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The Poverty of Africa's Position at the Climate Change Convention Negotiations

*Dr. Albert Mumma**

I. INTRODUCTION¹

This article discusses Africa's position (or, more accurately in the author's opinion, lack of position) in the Climate Change Convention negotiations. The article argues that, perhaps more than any other global agreement in recent times, the Climate Change Convention negotiations are an amalgam of a bewildering array of diverse national, economic and environmental and other interests, objectives and perspectives all of which have sought, with varying degrees of success, to find expression in the Convention. Africa, so far, has failed demonstrably to articulate any position unique to it, and has therefore been largely marginal in the negotiations. The article explores some of the reasons for this failure and puts forward some suggestions which might be considered in the effort to improve Africa's position in the negotiations.

II. BACKGROUND

a. *The Phenomenon of Global Warming*

The advent of the industrial revolution in the nineteenth century - with its reliance on the burning of fossil fuels to generate energy and the cutting down of forests to create farmlands - marked a turning point in the release of carbon dioxide into the atmosphere. Carbon dioxide, along with certain other gases,

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1. The author attended the 4th Conference of the Parties of the Climate Change Conference held in Buenos Aires, Argentina between the 2nd and 13th of November 1998 as a delegate for Climate Network Africa. This article was inspired by his observations while there.

such as water vapor, methane, chlorofluorocarbons (CFCs) and nitrous oxide, trap the sun's heat near the earth's surface and cause a rise in the global temperature. Carbon dioxide's contribution to this effect is by far the most significant. This warming effect has been referred to as a "greenhouse effect", hence the name "greenhouse gases" (GHGs). These gases occur naturally and perform a beneficial role: without them global temperature would be much lower than it is and the Earth would perhaps not be habitable.

However the burning of fossil fuels (coal, oil and gas) for energy generation and other human productive and consumptive activities including industrial, agricultural and waste disposal processes have led to a dramatic increase in human generated ("anthropogenic") GHGs. During the decade beginning in 1980 mainstream scientific opinion² came to the view that if the world (more particularly, industrialized countries) continued emitting GHGs at present rates both global average temperatures and sea levels would rise much faster than at any time in the history of human civilization. This view was formalized in a 1990 Report by the Intergovernmental Panel on Climate Change (IPCC) that the United Nations Environmental Programme and the World Meteorological Organization established to study and report on the issue. However, the report pointed out that unequivocal judgments about the rate of increase could not be made for at least another decade.

Global warming on the predicted scale would lead to serious stresses on the planet's ecological system, with far reaching economic, social and environmental consequences. Climatic zones might shift; sea levels might rise following melting of glaciers with serious impacts on low lying islands and coastal areas; rainfall patterns may change; disease carrying vectors may multiply or reappear and so on.³ Further, the rates of change might be

2. Not everyone is convinced by the argument that there is evidence that carbon dioxide affects global temperature. CFACT, a newsletter distributed in Buenos Aires by an American organization called Committee for a Constructive Tomorrow argues that man made global warming is not a scientific fact ". . . there is little real world evidence to substantiate it." (newsletter on file with author).

3. But again, not everyone thinks so. *World Concerns*, a newsletter distributed in Buenos Aires by a U.S. organization, Sovereignty International, quotes The Center for the Study of Carbon Dioxide and Global Change in Tempe, Arizona as arguing that "whether or not climate change occurs, the carbon dioxide content of air will rise appreciably. This phenomenon will enhance the productivity of nearly all crops and will have the greatest percentage effect on vegetation exposed to less favorable growing conditions, including stresses imposed by high temperature, soil salinity, ae-

faster than the ability of some species to respond. But crucially scientific reports pointed out that there were (and continue to be) uncertainties and glaring gaps in the international community's knowledge about the nature and extent of impacts that significant global warming could bring about.

b. *The Climate Change Convention*

Following the IPCC report the United Nations General Assembly established the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change in December 1990. Its mandate was to negotiate a convention in time for signature at the UN Conference on Environment and Development (UNCED) to be held in Rio de Janeiro in June 1992. The negotiating committee met six times between February 1991 and May 1992 and successfully adopted the Climate Change Convention in time for the Rio Summit. 154 states and the European Community signed the Convention at Rio.

The Convention did not commit states to specific limitations on GHG emissions. Agreement on that issue was not possible at the time. There was sharp disagreement among the big emitters of carbon dioxide, essentially the Organization for Economic Cooperation and Development (OECD) countries. Countries with large coal reserves and a dependence on oil, such as the United States, resisted the inclusion in the Convention of a timetable and a target for the reduction of carbon dioxide emissions which western European countries, with relative less dependence on coal, favored. Consequently, the Convention confined itself to defining, as a long-term objective, the stabilization of atmospheric concentrations of greenhouse gases, and established a mechanism for future action to be taken as warranted by scientific evidence. This included a provision for periodic reviews of parties' commitments, with the first review set to take place at the first Conference of the Parties (COP) to be held one year after the Convention's entry into force.

The Convention went into force two years later on 21 March 1994 following fifty ratifications, a record given the history of many international agreements.⁴ The first COP took place in

rial pollutants, lack of sunlight and insufficient water." (newsletter on file with author).

4. *World Concerns*, *supra* note 3, has the following to say of this record: "Why the hurry? Perhaps the prime movers of the global warming hypothesis realize that the science is overtaking propaganda. Every day that passes the shaky scenario on

March 1995 in Berlin. Subsequent COPs have been held in Geneva in July 1996, in Kyoto in November 1997 and in Buenos Aires in November 1998. Since 1996 the Convention's secretariat has been based in Bonn, Germany. At the time of the Buenos Aires COP 176 states had become parties to the Convention, including all major economic powers (and major carbon dioxide emitters) – the United States of America, Japan and the European Union countries – as well as the major centers of population (and potentially big carbon dioxide emitters) such as China, India, Indonesia and Brazil.

c. *The Kyoto Protocol*

The “Berlin Mandate,” a decision of the First COP at Berlin, authorized a review of the adequacy of commitments of developed country [Annex 1] Parties to the Climate Change Convention with a view to strengthening these commitments. It was agreed at the outset that Developing Country Parties would not be required to take on new commitments under this review process. An Ad Hoc Group was set up which, during eight sessions produced a draft Protocol to the Convention. The Protocol was adopted at Kyoto, Japan on 11 November 1997 following days of round the clock negotiations. The Kyoto Protocol goes into effect only after 55 parties to the Convention which account for at least 55% of the total carbon dioxide emissions [the major emitters] have become parties to the Protocol.

The Kyoto Protocol included several important provisions:

- (i) It established a target for industrialized countries requiring them to reduce their GHG emissions by 5% below 1990 levels by “the commitment period” 2008 to 2012 (Article 3(1)).
- (ii) It assigned to each industrialized country an amount of allowable GHG emissions during the commitment period which varies from 92% of 1990 emissions for some countries to 110% of 1990 emissions for others - this “assigned amount” is the country's upper limit so that some countries will need to make larger reductions than others in order to stay within their limit (Article 3(7)) [Australia at 108%, Ireland at 110% and Norway at 101% may make increases, while New Zealand, Ukraine and Russia at 100% need not make reductions; EU countries got 92% while the USA got 93%].

which the global warming hypothesis rests wobbles more precariously against the growing revelations of scientific research. The far reaching policies of the global warming advocates must be implemented quickly, before the world discovers there is no global warming problem to solve.”

(iii) It allowed the use of four market mechanisms in the efforts to achieve these targets: (a) emission trading among nations with legally binding GHG limitations – this refers to trading in assigned amounts (Article 17); (b) joint implementation between nations with legally binding GHG limitations – this refers to trading in assigned amounts through carrying out of projects in another developed country and earning emissions credits there (Article 6); (c) the Clean Development Mechanism - this allows developed countries to carry out projects in developing countries and earn emissions reduction credits there; and (d) agreement among groups of developed countries to fulfill their commitments jointly – this is best suited to economic groupings such as the European Union (Article 4).

The negotiations leading to the Kyoto Protocol were long, drawn out and difficult, lasting into the early hours on the last day. This was primarily because the Protocol aimed to strengthen commitments and, unlike its parent Convention, impose binding obligations. Consequently, each party (or grouping of parties) strove to ensure that its particular interest was enshrined in the Protocol's provisions, and that nothing adverse to its interests saw the light of day.

III.

THE KYOTO PROTOCOL - SELF INTEREST RULES THE ROOST

The Protocol for the first time imposed binding commitments and reduction requirements strongly sought by those who argue that the international community must take immediate steps to stem the rise in global warming. At the same time it allowed the use of market mechanisms (or “flexible mechanisms”) in meeting developed countries' commitments, which the United States particularly had always pressed for. For developing countries it made provision for the Clean Development Mechanism as the vehicle for their sustainable development and participation in the global effort to limit GHG emissions. Provision was also made for funds to assist developing countries “that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.” At the insistence of Australia, the role of land use change in emission reductions was expressly recognized.

The interests that carried the day in the Protocol were those that were advocated vigorously by Parties with most to gain from their inclusion. Developed countries won the right to take action “off-shore” thereby minimizing domestic political difficulties and

small island states, and others considering themselves “particularly vulnerable” (such as oil exporting countries), obtained a promise of “adaptation funds.” And economies in transition were allowed “flexibility.” By way of example of the rewards to be had from a vigorous advocacy of self-interest at international negotiations (which Africa, so far, has failed to demonstrate in these negotiations), the Australia Clause is analyzed below. This is followed by a discussion of Market Mechanisms, which are perhaps going to be the area of most importance to Africa in the years to come.

a. *The Australia Clause*

The “Australia Clause” contained in part of Article 3.7 of the Protocol reads as follows: “Those Parties for whom land use change and forestry constituted a net source of greenhouse gas emissions in 1990 shall include in their 1990 emissions base year or period the aggregate anthropogenic carbon dioxide equivalent emissions by sources minus removals by sinks in 1990 from land use change for the purposes of calculating their assigned amount.” The “sources” of emissions are the decay of both above ground and below ground vegetative biomass cleared as well as soil carbon released as a result of soil disturbance. The “sinks” refers to the re-growth after clearing, including woody re-growth.

This provision applies almost exclusively to Australia, the only developed country where vegetation clearing occurs to any substantial extent.⁵ The Australia Government was therefore in a unique position at the negotiations in Kyoto; it hoped that by winning the right to include emissions from land clearing in its 1990 baseline the requirement to cut fossil fuel emissions would be reduced. In per capita terms the inclusion of land clearing emissions for Australia means that official emissions per head in 1990 rose from about 21 tonnes per year to about 26 tonnes, making Australia the world’s highest greenhouse gas emitter per capita.

The Australian Government based its argument for concessions at Kyoto on the claim that cutting emissions would be espe-

5. The discussion in this section is based on a paper by C. Hamilton and A. Reynolds of the Australia Institute, *Land Use Change in Australia and the Kyoto Protocol*, presented at the 4th Conference of the Parties of the Framework Convention of Climate Change, Buenos Aires, Argentina, 12th November 1998 (paper on file with author).

cially damaging to the Australian economy. Interestingly, the Australian Government argued simultaneously for an 8% increase to total emissions on the basis of high costs of emission cuts and for an expansion of base year emissions to include land clearing.

The clause allows Australia to inflate its 1990 baseline emissions. If emissions from land use-clearing form a large proportion of total emissions, and those emissions are falling (as indeed they are) irrespective of actions taken to reduce greenhouse gas emissions, then this will permit a greater expansion of emissions from fossil fuels than the 8% target suggests. In one estimate even if rates of land clearing do not continue to decline, emissions from Australia's fossil fuel sectors can increase by 13% while Australia remains within the 8% overall target set at Kyoto. If land clearing is reduced in accordance with the Government's plans, then fossil fuel emissions can increase by 19%. If net emissions from forestry are excluded (as, under Article 3.7, they may) then fossil emissions can increase by 20% while Australia remains within the overall 8% target. If land clearing falls in accordance with the Government's plans and at the same time forestry emissions are excluded, then fossil fuel emissions may increase by 26%.

It is not clear whether the negotiators realized the full implications of the concession granted to Australia at Kyoto. The novelty and complexity of the implications of land clearing emissions, an argument which Australia introduced quite late in the negotiations, and the fact that to most developed countries land clearing is an irrelevant issue, most likely account for Australia's victory on the issue in the final hours of negotiations. Australia is now in the position that not only may it increase its fossil fuel emissions significantly beyond the 8% assigned to it in the Protocol, but it may even be able to take advantage of the market mechanisms and sell some of its assigned amounts – all without breaching its obligations.

b. *Market Mechanisms*

Of the many splits among negotiators, one of the most enduring has been that between the "North" and the "South". The North has predominantly seen climate change as an environmental issue while the South presents it as a development issue. Widely divergent interests notwithstanding, the South, speaking through the G77 and China grouping, has maintained throughout

that international efforts to tackle global warming must not hinder its ability to develop. They have argued forcefully that, since increased GHG emissions, particularly of carbon dioxide, arose from the fossil-fuel based industrialization and high living standards in the North, the North, historically being responsible for creating the problem, must take the lead in solving it. Further, any solution must allow the GHG emissions of the South to continue to grow to the same per capita level as the emissions of the North.

The North accepted the lead role in the initial period,⁶ the South not being required to take any commitments to reduce its emissions. However, the North, particularly the United States, pressed for the adoption of "flexible mechanisms" which would allow it to take action wherever it was cost effective to do so on the premise that GHGs migrate globally and so the particular location where emissions are reduced makes little difference to the greenhouse effect. While the South has remained skeptical, seeing this as a ploy by the North to avoid taking action at home, the North carried the day and the Kyoto Protocol has consolidated - and added to - the market mechanisms initially built into the parent Convention.

The Kyoto Protocol provides for two principal types of trading: (i) trading among nations with legally binding emissions limits; and (ii) trading between nations with such limits and those without. Nations with legally binding emissions limits may participate in emissions trading in any of three ways: First, they may trade in their assigned amounts. This refers to their ability to transfer or acquire increments (or a part) of their total assigned amounts in exchange for monetary payment. Secondly, nations may engage in project based trading of assigned amounts by implementing projects jointly ("joint implementation"). Thirdly, nations may choose to meet their emissions caps jointly, the whole group ensuring that it meets its collective target (a bubble or an umbrella).

Through the Clean Development Mechanism (CDM) nations with emissions limits may earn emissions credits for carrying out projects in developing countries, but only if the projects result in "reductions that are additional to any that would occur in the absence of the. . . Project." The Clean Development Mecha-

6. The United States of America has made its ratification of the Kyoto Protocol conditional on "meaningful participation" by developing countries.

nism has generated a great deal of interest among Western private business interests and was the primary focus of discussion at the Buenos Aires Conference of the Parties. It is the only market mechanism in which all parties – developed and developing – have a stake and can see potential benefits. Further, unlike the other market mechanisms, it is set to come into effect in the year 2000 – when Parties may be allowed to start counting emissions credits earned under CDM activities towards their emissions reductions. Significantly, Africa was markedly marginalized in these discussions, yet Africa, perhaps more than any other continent, is in need of investments in sustainable development projects. Indeed, it is arguable that the mechanism is particularly suited to Africa's needs.

IV.

THE CLEAN DEVELOPMENT MECHANISM (CDM)

a. *Origins*

The CDM was based on an idea called the Green Development Fund introduced by Brazil on 28 May 1997 during the seventh session of the Ad Hoc Working Group on the Berlin Mandate.⁷ The Green Development Fund was to be funded by contributions from those developed country parties that exceeded their assigned amounts of GHG emissions. The rationale for this was said to be “the polluter pays principle”: parties not in compliance would contribute (i.e. pay a fine) of US \$10 per tonne of carbon.

The funds were to be used for “green” projects in developing countries. Guidelines for the distribution of the funds were to be developed but most of the funds would be assigned for mitigation programs in developing countries on the basis of their contribution to global warming, the bulk going to the major developing countries. However, up to 10% could be used in climate change adaptation projects. Brazil's argument was that the Fund would be a way of getting developing countries to engage constructively in implementing the Convention by contributing to its “ultimate objective” of stabilizing GHG concentrations. Basically, developed countries' contributions to the Fund would be used to pay

7. This account of the history of the CDM is based on an account by Ambassador Raul A. Estrada-Oyuella of Argentina, Chairman of the Committee of the Whole during the Kyoto Conference, Raul A. Estrada-Oyuella, *First Approaches and Unanswered Questions*, in *ISSUES AND OPTIONS: THE CLEAN DEVELOPMENT MECHANISM* 23 (José Goldemberg ed., 1998).

for mitigation measures in developing countries towards “clean” development, thereby helping to achieve the ultimate objectives of the Convention. This idea remained intact in the subsequent discussions and is reflected in Article 12(2).

Thus the CDM idea was a relative late comer to the Kyoto Protocol negotiations and came just within the deadline of 1st June 1997 which had been imposed as the date by which ideas to be included in the Kyoto Protocol had to be communicated to Parties. On account of this, while presenting it, Brazil indicated that its analysis could be deferred to a time after the Kyoto Conference. The proposal was therefore not included in the negotiating text presented to the eighth session of the Ad Hoc Working Group that was held in October 1997.

The concept of a fund for sustainable development had been around since at least the 1992 UN Conference on Environment and Development. At the time, one of the ideas which was considered regarding how to reduce GHG emissions was the possibility of taking action to reduce emissions in developing countries for the reason that the effect on global warming would be the same wherever action was taken whereas the cost would be significantly less – on both economic and political grounds. [Labor and other costs are cheaper and there are far fewer vested interests in the fossil fuel technology sector]. The idea was rejected at the time by developing countries that objected to developed countries taking the easy option politically. The COP 1 debate on this matter led to the adoption of a Norwegian proposal – Joint Implementation (JI) – under which developed countries could implement activities in developing countries “on a pilot basis” to see what lessons could be learned, but without earning any emissions credits for doing so. (Activities Implemented Jointly (AIJ) differed from Joint Implementation (JI) [carried out among developed countries] in so far as no credits could be earned, a factor that made it acceptable to developing countries but limited its attraction to the developed countries).

Despite its having been left out, during the eighth session of the Ad Hoc Group on the Berlin Mandate in October 1997, the Group of 77 and China again reintroduced the idea of a Green Development Fund in the texts that were to be forwarded to the Kyoto Protocol. The idea was picked up in November 1997 at the last of the informal meetings which the government of the host country, Japan, had organized in Tokyo in the run up to the Kyoto Conference to enable Parties to exchange views and ex-

plore possible agreements that could emerge at the Kyoto Conference. In an exchange of views between the U.S. and the Brazilian delegations, the possibility arose of establishing a system which did not require the payment of fines for non-compliance but, rather, allowed entities – public as well as private - to buy some kind of license to exceed the assigned amount of GHG emissions. This new possibility was introduced to other delegations at the beginning of the Kyoto Conference. A negotiating group open to all delegations was set up to consider the proposal under the Chairmanship of a member of the Brazilian delegation.

The negotiators agreed on several features of the CDM, which are discussed below. Nevertheless, much remained to be worked out in subsequent COPs. These include issues to do with “modalities and procedures for ensuring transparency, efficiency and accountability through independent auditing and verification of project activities” (Article 12(7)). They also include the establishment and procedures of operation of the executive board whose role is stated to be to “supervise the clean development mechanism” (Article 12(4)).

First, the idea of a “Fund” was changed to that of a “mechanism” to stress the concept of facilitation rather than the establishment of a new funding institution that might compete with the Global Environment Facility. Thus Article 12(1) states that “a clean development mechanism is hereby established”.

Secondly, the idea of payment of fines for non-compliance - the punitive element in the Brazilian proposal - was replaced by the concept of assisting developed country Parties to achieve compliance with their commitments. Consequently Article 12(2) stipulates the following objectives:

[T]he purpose of the clean development mechanism shall be to assist Parties not included in Annex 1 [developing country parties] in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex 1 in achieving compliance with their quantified emission limitation and reduction commitments (emphasis added).

However for this benefit to accrue the reductions in emissions have to be “additional to any that would occur in the absence of the certified project activity” [Article 12(5)(c)].

Thirdly, the idea of a “win-win” formula became part of the proposal: developing countries would benefit from “project activities resulting in emission reductions” while developed countries benefited through getting credit for “certified emissions

reductions.” Article 12(3) stipulates as follows: “under the clean development mechanism (i) parties not included in Annex 1 will benefit from project activities resulting in certified emission reductions; and (ii) parties included in Annex 1 may use the certified emission reductions to contribute to compliance with part of their quantified emission limitation and reduction commitments as determined by the Conference of the Parties serving as a meeting of the Parties to the Protocol.”

Fourth, the idea of funding development projects in developing countries was modified. According to Article 12(6) “the clean development mechanism shall assist in arranging funding of certified project activities as necessary.”

Fifth, the idea that 10% of the proceeds be used to fund adaptation projects in developing countries was also modified. Under Article 12(8) “the Conference of the Parties serving as a meeting of the Parties shall ensure that a share of the proceeds from certified project activities is used to cover administrative expenses as well as to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.”

Sixth, the involvement of private entities was included. Article 12(9) states that participation in the clean development mechanism both in the project activities and in the acquisition of certified emission reductions, “may involve private and/or public entities, and is subject to whatever guidance may be provided by the executive board of the clean development mechanism.”

Thus, the CDM that was enshrined in Article 12 of the Kyoto Protocol was the result of a political compromise. It brought together U.S. arguments that the mechanism should include elements of emissions trading based on adoption of mandatory reduction commitments by all countries – developed and developing alike – and developing countries’ perception of CDM as a new channel for financial assistance, investments to promote sustainable development, technology transfer and the promotion of equity. In reality, the CDM was a hybrid of the Brazilian proposed green development fund and the developed countries’ favored Joint Implementation plan. In practice, after the cessation of the AIJ phase of pilot projects in the year 2000, CDM will become a way of continuing the AIJ concept but with the added advantage of being able to provide emissions credits. Indeed, Article 12(10) states that “certified emission reductions obtained [from CDM projects] during the period from the year 2000 up to

the beginning of the first commitment period (2008 to 2012) can be used in achieving compliance in the first commitment period.”

b. *Equity*

Equity occupies a central place in the Framework Convention on Climate Change. Considerations of “intergenerational equity” – that is, fairness between present and future generations – provides the ultimate rationale for the treaty: the effects of today’s emissions on the world’s climate will not be felt for many years to come, but by then it may be too late to take mitigatory action. This would prejudice future generations.

Considerations of “intergenerational equity” – or fairness in allocating reduction obligations among countries today – are also an important principle in the Convention. Article 3.1 of the Treaty states that Parties should act “on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.” Therefore, developed countries must take the lead, allowing developing countries to increase their global emissions. The Convention provides also that the financial mechanism which it establishes, “shall have an equitable and balanced representation of all Parties within a transparent system of governance.”

Equity considerations have been carried forward into the debate on designing the Kyoto Protocol mechanism and procedures. Equity has been at the center of debate on the institutional design of CDM; the responsibility for the costs of administration of CDM and of measures of adaptation by countries to climate change; CDM project eligibility and selection; the issue of additionality and the setting of baselines for CDM activities; certification and verification; and so on.

Institutional design

Article 12(4) provides that the CDM shall “be supervised by an executive board.” The design and composition of the board has been hotly debated. While it is universally agreed that the board should be a small efficient body, developing countries argue strongly that equity demands that the board be representative. They have reacted with caution to suggestions that the board might be located within existing multilateral institutions such as the Global Environment Facility, the International Energy Agency, or the Climate Change Secretariat in which developing country representation is not as prominent as they would

like it to be. The location of the board, they argue, must not compromise its independence.

Developing countries have instead proposed a small body whose membership is based on UN geographic regions. This would give developing countries a majority voice. Predictably this has not been welcomed by the developed countries, particularly the United States.

Costs of administration and adaptation

Article 12(8) requires that "a share of the proceeds" from certified project activities be used to cover administrative expenses as well as to assist developing country parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.

As stated above, the original idea was that those developed countries who were unable to reduce their emissions to the stipulated level should pay a penalty which would go towards meeting the costs of mitigation and adaptation. This idea failed to win approval. Now that the costs are to come out of the CDM, debate has shifted to the issue of the proportion of the proceeds which it would be "fair" to take for these costs without compromising the viability of the CDM. On the whole, developed countries and the private sector argue that the proportion must not be such as to amount to a tax on CDM investments but must be a true assessment of costs of administration with a small amount (perhaps 2%) devoted to adaptation costs. Developing countries are ambivalent, arguing simultaneously that private investment must not be put off by an unfair tax but also that significant sums must be devoted to adaptation costs.

There is also some confusion regarding who qualifies as being "particularly vulnerable to the adverse effects of climate change." While there is a general assumption that the AOSIS (small island states) qualify, others also see themselves as candidates. African countries are clearly vulnerable on account of their climatic conditions and extreme poverty. But reports indicate that delegations of larger developing economies such as China and India have been drawing attention to their own vulnerabilities.⁸ Even the wealthy oil exporting countries have ar-

8. See Farhana Yamin, *Operational and Institutional Challenges*, in *ISSUES AND OPTIONS: THE CLEAN DEVELOPMENT MECHANISM* 53, 67 (José Goldemberg ed., 1998)

gued vigorously that they should be compensated for costs incurred in adapting to a reduced global demand for oil. A small percentage allocation to the costs of adaptation will clearly not be enough.

Project eligibility and selection

But far surpassing debate on the other issues has been that on project eligibility and selection.

On eligibility, Article 12(5) stipulates that “emission reductions resulting from each project activity shall be certified on the basis of (a) voluntary participation approved by each Party involved; (b) real, measurable, long term benefits related to the mitigation of climate change; and (c) reductions in emissions that are additional to any that would occur in the absence of the certified project activity. Are these the only criteria for project eligibility?

According to Article 12(2) the [first listed] purpose of the CDM shall be to assist developing countries in achieving sustainable development. Some people have argued that a key (probably even the first and most important criteria) for project eligibility is the project’s contribution to the host country’s sustainable development. Others have argued that this is not so: the reference to sustainable development is simply a general statement of purpose not amounting to a criterion. In any case – and surprisingly – there is no internationally agreed definition of sustainable development that would allow Parties to determine the sustainability of a project and therefore Parties should not get “bogged down” in trying to define it.⁹

Without awaiting the resolution of this debate, the issue has been raised as to who will determine sustainability. Some developing countries have argued that it is their sovereign right to determine the suitability of projects, while others have argued that there must be some international benchmarks of CDM eligibility which all projects would be judged by. What would these benchmarks be? The field is wide open. To take one example, northern non-governmental organizations argue that nuclear energy related projects would, by definition, be unsustainable.¹⁰

9. See Yamin, *supra* note 8, at p. 58.

10. GREENPEACE, *Making the Clean Development Mechanism Clean and Green*, at 5 (Greenpeace Position Paper: Fourth Conference of the Parties to the Climate Change Framework Convention on Climate Change, November 2-13, 1998, Buenos Aires, Argentina).

The U.S. nuclear industry meanwhile was busy at Buenos Aires arguing the case for nuclear energy as an important part of the solution to carbon dioxide free energy generation.

The second controversial issue relates to whether carbon sequestration projects – essentially afforestation and similar projects – would be eligible for CDM credits. Article 12(5)(b) requires that projects lead to “real, measurable and long term benefits.” It is argued that carbon sequestration projects might not satisfy these criteria: measurement is a problem as gains from one afforestation project may well be cancelled out by increases from activities displaced to other areas (the problem of “leakage”), and the benefits may not be long term as the carbon will be released again if, and when, a land use change occurs. In any case developing countries may not be enthusiastic about afforestation projects, which do not have obvious “development” benefits, particularly in the short term, as opposed to, say, an electricity generation project. But for developed country investors’ carbon sequestration projects would be the preferred option. Experience with AIJ projects has shown that, on average, the costs for sink projects in the forestry sector at \$18 per ton of carbon are far less than those for emission reductions in the energy sector at \$136 per ton of carbon.¹¹

The third issue has been on how projects will be selected for implementation: will the process be multilateral or bilateral? Developing countries – in particular the smaller ones – see advantages in a system in which the CDM executive board has a portfolio of projects presented to it by developing countries and which it allocates to developed countries for implementation. They argue that this would enable the board to allocate projects “equitably” among developing countries, perhaps on the basis of a regional quota. They also suggest that this would minimize the risk of developing countries competing for CDM investments, thereby driving prices down.

But where smaller developing countries see advantages, developed countries and their private sector investors see disadvantages. They argue that bilaterally agreed projects with minimal involvement of the executive board would be much better: bureaucratic delay, red tape and administrative costs would be minimized; investments would flow to areas where it is most cost

11. See Robert Hamway & Francisco Szekely, *Practical Approaches in the Energy Sector*, in *ISSUES AND OPTIONS: THE CLEAN DEVELOPMENT MECHANISM* 199, 120 (José Goldemberg ed., 1998).

effective to invest; and CDM investments would be able to tap private sector – rather than development assistance – resources.

A third strand to the argument suggests that a hybrid approach will be best: those developing countries able to negotiate bilateral arrangements should be free to do so while those needing assistance from the executive board to attract investments should be provided with it. According to this school of thought in this instance standardization would most likely be inimical to equity.

Additionality, certification and verification

Under Article 12(5)(c) emission reductions may only be certified if they are “additional” to any that would occur in the absence of the certified project activity. But unlike developed countries, developing countries are not required under the Kyoto Protocol to set national baselines. Consequently they lack national emissions baselines against which surplus reductions can be established. It is generally agreed that an unstated implication of Article 12 is that to participate in the CDM, a developing country will have to establish baselines.

Baselines can be established on the basis of historical emissions levels. However, these tend to overstate future emissions by developed countries and to understate future emissions by developing countries. An alternative method is to make forecasts based on economic development, population growth and other dynamic factors. This gives a more reliable depiction of future emissions, but tends to be expensive, as it requires reliable data. The third type, individual project baselines, ignores indirect effects, and fails to provide a comprehensive picture of the growth of emissions over time for the country as a whole. It might lead to the certification of project related emission reductions which have been offset by increases elsewhere in the country. It is widely agreed that project related baselines are likely to be adopted as the most feasible in the short term.¹²

There is also general agreement that actual auditing, certification and verification will most likely be contracted out to private sector entities, although some public sector involvement in the setting of standards and accreditation of private sector auditors, certifiers and verifiers is considered desirable.

12. Theodore Panayotou, *Six Questions of Design and Governance*, in *ISSUES AND OPTIONS: THE CLEAN DEVELOPMENT MECHANISM* 45, 49-50 (José Goldemberg ed., 1998).

However, there is far less agreement on another important "equity" issue relating to additionality. Article 12(3)(b) stipulates that developed countries "may use the certified emission reductions accruing from project activities to contribute to compliance with "part" of their quantified emission limitation and reduction commitments." (emphasis added). The question of what constitutes "part" is being hotly debated. An odd assortment of bedfellows, believing that action must be taken at home, have argued for strict limitations on the quantity of credits that may be earned abroad. Greenpeace argues for a 1% quota,¹³ the New Delhi based Center for Environment and Science object to the very idea of implementation abroad.¹⁴ The G77 and China¹⁵ and even the European Union¹⁶ are also in this group. On the other hand the U.S. and the business sector have argued strongly that any limitations on the amount of credits that may be earned abroad would be counterproductive as it would limit the extent to which cost effective measures to limit global warming could be employed.¹⁷

V.

THE POVERTY OF AFRICA'S POSITION

a. *Africa's Failure to Articulate a Position*

To date, Africa has failed demonstrably to articulate an African position in the Climate Change Convention negotiations. An African position may be described as one that articulates Africa's unique interests in the negotiations. This is not to say that Africa does not take a stand on pertinent issues at the negotiations. It

13. GREENPEACE, *supra* note 9, at 4.

14. *ESE Dossier, Factsheet 1, The Politics and Agenda of Buenos Aires 2*, (Centre for Science and Environment), describes CDM as a mechanism that will allow the U.S. to meet its commitments "on the cheap".

15. *Final Communiqué of the XIIth Summit, Non-Aligned Movement*, ¶342 (1998). The heads of government of the Movement of Non-Aligned Countries met in Durban, South Africa in September 1998. Their final Communiqué, under Environment and Development, addressed climate change: Under ¶342: The Heads of State welcomed the Kyoto Protocol on legally binding commitments for the parties to the Framework Convention on Climate Change to reduce their emissions of greenhouse gases as contained in Annex B of the Kyoto Protocol. They called on the developed countries to undertake urgent and effective steps to implement these commitments through domestic action.

16. EU ministers, speeches at COP4 in favor of domestic action.

17. Bjorn Stigson, *Attracting Northern Private Sector Investment for Greenhouse Gas Reduction in the South*, in ISSUES AND OPTIONS: THE CLEAN DEVELOPMENT MECHANISM 137, 141 (José Goldemberg ed., 1998).

does. But, on the whole, Africa's stand on issues has been one of simple solidarity with the position of the G77 and China grouping of countries. In this sense Africa's stand has been markedly different from that of another group which is similarly placed in terms of vulnerability and resources, The Association of Small Island States (AOSIS). Right from the start AOSIS, while maintaining its membership in the G77 and China grouping, carved out a distinct "AOSIS position" which it has stuck to throughout the many years of negotiations with the result that the name AOSIS has become synonymous with "vulnerability to climate change."

Africa's failure is amply demonstrated by its position paper "African Common Position on the Clean Development Mechanism" which was submitted on its behalf to the 4th Session of the Conference of the Parties by Uganda.¹⁸

Paragraph 1 notes that Africa's contribution to GHG emissions is negligible at only 3% and yet Africa is the most vulnerable to the likely adverse effects of climate change. It states that the CDM is taken as a high priority for the continent to better cope with its vulnerabilities. The same paragraph then goes on to argue [oblivious to the contradictory implications of this to the immediate preceding sentence] that the primary objective of the Climate Change Convention is to take action domestically to reduce emissions. The use of flexible mechanisms, therefore, should be limited to an agreed percentage of the emissions target provided in the Kyoto Protocol for Annex 1 Parties.

Paragraph 2 identifies "critical issues," essentially that CDM should be designed in such a way that it is advantageous to Africa and the private sector. No indication is given of what this could be. The paragraph then makes the point that technology transfer, capacity building, environmental assessment and environmental improvement are essential for sustainable development. The unstated implication, one assumes, is that these should be included in the design of the CDM.

Under the heading "Functioning of the Clean Development Mechanism" the paper argues, in a paragraph that is both contradictory and opaque, that the CDM should operate through market based mechanisms, but that projects should be allocated on

18. *African Common Position on the Clean Development Mechanism, Paper No. 1: Uganda (on behalf of the African Group)*, U. N. Framework Convention on Climate Change, Conference of the Parties, 4th Sess., U. N. Doc. FCCC/CP/1998/MISC.7/Add.2 (1998).

an equitable regional/sub-regional basis, “based on common but differentiated responsibilities.” It then states that CDM should not be used as a substitute for official development assistance or the GEF. Later on the paper takes the stand that the operations of the CDM should be separated from those of the GEF in order to ensure financial autonomy. The paper argues that credits should be agreed between the investing and host country with 5% of the proceeds retained for the adaptation fund and 2% of the proceeds for the administration of the CDM. No link is made between the adaptation fund and Africa’s unique vulnerabilities, and nothing is said on the vitally important issue of how the adaptation funds are to be shared, and between which vulnerable parties. Instead the paragraph concludes with the broad statement that “Africa is prepared to play a meaningful role to come up with clear and common incentives, baselines, clear and easy rules of entrance and implementation procedures in order to attract CDM projects for the region. Africa would require assistance in developing such incentives for the region.”

The paragraph that follows is on “Governance of the CDM.” The paper’s stand is that the executive board should be limited to 11 to 15 members based on balanced geographical representation with – proof that AOSIS has made its case – additional representation from AOSIS. The paper takes the position also that the executive board should be responsible for the approval of projects with some responsibility delegated to regional/sub-regional bodies, where necessary.

Under the paragraph “Essential criteria for the CDM” the paper argues that emission reductions/emissions avoidance and sustainable development should be given equal importance. Further, “objectives of reducing or avoiding emissions should be understood to mean slowing the rate of growth in emissions from developing countries, not as achieving reductions in absolute terms from current levels.” This is the one instance in which a position that would be uniquely suited to Africa’s circumstances is articulated. However, apart from the bare statement, there are no explanations as to why this is important. Consequently its significance may not be appreciated.

Under the heading “Baselines, monitoring and verification” the paper makes the point that baselines, monitoring and verification are critical and their methodologies need to be developed nationally and regionally in order to build institutional and human capacity. It says that “Africa believes that this will in-

clude improvement in the areas of data collection and analysis so as to improve the accuracy of the baselines.” It does not address the implications for implementation of CDM in Africa of the dearth of African expertise in these fields.

Its paragraph on “Financing of the CDM” argues that the Conference of the Parties needs to elaborate on new and additional sources of funds for achieving the objectives of the CDM, in particular in Africa. Rather strangely, it calls for the establishment within the CDM of an adaptation fund for the poor and most vulnerable countries [which the Protocol has already provided for] and asks that contribution also be sought from other flexible mechanisms of the Protocol. Finally, it asks that the CDM should start with a seed fund to assist African countries to be better prepared for this mechanism but offers no concrete proposals as to the source of such funds.

Under “CDM projects” a list, which should be developed, appears but the list seems random and includes projects of all kinds. Then the paper states that Africa requires training and capacity building to deal with sustainable development and the development and implementation of CDM. It states also that African countries should be assisted in initiating demonstration projects in various sectors, commensurate with the development priorities of African countries.

Under “AIJ” the paper states that as the deadline for AIJ is nearing while very little AIJ experience has been gained in Africa, “the pilot phase should therefore be extended to allow African countries to gain experience in the field of partnerships with other countries on projects.” Why extension of AIJ at this late stage instead of action to operationalize CDM is preferred is not said.

The paper ends by stating that since the CDM is a high priority for Africa, African countries should endeavor to sign and ratify the Kyoto Protocol.

It is not an inspired performance, and fails totally to make a compelling African case on an issue of great importance to Africa. Where it does take a stand, it is often basically a restatement of the G77 and China position without any further insights. Often it demonstrates a lack of consistency and much internal contradiction. It could not but be ignored at the negotiations since, unlike other developing countries whose potential global emissions, populations and strategic importance to developed

countries give them a voice in the negotiations, Africa can only receive attention if it puts forward a compelling case.

What factors underlie Africa's failure to articulate a position? Somewhat surprisingly, there is not one single factor that could comprehensively explain Africa's performance (or failure to perform) at the negotiations. At its root lie the constraints imposed on Africa's negotiators by the continent's acute poverty. A few examples come to mind.

To negotiate successfully requires the deployment of resources – financial, technical and human – to develop, popularize and consistently articulate a position. This is a process that has to start long before the actual negotiations, be intensified during, and continue after, the negotiations, whether one has “won” or “lost” the point. A lack of resources in all these spheres makes it extremely difficult for Africa to do any of these things well. The failure to articulate any particular position at the negotiations is simply a manifestation of these constraints.

Taking the example of the 4th Conference of the Parties at Buenos Aires, the United States delegation was a contingent of eighty-three people and the European Union forty-five, excluding the national delegations of EU member states.¹⁹ The “developed country viewpoint” was supported by a whole array of publications distributed by “think tanks” – from the government, business sector and non-governmental organizations alike – which had been at work for months (perhaps years) developing and clarifying their positions on the pertinent issues. This was reinforced by the presence of hundreds of “manned stands” and “side events” at the Conference venue at which these viewpoints were explained and argued, and by daily newsletters on the issues of the day as the writers saw them.²⁰

In contrast, the typical African delegation had two to four people. Most countries were able to attend only because they could rely on the two air tickets availed to developing country dele-

19. *Provisional List of Participants*, U.N. Framework Convention on Climate Change, Conference of the Parties, 4th Sess., U.N. Doc. FCCC/CP/1998/MISC. 10 (1998).

20. Simultaneously with the Conference there is a “side show” that goes on during the entire two weeks at the Conference venue featuring talks, videos, receptions, news conferences and so on, making the Conference venue a beehive of activity. Whereas it is open to anyone to take a stand or a room and popularize his viewpoint, there was not one African stand at the Buenos Aires Conference. In fact I came across a Japanese woman who had taken a stand at the Conference venue to popularize her music which she said was on the theme of ecological protection.

gates by the Secretariat. African countries had no stands and no side events, and only rarely was an African to be found speaking on a panel at an event organized by others, even where the event had advertised itself as presenting “the Southern perspective.” There was a similar scarcity at the Conference of African non-governmental organizations or business sector representatives. Lacking a pre-existing network African government delegates relied on meetings organized at the venue to try and come up with a position. On the whole, the meetings were poorly attended by African delegates and the discussion desultory.²¹

b. *Is there an African Position?*

It is all very well to speculate on what factors might explain Africa’s failure to articulate any particular position at the negotiations, but is there, in fact, an African position to be developed? If so, what is it?

The central thesis of this paper is that there is indeed an African position at the Climate Change Convention negotiations, which needs to be developed. That position has to be premised on Africa’s poverty. It would have four elements:

- (i) each country is entitled to an assignment of emissions units (the right to emit GHGs);
- (ii) the assignment must be based on the Poverty Index, reflecting the country’s need to develop (i.e. the poorer a country, the higher the assignment);
- (iii) poor countries are free to trade in their assigned amounts through the CDM without quantitative restrictions; and
- (iv) emission reduction credits may be earned for emissions foregone and not just for emission reductions.

Entitlement to emission units

It is widely recognized that there are flaws in the current situation in which some countries have been assigned emission limitations while others have not been so assigned. This arose primarily from resistance by developing countries that assumed that any assignments would bring in their wake the obligation to reduce emissions, thereby limiting their growth prospects. But if the assignments are perceived not as limitations but as an alloca-

21. I was able to attend only one such meeting before I was chucked out, as NGO delegates were not allowed to be present at the meetings.

tion of the right to emit given quantities of GHGs then it is clear that all countries must receive assignments.

The critical issue is not whether assignments are made (indeed they need to be) but the basis on which they are made. The Group of 77 and China, speaking through the Non-Aligned Group of Nations, implicitly recognized this imperative when it said: "Emission trading for implementation of such commitments can only commence after issues relating to the principles, modalities etc of such trading, including initial allocations of emissions entitlements on an equitable basis to all countries has been agreed upon by the parties to the Framework Convention on Climate Change."²²

The Poverty Index: An Equitable Basis of Assignment

It is accepted by all that if assignments are to be made at all this must be done on an "equitable" basis. Assignment cannot, as was done in the Kyoto Protocol, be based simply on a party's negotiated position: that may be practical but certainly is not equitable and would not win universal support. What currently is missing in the debate, however, are the principles that define equity in the context of global warming. What is an equitable assignment?

GHG emissions, and carbon dioxide emissions in particular, are strongly related to economic growth and standards of living. Indeed, in the context of the global warming debate, they have become a proxy for living standards: the higher a country's living standards, the higher its emissions tend to be, and vice versa.

In its report, *Equity & Global Climate Change*, the Pew Center on Global Climate Change²³ proposes an approach to equity that involves three criteria: responsibility, standard of living, and opportunity to reduce emissions.

Responsibility refers to responsibility for emissions causing climate change. It includes not only those who have been responsible for the bulk of emissions in the past but also those who will be responsible for the bulk of emissions in the future. In addition it takes into account not just national total emissions but also per capita emissions. Standard of living is used to refer to

22. *Final Communiqué of the XIIth Summit*, Non-Aligned Movement, ¶342 (1998).

23. EILEEN CLAUSSEN AND LISA McNEILLY, *EQUITY AND GLOBAL CLIMATE CHANGE: THE COMPLEX ELEMENTS OF GLOBAL FAIRNESS 1* (The Pew Center on Global Climate Change 1998).

the ability to pay for climate change mitigation. The report uses national income per person to determine it. This affects who pays for climate change mitigation, who takes action, and when they are required to take action. The third criterion, opportunity to reduce emissions, refers to the differing cost between countries of reducing emissions: those countries that can reduce emissions more cheaply should do so. Some countries use energy inefficiently as they produce national income and could improve their efficiency cost-effectively, without compromising their growth. Others are installing energy using equipment for the first time and could install energy efficient equipment. In contrast there are countries using energy efficiently and have fewer low cost options available to reduce emissions.

Fundamental to the issue of assignments to be made are the following basic assumptions: first, all nations should be able to maintain or improve standards of living under a global climate change mitigation regime and secondly, the overall assignable amount must be consistent with the precautionary principle against putting the global ecosystem at risk. This amount can be raised or lowered as scientific evidence becomes clearer.

These principles and criteria lead to three – rather than the current two – groupings of countries. The group which scores high on both responsibility and standard of living criteria must take the lead in reducing emissions. The group which scores low on both standard of living and responsibility must be allowed to postpone action. The middle group, which scores high on some criteria but low on others, would be prudent to start taking action. As is clear from Table 1 below, this approach is closer to reality than the current artificial division of the world at the Climate Change Convention negotiations into only two camps – developed and developing. It is considerations of this kind that have led a few developing countries with large economies, such as Argentina, to express a willingness to assume voluntary obligations. Notably, all African countries with the exception of a handful – South Africa, Egypt, Tunisia, Mauritius, and Algeria – fall into the third category.

One instance of the application of differential assignments on the basis of the Poverty Index may be found in the case of the European Union. Because of internal market imperatives and treaty commitments, the European Union insisted on a “bubble” assignment, which it then undertook to reassign to its members according to its own internal formula. The formula which has

been proposed is based on the Poverty Index. The projected results are as tabulated below at Table 2.²⁴ Portugal, which is considered among the poorest EU states is assigned an increment of 40% above 1990 levels while Germany and other well off EU states have to reduce emissions by up to 25% below 1990 levels to make room for poor countries within the EU to grow.

The EU case demonstrates that the poverty index can provide a robust and equitable mechanism for assigning emission commitments. It takes into account both the current situations of the various countries as well as their respective future development and growth needs. It holds valuable lessons for Africa as it struggles to define a position at the Climate Change Convention negotiations. Obviously a great deal of work would have to be put into defining how the poverty index might work in the context of global warming, but the principle would dramatically alter Africa's position in the negotiations.

The freedom to trade

The assignment of emission rights would not of itself transform Africa into a wealthy continent, except in a putative sense. The wealth would still have to be created. The potential role of external private sector investment in developing African resources is no longer disputed with any seriousness. The CDM is a mechanism designed to tap such investments. It is therefore crucial that Africa should have the freedom to engage in mutually beneficial trade with external private investors. Quantitative restrictions on such trade are a market distortion and lack justification in logic. They should not be imposed.

Indeed to be able to attract such investments proactive African governments should set up a CDM focal point for liaison and coordination of CDM related issues.

Emissions foregone versus emissions reductions

Current GHG emissions from Africa are negligible, at 3% of the global total. Africa is therefore not in a position to benefit significantly from CDM projects unless "additionality" is interpreted so as to include the avoidance of future emissions through CDM projects. Avoidance of future emissions is in keeping with

24. This table is drawn from Benjamin Dessus, *Equity, Sustainability and Solidarity Concerns*, in ISSUES AND OPTIONS: THE CLEAN DEVELOPMENT MECHANISM 81, 86 (José Goldemberg ed., 1998).

the overall objectives of the Convention, which is to mitigate climate change and Africa's position at the negotiations should strongly reflect this point.

VI. CONCLUDING REMARKS

Africa needs to develop a vision about its interest on the issue of climate change. Currently, this is lacking. That vision would need to go hand-in-hand with a fundamental restructuring of Africa's negotiating stance at the Climate Change Convention negotiations. This would require action both on-stage at the negotiations themselves and off-stage, "back at home", and could include a number of elements.

First, there is need to set up urgently an inter-governmental African focal point on the CDM. The Organization of African Unity was nowhere to be seen at Buenos Aires, so some other organ might need to be identified to perform this task. Second, African governments need to provide support – financial and otherwise – to an African "think tank" on climate change issues. This can be located in a university institution or in the NGO sector. Third, African governments need to begin an active campaign to create awareness among the business sector – in Africa and abroad – on the business opportunities presented in Africa by the CDM. Fourth, Africa needs to invest some resources in retaining an expert or experts to support its negotiating team at the negotiations. There is a lesson to be learnt from AOSIS who have always retained outside expertise during the Conferences. Fifth, Africa needs to invest resources in presenting a higher profile at the Conferences. This would include hosting side events, putting out publications including newsletters and other leaflets, and generally being available to speak at events.

In sum, Africa must not only develop its position at the negotiations, it must sell it.

TABLE 1

CATEGORY 1 COUNTRIES

Argentina	Greece	Portugal
Australia	Israel	Saudi Arabia
Austria	Italy	Singapore
Belgium	Japan	Slovenia
Canada	Korea South	Spain
Chile	Kuwait	Thailand
Czech Republic	Malaysia	United Arab Emirates

Denmark	Mexico	United Kingdom
France	Netherlands	United States
Germany	Norway	Venezuela
CATEGORY 2		
Algeria	India	Russia
Azerbaijan	Iran	Slovak Republic
Belarus	Ireland	South Africa
Belize	Jamaica	Suriname
Brazil	Jordan	Sweden
Bulgaria	Kazakhstan	Switzerland
China	Kyrgyz Republic	Syria
Columbia	Latvia	Tajikistan
Ecuador	Lithuania	Trinidad & Tobago
Egypt	Mauritius	Tunisia
Estonia	Moldova	Turkey
Finland	New Zealand	Turkmenistan
Gabon	Oman	Ukraine
Georgia	Panama	Uruguay
Hungary	Poland	Uzbekistan
Iceland	Romania	Yugoslavia
CATEGORY 3		
Albania	Eritrea	Nepal
Angola	Ethiopia	Nicaragua
Armenia	Fiji	Niger
Bangladesh	Gambia	Nigeria
Barbados	Ghana	Niue
Benin	Granada	Pakistan
Bhutan	Guatemala	Papua New Guinea
Bolivia	Guinea	Paraguay
Botswana	Guinea Bissau	Peru
Bukina Faso	Guyana	Philippines
Cambodia	Haiti	Samoa
Cameroon	Honduras	Senegal
Cape Verde	Indonesias	Sierra Leone
Central Africa Republic	Kenya	Solomon Islands
Chad	Kiribati	Sri Lanka
Comoros	Laos	Sudan
Congo Democratic Republic	Madagascar	Swaziland
Congo Republic	Malawi	Tanzania
Cook Islands	Maldives	Togo
Costa Rica	Mali	Uganda
Cote D'Ivoire	Mauritania	Vanuatu
Djibouti	Mongolia	Vietnam
Dominica	Morocco	Yemen
Dominican Republic	Mozambique	Zambia
El Salvador	Myanmar	Zimbabwe

TABLE 2: EU Emission Reduction Proposals to 2010

1.	Denmark	-25%
2.	Sweden	+ 5%
3.	Finland	0%
4.	Luxembourg	-30%
5.	Austria	-25%
6.	France	0%
7.	Germany	-25%
8.	Netherlands	-10%
9.	Belgium	-10%
10.	United Kingdom	-10%
11.	Italy	- 7%
12.	Ireland	15%
13.	Spain	17%
14.	Greece	30%
15.	Portugal	40%
16.	European Union	-10%

