

The small island countries are considered to be among those most vulnerable to climate change, in particular from sea-level rise. In the negotiations, they have usually been united under a coalition entitled the Alliance of Small Island States (AOSIS). This has brought together small-island and low-lying coastal countries that share similar development challenges and concerns about the environment, especially their vulnerability to the adverse effects of global climate change. AOSIS has 43 countries as members and observers. Thirty-seven are members of the United Nations: close to 28 percent of developing countries, and 20 percent of the UN's total membership.

Some of the small island countries are in the South Pacific. These have very strong economic ties with Australia and New Zealand, both members of the Umbrella Group. This has sometimes caused difficulties when they have advanced positions against those of their powerful neighbors. For example, at the 1977 South Pacific Forum, the small island countries demanded that the communiqué reflected their concerns for greenhouse gas emissions reduction. Australia and New Zealand rejected this proposal, and the small island countries were, as Greenpeace puts it, "bullied into submission".⁴⁸ A similar effect is expected in the Caribbean, where small island states are also economically dependent on the US. However, united under the AOSIS banner, they have succeeded in representing their more aggressive and progressive common stance in the climate negotiations.

The position of the small island developing countries is unique in the climate politics. First, their contributions to the accumulation of greenhouse gas emissions in the atmosphere in the past, present, and future are minuscule. Second, they are disproportionately some of the most vulnerable countries,

⁴⁸ "Australia in Hot Water over Global Warming Stance", in CNN (September 20), 1997. Available on the internet at www.cnn.com/world/9709/20/pacific.forum/index.html.

both in terms of the ecological risks imposed by climate change and their capability to cope with these risks.

Finally, they are prepared to contribute significantly to the solutions to climate change — in terms of domestic actions rather than negotiation rhetoric. For example, in March 2001 the Caribbean countries of St. Lucia, and Grenada announced their intention to become fully renewable countries. The Government of St. Lucia has approved a comprehensive 10 Year National Sustainable Energy Plan to move towards an eventual fully-renewable energy system, aiming for a 35 percent cut in greenhouse gas emissions from business as usual by 2010.⁴⁹ At COP6 in The Hague, the St. Lucian Prime Minister challenged the rest of the world, especially the large emitters: “if a small country, like St. Lucia, can do this, other, larger countries can, too”.

AOSIS was also instrumental in negotiating the first target to be included in the UNFCCC. In 1988, at the Conference on the Changing Climate, held in Toronto, Canada, AOSIS called for industrialized countries to reduce carbon dioxide emissions by 40 percent reduction of carbon dioxide emissions in by 2005; this became the so-called “Toronto Target”, adopted by all countries, of 20 percent by 2005. In 1994, AOSIS tabled a proposal for a Protocol, with an aim of reducing greenhouse gas emissions by 20 percent below 1990 levels by 2005, similar to the Toronto Target.

4.5 The Least-Developed Countries

There are 49 countries that have been identified by the UN as “least developed” in terms of their low GDP per capita, their weak human assets and their high degree of economic vulnerability. Due to their low level of economic activities, their emissions — in absolute or per capita terms — are invariably low. In the near future these countries will have very little effect, if any, on global emissions.

The concerns of the least developed countries (LDCs) relate to their vulnerability, economic and ecological. Issues such as technology transfer, capacity building, and especially adaptation to the adverse effects of climate change have been at the forefront of their interests. Under the Bonn Agreement, a special “LDC Fund” is to be set up. This is in addition to the

⁴⁹ Climate Institute website, http://www.climate.org/programs/caribbean_first.shtml (as of November 2003).

special assistance these countries already receive from the Global Environment Facility to set up their national action plans for adaptation.

5. From Kyoto to Marrakech

Between Kyoto and Marrakech, only four of the five COPs could be considered significant. COP3 in Kyoto, Japan, produced the Kyoto Protocol; COP4 in Buenos Aires, Argentina, produced the Buenos Aires Plan of Action; COP6 in the Hague, the Netherlands, and its extension (so-called COP6-bis) in Bonn, Germany, produced the Bonn Agreement, and COP7 in Marrakech, Morocco, produced the Marrakech Accords. COP5 in Bonn was somewhat a non-event. This analysis of the evolution of the negotiation process for the implementation of the Kyoto Protocol, including the provision for voluntary commitment of developing countries, will therefore skip COP5.

The four years between Kyoto and Marrakech were taken up with negotiations on the interpretation of the Kyoto Protocol for implementation purposes (concluded in the Marrakech Accords), the attempt to renegotiate the agreed targets under the Protocol, and, between COP6 and COP7 (with COP6-bis in between), the efforts to save the Protocol from the effects of withdrawal by the US.

5.1 Kyoto (COP3): The Birth of the Protocol

Japan's offer to host COP3 was warmly welcomed as it was expected that Japan would provide strong leadership and facilitation, and in addition would be willing to make compromises for the sake of the COP's success. For Japan, having witnessed the birth of the Montreal Protocol (adopted at COP3 of the Vienna Convention), to have a significant "legal instrument" (as stipulated in the Berlin Mandate) named after a Japanese city would increase its profile in the international political arena.

Prior to COP3 itself, the Japanese government invited key negotiators to Japan for informal meetings. Indonesia was invited to and attended these meetings, including the third and final one, at Ministerial level. China and India, though invited, refused to attend. At this last meeting, the US put forward the proposal for a developing country commitments. The discussion on this matter apparently made some progress, with Brazil and the US working out a compliance mechanism that included funds for climate mitigation in the

developing countries. This proposal was to become the clean development fund — later on evolving to become the Clean Development Mechanism.⁵⁰

However, despite the apparent progress made at the informal meetings in advance, the two-week COP3 became extremely complicated. Among the most contested issues were the issue of developing country voluntary commitments, and that of compensation for the effects of response measures by Annex I countries on developing country economies.

Due to the complexity of the negotiation, a Committee of the Whole was established (and later on played a decisive role throughout the COP ensuring the adoption of the Kyoto Protocol). While it was possible to negotiate less contentious issues under the leadership of the COP Chair, Minister Hiroshi Ohki of Japan, the more complex negotiation on the Protocol itself required the creation of a “Committee of the Whole” led by Ambassador Raul Estrada Oyuela of Argentina, who, as chair of the “Ad-hoc Group on the Berlin Mandate” (AGBM), had supervised the negotiations over the previous two years, and was intimately involved with the process. During the first week, negotiations seemed inconclusive, with countries jockeying for position,

⁵⁰ The original proposal was for a clean development fund, designed to be a compliance mechanism for Annex I countries whereby non-compliers would have to contribute to a fund for financing climate mitigation projects (“clean development” projects) in developing countries. In the course of the negotiations, the US and its allies skillfully turned it into yet another offset mechanism.

An observer characterized the Clean Development Mechanism as the “Kyoto surprise”, as it was not anticipated prior to the COP itself. “No Party’s proposals resemble the CDM.” Indeed, before Kyoto, there were no published papers on the subject. Furthermore, “the CDM is very much a creation of political necessity drawing on Brazilian proposals concerning the Clean Development Fund and various proposals concerning joint implementation. Its details were worked out in informal contact groups in the last few days of Kyoto, spearheaded by the Brazilian delegation with US support. Its final inclusion in the Protocol is intimately linked to trade-offs and deals struck between countries over apparently unrelated issues. And much of the detail of how it will work has been left to future negotiations at COP4 and beyond.” Little did anyone realize that it would become one of the major elements of the Kyoto Protocol. See Yamin, F., Issues and Options for Implementation of the Clean Development Mechanism. Foundation for International Environmental Law and Development (FIELD), London, 1998.

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however Chairman Estrada issued a non-paper that showed some gradual convergence of views among the negotiating parties.⁵¹

For the final part of the two-week session, the high-level “Ministerial Segment”, then US Vice President Al Gore was flown in to Kyoto, sending signals that the US was willing to compromise. While he reiterated US positions that the agreement must include “market mechanism”, “realistic” targets and time tables, and meaningful participation of ‘key’ developing countries (China, India, Brazil, and Indonesia), nonetheless he instructed US negotiators “to show increased negotiating flexibility”.⁵²

At COP3’s “eleventh hour” during a final all-night negotiating session, Ambassador Estrada made a substantial proposal to delete the entire draft article on developing country voluntary commitment, while retaining the one on the clean development mechanism. Although this was later a major stated reason for the loss of US support, at the time this decision was key in producing a final agreed text, acceptable to all present. Ambassador Estrada had been determined to reach agreement in Kyoto, and he succeeded in doing so.⁵³ The Protocol was adopted in the morning of October 11, 1997.

5.2 Buenos Aires (COP4): Voluntary Participation

Partly because of the Ambassador Estrada’s widely-regarded success concluding the negotiations at Kyoto the year before, the proposal to hold COP4 in the Argentinian city of Buenos Aires (meaning “beautiful air”) was warmly welcomed.

Throughout COP4, the US continued its pressure to include developing country participation in the negotiating text. This pressure was reportedly exerted on the Argentinian hosts, who with no prior consultation with the negotiating parties, especially those of its fellow developing countries, introduced this item to the conference’s agenda. This was a strategic mistake and attracted strong criticism from the rest of the developing world — perhaps more than it deserved. It was nonetheless detrimental Argentina, and counterproductive to consideration of the issue at the COP.

⁵¹ Estrada was quoted as saying that he “had planned to add conclusions to the meeting of the Ad-Hoc Group on Berlin Mandate (AGBM) report but no conclusions had been reached”. See *Earth Negotiations Bulletin*, 12 (76) (December 13), 1997, p. 3.

⁵² Gore, A., statement of the US Vice President at COP3 (January 8), Kyoto, 1997.

⁵³ Oberthuer, S., and H. Ott, 1999. See footnote 40.

However, the Argentinian host was not to be deflected: its then President Carlos Menem made a pronouncement that Argentina was prepared for a voluntary commitment to reduce its emissions quantitatively. Rather than arising from genuine popular domestic pressure, the source of this commitment appears to have been external US pressure. This was borne out at a meeting between key developing country delegates with Argentinian Members of Parliament, where it was revealed that the parliament was actually against the President's move.

However, apparently due to the Menem's statement, and following also an application from Kazakhstan to enter Annex I, the US showed some signs of cooperation. During the COP proceedings, the US announced that it was signing the Kyoto Protocol.⁵⁴

For the purpose of this paper, another important aspect of COP4 was that Indonesia was Chair of the Group of 77 (G77). This was the time of the economic crisis, and subsequent political turmoil and reform. It has been reported that, because of this, other members of the G77 offered to defer the chairmanship to a later year, but that Indonesia turned them down.⁵⁵ Unfortunately, in spite of the country's enhanced role at this time, the crisis meant that no Indonesian Ministers could attend the high-level session of the COP.

5.3 The Hague and Bonn (COP6 and its extension, COP6-bis): The Only Game in Town

COP6 in November 2000 in The Hague ended in collapse, mainly due to unresolved issues surrounding the use of sinks under the Protocol. The issue of developing country participation was not nearly as prominent as in the previous COPs, partly due to other, more immediate issues already on the table. In the last days of the session, however, striking a deal became increasingly difficult, partly due to the sheer level of complexity and detail that had arisen by this time.

⁵⁴ The Protocol was signed by Peter Burleigh, the Acting Ambassador to the United Nations. The fact that it was signed not by then President Clinton might show that the President, surrounded by the fossil fuel and industry lobbyists, considered signing the Protocol to be detrimental to his political profile. See Oberthuer, S., and H. Ott, 1999, footnote 40.

⁵⁵ Effendy, A., then Vice Chair of the Indonesian Permanent Mission to the United Nations, acting as the Chair of G77 at COP4 in Buenos Aires, personal communication (November), 1998.

At this meeting, there were basically three groups of countries, namely the Umbrella Group, the European Union, and the developing countries, with Mr. Pronk as the chair acting as a conduit between them. Unfortunately, right up to the last day, the negotiation process was dominated by the conflict between the Umbrella Group (especially the US) and the European Union. Later, it was also colored by the conflict arising between the Ministers of Environment from Germany and France. Developing countries were to a great extent marginalized.

On the last day of the first week, Jan Pronk, Minister of Housing, Spatial Planning, and the Environment of the Netherlands, as President of COP6, suggested a rearrangement of the conference into several so-called “boxes” of issues, instead of the usual Contact Groups. He also proposed that the negotiations be undertaken directly by ministers (whom he referred to as “politicians”), not professionals, negotiators, or advisors. The allocation of different country’s ministers to the various “boxes” created some uneasiness among the G77 negotiators. This was only overcome when Mr. Pronk spoke with the ministers himself over dinner that Sunday.

On November 23, 2000, as the risk of not striking a deal increased, the President of COP6 convened a closed consultation meeting with certain of his minister “friends”. This produced the “Note by the President of COP6”, or the “Pronk Paper”, which replaced the consolidated negotiating documents as the basis for negotiation. This paper was an attempt to isolate the “crunch” political points of divergence, and to force a breakthrough that would lead to consensus. The main stalling points at this time were the issues of supplementarity under the three flexibility mechanisms (Box B), a legally binding compliance mechanism (Box D), and especially land use, land use change and forestry (LULUCF) (Box C). The issues of a financial mechanism and technology transfer (Box A) also created significant unresolved tension. Indeed, all four boxes were problematic.

In the end, it was not possible to reach a deal in The Hague, and COP6 was then extended, with a continuing session in July 2001 in Bonn, Germany, with the key “crunch” issues being reopened for negotiation. Leading up to COP6*bis*, the Pronk Presidency office organized a number of informal meetings to refine the Pronk Paper. One was held in New York, in April 2001, piggybacking on the United Nations Council for Sustainable Development meeting. Another was held in The Hague on June 27–28, 2001, preceded by a G77 meeting. At COP6*bis*, it was intended that the Pronk Paper be dissolved and merged with the Consolidated Text, which would then be released as the new negotiating text. The “pre-meetings” aimed to refine the content of the

Pronk Paper and to find points of agreement for inclusion in the new negotiating text to be tabled at COP6*bis* in Bonn.

Politically, COP6*bis* in Bonn was regarded as a one-way ticket. If it failed again, there would have been no other momentum to revive the Protocol. It would have been difficult for COP7 in Marrakech, Morocco to tie up the loose ends. The Moroccan host, in proposing the venue, was not expecting a major debate and had not prepared for one. The South African host for the 2002 World Summit on Sustainable Development (the 10th anniversary of the Rio Earth Summit) had also already suggested that he did not expect the Kyoto Protocol to dominate the debate. Many still regarded this 2002 date —the “Rio+10” date — as the “deadliest” deadline for the Kyoto Protocol to enter into force.

It was at this point, in the period between COP6 and COP6-bis, that the US announced its withdrawal from the Kyoto Protocol. This was of course a bombshell, and a new strategy needed to be formulated to save COP6-bis. Diplomatic missions from the EU soon enough were dispatched to Canada, Russia, and Iran (as chair of the G77), to maintain support for the Protocol and its timely entry into force by 2002.

Immediately after the June meeting in The Hague, Indonesia set up a one-day meeting, intended to be informal and low-profile between key developing countries and the European Union. This was well attended by key negotiators from China, India, South Africa, and other important developing countries from Asia, Africa, Latin America, and the small island states. Two negotiators from Iran attended and contributed substantially. The first half of the day was only for developing country participants. Climate policy thinkers such as Michael Grubb of Imperial College in London, and Jurgen Lefevere and Farhana Yamin of the Foundation for International Environmental Law provided background information, to set the stage for the encounter with the EU delegates. The second half was attended by EU incoming and outgoing Chairs (Belgium and Sweden, respectively), the European Commission, and a key negotiator from the Netherlands.⁵⁶

The discussion was frank, but highly substantial. Concerns among the two negotiating blocs were openly expressed and debated, even including the issue of developing country participation — emphasizing that discussion on this

⁵⁶ The meeting was co-sponsored by the Government of Indonesia and Pelangi, a Jakarta, Indonesia, based environmental think tank, with financial assistance from the Heinrich Boell Stiftung from Germany. Jurgen Lefevere and Farhana Yamin of the Foundation for International Environmental Law and Development (FIELD) and Michael Grubb of the Imperial College were invited resource persons.

matter should be framed and led by developing countries themselves. These concerns were then taken into account in studying the draft negotiating texts. While by no means the only factor, this meeting certainly contributed to the success of COP6-bis. It provided a relaxed, non-negotiating environment to discuss the crunch issues of common interest between developing countries and the European Union, especially the Netherlands, considering its Presidency of the COP.

COP6-bis was commenced on July 16, 2001 with a note by the President, Mr Jan Pronk of the Netherlands, that the Kyoto Protocol was “the only game in town”. He stressed its fairness and credibility, and pointed out that one country’s failure to ratify shouldn’t lead other countries to hold back. Iran, on behalf of the G77 and China, also noted the US withdrawal, but insisted that delegates would complete the unfinished work. He also noted the need to differentiate between issues under the Convention and the Protocol. Japan stated that it was engaged in close consultation with the US, but noted that the latter’s position should not distract from the negotiating process, and that it was committed to “complete” the Protocol process. In its opening remarks, Canada reiterated the need for action by developing countries.⁵⁷

Since the collapse of COP6 and the withdrawal of the US, COP President Jan Pronk had no other choice but to bow to the interests of Japan and Russia without too much compromising those of the EU and developing countries. However, the end result of the COP6bis, the “Bonn Agreement”, was hailed as a great success by the negotiators. This document contained the following points. Firstly, there was an agreement on sinks, considered the most contentious issue that had led to the collapse of COP6. Ironically, this agreement was in a form that would have been acceptable to the US at COP6. At COP6-bis, the EU apparently showed much greater willingness to compromise, demanding in return only the exclusion of nuclear power from the agreement. Russia, well knowing that, in the absence of the US its ratification was now essential for entry into force, and that therefore it held a trump card in the negotiation, demanded, and obtained increased allowances for its domestic sinks. Secondly, though issues on flexibility mechanisms, including the CDM, were not completely finalized, the agreement contained sufficient elements for this area to be completed at COP7. Third, some issues on the financial mechanism were resolved, in that it was agreed that the adaptation fund was to be funded from a levy on the CDM with additional voluntary contributions. However, there was no agreement on the

⁵⁷ Earth Negotiations Bulletin, 2 (176) (July 31), 2001.

predictability of the amount and timing of these funds. In their closing statements, many industrialized countries gave commitments to contribute to the existing funds: collectively, more than \$400 million per year by 2005. Overall, this agreement was generally viewed as a watering-down of the Protocol, but there was a feeling that, apparently, the desire to ensure the participation of the remaining members of the Umbrella Group overrode the goal of forging a stronger agreement.⁵⁸

For many observers, an overweening objective of the Bonn meeting was to defy the US, by demonstrating that the Protocol could survive without its participation. This sentiment was most evident during the high-level plenary on Monday, 23 July, when the then Chair of the G-77/China, Ambassador Bagher Asadi from Iran, stated that the political agreement was a “triumph for multilateralism over unilateralism.” This thinly-veiled attack on the US position, which was warmly applauded by the packed conference hall, was further underlined by President Pronk, when he stressed that the Bonn Agreement demonstrates “the centrality of the concept of international cooperation for the higher common benefit of the global community.”

The US head of delegation, Paula Dobriansky, appeared unmoved. She still referred to the Protocol as “not sound,” though this was a shift from earlier statements that it was “fatally flawed” (as the view of Bush in his April 13 memo). As Margot Wallstrom, the EU Environment Commissioner, put it shortly after the deal had been struck, “something has changed today in the balance of power between the US and the EU”. One US observer was quoted as saying that “this is a major foreign policy defeat for President Bush”.⁵⁹

5.4 Marrakech (COP7): The Finish Line

The major outcome of COP7 in Marrakech, Morocco, was the adoption of the Marrakech Accord which, with notable exception of the rules for the inclusion of sinks in the CDM that was left for negotiation and agreement at COP9 in Milan, Italy, in 2003, concluded the saga that was set out to preserve the Kyoto Protocol. The basis for this Accord was the Bonn Agreement (see above). The Marrakech Accord secured the compliance regime outlined in the Bonn Agreement, including penalties and international oversight. It also settled the basic questions on the use of domestic sinks in fulfilling Annex I countries’

⁵⁸ Earth Negotiations Bulletin, 2001. See footnote 57.

⁵⁹ Earth Negotiations Bulletin, 2001. See footnote 57.

commitments under the Protocol. Russia, again using its strong leverage on ratification, was awarded a generous allowance.

Marrakech also saw further attempts by the Umbrella Group to revive the negotiation on developing country participation, especially under the agenda item on adequacy of commitments. It is true that an objective review of the adequacy of existing commitments by Annex I countries would surely demonstrate that they are simply insufficient to meet the ultimate objective of the UNFCCC, i.e., to stabilize concentration of greenhouse gases to avoid dangerous interference to the climate system. This certainly opens the way to the suggestion that there may be an objective need for developing country participation. But the developing countries, aware of the tactic of using this argument, succeeded in limiting this negotiation to the adequacy of the implementation of existing commitments. They insisted that they would need to witness demonstrable progress towards the implementation of the existing commitments, by 2005, before engaging in any negotiation on broadening such commitments to include their own participation. This debate, however, was overshadowed by the general euphoria at the successful conclusion of the Marrakech Accord.

6. Developing Country Participation So Far

The memo from President George W. Bush, Jr., suggests that the Kyoto Protocol “exempts” developing countries from compliance, implying that developing countries should be bound by similar agreements to those adopted by industrialized countries. In many respects, however, developing countries are leading the way towards stabilizing the climate. For developing countries, climate change hinders and even threatens sustainable development efforts. But their efforts to develop sustainably can contribute in many ways to limiting global emissions. Many examples show that developing countries are limiting their emissions while enhancing their sustainable development. This is what has been become known as “secondary” or “ancillary” benefits.

It is the fact that Annex B countries take the first step that US President George W. Bush argues is “fatally flawed” and leads to his opposition to the Kyoto Protocol. He has suggested that the Protocol exempts developing countries, including “population centers” China and India. But many have demonstrated that developing countries have pursued actions, policies, and measures that limit their emissions while at the same time foster sustainable development. Some of them are more progressive than those carried out in the US. For example, between 1990 and 1996, as part of sweeping energy sector

reforms, total fuel subsidies in 14 developing countries were reduced by 45 percent, from \$60 billion to about \$33 billion. This reduction of subsidies is expected to reduce fuel consumption, which in turn reduces the associated greenhouse gas emissions.⁶⁰

In this energy sector reform, China has led the way. Energy-related emissions in China tripled between 1971 and 1993, largely due to the expansion of coal-fired power plants, which contributed 83 percent of its emissions. In the early 1980s, China reformed its energy pricing policy with a decrease in coal subsidies from 37 percent in 1984 to 29 percent in 1995 and a decrease in petroleum subsidies from 55 percent in 1990 to only 2 percent in 1995. As a result, the growth of carbon dioxide emissions in China was slowed down to only 228 million tons between 1980 and 1990. These additional emissions would have been 155 Mt higher in 1990 without the energy efficiency gains.⁶¹

China has also reaped the benefits of energy efficiency, which could yield savings of 1,000 to 1,700 Mt of coal equivalent. As a result, between 1997 and 1999, absolute carbon dioxide emissions in China were actually reduced by about 17 percent, bringing them back to their 1992 levels while keeping economic growth at a double-digit rate.⁶² The memo by the US President refers to this country, together with India, specifically as “major population centers” that need to comply with similar commitments to those of the industrialized world to reduce emissions. But, in contrast to the statement in the memo, emissions in China have actually been reduced significantly.⁶³ No other country, save economically troubled Russia and other economies in transition, has achieved such an impressive emissions reduction while maintaining economic growth. This is one of many examples of developing countries quietly contributing to curbing climate change.

In Latin America, Argentina and Mexico have increased their supplies of natural gas. In Argentina, natural gas-fired power plants provide 66 percent of

⁶⁰ Reid, W. and J. Goldemberg. 1997. Are Developing Countries Already Doing as Much as Industrialized Countries to Slow Climate Change? Washington, DC: World Resources Institute. See also Streets, D.G., K. Jiang, Xiulian Hu, J.E. Sinton, X-Q Zhang, D. Xu, M.Z. Jacobson, and J.E. Hansen, “Recent Reductions in China’s Greenhouse Gas Emissions”, in Science 294 (November 30), 2001, pp. 1835 – 1837. Streets et al. argues that, while the figures in earlier reports may have been exaggerated, the real figures may still show significant emission reductions.

⁶¹ Reid and Goldemberg, 1997; also Streets et al., 2001. See footnote 60.

⁶² USDOE. 2000.

⁶³ Reid and Goldemberg, 1997. See footnote 60.

total electricity generated. Natural gas is also heavily used in the transportation sector, powering 10 percent of automobiles. Argentina in fact houses some 40 percent of the world's natural gas-powered vehicles. In Brazil, the use of ethanol and ethanol blends has reduced emissions by 15 percent.⁶⁴

Despite having nearly four times the population, India emits only 10 percent of the greenhouse gases emitted by the US. India has also demonstrated a striking 50-fold increase in the utilization of wind power over a period of only 5 years. Currently, India is one of the largest wind power generators in the world. In Thailand, a successful demand side management program has reduced demand for electricity by 3 percent. Thailand has demonstrated the most advanced and ambitious energy efficiency program in the world.⁶⁵

Clearly, developing countries are not standing still, nor are they carelessly advancing their economic development in an unsustainable manner. With the right signals from the international community, these progressive actions can be fostered.

7. Conclusion

The fact that emissions from developing countries will soon surpass those from the industrialized countries is hardly special. Annex I countries' historical emissions still far exceed those from the developing countries. The UNFCCC's principle of "common but differentiated responsibilities and respective capabilities" takes this into account. Nonetheless, in the long run, to limit global emissions to levels that could stabilize concentrations of these gases, and prevent dangerous interference to the climate system, emissions from developing countries will have to be limited as well. However, the political process to ensure their participation is far from simple, as is demonstrated by the negotiation process from COP3 in Kyoto to COP7 in Marrakech.

There are conflicting interests, not only between Annex I and non-Annex I countries, but also among non-Annex I (developing) countries. The diversity of interests render the G77, the developing country bloc, ineffective at times. On the issue of developing country participation, this diversity is less intense, but it exists nevertheless. The position of the group is mainly colored by the positions of the large developing countries, notably China and India. The fact

⁶⁴ Biagini, 2000. See footnote 5.

⁶⁵ Biagini, 2000. See footnote 5.

that these countries were specifically mentioned in the Bush March 13, 2001, memo made it appear to be mainly a bilateral issue between the US and China: other international negotiation issues such as trade, the two countries have already appeared diametrically opposed.

The withdrawal of the US from the Kyoto Protocol, ostensibly due to the lack of developing country participation, was detrimental not only to the Protocol itself, but also to any future negotiation on climate change. With the withdrawal of the US, efforts in the negotiations leading towards COP6-bis and COP7 inevitably became more focused on gaining ratification from the other Umbrella Group members, in particular Russia.

All the same, the Kyoto Protocol's resilience is extraordinary. It has survived the attack from the withdrawal of the US, all the way to COP7 and beyond. The major outcomes of the COPs from Kyoto to Marrakech have been the Bonn Agreement and the Marrakech Accord. The Marrakech Accord finalizes the rules of procedures in implementing the Kyoto Protocol, as enshrined by the political deal in the Bonn Agreement, including those for the CDM. Apparently though, the "unofficial" outcome, namely the affirmation of the balance of power between the US and the rest of the world ("the triumph of multilateralism against unilateralism", as put by the Iranian Ambassador Bagher Asadi on behalf of the G77), has been much more important than the formal agreements.

So far, however, the outcomes of the COPs from Kyoto to Marrakech have failed to address many matters of substance that are important to developing countries. These include first of all, the issue of inter- and intra-generational equity (hence, sustainability) that was at the heart of the negotiation sessions leading up to the adoption of the UNFCCC in Rio de Janeiro in 1992, and which seems to have been sidelined ever since the adoption of the Kyoto Protocol.⁶⁶

Second, the focus of attention since Kyoto has been on ensuring that the Protocol survive the attack embodied in the US withdrawal, and the bias has therefore been towards easing the burden of compliance on the large emitters, rather than protecting poor and vulnerable communities from the impacts of climate change. For example, there is no predictability for income to the Bonn Agreement funds —the Special Climate Change Funds, the Adaptation Fund, and the Least-Developed Country Fund — beyond those pledged on a voluntary basis. Third, leading up to the formulation of the Marrakech

⁶⁶ Najam, A., S. Huq, and Y. Sokona, "Climate Negotiations Beyond Kyoto: Developing Countries Concerns and Interests", in *Climate Policy*, 3 (3), 2003, pp. 221 – 231.

Accords, the focus of attention was largely on the short term technicalities of the modalities of the CDM, the rules for trading of emission credits resulting from CDM projects, and other short-term interests.⁶⁷ This is unfortunate, since commencing future negotiation on developing country participation will require at least some of their concerns addressed and some interests met.

The issue of developing country participation, as portrayed in the Kyoto-Marrakech politics, shows a wide, and seemingly unbridgeable, valley between the US and the developing countries. Domestic US politics has turned the notion of fairness on its head. In the US, on the one hand, based on its domestic political environment, developing country participation is perceived as a “fairness issue”. This was cleverly trumpeted by the climate “skeptics”, led by the GCC. In developing countries, on the other hand, fairness is far better reflected in the principle “common but differentiated responsibilities and respective capabilities”. Justified by current and historical emissions, in absolute and per capita terms, fairness is for the industrialized countries to act first.

This was a contentious topic in the negotiation at Kyoto, and it survived until the 11th hour, before Chairman Estrada (apparently with no other choice if he was to save the Protocol) finally had to let it go. It was picked up again strategically at COP4 in Buenos Aires, as an agenda item, and as an Argentinian voluntary commitment. This was a strategic mistake, however, as noted above. Argentina could perhaps have learned from the way Brazil dealt with its Protocol proposals .

Brazil’s original “clean development fund” idea (that eventually turned into at the CDM) was originally proposed at an informal meeting held in Japan prior to COP3. Brazil then worked with both the industrialized and developing countries alike to finalize it. Next, it was put to a G77 meeting, seeking approval from the group. Only after G77 endorsement did Brazil announce its wish to table the proposal, and even then it was put forward as a G77 proposal, rather than just one from Brazil. This whole process admittedly took time, attention, persistence, and patience. But this is crucial for political acceptance by developing countries. Argentina could have taken this approach.

The role of the oil companies has been apparent in attempting to sideline the Kyoto Protocol and in promoting the agenda of developing country participation, though their goal has been to halt the process of global adoption of the Protocol rather, than any genuine desire for participation from developing countries. It seems unlikely that, even in the event of such participation being forthcoming, they would switch to support the Protocol.

⁶⁷ Najam *et al.*, 2003. See footnote 66.

But while the oil companies overall have a “bad guy” image in climate politics, their positions are by no means homogenous. When examined more carefully, there are shades of gray. For the skeptics, compliance with international emission reduction policies is painful and they have therefore, even at the cost of being unpopular, tried to prevent the Kyoto Protocol from entering into force. For the proactive, international emission reduction policies actually provide avenues for new business, for example, through more efficient production processes and through the emergence of non-fossil fuel energy markets such as renewable sources. The wait-and-see types, however, have avoided the skeptics’ tarnished image and credibility, but have also been unwilling to share the more proactive group’s risk of making costly mistakes.

Whereas the interests that have tried to sideline Kyoto have been well organized and resourced, those promoted it have been less so. The renewable resource companies, the insurance companies, as well as those that would profit from the Kyoto mechanisms have been under-resourced and little organized. The attempt by the Pew Center, for example, to help them work together has, as yet, not borne much fruit. The NGOs, globalized, and with multiple terms of engagement, have played an instrumental role in balancing the “dark forces” of the oil industry and other opponents of the Protocol. Their efforts in influencing the outcomes of the negotiation process have been significant, and in many cases successful. Some of them have been members of national delegations, others have played a similar role, providing governments with independent advice. Unfortunately, the capacity of developing country NGOs from to participate in this debate has been severely limited.

But developing countries are not staying put. The “secondary” or “ancillary” benefits from climate policies are large, and at times can be used to justify developing country participation. From their point of view, reasons other than climate change often lead developing countries to set up domestic policies or actions that enhance economic development priorities, protect local environment, and at the same time reduce greenhouse gas emissions. These policies or actions are sometimes more progressive than those in Annex I countries. For example, the energy efficiency drive in Thailand is much more aggressively funded than similar initiatives anywhere else in the world. Such actions need to be acknowledged as positive developing country participation.