Report on a Conference held 7-9 October 1965
Woods Hole, Massachusetts.

THE WOODS HOLE RESEARCH CENTER

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The Ad Hoc Process to Strengthen the Framework Convention on Climate Change

Compiled and Edited by:
Kilaparti Ramakrishna
&
Andrew M. Deutz
&
Linda A. Jacobsen

Conference Report by:
Kilaparti Ramakrishna
&
Oran Young
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Foreword

The Woods Hole Research Center convened an International Conference on The Ad Hoc Process to Strengthen the Framework Convention on Climate Change in Woods Hole, Massachusetts, on October 7-9 1995. The conference was conducted to examine the prospects for successful adoption of a protocol to the Framework Convention on Climate Change by 1997.

In preparation for the Second Session of the Ad Hoc Group on the Berlin Mandate, several governmental and nongovernmental representatives met in Woods Hole to discuss the process and possible outcome of the Berlin Mandate negotiations for a protocol or other legal instrument to strengthen the Convention. The conference was by invitation and all participants attended in their personal capacities.

The sessions were led by Dr. Kilaparti Ramakrishna, Senior Associate for International Environmental Law, The Woods Hole Research Center, and Professor Oran Young, Director, Institute on International Environmental Governance, Dartmouth College.

Financial support, through the Woods Hole Research Center, was provided by the Ministry of Foreign Affairs of Denmark, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of Germany, the Foreign Ministry of the Netherlands, and the United States Department of Energy.

George M. Woodwell
President and Director
The Woods Hole Research Center
Woods Hole, Massachusetts, USA

October 1995
International Conference on the Ad Hoc Process to Strengthen the Framework Convention on Climate Change

Report on the Conference
Kilaparti Ramakrishna and Oran R. Young

The Ad hoc Group on the Berlin Mandate (AGBM), established at the first session of the Conference of the Parties (COP) to the United Nations Convention on Climate Change (FCCC) in Berlin, met for the first time from August 21-25, 1995 in Geneva. Despite the urgency called for by the Berlin Mandate, AGBM1 was not able to agree on the composition of its bureau, nor on the nature and structure of the negotiating phase. The AGBM1 however did adopt an agenda for work for its next meeting as well as initial conclusions on analysis and assessment and on inputs to its subsequent meetings.

AGBM2 is scheduled for October 30 - November 3, 1995. The challenge before this Group is to begin a process “without delay” and conduct its deliberations “as a matter of urgency” to ensure completion of the work as early as possible “with a view to adopting the results at the third session of the Conference of the Parties.” Given the history of negotiations that led to the adoption of the FCCC in 1992, the more recent history of the adoption of the Berlin Mandate in March/April 1995 that established the AGBM, and the manner in which some of the issues that were “resolved” at Rio and Berlin were revisited at the first meeting of the AGBM in Geneva during August 1995, completion of the work by 1997 as the Berlin Mandate instructed is a daunting task indeed.

The Berlin Mandate [paragraphs 2(a) and (b)] established a process which aims both:

- to elaborate policies and measures . . . , and

- to set quantified limitation and reduction objectives within specified time-frames, such as 2005, 2010 and 2020 . . .

The Berlin Mandate explicitly states that the process is not designed to introduce any new commitments for developing country Parties but reaffirms existing commitments in Article 4.1 and seeks continued advancement of the implementation of these commitments.

In order to facilitate discussion on this topic before AGBM2, an international conference was held under the auspices of The Woods Hole Research Center in Woods Hole, Massachusetts, during October 7-9, 1995. The purpose of the conference was to have informal discussions among the key constituents of the AGBM. The goal was to provide a forum where both the governmental representatives and knowledgeable resource persons could exchange ideas and formulate some workable solutions for the task ahead of the AGBM. This summary, the papers prepared for this Conference, documents reproduced from submissions of national governments, secretariat documents prepared for AGBM2, and others reproduced with permission in this compilation are aimed at providing some useful inputs into the AGBM process as it moves along in its efforts to conclude “a protocol or another legal instrument” by 1997.

The discussions over the two-day period focused on paragraphs 2 (a) and (b) of the Berlin Mandate referred to above. Participants agreed that instead of trying to be comprehensive, the effort should be directed at distilling a few creative and workable ideas. The discussion therefore focused primarily on policies and measures, quantified limitation and reduction objectives, advancing the implementation of commitments in Article 4.1, and institutional arrangements.
Policies and Measures

According to the Berlin Mandate, the AGBM is to focus on new commitments for industrialized countries. The Berlin Mandate specifically provides for identifying “policies and measures for Annex I Parties which could contribute to limiting and reducing emissions by sources and protecting and enhancing sinks and reservoirs of greenhouse gases.” In this context particular note was taken of the ongoing study by the OECD/IEA on “Policies and Measures for Common Action.” The basic objective of the OECD/IEA study is “to provide an initial assessment of policies and measures for future mitigation of greenhouse gas emissions and sink enhancement which could lend themselves to common action.”

Of great promise in this exercise is the concept of a hierarchical, pyramidal structure of policies and measures divided into three levels. At the top of the pyramid are those actions that could succeed only if done collectively, as in by all Parties; in the middle are those actions that could perform better if done collectively or jointly; and at the base of the pyramid are those actions that can be implemented nationally, and may include those that succeeded in some countries with easy replicability. The central feature of the pyramid is that there are fewer measures to be undertaken collectively than nationally.

One approach advanced in the Conference that found widespread favor with participants is that actions agreed to at each of these levels could be part of the protocol or another legal instrument as “annexes.” There was support for the concept of having an annex listing policies and measures which would be mandatory for Annex I countries, along side annexes listing voluntary policies and measures with provisions built into the instrument for moving items from one to the other annex. While there was agreement on the structure issue, there was no consensus yet as to the best approach among the wide range of possibilities that exist. There was much interest however in measures that would shift from fossil fuels to alternative energy sources and the implication that this would involve active involvement of both developed and developing countries.

While the OECD/IEA exercise on “common action” is done by an “expert” group, and not by a “negotiating” group, there is a general sense that the OECD/IEA exercise will come to conclusions on what could potentially be part of the protocol or another legal instrument without much involvement either of AGBM or of some countries that are likely to be impacted by these policies and measures. For the successful conclusion of the current round of discussions it is vital that avenues be found to bring about (a) greater convergence of the OECD/IEA study with the AGBM process; (b) use of technical panels under either SBSTA or AGBM; (c) active involvement of developing countries; and (d) use of the IPCC to better advantage. One way of proceeding suggested at the Conference was for the AGBM to ask questions and set criteria to which the Annex I countries and the OECD/IEA exercise could respond.

Quantified Limitation and Reduction Objectives

The Berlin Mandate, in addressing the issue of new commitments for industrialized countries, specifically provided for setting “quantified limitation and reduction objectives within specified time-frames, such as 2005, 2010, and 2020, for their anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol.” Discussion on this topic largely focused on the nature of objectives and burden sharing.

A cursory review of the proposals advanced before COP1 clearly needed to be revised in the context of the compromise reached in the Berlin Mandate. While many of the ideas contained in the “Draft Protocol to the United Nations Framework Convention on Climate Change on Greenhouse Gas Emissions Reductions” by the Alliance of Small Island States (AOSIS) are still relevant, some participants suggested that the overall framework needs to be altered to reflect language contained in the Berlin Mandate.

There was general acknowledgment that incentives should be provided for early action. The specific context within which this was discussed was in light of a submission by the Netherlands government (reproduced below at pp. 43-44). To allow for a least cost strategy in reducing emission, this submission advanced the use of collective targets which could take the form of:

- a % reduction per year (say 1-2% per year after 2000),
- a % reduction by a certain year,
- a cap of global emissions through Annex-I action . . .
- the idea of emission budgets for a certain period of time as opposed to an annual emission milestone or
- a combination of a collective absolute target with individual reductions applying to an emissions trend rather than a base year.

Amongst these proposals the idea of a target expressed as a “budget” of emissions over time generated a particularly wide-ranging, innovative and lively discussion. An attractive feature of the emissions budget approach is that performance is measured in terms of cumulative emissions over a particular time horizon, rather than in terms of emissions just at the endpoint of a time-frame. While the budget approach gives flexibility in timing emissions reductions, it raises conceptual questions similar to those around emissions trading. There was agreement with maintaining 1990 as the base year for Annex I Parties. There was also general agreement that whatever strategy is agreed upon in the end, given the general drawbacks of each and every idea that is currently discussed, the time-frames should be short enough to provide regular check points and minimize opportunities for manipulation by countries wanting to put off meeting their commitments.

**Institutional Arrangements**

The membership of the new protocol or another legal instrument will likely not encompass all of the Parties to the Convention. It is important therefore to ensure that the institutions and processes of the protocol and the institutions and processes of the Convention are integrated without compromising the integrity of each group of Parties. The basic challenge however is to work toward a living document that ensures flexibility and provides for substantive results. An argument could be advanced that the responsibilities under the new instrument can be carried out through existing institutional arrangements of the Convention. While these process questions are important the need of the moment is to go deeper in terms of substance, and once the substantial questions are addressed, come back to the institutional questions.

**Implementation of Commitments in Article 4.1**

According to the Berlin Mandate, this round of negotiations is not about introducing new commitments for developing country Parties. The issue of advancing the implementation of commitments of non-Annex I Parties requires delinking the issue of structure (i.e., what form agreements might take) from the issue of substance (i.e., whether there are mutually beneficial steps that might be taken in this area).

At the same time the Berlin Mandate supports the notion that measures agreed to advance the commitments of non-Annex I Parties be part of the protocol or another legal instrument. There are several important reasons why this might be a useful approach. The commitments contained in Article 4.1 include ALL Parties to the Convention. There are particular advantages to non-Annex I Parties in complying with this provision of the Berlin Mandate, as it furthers the implementation of Articles 4.3, 4.5 and 4.7. In particular, these include replenishment of the financial mechanism, operational issues associated with transfer of technology, and non-Annex I Party communications. The important point, according to many participants, is that the issue of strengthening the implementation of commitments of developing country Parties should be treated independently of new commitments for developed country Parties.

**Conclusion**

We are still at an early stage in the process of meeting the challenge of the Berlin Mandate. What is needed at this stage is creativity in framing the issues and identifying options, a fact that makes it inappropriate to endeavor to forecast the outcome of such a process prematurely. For the first time, however, a vision of the overall shape of a response to the Berlin Mandate began to emerge. The essence of this vision involves an arrangement under which (1) Annex I countries would take an inclusive approach to developing policies and measures and to devising a mechanism for moving specific policies and measures from voluntary to obligatory prescriptions over time; (2) the quantified limitation and reduction objectives to be agreed should have short time-frames to provide frequent checkpoints on progress; and (3) all parties to the FCCC would collaborate in devising procedures to advance the implementation of Article 4.1.
Slowly a vision is emerging that is at once promising and daunting: promising because it provides a way of fulfilling the Berlin Mandate, daunting because it addresses the same elements that made the adoption of the Convention and the Berlin Mandate such difficult exercises. Needless to say, there is much to be done to translate this promise into concrete language acceptable to all parties concerned. Yet, the existence of a vision of the final destination can serve to guide the activities of the AGBM over the next eighteen months. If the participants in the AGBM process pay heed to the sense of urgency articulated in the Berlin Mandate and the objective of the Convention, a desirable outcome may prove less daunting.
Implementation of the Berlin Mandate: Emerging Structure

Kilaparti Ramakrishna and Andrew M. Deutz

Introduction

The efforts by the international community in bringing about an effective and appropriate international response to stabilize greenhouse gas concentrations in the atmosphere have entered into their third phase. The first phase, from the UN General Assembly resolution establishing the Intergovernmental Negotiating Committee (INC) through the adoption of the Convention, was characterized by high level participation, eagerness and resolve to have the convention ready for adoption at UNCED in Rio in 1992. All actors in this mega-conference, termed the Earth Summit, acknowledged that the Framework Convention on Climate Change (FCCC) was the most significant outcome of the Rio conference. It accordingly received greater attention from both governments and the non-governmental community than other documents adopted at the Earth Summit. The second phase of these efforts, from INC6 through the First Conference of the Parties (COP) in Berlin, was marked by significant changes in the make-up of national delegations. The pressures driving this phase were markedly different. The central purpose then was to ensure that the first meeting of the COP would make progress in implementing the Convention. As the world community enters the third phase to strengthen and further implement the Convention, there are further, significant changes in the negotiating dynamics which present new challenges and opportunities. There will be many new faces in the make up of governmental delegations that bring new ideas and that may not have the benefit of institutional memory. At the same time, the role of the science is changing, NGOs are faced with competing demands on their resources and attention, and Kyoto, where a protocol to the Climate Change Convention is sought to be adopted as a result of the Berlin Mandate, may lack the significance of Rio, while the secretariat has, institutionally, come into its own. At the same time, national and international efforts to meet the commitments of the Climate Change Convention and the ensuing national goals have been disappointing at best, and outright failures in some cases. These issues need to be kept in mind while thinking about how to proceed.

The Changed Landscape

1. the science

The science of climate change has seemingly lost its hold on the popular consciousness, though there are indications that this may be changing. The science has grown surer over the past five years and has reaffirmed and further refined the initial models and predictions upon which the Climate Change Convention was based. Indeed, the IPCC's Second Assessment Report, due out later this year, in addition to further substantiating the conclusions of the First Assessment Report, will indicate that the observed climatological effects of the Pinetubo eruption, which have now dissipated, conform well with model predictions. It will also show that the models are now better able to accurately represent the current climate by accounting for the regional variations associated with sulphate aerosols. Perhaps most importantly, recent work by the Max Planck Institute for Meteorology in Germany, the Hadley Center for Climate Prediction and Research of the UK Meteorological Office, and the Lawrence Livermore National Laboratory in the U.S., and the current draft of the IPCC Second Assessment Report all state that global warming is indeed underway and that at least some of the warming is directly attributable to human actions. However, the sense of urgency provided by the scientific community prior to the adoption of the FCCC, a key element of the successful adoption of the Convention in Rio, will have to be reinserted into the current negotiating process.

1 Kilaparti Ramakrishna is Senior Associate for International Environmental Law and Director of the Program on Science in Public Affairs at The Woods Hole Research Center. Andrew M. Deutz is Research Associate in the Program on Science in Public Affairs at The Woods Hole Research Center.
2. the NGOs

While the Rio Earth Summit witnessed the largest congregation of environmental NGOs, since Rio the attendance has been markedly lower. There will likely be a further decline in attendance and attention paid to this process by the NGO community in the early stages after Berlin. In part, this is the natural ebb and flow of things. Some NGOs are now focused more on implementation at the national level than the international proceedings. In addition, there are severe resource constraints on NGOs. This is particularly true for southern NGOs. In part, this is due to decreased interest in the issue from the private foundation community resulting from the perceived maturation of the climate change issue. In the case of US NGOs, it also results in part from the need to devote significant time and resources to defending a generation of domestic environmental legislation currently under assault by the re-aligned Congress. With these changes, another vital element of the successful adoption of the Convention is endangered. The effective implementation of the Berlin Mandate will require the effective participation of the non-governmental community.

3. the developing countries

Beginning with discussions within the IPCC, the developing countries saw their vital interests in the successful resolution of the climate change issue. This has resulted in their opposition to the concept of "core membership" within IPCC, the formation of AOSIS, participation in each of the negotiating sessions in increasing numbers, and in the end presentation of a very clear and cogent articulation reconciling the measures needed in addressing the threat of global warming with their own national interests. With the adoption of the Convention and its entry into force the vigorous participation of developing countries is even more important for the successful implementation of developing countries is even more important for the successful implementation of the Convention and the adoption of a protocol or other legal instrument as evidenced by the introduction of a "green paper" that formed the basis of the Berlin Mandate. However, the follow up to COP1 places certain additional burdens on developing country delegations in adequately following the complex process.

To illustrate, there is a danger that many developing country Parties will only be able to send one delegate to meetings of these bodies. Having the same individuals attend the AGBM, SBSTA and SBI consecutively could blur the distinctions and may jeopardize the character and work of either the AGBM, or the SBSTA and SBI. To avoid this problem, Annex II countries should provide the necessary resources to the trust fund for developing country participation to ensure that there is adequate political and technical representation from developing country Parties. If that proves infeasible, Parties should consider discontinuing the practice of holding sessions of the AGBM in conjunction with sessions of SBSTA and SBI so that Parties sending delegations of one are not forced to choose between representatives with political versus technical expertise.

4. the deadline

If the negotiations begin to drag out, as some will surely seek to engineer, there will be suggestions to continue negotiating and delay the target date for adoption of a protocol until future COPs. The third conference of the Parties may not have the global attendance, the public expectations, or the media attention of the Earth Summit. Nevertheless, a deadline has been set both due to continued concerns of global warming as well as to correct the void in the Convention for the period beyond the year 2000. A Conference of the Parties is a politically significant enough event that the costs of delaying the negotiations beyond 1997 will be high. From a practical perspective, delayed adoption beyond 1997 would make it nearly impossible to have effective policies and measures in place by the year 2000 to constrain emissions thereafter, which is the principal goal of this round of negotiations. As elsewhere, there is a need to mobilize constituencies on behalf of strengthening the Convention and to build expectations for success.

5. the secretariat

Perhaps the most significant change is the maturation of the Climate Change Convention Secretariat. Early in the INC process, the Secretariat's role was perceived as essentially administrative. But it has consistently maintained its credibility, integrity and usefulness and has grown stronger for it. The Secretariat is now in the position of looking for broad guidance from the COP. The Secretariat has reached the stage of sponsoring the Convention proceedings, in the same way that UN agencies have for other processes. The secretariat is now the repository of institutional knowledge about the negotiations and the Convention itself and is in a position to float ideas on its own.
Structure of the Ad Hoc Process

Environmental negotiations are characterized by complexity and uncertainties. Negotiation theory generally suggests that the process should deal with complexity by breaking down the problem into discrete, smaller issues that can be handled individually. However, environmental problems are characterized by interconnected ecological issues and attendant political, economic and social linkages that necessitate a holistic approach to joint problem solving. Coping with this tension is the central management task in structuring environmental negotiations, and will be for the AGBM.

To begin with, the work of the AGBM should be confined to the difficult tasks assigned to it. These tasks must be interpreted in light of the structure of the entire Convention. The Convention provides for Subsidiary Bodies for Scientific and Technological Advice and for Implementation, and there is discussion of the creation of intergovernmental technical advisory panels and non-governmental workshops. Careful consideration must be given to the structure and work plan of the AGBM to ensure that synergies between these different bodies are exploited, rather than allow unconstructive duplication of work. Both subsidiary bodies have specific mandates and will have the relevant expertise to provide significant, timely inputs into the proceeding of the AGBM. The AGBM needs to remain focused on its principal tasks: strengthening the commitments of Annex I parties for the period after 2000 and furthering the implementation of existing commitments of non-Annex I parties. It should not be allowed to become distracted with matters which more appropriately fall within the mandates of the subsidiary bodies.

If the negotiations that resulted in the Berlin Mandate and discussions at AGBM1 are any indication, discussions within this process will continue to be highly political and contentious. Parties to the Convention should be careful not to revisit all the elements of dissatisfaction articulated prior to arriving at the compromise in Berlin, though there were clear signs of this at the first AGBM. To ensure the integrity and efficiency of the Convention process as a whole, it is important to let the subsidiary bodies develop their own style of work in furthering the objectives of the Convention.

According to the Berlin Mandate, this round of negotiations must focus on new commitments for industrialized countries. It is not about introducing new commitments for developing country Parties. The issue of strengthening the implementation of commitments of non-Annex I parties should be treated independently of new commitments for developed country Parties.

As for the structure of the negotiations, there is an argument to be made for dividing the AGBM into two working groups at some point in the process, along the same lines as the INC. The functional breakdown could be along the lines of commitments / mechanisms, or “quantified limitation and reduction objectives within specified time-frames” / policies and measures. Division of the process into working groups is not intrinsically valuable, but should be judged in terms of how it could facilitate the negotiations. It is important that there be identifiable indicators of progress in the negotiations, and the establishment and functioning of working groups is one of a number of ways to ensure this.

1. review of proposals
A cursory review of submissions from different Parties illustrates the following approach to the current round of negotiations. The German delegation’s statement at AGBM1 (FCCC/AGBM/1995/Misc.1/Add.1, Paper No. 4) recognizes that the AGBM will need to operate with both a short and long term view. In the short term, the AGBM is responsible for negotiating a protocol or other legally binding instrument over the next two years. But in the long term, the AGBM is responsible for negotiating a protocol or other legally binding instrument over the next two years. But in the long term, the AGBM is setting the precedent for the dynamic, step-wise evolution of the international community’s response to climate change. At INC11, delegates agreed that the current commitments contained in Articles 4.2 (a) and (b) are only a first step towards meeting the ultimate objective of the Convention. Accordingly, the AGBM process is now defining only the second step. This will doubtlessly be an iterative process, which will take numerous strides in the times ahead.

Regarding the substance of the agreement to be reached by the AGBM, the German government has indicated an affinity for coordinated policies and measures, both within the European Union and among all Annex I Parties. The paper argues that an agreement containing only a “purely optional menu” of policies and measures would be an unsatisfactory outcome of the discussions for a legal instrument. Germany has suggested a number of specific examples, both in this paper and in Section II of the German Elements Paper (A/AC.237/L.23/Add.1).
The Dutch and Swiss papers (FCCC/AGBM/1995/Misc.1/Add.1, Paper Nos. 7 & 10) have also indicated a number of priority areas for coordinated or harmonized action in the context of a protocol. The Dutch paper specifically points to the OECD/IEA Common Actions study as "particularly relevant" in this context. The paper suggests that informational inputs to the AGBM process, to be most useful within the context of protocol negotiations, should focus on policies and measures that could specifically benefit from, or are conditional upon, internationally agreed coordination. The existing review of policies and measures described in the national communications will provide important lessons of experience, especially for policies and measures that can be effectively replicated elsewhere. Thus, while this is important information to further the implementation of the Convention, countries can effectively implement these types of measures without further agreement at the international level.

The Dutch paper also describes a number of alternative formulations for additional commitments for Annex I countries, suggesting an examination of "collective targets". Beyond a certain percentage reduction of emissions by a certain year, it contemplates a small, certain percentage reduction each year, or a cap on emissions of a group of Annex I countries, or on emissions of the world as a whole through Annex I action. It also suggests considering targets related to broader emissions trends as well as objectives based on energy efficiency improvements or the use of renewables relative to fossil fuel energy sources. These options expand the realm for possible agreement and are worthy of further elaboration.

The Norwegian submission (FCCC/AGBM/1995/Misc.1/Add.1, Paper No. 8) also suggests a new way of thinking about determining future commitments under the Convention. Building on earlier calls for "equitable burden sharing", Norway refers to paragraph 2 (a) of the Berlin Mandate, which calls for taking account of "the need for equitable and appropriate contributions" by Annex I Parties. The paper proposes that costs be distributed internationally based on a "critical economic loads" concept. This concept is loosely based on the critical loads approach of the 1994 Sulphur Protocol to the 1979 UNECE Convention on Long Range Transboundary Air Pollution. The first Sulphur Protocol of 1985 required at least a 30% reduction in sulphur emissions or their transboundary fluxes. The critical loads concept in the 1994 agreement, however, is substantially more sophisticated. It quantifies the acceptable thresholds of acidic deposition for particular ecosystems and then, through a computer modeling process, determines specifically where emissions need to be constrained to ensure that the critical loads for ecosystems are not exceeded. Thus, controls on particular emissions sources may vary considerably, depending on the specific impacts of the emissions in question. In the case of climate change, what matters are emissions to the atmosphere and the increase in atmospheric concentrations of carbon, which enhance radiative forcing. Unlike the situation of acidic deposition, there are no type of site-specific impacts which can be directly traced back to particular emissions sources. With this in mind, Norway suggests an approach based on "critical economic loads" whereby each country would bear the same economic cost, or "load", though this would entail differentiated commitments as measured in emissions reductions once starting points, economic structures, and other factors are taken into account.

Two points should be kept in mind. First, the ability to negotiate the second Sulphur Protocol, based on the critical loads approach, was necessarily contingent upon the agreement of a single modelling system for the determination of critical loads and specific emissions controls. In that case, negotiators agreed on the "Regional Acidification Information and Simulation" (RAINS) model of IIASA, which relied on information formally submitted by governments as well as the European Monitoring and Evaluation Programme, itself the subject of a protocol in 1984. Negotiating a protocol to the FCCC based on a "critical economic loads" concept would require international acceptance of a particular global economic model which could definitively estimate the relative costs of emissions reductions across individual countries. The model would thereby allocate differentiated national emissions reductions targets in a manner that ensured an equitable distribution of associated economic costs. That will not be an easy task, though the Norwegian paper proposes that the AGBM request the OECD to initiate such a project. However, it is unlikely that such a project would be sufficiently advanced or gain wide enough acceptance within the time horizon of the Berlin Mandate process.

Second, by focusing on the distribution of economic costs, the underlying ecological issues may be marginalized. Indeed, an approach based solely on equilibrating economic costs across countries may, in essence, lighten the load on countries that are excessive-
ly dependent on fossil fuels and therefore claim high abatement costs. Thus, the resulting differentiated commitments structure may entail that key countries whose marginal emissions reductions would have the greatest impact on atmospheric carbon concentrations would not be required to make significant reductions. While this may be economically efficient, it may prove far from environmentally adequate or, in the final analysis, equitable.

Poland and the Russian Federation suggest an alternative approach to thinking about the structure of future commitments by proposing a definition for the principle of common but differentiated responsibilities contained in Article 3.1 of the Convention. (FCCC/AGBM/1995/Misc.1/Add.1, Paper No. 9). During the drafting of the Convention, this principle was developed within the context of overriding North-South issues, and, though not explicitly defined, it is implicit in a number of Convention provisions. The particular situation of countries with economies in transition is explicitly acknowledged in Article 4.6 of the Convention, and a substantive distinction exists in the lists of countries contained in Annex I and Annex II of the Convention and the commitments applying to countries named in those Annexes. Since countries with economies in transition are Annex I Parties, subject to the strengthening of the provision of Articles 4.2 (a) and (b) at the culmination of the Berlin Mandate process, the Polish-Russian proposal raises the question of what kind of accommodations, if any, will be appropriate for countries with economies in transition in a future protocol.

In its submission (FCCC/AGBM/1995/Misc.1/Add.1, Paper No. 12), the U.S. delegation proposed a timetable for the negotiations, which provide a starting point for the consideration of this issue. The U.S. argues for formal analysis and assessment followed by formal negotiations. While recognizing on the one hand that the negotiating function is currently underway and that the analysis function will continue through the life of the AGBM process, the U.S. delegate stated in his intervention of 23 August 1995 that "we are not, at this stage, negotiating". Nevertheless, the proposed sequence of negotiation and requests for materials from the Secretariat, based on the experience of negotiating the Convention itself, is appropriate. However, the time frame needs to be advanced. The first compilation of textual elements for a protocol or other legal instrument should be circulated at the Second Conference of the Parties. This will allow a full year for consideration and negotiation of specific proposals. Secondly, the critical step of the Secretariat in preparing a single negotiating text should be completed for consideration 6 months prior to the Third Conference of the Parties. Even with this accelerated schedule, time will be short. The U.S. proposal at AGBM 1 for additional sessions of the AGBM will certainly help in this regard and should be accompanied by corresponding contributions from industrialized countries to the Special Voluntary Fund to facilitate proper developing country participation.

2. analysis and assessment

The Berlin Mandate states that:

The process will include in its early stages an analysis and assessment, to identify possible policies and measures for Annex I Parties which could contribute to limiting and reducing emissions by sources and protecting and enhancing sinks and reservoirs of greenhouse gases. This process could identify environmental and economic impacts and the results that could be achieved with regard to time horizons such as 2005, 2010, and 2020. (FCCC/CP/1995/7/Add.1, Decision 1/CP.1)

This analysis must be carefully thought out in order to best capitalize on the on-going work of the other subsidiary bodies. They have the requisite technical competency and much of their presently planned work is directly relevant to the analytical needs of the AGBM. It is vital that these efforts be coordinated, as duplication of work would be wasteful and counterproductive.

The German paper argues that analysis and assessment should not be a preliminary step towards negotiations, but rather a simultaneous and complimentary exercise parallel to the negotiating process. The Icelandic and Swiss submissions both clearly support this line of reasoning. (FCCC/AGBM/1995/Misc.1/Add.1, Paper No. 5 and No. 10). As the German paper recalls, the Berlin Mandate does not even mention an analysis and assessment "phase" or "stage", much less establish one separate from the negotiating process. Time is short and the process will need to consider a great deal of information, but there is no need to create a process to generate that information. The German paper thus points to the "plethora of existing scientific, technical social and economic information" from intergovernmental organizations and institutions of national governments. In addition, the work of the subsidiary
The purpose of the analysis and assessment is to identify policies and measures for Annex I parties, and therefore is restricted to the consideration of the strengthening of the commitments contained in articles 4.2 (a) and (b) of the Convention. The Berlin Mandate does not contemplate a similar type of analysis regarding the strengthening of the implementation of existing commitments of non-Annex I parties. An attempt to push for such an analysis, at this stage of the process, could enflame North-South tensions and would be counterproductive to the smooth functioning of the negotiations.

As to the content of the analytical phase, there is a great deal of relevant information currently available. The Climate Change Convention has a sophisticated reporting and review process, including in-depth country studies and reviews. The proposed programme of work for the SBSTA would have it consider technical aspects related to the assessment of the effectiveness of policies and measures taken by Parties and identify those measures on which information should be exchanged among Parties. The SBI has the specific mandate of reviewing the national communications in order to assess the aggregate effect of measures being implemented by the Parties and is undertaking the task of assessing the effectiveness and implications of those policies. This will be an on-going process. The secretariat has developed a database cataloging over 700 national policies, described in the various national communications. In addition, the SBSTA is considering the establishment of intergovernmental technical panels, covering technologies and methodologies. These bodies too should be utilized to further the work of the AGBM. In parallel to these panels, the SBI is likely to conduct policy workshops with governmental and nongovernmental participants, which could further the work of the AGBM by examining sector-specific issues. What the AGBM should do, in the context of the analytical phase, is look beyond the year 2000 and be the forum to review new national projections of emissions trajectories by Annex I Parties over time horizons such as 2005, 2010, and 2020.

The national communications provided an opportunity for reporting countries to identify and elaborate specific policies which they are finding particularly effective and which may prove replicable in other countries. A review of these communications, however, does not demonstrate that countries have used that opportunity. It is therefore important to develop a sort of checklist of policies and measures, and, in a subsequent round, have each country describe their experiences with these measures or explain why they have not been implemented. The goal of this process would be to provide a mechanism to overcome bureaucratic and institutional barriers to the consideration of a variety of proven measures.

The purpose of the analytical phase is to identify policies and measures to limit or reduce greenhouse gas emissions. What is important to keep in mind, therefore, is not only the impact of specific measures on national emissions, but also the aggregated, synergistic effect of national and international policies and measures on greenhouse gas emissions. The effect on greenhouse gas emissions should be central to the debate. In order to fulfill its task on time, the AGBM must ensure that it sticks to the issues within its mandate and within its competency, that it efficiently utilizes the full array of Convention machinery, and that the analytical phase does not undertake to analyze what is
methodologically impossible from a scientific, technical and economic perspective.

**Conclusion**

The Berlin Mandate provides for developed country/other country Parties included in Annex I to elaborate policies and measures as well as set quantified limitation and reduction objectives within specified time-frames. It also states that no new commitments will be introduced for Parties not included in Annex I, but that the existing commitments in Article 4.1 should be reaffirmed and that these commitments must be implemented in order to achieve sustainable development.

Under the auspices of the OECD/IEA Joint Project on National Communications an effort is currently underway to prepare “Policies and Measures for Common Action” for Annex I countries. This effort has important implications for the success of AGBM exercise as a whole and therefore should not be seen as confined to only Annex I countries. This is particularly true in so far as there are impacts of these policies and measures on non-Annex I countries. The AGBM should be in a position to provide some guidance to Annex I Parties with a view to converge the efforts in these two bodies in order to produce a mutually satisfactory outcome. Clearly the subject of quantified limitation and reduction objectives will be discussed within the AGBM process. It is important to devise a mechanism whereby the results of any agreed reduction objective are verifiable in reasonably short time frames.

“Continue to advance the implementation” of existing commitments in Article 4.1 found its place in the Berlin Mandate after an extremely intensive and exhausting negotiation, and only after a categorical statement: “not introduce any new commitments for Parties not included in Annex I”. Within the protocol negotiations, non-Annex I Parties have an opportunity to further their interests in seeking clarification and support for the preparation of their national communications, technology transfer and replenishment of the financial mechanism.

The next session of AGBM is clearly the place where the AGBM structure will obtain a formal shape. All energies should be devoted to moving forward from the Berlin Mandate. The task is hard enough without revisiting the positions prior to the adoption of the Berlin Mandate.
National Patterns of CO₂ Emissions: Implications for Stabilization

William R. Moomaw and D. Mark Tullis

Introduction

A number of industrial nations have agreed to stabilize carbon dioxide emissions at 1990 levels by the year 2000 under the Framework Convention on Climate Change (FCCC). An analysis carried out by the FCCC secretariat reveals that few countries are likely to succeed in achieving that goal. This has created a widespread feeling that stabilization is a remote prospect, and that CO₂ reductions are considerably harder than many thought.

We propose to demonstrate that contrary to popular belief, there have been major changes in the patterns of carbon dioxide releases in industrial countries even without any explicit emission curbing policies to date. These changes have, however, occurred abruptly rather than gradually and have persisted even as world energy prices have remained relatively low. We show with the help of data that slower carbon emission rates and lower carbon intensities are often correlated with increases in per capita GDP. Furthermore, the 1990's carbon emissions from the industrial sector of industrial countries is generally, at or below peak levels of the 1970's.

We have examined global annual CO₂ emissions over the past several decades. Figure 1 shows the trends from 1950 through 1993 (est.) which has been compiled from the Oak Ridge, OECD and BP data sets with estimates from the Worldwatch Institute (Worldwatch, 1995). After increasing by 52.7% per decade from the 1950's to the 1960's and by 50.9% from the 1960's to the 1970's, world CO₂ emission levels increased by only 17.8% from the 1970's to the 1980's, and at a rate of only 13.4% in the first half of the 1990's. This slowing growth pattern is due to the very different behavior of three types of economies. Industrial nation emissions have remained relatively constant over the past 25 years, and the increases from the developing (newly industrializing) countries have been largely offset by the declines from the reindustrializing countries of eastern and central Europe since 1980.

Examining assumptions in the current debate

Although the details of the argument differ slightly for industrial and developing countries, the implicit belief is that economic growth is inexorably tied to increasing carbon dioxide emissions. Industrial countries are fearful that any change in the pattern of intensive fossil fuel use that is so central to their economies will destroy their comfortable life styles. There is also a concern that any reductions in CO₂ that the industrial countries might make will be overwhelmed by rapid increases from the developing world. Developing countries on the other hand argue that CO₂ emissions are essential to their own development, and that industrial countries account for the bulk of current additions to the atmosphere.

These views are bolstered by analyses such as those presented by the World Bank in its 1992 report, Development and the Environment (World Bank, 1992). Shafik and Bandyopadhyay conducted a traditional correlation between per capita GDP and several pollutants including CO₂. Water pollution was shown to decrease monotonically with increasing income, air pollution increased with increasing income to a certain income level and then decreased with wealth, but municipal solid waste and fossil fuel carbon dioxide emissions were found to simply increase monotonically with increasing wealth. In figure 2, we show the correlation between per capita CO₂ emissions and per capita GDP for the year 1990. The nations represented on this diagram accounted for just over 80% of the world's fossil fuel CO₂ in that year. They include the United States, the 15 nations that now comprise the European Union (less

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1 William R. Moomaw is Professor of International Environmental Policy at the Fletcher School of Law and Diplomacy and Co-Director of the Global Development And Environment Institute and is lead author for the "Mitigation Impacts on Industry" for the 1996 IPC Report. D. Mark Tullis is Director of the Black Emerald Group and a former Analyst at the Global Development And Environment Institute.
East Germany), Japan, the former Soviet Union, China and India (OECD, 1994, Summers and Heston, 1994). This conventional econometric approach does suggest that carbon emissions increase with increasing per capita GDP.

In Figure 3, we utilize the same format, but now plot the relationship between total CO₂ and per capita GDP for each country or group of countries (EU and former USSR) over time. By connecting the points for each country, a development path is traced out that shows the level of fossil fuel carbon emissions and how they evolved as per capita GDP changed. We refer to these country curves as development paths because they show what was happening simultaneously to per capita wealth and an environmental indicator (CO₂) over time. It is important to note that the trajectories of each country are somewhat unique and contrary to the expectations generated by the approach used in Figure 1, some countries undergo a carbon transition at which their CO₂ emissions begin to decrease as their per capita GDP grows.

The market based industrial countries, USA, EU and Japan all show a sharp break in the upward trajectory of total CO₂. In the case of the EU, total emissions remain below their peak value of 1979. Japan shifted from a trajectory of rapidly rising CO₂ emissions, to a slow growth of about one percent per year. The US economy has a much more complex behavior, but by the mid-1970’s is clearly on a more gradual trajectory of increasing CO₂ than it was previously. In fact, it is only in the past few years, that emissions have exceeded the peak levels achieved in 1980. In all three cases, early 1990’s per capita CO₂ emissions are at or below 1973 levels. The carbon emissions from the industrial sectors, shown in the lower panel of Figure 3 show an even more dramatic drop and stabilization over the past decade. It appears that industrial economies have found opportunities to switch to lower carbon fuels, improve efficiency and restructure their economies.

It is not surprising that market economies should have reacted to the oil price shocks in 1973 and again in 1979 with improved efficiency of fossil fuel use, but what is less obvious is the continued decline in emissions even as energy prices returned in real terms to pre-embargo prices.

The pattern of the former Soviet Union is also seen in other formerly centrally planned economies which ignore market signals. Then when economic restructuring began to take place, industrial production slowed, heavy industry was eliminated and carbon emissions fell, as did growth in per capita GDP. What is interesting to note is that carbon emissions from the industrial sector began to level off a decade before the abandonment of central planning in the economy.

The two developing economies shown here both represent newly industrializing countries. They differ, however, in that China shows a slowing in the growth of CO₂ as wealth increases, while India does not. The shift in Chinese manufacturing to lighter industry, and the improvement in efficiency of electric power production has begun to be visible.

In Figure 4 is plotted the change in carbon intensity, which is defined as the tons of carbon released from fossil fuels per dollar of GDP produced, as a function of per capita GDP. Carbon intensity is a function of the efficiency of a society’s technology and the structure of the economy with respect to services and the industrial production of goods, the extent of petroleum powered transportation and the amount and choice of fossil fuel driven electrical power production. It is noteworthy that for all of the economies examined here, except India, carbon intensity is seen to decline as per capita wealth increases.

During the past several decades carbon intensity has been the major factor in holding down the growth of carbon emissions in industrial countries. In the U.S. for example, it was only 51% as great in 1990 as it was in 1950, which means that had population and GDP per capita remained at 1950 levels, carbon dioxide emissions would have been only half as great in 1990 as they were in 1950. Similar trends are noted for other industrial nations with declines in carbon intensity of 40 to 70% being typical.

Conclusions

These findings suggest that it is necessary to reexamine the role of industry and industrialization in the production of CO₂ and other greenhouse gases. More explicitly,

- economic growth is not inexorably tied to increases in CO₂ emissions,
- carbon transitions to lower emission growth rates
can be quite abrupt and need not require many decades,
- industrial sectors can adapt more readily than does the economy as a whole,
- the slowing of CO₂ emission rates has been achieved without specific carbon stabilization policies in place,
- focusing on emissions for the years 1990 and 2000 fails to recognize the actual longer term trends.

The traditional correlation between wealth and CO₂ emissions is based upon a comparison among many countries at the same moment in time. This approach fails to recognize the differences in the development trajectories of countries through time, and mistakenly implies that CO₂ emissions can only increase with wealth. The actual trajectories of most market industrial economies show a significant slowing or an actual decrease in carbon emissions while GDP has continued to grow. The flattening of carbon emissions has been particularly striking in the industrial sectors of these economies.

The abruptness of the carbon transition reflects the short term efficiency gains that could have been achieved, but were not even considered before the oil price shocks. The factors that have continued to slow emissions over the long term are related to the implementation of more efficient processes, a shift towards lower carbon fuels such as natural gas, and the introduction of new technology as a part of the natural turnover in capital stock. For example, the Japanese steel industry has demonstrated a 20 per cent improvement in energy efficiency between 1973 and 1990 (International Iron and Steel Inst. 1993, MITI, 1994). There is certainly room for improvement in other countries as well, the US uses one-quarter more energy to produce a ton of steel than does Japan, the former Soviet Union half again as much, and China and India require more than twice as much energy per ton.

Substantial reductions in energy use for metals have come from the increased use of scrap instead of primary production. More than 40% of the drop in the per ton energy use for aluminum production in the U.S. arose from the substitution of recycled material. The Japanese petrochemical industry reports a decrease of 47 per cent in energy per ton of product from 1976 to 1988, but little change during the next four years (MITI, 1994). The U.S. chemical industry has reduced its energy/unit of output by 21.8% between 1974 and 1992 (Chemical Manufacturers Association, 1994). The paper industry has developed efficient cogeneration systems to produce needed steam, hot water and electricity by burning waste liquors, bark and other wood waste. The U.S. paper industry now satisfies 56 per cent of its energy needs by using biofuels in this way (US Forest and Paper Association, 1993). Japan has significantly improved the energy efficiency of its pulp and paper industry by 26 per cent between 1980 and 1992 (MITI, 1994). Similar efficiency gains for major industrial groups have been made in Europe. Process related greenhouse gases such as CO₂ from coke in steel making, graphite electrodes from aluminum production, the use of methane in ammonia production could be virtually eliminated by changing the process itself.

What these data reveal is a striking pattern of efficiency gains in the industrial sectors of most industrial market economies which have lead to a substantial reduction in carbon dioxide emissions between 1973 and the present time. The carbon intensity of all countries studied here, with the exception of India, has declined significantly during the past two decades. These reductions in carbon dioxide have taken place in the absence of any policies specifically designed to lower carbon emissions. To the contrary, Europe and North America have initiated policies that have encouraged a greater use of coal in electric power production even as they have introduced low carbon nuclear facilities. Furthermore, it is increases in oil use by the transportation sector that largely off-sets the gains that have been made by industrial production.

This suggests that explicit policies and market forces could readily be harnessed to bring down carbon emissions still further. Future improvements in technology will produce additional gains, but the options are not technologically limited. Finding ways to introduce these efficient technologies and processes into developing countries and the restructuring Eastern European countries could greatly accelerate the time of their carbon transitions as well.

Finally, the focus on stabilizing emissions at 1990 levels by the year 2000 has obscured a vision of the longer term trends. It is a matter of concern that trends of carbon emissions appear to be rising again in the 1990's for many industrial economies. But as this analysis demonstrates, there are forces that have slowed emissions in the past that could be utilized to slow them in the future. The fact that the industrial sector has lead the way in slowing carbon emissions even as the per
capita GDP of economies has grown, should encourage both industrial and developing countries to explore policy options that will continue this trend. Perhaps a more flexible stabilization or even a reduction goal that is based upon longer term trends, rather than a single year, might be developed for emissions after the year 2000. In any case, there is no need for either industrial or developing countries to fear that their economies will inevitably suffer if they curb their industrial carbon emissions. In fact, the recent historical record shows that lower carbon emissions are more likely to be associated with greater economic growth. Rather than focus on stabilizing emissions for a single year, the challenge is to develop policies that will encourage the choice of low carbon technologies during the course of capital stock introduction and turnover during the next two decades. This strategy is critical for both industrial and developing countries.

### References


Figure 1

CO\textsubscript{2} EMISSION BY REGION, 1950-1993

Source: Worldwatch Institute, 1995
PER CAPITA CO₂ & GDP, 1990
USA, EU, USSR, Japan, China, India

Source of Data: OECD, PWT5.5
Figure 3

CO₂/GDP DEVELOPMENT PLANE, 1960-1992
USA, EU, USSR, Japan, China, India

TOTAL CO₂ EMISSIONS

INDUSTRIAL CO₂ EMISSIONS

Per Capita GDP (US$ 1985, PPP)

Source: OECD, PWT5.5
CARBON INTENSITY, 1960-1992
USA, EU, Japan, USSR, China, India

Source of Data: OECD, PWT5.5
Carrying Forward the Berlin Mandate: Protocol Negotiations and Activities Implemented Jointly

by Jacob Werksman and Farhana Yamin

Introduction

This paper explores issues raised by two of the main decisions taken at the first Conference of the Parties (COP 1) to the Framework Convention on Climate Change in relation to the adequacy of commitments and joint implementation.

The discussion is structured to respond to three main questions:

1. What are the basic implications of the Berlin Mandate?
2. What did COP 1 decide about joint implementation (JI) and activities implemented jointly (AIJ)?
3. What is the relationship between the AIJ Decision and additional commitments to be negotiated through the Berlin Mandate process?

In the process, progressive elements achieved a profound shift in Convention politics that justifies a greater optimism for the Convention's future than at anytime since negotiations began. Berlin's significant achievement was to prove that a number of basic negotiating stances, held by countries whose economies are particularly dependent on fossil fuel production, use and exportation, were simply untenable.

Traditional alliances fractured, forming new partnerships based on concrete and specific principles. The formation of a "green group" of developing countries was made possible by significant and related initiatives within the Group of 77, by the Alliance of Small Island States (AOSIS) and by India. The green group coalesced around the AOSIS protocol, the only proposal formally submitted to the Parties in Berlin, which was drafted to reflect what was felt to be the most politically feasible and environmentally progressive approach to strengthening the Convention. It maintains the Convention’s focus on Annex I Parties’ commitments, while enabling and encouraging developing countries to participate in the design of these commitments in such a way as to protect their legitimate interests and ensure their continued involvement in the Convention’s future development.

The adoption of the Berlin Mandate was made possible by a convergence of views between the green group and the European Union (EU) that helped to isolate first the oil producing developing states, and then the informal grouping of “JUSCANZ” (Japan, the United States, Canada, and New Zealand). Despite extremely difficult bargaining between and among these groups, the Berlin Mandate retains a balance of pragmatism and principle that had its source in the AOSIS pro-

1 Jacob Werksman and Farhana Yamin are Co-Directors, Climate Change and Energy Programme, at FIELD - Foundation for International Environmental Law and Development.
2 1/CP/1, The Berlin Mandate.
3 S/CP/1, Activities Implemented Jointly under the Pilot Phase.
tocol and was carried forward by the green group on the basis of the Indian endorsement. As a result, the text of the Mandate unhooks snags that could have continued to slow the development of new commitments.

1.2 Issues resolved

Specifically, the Berlin Mandate resolves the following issues that had beleaguered the negotiations in the final sessions of the Intergovernmental Negotiating Committee (INC). The Parties have now agreed that:

- Annex I Parties' current commitments are not adequate.

- new commitments for Annex I Parties need not await:
  - the implementation of their current commitments,
  - agreement on new commitments for non-Annex I Parties, or
  - the acceptance of a system of joint implementation, for credit, with non-Annex I Parties

- negotiations will aim toward the adoption of a protocol or other legal instrument in time for adoption by COP 3

- new commitments for Annex I Parties will be based on a combination of coordinated policies and measures, and quantified limitation and reduction targets and timetables.

Finally, by acknowledging an urgent need for additional commitments, Annex I Parties have implicitly agreed to accelerate efforts to implement their current commitment to stabilise CO₂ emissions at 1990 levels by the year 2000.

Thus, despite the deeply divided positions Parties held prior to Berlin, the Mandate represents a consensus understanding of the very fundamental principles upon which next steps will be based, and focuses the next stage of negotiations on the strengthening of Annex I Party commitments. The Mandate does not, however, provide specific indication of what the next steps should be. There is every reason to believe that gaps and ambiguities in the Mandate's text will be used by progressive and regressive elements as footholds for directing the next stage of negotiations.

1.3 Issues Remaining:

1.3.1 Strengthening Annex I Parties' commitments

The core objective of the Berlin Mandate process is to strengthen Annex I Parties' commitments. While negotiators could not reasonably have committed themselves to adopting an instrument of a particular form and character before having agreed upon its content, the Mandate points to a strengthening of both the qualitative and the quantitative character of new commitments.

1.3.2 Qualitative strengthening: legally binding commitments

Annex I Parties' commitments are currently embodied in the text Article 4.2 (a) and (b) of the Convention, a legally binding agreement. However, the famously opaque drafting of this article has led a number of Annex I Parties to interpret the aim of returning emissions of CO₂ to their 1990 levels as not creating a legally binding target. In light of the now universally acknowledged inadequacy of Article 4.2 (a) and (b), a qualitative strengthening of Annex I Parties' commitments would be consistent with the adoption of a legally binding instrument containing legally binding commitments.

The text of the Mandate does not specify that it will result in a legally binding agreement, but it does restrict the method of strengthening Annex I Party commitments to the adoption of a protocol or "another legal instrument". The choice of the term "legal" as opposed to "legally binding" leaves room for concern that certain negotiators may seek to evade concrete commitments, by concluding the negotiations through soft words or soft instruments enacted through legal processes.

The Convention allows for the adoption of three types of legal instruments: protocols, amendments, and decisions of the Conference of the Parties. Amendments to the Convention would legally bind those Parties that accepted them, but have not been favoured by most negotiators. Decisions of the COP aimed at strengthen-
ing commitments, though based in law, could not have the same legally binding effect as a protocol or amendment.

For these reasons, the mandate specifically mentions a protocol as an appropriate means for strengthening commitments, and calls for the AOSIS text, and, by inference, the German text based on the AOSIS protocol, to be included for consideration in the process. However, while a protocol would be a legally binding agreement, muddled or softly worded language within it (such as the present text of Article 4.2 (a) and (b)) could undermine the legal character of specific commitments within that text.

1.3.3 Quantitative strengthening

With regard to the quantitative nature of Annex I Parties’ commitments, Article 4.2 (a) and (b) may be strengthened with regard to specific baselines, targets and timetables established for Annex I Parties. Current commitments have been inferred to require all developed Parties to stabilise their emissions of CO2 at 1990 levels by 2000. As a basic starting point the quantitative aspects of these commitments could be strengthened by clarifying the language in which they are expressed. Adopting text of an inherently ambiguous nature, and the continued confusion that has existed since the Convention was adopted, should be avoided.

With regard to baselines, nothing in the Berlin Mandate suggests that the baseline year from which progress is measured should be changed from the year 1990 set in the Convention. Common sense dictates that all Parties measure relative progress from the same starting point. While the Mandate and the Convention itself note the need to take into account “differences in starting points”, this refers to the setting of targets and timetables, and not to the setting of baselines.

With regard to targets, or “quantified limitation and reduction objectives”, the Mandate directs negotiators to agree on commitments that move beyond the stabilisation aim of the Convention and begin to limit growth rates, cap and reduce their long term greenhouse gas emissions. With regard to timetables, or “time-frames”, negotiators are directed to set deadlines for the period extending beyond 2000, thus strengthening a major weakness in the Convention, which did not regulate Parties’ emissions beyond the end of the present decade. Negotiating targets into the longer term could encourage the long term commitment and plan-

ning necessary for the type of profound structural change that the Convention’s Objective requires.

Thus far only two sets of targets and timetables have been formally proposed to the negotiators. The first is the AOSIS target of 20% reductions of emissions of CO2 from 1990 levels by 2005, which has now been endorsed by the wider membership of the green group. The second is the target proposed by the United Kingdom, to reduce a basket of greenhouse gases by 5-10% by 2010. While either would result in a strengthening of current commitments, the AOSIS target, through the precision of its language and its relevance to the Convention’s Objective, is both qualitatively and quantitatively stronger.

1.4 Differentiation and Comprehensiveness

The Berlin Mandate leaves unresolved the extent to which a strengthening of Annex I Parties’ commitments under Article 4.2 (a) and (b) can, at the same time, accommodate a greater level of flexibility, with regard to a differentiation between Annex I Parties’ commitments (“burden sharing”), and with regard to the comprehensive regulation of more than one greenhouse gas (the “basket of gases” approach).

While flexibility can lend strength, it also risks the evasion of responsibility. The degree to which Annex I Parties are allowed to share new burdens through differentiated commitments must be measured by the overall results such commitments promise to achieve. In order for the negotiators to fulfil the Berlin Mandate, the overall impact on developed country emissions through shared commitments must be greater than the overall impact of developed countries’ current commitments. In other words, the combined effect of any Annex I Party burden sharing arrangement would, at the very minimum, have to achieve an overall reduction of combined Annex I CO2 emissions from their 1990 levels.

The Berlin Mandate echoes the Convention in calling for the comprehensive coverage of all greenhouse gases not controlled by the Montreal Protocol. One of the recognised strengths of Article 4.2 (a) and (b) is its focus on CO2, the most important and best understood of the anthropogenic greenhouse gases. Reducing emissions of CO2 alone, over the long term, will not achieve the Convention’s Objective, and a strengthened protocol regime should move to adding a comprehensive range of gases. However, adopting a target based on combined Global Warming Potential
1.5 Elaboration of Policies and Measures

By calling for the elaboration of policies and measures as part of the process, the Berlin Mandate recognizes a significant void in the Convention which fails to specify or coordinate the ways in which Annex I Parties could or should achieve their targets. Comprehensive discussions of policies and measures will allow Parties pressing for higher levels of commitment to demonstrate how such targets can be reached, and encourage those Parties that have, in the past, resisted the prospect of increased commitments on the grounds that they are not feasible. The early stages of the Mandate process will include an analysis and assessment of the policies and measures Annex I Parties could undertake in meeting new commitments. The EU, the Swiss and others have, in their submissions to the INC and the COP, provided menus of policies and measures that negotiators could usefully explore.

1.6 Reaffirming and advancing developing country commitments

The Berlin Mandate states clearly that the process will “not introduce any new commitments for Parties not included in Annex I.” Instead, existing commitments are to be reaffirmed and their implementation advanced. Those seeking a greater contribution from developing countries in the implementation of the Convention will note the broad range of general commitments, applicable to all Parties in Article 4.1, including the commitment to implement... national and, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change.[5]

This commitment is significantly qualified in both the Convention and the Mandate by reference to the obligations in Article 4.3, 4.5 and 4.7, of Annex II to Parties, to provide new and additional financial resources and transfer technology to meet the agreed full and agreed full incremental costs incurred by developing countries in complying with their commitments.

Thus, the reaffirmation and advancement of developing country commitments will continue to depend on effective operation of the Convention’s financial mechanism by the Global Environmental Facility (GEF). During the scheduled course of the Berlin Mandate negotiations the GEF Council will be developing its operational strategy for climate change and its policy for incremental costs, and will have launched negotiations for its replenishment. These negotiations will be central to determining which developing country activities are advanced, as a priority, and the scope of resources that will be available overall.

The Mandate negotiations, as they begin to discuss the environmental and economic impact of emissions trends beyond 2000, will necessarily touch upon the contributions of developing country emissions. While it is beyond the remit of the Mandate group to establish new commitments for developing countries, Parties may wish to set goals for the GEF operational strategy and its replenishment process based on the recognized need for a “global effort” to meet the Convention’s long term Objective.

2 Activities Implemented Jointly

2.1 Background

The first COP was required by Article 4.2 (d) to “take decisions regarding criteria for joint implementation” as indicated in Article 4.2 (a), which provides that Annex I Parties “may implement such policies and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the Objective of the Convention and, in particular, that of this subparagraph.” Discussions during the Intergovernmental Negotiating Committee (INC) negotiations at INC 8, 9, 10 and 11 had ended inconclusively with no consensus about the nature and role of JI[6] in the FCCC.

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[6] In this paper the term JI is used to denote action to reduce or sequester greenhouse gases in the territory of one country with the joint collaboration by two or more countries where it is possible to receive credits or offsets by one or more countries.
At Berlin, COP 1 decided to “establish a pilot phase for activities implemented jointly among Annex I Parties and, on a voluntary basis, with non-Annex I Parties that so request.” This decision means that COP 1 did not adopt a decision on JI but on “activities implemented jointly” (AIJ). The deliberate difference in wording between JI and AIJ reflects a basic lack of international agreement about the essence of JI on two key issues which had given rise to controversy at previous INCs:

- availability of credits
- developing country participation

2.2 Credits

“AIJ” is broad enough to encompass a diversity of views about JI ranging from those regarding credits or offsets as a central feature of JI, to views stressing the need for greater international and bilateral cooperation and assistance. By using the term AIJ, COP 1 managed to achieve a consensus decision without favouring either of these views at this stage.

COP 1 did decide, however, that “no credits shall accrue to any Party as a result of greenhouse gas emissions reduced or sequestered during the pilot phase from activities implemented jointly.” This represents a significant disappointment for a number of developed country Parties which had argued that credits should be available in the pilot phase to provide an incentive for JI projects.

COP 1’s AIJ decision does not provide this incentive, but neither does it prejudice the question of whether credits will eventually be available post pilot phase. It should be noted that the wording restricts the use of credits in two respects:

- first, by stating that AIJ as between Annex I and non-Annex I Parties may not count towards the fulfilment of Annex I Parties’ current specific commitments under Article 4.2 (b); and
- second, by precluding the use of retrospective credits.

At COP 1 a number of Parties had wanted to leave open the possibility that credits could be used to fulfil the “soft stabilization target” found in Article 4.2 (a) and (b). COP 1’s decision precludes this possibility. They had also wanted the possibility for retrospective credits left completely open. COP 1’s decision provides that credits will not be available for the actual emissions reduced or sequestered during the pilot phase. On the basis of the COP’s decisions, AIJ projects begun in the pilot phase will only generate credits in the post pilot phase period, and this only if the COP decides to endorse the concept of credits.

2.3 Developing Country Participation

Another controversial issue surrounding JI had been the extent to which the FCCC envisaged or sanctioned developing country participation in JI. INC discussions had failed to reconcile divergent views ranging from those stating that JI is applicable only between developed country Parties listed in Annex I, to views stating that JI is (or should be) open to developing country Parties, as well.

The AIJ concept is broad enough to allow both of these scenarios to be tested. The skilful introduction of the AIJ concept into the negotiating process by the Indian delegate was critical for generating consensus as it allows all Parties, developed and developing, to participate in the AIJ pilot phase. To stress that the pilot phase will not entail new commitments for non-Annex I Parties, the AIJ decision clarifies that developing countries will participate on a voluntary basis at their own request.

2.4 The Practical Significance of the AIJ Pilot Phase

The COP’s decision will have a number of important consequences for the development of JI. Perhaps the most important aspect is that the COP has affirmed its “institutional competence” to take decisions on JI and AIJ. This is important as during INC negotiations a number of countries had appeared close to suggesting that JI, especially granting credits, was a bilateral matter for parties to JI projects and it was up to each Party to decide if and how to count credits towards the fulfilment of its obligations. The AIJ decision firmly
establishes that these matters are subject to the COP's authority. This will have important institutional and procedural consequences for the future direction and shape of AIJ projects.

In practical terms, COP 1's decision means that JI beyond the pilot phase has neither been rejected nor positively endorsed. JI must prove its worth as a useful mechanism for implementing the Convention. The establishment of a pilot phase indicates that Parties genuinely need to assess and understand international experience of its operation before any conclusive decisions can be made by the COP about the future role of JI in the FCCC, either by endorsing the concept or rejecting it.

2.5 Reaching an Agreement on JI

The timing of the pilot phase was negotiated extensively at COP 1. Advocates of JI had wanted as short a pilot phase as possible. COP 1's decision provides that the progress of the pilot phase be reviewed annually by the COP, and more comprehensively by "not later than the end of the present decade" to take "a conclusive decision on the pilot phase and the progression beyond that." This wording does not exclude the possibility that the COP could, through an annual review, or the comprehensive review, end the pilot phase before 2000.

3 The Relationship Between Additional Commitments and JI

3.1 Background

There are three important points to note about the Mandate process and the future role of JI:

- there is no mention of JI or AIJ in the Berlin Mandate;

- the timetable for ending the Mandate process and AIJ pilot phase do not coincide; and

- the Mandate's assessment and analysis phase does not contemplate assessment of JI or AIJ, but instead focuses on policies and measures for Annex I Parties.

A number of countries had wanted to see the JI pilot phase take place in time for early JI results to feed into the adequacy review process. Others wished to conduct the pilot phase in parallel with the negotiation of a protocol. Neither of these proposals is reflected in the AIJ or Berlin Mandate decisions. The following discussion focuses on the implications of negotiations on additional commitments on the potential development of JI beyond the pilot phase.

3.2 Additional Targets and Timetables

The unsynchronized timing of the conclusion of the Mandate process (1997) and the deadline for the AIJ pilot phase (2000) appears to preclude a direct linkage between strengthened commitments and JI. Nevertheless, a number of Annex I Parties have sought to link JI with the elaboration of further quantitative commitments, and the size and speed of the reductions industrialized countries are willing to commit to at COP 3 and beyond will likely be influenced by parallel discussions about JI.

The Netherlands has proposed a number of options, including partial crediting, a clearing house concept and "dual commitments" to suggest that JI could meet at least part of further emission reductions beyond the current stabilization target. Likewise, Germany's submission on JI to INC 8 sums up the rationale for this kind of inter-linkage by stating that

[t]he flexibility inherent to Joint Implementation may make it easier for contracting parties to commit themselves to far-reaching reduction obligations, the more so as cost savings can also be expected. Thereby quicker stabilisation of the greenhouse gas concentrations and thus the goal of the Convention could be promoted.

As was discussed in section 1.4, the Mandate process, as it seeks ways for burden sharing amongst Annex I Parties, and considers longer term commitments extending beyond the expiration of the AIJ pilot phase, may have significant implications for future negotiations on JI.

3.3 Additional Policies and Measures

Much of the governmental debate about JI and additional commitments has focused on the use of credits to offset internationally agreed emissions reduction targets. Yet the policy-related JI literature suggests the
need for national policies and measures to provide an incentive for companies to invest in JI projects.

For example, Axel Michaelowa states “the Government of the country where the investor country is located must recognize the emission reductions achieved by the [JI] project and grant corresponding concessions related to national policy measures such as tax relief or the waiving of certain regulations. This is independent of the issue of whether or not it is possible to credit the reduction resulting from Joint Implementation to the internationally agreed national target.” Other technical and policy experts agree. Jyoti Parikh has suggested the market incentive “could be in terms of carbon tax in the North with a possibility of rebate for JI.” Similarly Pier Vellinga and Roebijn Heintz have written that “in order to encourage investments in JI projects, governments may conclude “covenants” or issue national “credits”, i.e. exemption on other measures or taxes.”

Although elaborating the detail of such incentives will primarily be a question of national concern and responsibility, such measures may need to be coordinated internationally by Annex I Parties if distortions of trade and competition are to be avoided. At a minimum, there would appear to be a need to share information about the effect of national incentives on industry’s interest in JI, to assist mutual learning between Parties.

4 Conclusions

It should be noted that the Berlin Mandate and its timetable for adoption speak with a strong sense of urgency. The legal instrument adopted in COP 3 must be negotiated in a little over a year. When determining the qualitative and the quantitative character of the strengthened commitments that emerge from the Berlin Mandate process, negotiators will bear in mind not only that current commitments are inadequate, but that Annex I Parties’ fulfilment of these commitments is inadequate. The majority of industrialised countries have been unable to find either the will or the way to meet even a stabilisation target.

The Mandate process must be viewed as a search for both the will, as expressed through legally binding commitments, and the way, developed through the discussion of policies and measures. While a degree of flexibility will be essential to the negotiation of strengthened commitments, Annex I Parties must ensure that their creativity in formulating both policy and language is aimed at concrete progress, and not at the continued protection of the status quo.

A number of issues emerge about the relationship of JI to the post-Berlin landscape and whether the concept is to prove a useful mechanism for the achievement of the Convention’s Objective. Further negotiations will have to take place to refine the concept of AIJ and differentiate it from JI. The establishment of the pilot phase will allow these discussions to proceed and also provide a reporting framework on the global benefits, difficulties and practical experience generated by a number of specific projects. COP 1’s decision provides that Parties are “encouraged to report” to the COP through the Secretariat using the reporting framework to be established by the Subsidiary Body for Scientific and Technological Advice in coordination with the Subsidiary Body for Implementation.

It is important that Parties direct their energies at ensuring that this framework is “transparent, well-defined and credible” as required by COP 1. Furthermore, given the controversial history of JI, it would not appear appropriate to re-open the text of the Berlin Mandate to introduce JI into negotiations in the Mandate process. Rather, the pilot phase should be used to provide a thorough understanding and assessment of JI and AIJ to ensure that the evaluation results in a consensus decision about how to use JI in the post 2000 phase.

Lists of Issues Identified by Parties

Note by the secretariat

1. At its first session, the Ad Hoc Group on the Berlin Mandate (AGBM) requested the secretariat to prepare for consideration at the second session "lists of issues identified by Parties, that would benefit from analysis and assessment" (FCCC/AGBM/1995/2, para. 19 (h) (iii)). These lists are found in the annex to this note. In preparing the lists, the secretariat has also attempted to capture issues encompassed by the "points of substance raised in the course of the discussion and in the course of the Chairman's consultations on the draft conclusions" (FCCC/AGBM/1995/2, para. 20).

2. The lists have been prepared on the basis of statements made at the first session and submissions received from Parties by 20 September 1995. As many issues were referred to by several delegations, often in slightly different ways, an attempt has been made to synthesize the issues, while seeking at the same time to conserve the breadth of detail reflected in the statements and submissions. Drawing on the text of the Berlin Mandate, the issues have been categorized according to the following headings:

I. Policies and measures;

II. Quantified emission limitation and reduction objectives within specified time-frames;

III. Continuing to advance the implementation of Article 4.1;

IV. Possible features of a protocol or other legal instrument.

3. Under each heading, a limited number of general issues has been identified. For many of these issues, it was also possible to provide sub-issues, examples or points of detail and explanation. In order to avoid duplication and overlap, issues have been placed under only one heading. However, alternative placements would also be possible.

4. In compiling the lists, the secretariat has attempted to be as comprehensive as possible. While some points may have inadvertently been overlooked, the lists are still somewhat lengthy and if any further review of the issues identified is to be considered some prioritization may be necessary. The order of the listings should not be interpreted as an indication of priority or importance.

5. While it is not proposed that this document be considered in depth at the second session, delegations may wish to use it as a tool to facilitate the discussions under the items of the provisional agenda which bear titles similar to the section headings in this document.
Annex

I. POLICIES AND MEASURES

1. How to identify policies and measures.

2. Analysis and assessment of environmental and economic impacts of proposed policies and measures, of proposed objectives (limited number of scenarios) and of no action:

   (a) For Annex I Parties;
   
   (b) For developing country Parties;
   
   (c) At global and national levels;
   
   (d) Implications of timing of actions including impacts of near-term versus long-term actions (in 5 to 10 year increments);
   
   (e) Use of economic models ("top down", "bottom up" and integrated assessment models);
   
   (f) Taking account of Article 4.8, 4.9 and 4.10;
   
   (g) Examples mentioned of impacts to be considered:
      
      • consequences for greenhouse gas emissions and climate change;
      • relationship of policies and measures to achievement of quantified objective within time-frame;
      • other environmental impacts;
      • economic and market aspects (costs and benefits);
      • technical and technological aspects (potential for development and diffusion);
      • social and financial aspects;
      • potential industrial shifts to non-participating countries;
      • effects on employment and investment cycle;
      • implications for trade;
      • institutional and legislative aspects;
      • resulting policy constraints (e.g., conditionality).

3. Nature of policies and measures to be focus of Berlin Mandate process (see appendix for more details):

   (a) Those requiring international agreement to be implemented;
   
   (b) Those benefiting from - or becoming more effective through - collective or coordinated action;
   
   (c) Those appearing to be successful or promising and having the potential to be successful and replicable.

4. Use of a common reference level of costs per tonne of CO₂ (or equivalent) avoided or removed as a basis for action.

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1 See appendix for more details on policies and measures.
2 This point is also relevant to quantified emission limitation and reduction objectives within specified time-frames (section II below) but is treated here in a consolidated manner to avoid duplication and overlap.
II. QUANTIFIED EMISSION LIMITATION AND REDUCTION OBJECTIVES WITHIN SPECIFIED TIME-FRAMES

1. How to set objectives and time-frames (e.g., criteria).

2. Existing actions and commitments:
   (a) To analyse implementation of existing commitments, including effects in the pre-2000 period;
   (b) To consider the effectiveness of current approaches and suggest ways in which future approaches can be made more credible and effective.

3. Projections of, or trends in, emissions and removals (including underlying assumptions):
   (a) At global, national and regional levels;
   (b) For Annex I Parties and non-Annex I Parties;
   (c) Regarding historical and cumulative emission trends;
   (d) Regarding trends in historic emissions indicators;
   (e) Of alternative indicators or benchmarks of progress, including individual quantitative indicators (e.g., vehicle miles traveled, energy intensity; see also point II.5(d) below).

4. Identification and analysis of a limited number of scenarios involving a combination of time horizons and quantified targets.

   Approaches or scenarios mentioned:
   (a) AOSIS protocol proposal (A/AC.237/L.23): 20 per cent reduction in CO₂ emissions by 2005;
   (b) German elements paper (A/AC.237/L.23/Add.1);³
   (c) Maintaining 1990 greenhouse gas levels indefinitely after 2000 for Annex I Parties;
   (d) Aiming to reduce greenhouse gas emissions by 5 to 10 per cent below 1990 levels by 2010 for Annex I Parties;
   (e) Others, including various time-frames to 2020.

5. Differentiation among Annex I Parties:⁴
   (a) Definition of differentiated responsibilities and accounting for different economic situations and national circumstances of Annex I Parties;

³Taking account of statement by Germany (See FCCC/AGBM/1995/MISC.1/Add.1) on consistency with decision 1/CP.1 on the Berlin Mandate.
⁴This issue could also be relevant to polices and measures (see section I above).
(b) How to reflect “the differences in starting points and approaches, economic structures and resources bases, the need to maintain strong and sustainable economic growth, available technologies and other individual circumstances ...” (Article 4.2 (a); Berlin Mandate, para. 2 (a));

(c) Use of regional protocols or other instruments encompassing groups of Parties on the basis of some agreed principle such as the level of economic development;

(d) Criteria for differentiation to gauge individual contribution of a given country to total emissions; for example:

- GDP per capita;
- anthropogenic emissions per capita and per unit of territory;
- amount of sinks and net emissions per capita and per unit of territory;
- levels of production and consumption of energy per capita;

(e) Role of Article 4.6.

6. Equitable burden sharing or collective targets to address the fair distribution of costs among Annex I Parties.

Possible collective objectives mentioned:

(a) Percentage reduction per year (e.g., 1-2 percent per year after 2000);

(b) Percentage reduction by a certain year;

(c) Cap on global emissions through action by Annex I Parties;

(d) Emission budgets for a certain period of time;

(e) Combination of collective absolute target with individual reductions applying to an emission trend rather than to a base year;

(f) Energy efficiency improvement objectives;

(g) Objectives regarding percentage of renewable energy.

III. CONTINUING TO ADVANCE THE IMPLEMENTATION OF ARTICLE 4.1

1. Identify activities undertaken by all Parties in fulfillment of obligations to advance the implementation of Article 4.1.

2. Role of financial and technological assistance.

3. Diffusion of technology and technology choices.

4. Role of country studies and national programmes.

5. Extent of participation with Annex I Parties in efforts to coordinate actions.

6. Implementation of policies and measures favourable to economic development.
IV. POSSIBLE FEATURES OF A PROTOCOL OR OTHER LEGAL INSTRUMENT

1. Comprehensiveness:
   - which gases;
   - gases individually or collectively;
   - removals by sinks.

2. Institutional arrangements.

3. Coordination mechanism and coordination of relevant economic and administrative instruments.
Appendix

Policies and measures: details

Categories of policies and measures mentioned:

(a) Internationally-oriented industrial processes or sectors, especially those which are energy-intensive (e.g., steel, aluminum, chemicals);

(b) International traded products (e.g., automobiles, appliances);

(c) Measures subject to competitiveness concerns;

(d) Sectors where decisions may have long-term adverse effects on climate change;

(e) Policies and measures with other environmental benefits.

Specific policies or measures mentioned:

(a) Energy efficiency standards and/or labelling for products (e.g., appliances);

(b) Fuel consumption standards and/or labelling for motor vehicles;

(c) Voluntary agreements;

(d) Economic, fiscal or market instruments and mechanisms:

  - carbon and/or energy taxes;
  - transport related taxes, including on aviation fuels;
  - restructuring of existing taxes and subsidies;
  - activities implemented jointly; and
  - emissions trading;

(e) Increased use of renewable energy;

(f) More efficient and safer means of conventional energy sources now in use (e.g., switching to lower emitting fuels such as clean coal and nuclear technologies);

(g) Methane recovery;

(h) Alternative chemicals;

(i) Auto, rail and air technologies;

(j) Regulation of perfluorocarbons (PFCs) and hydrofluorocarbons (HFCs).
Implementation of the Berlin Mandate

Comments from Parties
Note by the interim secretariat
Addendum

PAPER NO. 1: CHINA

(Unofficial Translation)
1995.9.4

Preliminary Comments by the Chinese Delegation on the Process of the Berlin Mandate

I.

The principles and the provisions of the Convention and the “Berlin Mandate” are the legal basis for the process of the Berlin Mandate; such a process should, therefore, unfold its activities within the scope as defined by the Mandate. The process of the Berlin Mandate was attributable to, and initiated by, the implementation of the provisions of Article 4.2 (d) of the Convention (FCCC). According to the conclusions of the review referred to in Article 4.2 (d), the existing commitments of Annex I Parties in Article 4.2 (a) and (b) of the Convention are inadequate and therefore need to be strengthened. In this connection, the Berlin Mandate has provided a precise and specific task for the AGBM, namely, to elaborate for Annex I Parties policies and measures and to set quantified limitation and reduction objectives within specified time-frames for their anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol. At the same time, the Berlin Mandate also clearly states that the AGBM will not introduce any new commitments for the developing country Parties though the existing commitments in Article 4.1 are to be reaffirmed and the implementation of which are to be advanced in the context of Article 4.3, 4.5 and 4.7 of the Convention.

II.

According to the Berlin Mandate, the process will include in its early stages an analysis and assessment to identify possible policies and measures for Annex I Parties which could contribute to limiting and reducing greenhouse gases emissions. In our view, it is essential to devote a period of time to analyzing and assessing the policies and measures which have been and will be adopted by Annex I Parties in this regard. This will be helpful to AGBM’s meaningful negotiations on new commitments for Annex I Parties. We stated repeatedly at INC meetings that the full implementation of the existing commitments by Annex I Parties is the first and essential step for the Convention process. In the national communications submitted by the Annex I Parties so far, we have not seen any detailed description of the effects of their policies and measures on reducing and limiting their greenhouse gases emissions. Hence it is very useful to conduct appropriate analysis and assessment of the effectiveness of the policies and measures adopted by Annex I Parties before the year 2000, while
identifying those possible policies, measures and objectives beyond the year 2000. This will not only promote the implementation of their existing commitments under the Convention, but also lay a good foundation for the identification of their further actions.

The Berlin Mandate has very clear provisions on “Analysis and Assessment”. The Analysis and Assessment will apply only to the policies and measures for Annex I Parties. Any attempt at going beyond the Berlin Mandate in this process is not only unacceptable to the developing countries, but is also inconsistent with the principle that there is “the need for all Parties to cooperate in good faith” as set out in Part I paragraph 1 (g) of the Berlin Mandate. As to the duration of the Analysis and Assessment, we are for a rather flexible approach. In our view, what is most important is that the Analysis and Assessment are helpful to elaborating new commitments for Annex I Parties and providing a good starting point for the formal negotiations so as to promote reaching an agreement as soon as possible.

Full and effective participation by all Parties to the Convention will guarantee the success of the Analysis and Assessment process, thus laying a good foundation for further negotiations. Regrettably, we have noted that the Special Voluntary Fund for financing the participation by the developing country Parties is becoming so scarce that it is unable to provide financial support to the majority of the developing country Parties for their participation in the AGBM process. To some extent this has severely hampered the full and effective participation by the developing country Parties. Therefore, we strongly appeal to Annex I Parties to the Convention and those international organizations in a position to do so, to make more contributions to the Special Voluntary Fund.

III.

The process of the Berlin Mandate will inevitably deal with rights and obligations of the Parties to the Convention. In this connection, only Parties to the Convention can be parties to this process. Legally speaking, only inputs or submissions from the Parties to the Convention can constitute basic documents for AGBM’s further negotiations. On the basis of these inputs and submissions from Parties, and in accordance with the relevant provisions of the Convention and the Berlin Mandate, full consultations by all Parties can lead to formulation of a draft composite document for the AGBM’s further work. As to the submissions or information provided by other sources, such as non-Parties to the Convention, relevant international organizations or NGOs, although undoubtedly useful to the process of the negotiations, these cannot be a component of the basic documents for negotiations, and can only serve as reference materials.

IV.

According to the provisions of the Berlin Mandate, the process of the Berlin Mandate will end up with a legally binding document, either a protocol or another legal instrument. Whatever its form and nomenclature, the nature and content of the legal instrument to be formulated are clearly stipulated in the Berlin Mandate. The Berlin Mandate emanated from the conclusion of the review of the adequacy of Article 4.2 (a) and (b) to the effect that the commitments in Article 4.2 (a) and (b) are inadequate. Thus, the core of the Berlin Mandate is to correct the “inadequacy” of Article 4.2 (a) and (b) by strengthening the commitments of Annex I Parties in Article 4.2 (a) and (b). The essence of the Berlin Mandate process is to strengthen the commitments of Article 4.2 (a) and (b), and this determines that the final outcome of the process should not be a comprehensive legal document, but a legal instrument to supplement or strengthen a specific area of the commitments contained in the Convention. Therefore, the implementation of the strengthened commitments can be carried out through the existing institutional arrangements of the Convention, and there is no need to duplicate or to establish any new mechanism for implementation in the envisaged legal instrument.
Mr. Chairman,

First of all, please allow me to pass on the best wishes of the German Environment Minister Dr. Angela Merkel for the successful work of this newly set-up ad hoc group of the Conference of the Parties and for cooperation based on good faith between all the delegations from governments, international organisations and institutions as well as the non-governmental organisations. Minister Merkel is well aware of the responsibility assumed by Germany in hosting the First Conference of the Parties in Berlin and of the responsibility she herself bears as President of the Conference. She will continue unstintingly in her efforts to ensure that this negotiating process leads to an ambitious protocol or other legal instrument on the further limitation and reduction of greenhouse gas emissions that the Contracting Parties will negotiate and adopt at the Third Conference of the Parties in 1997.

II.

Mr. Chairman, the German delegation is very happy to see you in the chair again. We have profited from your leadership qualities in the past and we are sure we will need them in the two years of negotiations ahead of us. The German delegation is looking forward to good and successful cooperation with you and your future bureau. We are also pleased to see in this ad hoc group so many familiar faces. The experience, esteem and trust that we have developed with and for each other will be essential in our future work. At the same time, I am sure that all our new colleagues will quickly become members of the international “climate family” and their fresh ideas and new concepts will ensure that the process stays innovative and creative.

III.

Germany fully supports the statement of the European Union as presented earlier by the Spanish delegation. Let me just stress some points:

At the First Conference of the Parties in Berlin, the Contracting Parties to the Framework Convention on Climate Change set up this subsidiary body and gave it a commission that is highly demanding from the point of view of substance and time, namely the Berlin Mandate. We all know how difficult the negotiations for this Mandate were. They were successful only because the necessary willingness for agreement on a balanced compromise was present on all sides. That is precisely the reason why we feel it is essential that we start the work in this group with the clear and unambiguous understanding: the Berlin Mandate with all its elements is the basis and commitment of our joint work. We must conduct our negotiations in the next two years according to the wording and in the spirit of this Mandate.

IV.

At this 1st meeting we are concerned with creating the organisational and structural conditions for targeted and success-oriented work. We thank the secretariat for document no. 1 which contains useful proposals, ideas and questions which we will return to individually in the course of this meeting. First of all let me develop a few basic considerations:

1. The climate protocol or other legal instrument should further implement and develop the
Framework Convention on Climate Change, particularly by means of strengthening commitments for the Annex I Parties above and beyond Article 4, paragraph 2 (a) and (b) of the Convention as well as continue to advance the implementation of the existing commitments of all Contracting Parties from Article 4, paragraph 1. The drawing up of such a new instrument should keep us focused on the short and long term perspectives: in the short term we have to determine the next step towards the limitation and reduction of greenhouse gas emissions for the period after 2000. In the long term we should create a suitable mechanism for many further steps towards continuous implementation and further development of the Framework Convention on Climate Change with the aim of achieving the ambitious ultimate objective of Article 2 of the Convention. The work programme of the AGBM must take appropriate account of both these aspects.

2. Our work programme must implement the elements of the Berlin Mandate. Our top priority is the strengthening of the commitments of the Annex I Parties by means of the combined setting of policies and measures as well as quantified limitation and reduction objectives within specified time-frames such as 2005, 2010 and 2020. Federal Chancellor Kohl stated this quite categorically in Berlin: In view of the high energy consumption and considerable emission of climate-damaging greenhouse gases in the industrialised nations, it is these countries which are called upon to take the first step. We must meet our special responsibility for protecting the global climate.

3. Policies and Measures: Together with our partners in the European Union we have always been committed to agreeing on coordinated policies and measures - that is to say policies and measures to be taken by all Annex I Parties. We feel that a purely optional menu would not justify the tremendous effort associated with the identification and negotiation of policies and measures for a legal instrument. The considerable time involved also requires that we start with a limited number of particularly promising priority areas. We feel that these are areas in which measures would only be taken, can only realistically be expected or only promise success if they are implemented jointly on an international level. A few examples of this are the taxing of aircraft fuel, efficiency standards and labelling for products such as cars as well as economic instruments.

4. Quantified limitation and reduction objectives

- According to the Berlin Mandate, objectives of this nature must be agreed as a second element alongside these policies and measures. Establishing desirable medium- and long-term objectives in emission reductions sets a clear framework for the development and implementation of national and regional programmes on precautionary action for climate protection and allow policy makers and other actors to optimize the range of available measures.

- The national target of the German government is well known. Federal Chancellor Kohl reaffirmed this in Berlin when he said that Germany remains committed to reducing the 1990 level of its CO₂ emissions by 25% by the year 2005. Moreover, as early as its first National Communications under the Framework Convention on Climate Change of September 1994, the Federal Government made it clear that it is aiming to reduce all climate-related emissions (including the gases not covered by the Framework Convention on Climate Change but controlled by the Montreal Protocol) - converted into CO₂ equivalents - by a factor of 50% by the year 2005 - in comparison to 1987. In comparison to the base year of 1990 this corresponds to a target reduction of some 40%.

The Federal Government is currently further developing its national reduction targets for the period beyond 2005. In view of our
ambitious national targets, it is natural that the German concepts for quantified limitation and reduction objectives for the Annex I Parties in a protocol or other legal instrument will also be quite ambitious.

- When setting out work programme with regard to quantified limitation and reduction objectives we must take many questions into account. Let me mention just a few:
  
  * How do we implement the comprehensive approach of the Framework Convention on Climate Change? An overall objective for greenhouse gases not controlled by the Montreal Protocol or by setting objectives for each individual gas? The German delegation’s preference for quantified objectives to be set for individual gases is well known. Obviously this is not possible for all gases at the same time. However, for a number of gases the existing data should be sufficient for objectives to be set by the time of the Third Conference of the Parties. In addition to CO2, these could initially be CH4, N2O, PFCs and HFCs.

  We feel that even an overall objective will only be able to relate to a specifically defined list of gases owing to the varying degrees of scientific knowledge and data availability with regard to the different greenhouse gases.

  * How can quantified limitation and reduction objectives for Annex I Parties take appropriate account of the different national conditions and starting points?

5. Analysis and assessment: The Berlin Mandate states that the process will include in its early stages an analysis and assessment to identify possible policies and measures for Annex I Parties, to identify environmental and economic impacts and the results that could be achieved with regard to time horizons such as 2005, 2010 and 2020. There is not very much time until the Third Conference of the Parties in 1997. We therefore do not think it is acceptable to limit ourselves initially to analysis and assessment. Furthermore, the Berlin Mandate states clearly that this analysis and assessment is not a phase preceding the negotiations. Germany is absolutely convinced that it is high time to start negotiations on concrete policies and measures as well as quantified limitation and reduction objectives for the Annex I Parties. In 1997 we must take decisions on an ambitious policy to protect the climate system beyond the year 2000.

  In this connection we have recourse to a plethora of existing scientific, technical, social and economic information on the analysis and assessment: many national and international institutions and organisations have conducted outstanding work in this field. IPCC, UNEP, the International Standards Organisation (ISO), OECD, IEA and the United Nations Economic Commission for Europe (ECE) are just a few international examples. In Germany over eight years the Study Commission on Preventive Measures to Protect the Earth’s Atmosphere of the German Parliament in particular has contributed comprehensive analyses and assessments that are applicable far beyond the national area. This also applies to the IKARUS system (instruments for climate gas reduction strategies) developed within the context of our national programme, which can be used for detailed estimates of the effects of various policies, measures and techniques on greenhouse gas emissions.

  Above and beyond this we should draw on the information and work in the whole machinery of the Convention. We have a comprehensive process of reporting and of review reports. Both subsidiary bodies, SBSTA and SBI, will have numerous tasks in their work programme which are of great value to the negotiations in the AGBM. The intergovernmental technical advisory panels on methodologies and technologies currently under discussion can also contribute to the work of the AGBM. We must make best use of them and avoid duplicating our work.

  We support the proposal that the Secretariat be commissioned to prepare an annotated compilation of the available information of this nature in due time before the next meeting of the AGBM in October (as with INC Document A/AC 237/83 on the adequacy of commitments). We request all Parties involved - the national delegations, the relevant international organisations and institutions as well as the non-governmental organisations - to identify suitable material, to make it
available and to continue and strengthen their current work on these matters.

We should also consider asking SBSTA and SBI relevant questions, e.g., concerning further analysis and assessment as well as relevant conclusions from Annex I communications already available and reviewed.

At the same time we should all see it as our priority to intensify our national analyses and assessments already associated with the development of the national programmes under the Convention and to incorporate policies and measures as well as limitation and reduction objectives for the stated time-frames after the year 2000. We need to do that homework urgently to be well prepared.

If all these option are used, analysis and assessment can go hand in hand with negotiations without any problems whatsoever in the early stages of our work and be completed rather expeditiously.

Mr. Chairman,

These were the first considerations of Germany with regard to the implementation of the Berlin Mandate in this new working group.

We might well come back to individual questions, as raised in the Secretariat's document or brought forward by other delegations in the course of our meeting.
In addition to the statement made by Spain on behalf of the European Union and the EU paper on this subject that was circulated - that we of course fully support - I would like to make a few comments on the issues of inputs to the negotiating process, highlighting some elements of the table of inputs as proposed by the EU. As most of these inputs will be the result of analytical or assessment activities I will touch upon the organisation of the analysis and assessment as well.

**Focus**

Inputs into the AGBM process should be focused on the key issues to be dealt with. And those key issues are clearly spelled out in the Berlin Mandate, namely:

- elaboration of policies and measures for Annex I Parties,
- setting of quantified limitation and reduction objectives within specified time-frames for Annex I Parties,
- continued advancement of the implementation of existing commitments of Article 4.1.

If we want to make the best use of our limited resources and available time, the information to be collected as the basis for the negotiations should be focused on the main questions regarding those three key items. Questions on how to identify policies and measures to be dealt with in the protocol and how to set objectives and time-frames. Analysis and assessment should not deal with the question whether objectives and time frames are necessary and/or effective. The Berlin Mandate has already answered that question clearly.

Consideration of the third element of the Berlin Mandate, namely the advancement of the implementation of the existing general commitments, were benefit greatly from inputs that focus on the diffusion and application of technology. In setting their development priorities, the technology choices made by countries have a major impact on the future emissions of greenhouse gases.

**Inputs to be provided by SBSTA and SBI**

Using the work of SBSTA and SBI to provide inputs into AGBM is receiving broad support. I would particularly like to highlight the importance of also using the intergovernmental technical panels that SBSTA is going to set up. These panels, if set up carefully, would enable us to generate sector specific information regarding policies and measures in those sectors where the priority of coordinated or harmonised action in the context of a protocol should lie.

In our opinion those priority sectors would be:

- internationally traded products such as automobiles and appliances
- internationally oriented energy intensive industrial processes such as steel, aluminum and chemicals manufacturing
- HFC and PFC use (see also our proposals for guidelines on fluorocarbons in FCCC/CP/1995/Misc.1 @ 45)
- airline and marine shipping industries

If the AGBM needs that kind of sector specific information - and I am convinced it will if it wants to address the issue of coordinated policies and measures adequately - then SBSTA should take the AGBM requirements into account. In other words, the work of the panels should be narrowly focused on those sectors that AGBM identifies as priority areas and they should bring together the real experts in those sectors. AGBM will have to ask SBSTA to act accordingly.

We can fully support the remarks made by the representative of Brazil on the contribution IPCC could make via SBSTA to the work of AGBM based on requests from Convention bodies to the IPCC. Also, the suggestion on requesting a methodology to determine contribution of countries to the problem of climate change is a very interesting one.

With respect to the US suggestion, to set up a special panel on inputs regarding the global emission trends, I would like to point to the decision 6 of CoP-1 that clearly specifies that as a task for SBSTA.
Inputs based on available information

A lot of relevant information on possible policies and measures for Annex-1 countries and their technical and economic aspects is available from analyses that were already done or are currently in progress outside of the Convention machinery. The ongoing OECD/IEA Common Actions study is particularly relevant, because it provides a useful classification of policies and measures in 3 categories:

1. policies and measures that are decided at the national level,
2. policies and measures that will benefit from a certain coordination between (groups of) countries,
3. policies and measures that will only be undertaken if agreed internationally.

As a protocol will have to focus predominantly on categories 2 and 3 it does not make sense to provide the AGBM with a lot of information on policies and measures that are primarily decided at the national level apart from the information available from the review of the national communications, especially potentially replicable measures. The AGBM should focus on provisions to be included in the protocol, to enable the exchange of experience with national policies and measures between Parties.

Priority issues to be dealt with in our opinion are the use of economic instruments as well as the issues mentioned above in connection with the technical panels.

Inputs based on additional work to be performed

Some additional analytical work will have to be undertaken to supplement the input from SBSTN/SBI and the input based on available information. In the EU paper there is a separate section devoted to this. For instance, to allow AGBM to deal with the formulation of objectives and time frames an assessment of possible alternatives for objectives and the consequences for achieving the ultimate objective of the Convention will be required. The use of collective targets, such as for the group of Annex-1 countries, should in our opinion be a prominent feature of such an assessment, because it would allow a least cost strategy to be followed, that could drastically reduce the costs for all Parties involved; that is, if the accompanying issue of a fair distribution of the costs can be resolved (also to be addressed in the analysis). Collective objectives could take the form of:

- a % reduction per year (say 1-2% per year after 2000),
- a % reduction by a certain year,
- a cap of global emissions through Annex-1 action or - something different.

Other approaches to be looked at could include:

- the idea of emission budgets for a certain period of time as opposed to an annual emission milestone or
- a combination of a collective absolute target with individual reductions applying to an emissions trend rather than a base year.

Also, the use of objectives such as energy efficiency improvement objectives or objectives regarding the % renewable energy should be investigated as a supplement to the use of objectives regarding emission levels.

On the policies and measures side it is likely that some additional work will be necessary on the potential in terms of emission reduction, because available studies are somewhat limited in this respect.

For the synthesis of policies and measures and the accompanying objectives and time frames we would like to emphasize the need to perform analyses using so called integrated assessment models. There is a family of those comprehensive models available now (see also the IPCC Working Group III report) that have the potential to support the negotiations via comparisons of various different combinations of policies and objectives. Aspects like costs, effectiveness in controlling greenhouse gas concentrations and effectiveness in mitigating adverse impacts of climate change can be evaluated through such exercises.

The AGBM would have to ensure that an appropriate organisational framework for these additional analytical and assessment activities is found. Given the full agenda of SBSTA it is unlikely that it will be able to deliver such information in time. A specific arrangement in the context of the AGBM would therefore be required. The Secretariat could make a compilation of ideas submitted by Parties on such an arrangement for the second AGBM meeting.
Letter from the Heads of the Delegations of Poland and the Russian Federation to the first sessions of the UNFCCC subsidiary bodies to the Chairman of the Ad Hoc Group on the Berlin Mandate

Geneva
August 31, 1995

In accordance with the Decision 1/CP.1 of the COP-1 the negotiating process on the Berlin Mandate has been started. In particular, this decision recommends in paras. 1(a) and 1(b) a way of implementation of this process taking into account the provisions of the Convention related to the principle of common but differentiated responsibilities of the Parties.

It seems advisable in the practical work on a protocol to define some specific criteria. One such criterion, the level of GHG emissions per capita, in particular, is mentioned in para. 1(d) of the Decision UCP.1. Some other criteria, such as GDP per capita or similar, have been proposed by delegations of Poland and Russia for consideration during the AGBM-1.

In accordance with the decision of AGBM-1 (Doc. FCCC/AGBM/1995/L.1/Add. 1, p. 1 h(i)) the delegations of Poland and the Russian Federation are submitting the relevant proposals offering possible approaches aimed at implementation of the principle of common, but differentiated responsibilities (attached), which we propose to consider during forthcoming AGBM-2. In addition, Poland and the Russian Federation offer the following measures, which might, in our opinion, facilitate the implementation of the Berlin Mandate.

- On the basis of the decision 6/CP.1, Annex I, Section A., para. 5(c), the SBSTA should present the information and to provide the recommendations on any methodological and technical issues, necessary to develop protocols to the Convention, thus enabling the Parties to consider at the second session of the SBSTA the substance of proposed criteria;

- Further, these criteria could be considered at the third AGBM session, and relevant documents be proposed for consideration and possible adoption at the COP-2.

Suggestions on use of the principle of common but differentiated responsibilities

1. One of the key principles on which responsibilities under the FCCC are based is the principle of common but differentiated responsibilities of the Parties to the Convention. The Article 3.1 states that “the Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capacities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof”.

However, text of the Convention does not contain a definition of the principle of common but differentiated responsibilities, in particular in its relation to determining specific commitments of the Parties in future protocols or other legal instruments.

2. Provisions of the Convention which to some extent reflect the differentiated approach to the capacities of the countries can be outlined as follows. Articles 4.1 and 4.2 generally describe division of commitments between developed and developing countries. Articles 4.3, 4.4 and 4.5 further specify some commitments of developed countries related to new and additional resources, transfer of technology, etc. Article 4.6 contains the provision taking into account special situation in the countries with economies in transition. Articles 4.7 to 4.9 touch upon specificities of the developing countries. Article 4.10 relates to countries whose economies are highly dependent on production of fossil fuels.

3. Considerations mentioned above as well as today's world realities require their adequate reflection in the Berlin Mandate process. In this connection, it is proposed to give a definition for the principle of common but differentiated responsibilities, and to adopt certain criteria for its practical implementation. The criteria should reflect social, economic and some climatic parameters relevant in the context of sustainable development.
The Convention itself contains indications that even among Annex I Parties there are countries with different economic potentials; thus potential of countries with economies in transition is presently lower in comparison to the countries of the European Union. Among developing countries there is a group of least developed countries (Article 4.9). These differences are reflected in the classification adopted by the World Bank and UNDP.

We can be more specific after analyzing a number of criteria, which should be developed for application of the principle of common but differentiated responsibilities. Among these criteria one could mention:

- GDP per capita;
- amount of anthropogenic emissions, first of all of carbon dioxide and methane, per capita and per a unit of territory;
- amount of sinks and net emissions per capita and per a unit of territory;
- levels of production and consumption of energy per capita.

4. To take into account the cumulative effect of these criteria for the purpose of determining differentiated commitments of individual countries it is proposed to evaluate specific indicators according to each criterion by summing up their reverse values.

These or similar calculations would allow the Annex I countries to determine their individual and more flexible levels of commitments under the Convention. In such a way it would be possible to implement more efficiently the principle of common but differentiated responsibilities during the Berlin Mandate process aimed at defining commitments for the period beyond the year 2000.

5. The principle of common but differentiated responsibilities in the context of the Convention is proposed to be formulated as follows:

The common responsibility of the Parties to the Convention means common actions aimed at protection of the climate system to attain the ultimate goal of the Convention. The differentiated responsibility means individual responsibilities of the Parties to the Convention related to their commitments determined taking into account their economic capabilities and stipulated in a protocol or another legal instrument.

In our opinion, this approach, which adequately reflects the present world situation, could be used as a basis for setting quantified limitation and reduction objectives with specified time-frames.
To help speed the work of the Ad Hoc Group on the Berlin Mandate (AG/BM) established by the Conference of the Parties to the U.N. Framework Convention on Climate Change, the United States has developed some preliminary views on a process that will lead to a protocol or other legal instrument pursuant to the “Berlin Mandate”.

If the time frame established by the Berlin Mandate for development and adoption of a protocol or other legal instrument is to be achieved, organizational work must be well-conceived so the process is maximally efficient. The way forward is not obvious and many questions need to be addressed. There have been suggestions that negotiations begin early in the process, and yet it is not clear that governments will so soon be able to develop comprehensive positions or table texts. We also note that the Berlin Mandate itself calls for the inclusion of analysis and assessment in its early stages.

We are disappointed with our progress to date in reducing emissions and with the progress of others. We need to determine what measures have worked, which ones have not, and to chart a new course which will lead us to an effective and credible treatment of the problem which we are all confronting in developing new aims. For this reason, we believe a period of analysis and assessment will provide needed time for questions to be asked and answered and for governments to exchange ideas and approaches with respect to the main elements of a protocol or other legal instrument less formally, with more give and take than is sometimes possible once formal negotiations have begun. In the U.S. view, it will be critical to establish a credible process that builds trust and confidence among all parties and provides for the fullest consideration of optimal approaches.

Fortunately, much work has already been done and needs only to be brought forward. However, some issues remain unexplained, and it is desirable to proceed in an orderly manner, emphasizing analysis and assessment at the outset before moving to a more formal negotiating phase. Obviously, however, the analysis and assessment itself forms part of a negotiating process. We anticipate that discussions will take place throughout the process on the features of a protocol or other legal instrument; initially these discussions would be less formal than they would become by October 1996. This would facilitate early consideration of various proposals from an analytic standpoint.

In considering an approach to the analysis or assessment, it is important also to consider how the more formal negotiations would proceed, taking into account the number of meetings available to the parties and the issues to be addressed. The attached outline provides:

1. some background on the process;
2. an initial list of issues and approaches that should be addressed by the analysis and assessment in order to ensure informed decisions; and
3. a discussion of the specific steps involved in completing the process.

In the U.S. view, the process for formal negotiations would likely proceed much as did the negotiations that led to adoption of the convention itself. The steps envisioned for the formal negotiations thus follow the pattern already established among the parties. Again, however, just as “negotiations” will begin even at the August meeting, the “analysis and assessment” may not end categorically in July 1996. Instead, we envision that the more formal effort at analysis and assessment will conclude in July 1996 and that the more formal negotiating process would begin thereafter.

Analytically, the analysis and assessment should assist the parties in addressing a fundamental issue: as the ultimate objective of the Convention is to stabilize atmospheric concentrations of greenhouse gases at a level that would prevent dangerous anthropogenic interference with the climate system - recognizing that the next step alone is unlikely to yield that result - how can we best determine how much can be accomplished by the new protocol/other legal instrument? While solutions to this are complex, some analysis on the impacts
of near-term versus longer-term actions (e.g., in five or ten-year increments) may help to resolve some of the issues.

The approach contemplated in the attached outline would obviate the need to establish formal subgroups under the AG/BM and side-step the inevitable difficulties involved in such an effort (e.g., on what basis would subgroups be formed, how would their work be coordinated, who would chair them, would they have their own bureaus and what basis would be used to select them, etc.?). Instead, under this approach, all Parties would be able to engage fully in the process, and early analysis and assessment would better inform all negotiators.

In addition, the approach contemplated in the attached outline takes into account the work that will be performed by SBSTA and SBI (e.g., on the review of national communications of Annex I Parties and in reviewing the results of the Second Assessment Report of the Intergovernmental Panel on Climate Change). It seeks to avoid duplication with the work to be performed by those subsidiary bodies and to build upon it. To do so, however, it may be necessary for subsequent meetings of the SUBSTA and SUBIM to precede meetings of the AG/BM - for example, in March 1996 - so that the AG/BM may benefit from earlier discussions in the SBSTA and SBI.

Certain of the technical questions raised in the outline might be addressed in a series of expert meetings or technical workshops coordinated by the Convention secretariat. The results of such meetings or workshops could in turn be fed into the AG/BM discussions. We would encourage further discussion of this possibility during the August meeting.

Proposed Steps in the Berlin Mandate Process

**Background**

- The Berlin Mandate provides that the process it initiates will include in its early stages an analysis and assessment to identify possible policies and measures for Annex I Parties which could contribute to limiting and reducing emissions by sources and protecting and enhancing sinks and reservoirs of greenhouse gases.

- The Berlin Mandate also provides that the AOSIS protocol proposal along with other proposals and pertinent documents should be included for consideration in the process, and calls for strengthening the commitments in Article 4.2 (a) and (b), as well as reaffirming and continuing to advance the implementation of commitments in Article 4.1.

- The AG/BM’s second meeting is now scheduled to take place in Geneva for one week beginning October 30, 1995. Thereafter, three one-week meetings of the AG/BM are now contemplated in 1996: March, July, and October, and presumably, there will be three meetings also in 1997 in approximately the same time frames as in 1996.

- Much work on the analysis/assessment has already been done and simply needs to be brought forward.

- The following sketches an approach to the analysis and assessment and the overall process that will lead to the completion of the work as early as possible in 1997, with a view to adopting the results at the third session of the Conference of the Parties.

**Analysis/Assessment**

- The analysis/assessment should consider the effectiveness of current approaches and suggest ways in which future approaches can be made more credible and effective in terms of achieving emissions limitations. This effort should also identify the activities undertaken by all parties in fulfillment of their obligations to advance the implementation of commitments under Article 4.1.

- The analysis/assessment should consider for Annex I and Non-Annex I Parties, as appropriate:

  1) Emissions trends and experience of parties to date in controlling them, including:

     - trends in historic emissions indicators (e.g., vehicle miles travelled, energy intensity, population)
     - national and global emission forecasts
• in-depth reviews of national communications
• information from all countries, including Non-Annex I countries, concerning their activities/measures to implement commitments under Article 4.1)

2) Currently suggested approaches, including:

• AOSIS proposal (20 percent CO₂ reduction by 2005)
• EU agreement (maintenance of 1990 greenhouse gas levels indefinitely after 2000)
• UK call (5-10 percent greenhouse gas reduction by 2010)
• other (including analysis of various dates through 2020)

3) Other possible approaches, including successful experiences with policies and measures (and technology development/diffusion potential) in areas such as:

• transport
• energy
• industrial
• residential/commercial
• agriculture/forestry
• non-CO₂ gases

4) Market mechanisms such as:

• fiscal instruments
• activities implemented jointly/joint implementation
• emissions trading

5) Technological opportunities including:

• improved energy efficiency
• switching to lower emitting fossil fuels and new fuel sources/increased use of more efficient and safer conventional energy conversion technologies (e.g., clean-coal technologies and nuclear power)
• increased use of renewables
• methane recovery
• alternative chemicals
• automotive/rail/air technologies

6) Impacts of climate change and mitigation actions

• linkage with subsidiary body consideration of IPCC Second Assessment Report
• other national and international assessments (e.g., U.S. Country Studies Program)

The analysis/assessment should develop output to inform all aspects of the fulfillment of the Berlin Mandate, and should include if possible:

• GDP/welfare consequences (global and national, including for Annex I and Non-Annex I Parties)
• consequences of actions on greenhouse gas emissions
• shifts (e.g., of industries) between countries
• effects on employment
• effects on investment cycle
• trade implications

Steps in the Process

If the target date for conclusion of the initial analysis/assessment effort is mid-1996, the AG/BM could undertake the following tasks at each of its meetings:

August 1995
• Meet for the first time
• Deal with organizational issues (e.g., Bureau)
• Consider and adopt workplan, including provisional dates for future meetings and provisional agenda for each meeting

October 1995
• Identify specific analytical outputs that should be sought with respect to currently suggested approaches (both those now “on the table,” i.e., AOSIS protocol, EU “stabilization,” UK 2010 proposal, and possible new submissions)
• Decide what analyses should be performed (including for the advancement of the implementation of Article 4.1 commitments, and for discussions of policies and measures in various sectors in March 1996), and within what time period

• Begin considering global emissions trends (perhaps convening a panel of experts)

• Begin considering experiences with market mechanisms such as fiscal instruments and activities implemented jointly

March 1996
• Begin considering experience of parties in controlling emissions trends (based on SBSTA/SBI meetings on results of in-depth reviews of national communications)

• Address sectoral approaches, including half-day discussions of policies and measures (e.g., for transport, energy, commerce/industry, agriculture/forestry, non-CO₂ gases), consider ways to include approaches relevant to advancing the implementation of Article 4.1 commitments

• Consider technological opportunities

July 1996
• Review results of analysis/assessment efforts with respect to currently suggested approaches

• Review results of SBSTA and SBI consideration of IPCC Second Assessment Report

• Consider advantages and disadvantages of all approaches and opportunities to combine or reconcile them.

• Consider advantages and disadvantages of technology options

Thereafter, and with a view to completing its work as early as possible in 1997 and adopting the results at the third session of the Conference of the Parties, the following steps are likely to be involved:

• Begin considering elements of a protocol/other legal instrument, based on textual proposals submitted by the Parties and circulated by the secretariat prior to the meeting and based on results of analysis/assessment, including recommendations on means to continue to advance the implementation of Article 4.1 commitments

• Continue considering elements of a protocol/other legal instrument, based on a draft single negotiating text prepared by the Secretariat and circulated prior to the meeting

• Adopt a revised (bracketed) single negotiating text

• Remove all but the most contentious brackets from the revised single negotiating text

• Resolve remaining brackets and adopt the final text
The Woods Hole Research Center

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