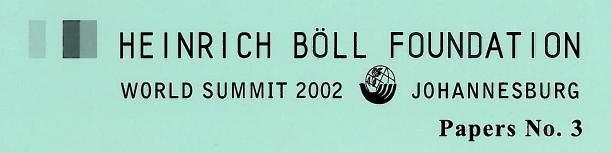
Breaking the Impasse Forging an EU Leadership Initiative on Climate Change

A policy paper by

Hermann E. Ott and Sebastian Oberthür



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EXECUTIVE SUMMARY

The Kyoto Protocol has the potential to provide an important basis for the further development of international climate policy in the next millennium. Full implementation by industrialised countries of their differentiated targets would not only lead to a stabilisation of emissions at 1995 levels, but it would also ensure a reversal of current emission trends. However, two years after its adoption there continues to be much uncertainty about the potential effectiveness of the Protocol. Concerns regarding effectiveness are in large part related to the high threshold for its entry into force.

The more progressive industrialised countries (primarily EU Member States) are now waiting for the US to exercise responsibility and join forces with them in fulfilling their obligations. However, the US and other laggard countries such as Australia are attempting to stall action in the international arena in order to extract more concessions within the ongoing negotiation process. From their perspective, the longer the delay in reaching agreement and commencing action, the easier it will be for them to argue for weaker obligations on the basis that existing ones are no longer realistic nor viable.

It has become patently clear that international climate policy at the turn of the millennium lacks both momentum and leadership. It is therefore critical at this juncture for a strong player to take the lead. At this point, the EU is the only candidate who could reasonably forge a Leadership Initiative on climate change. Led by the Union, a coalition could be formed among those countries who are actively committed to strong climate protection policy. Moreover, the EU could successfully build support around specific issues from countries with economies in transition (including Russia), from several committed developing countries, and as well, from Japan (as the host of the Kyoto conference). This approach would lead to the creation of a new critical mass of support that is absolutely necessary for breathing new life into the international climate policy process.

The EU Leadership Initiative could focus on the following core elements. First, the *early and prompt ratification* of the Kyoto Protocol should be a top priority to ensure its timely entry into force. Given the current Senate-driven resistance of the US towards ratification, it is absolutely essential that the EU, Japan and Russia ratify the Protocol. Their combined ratification is required in order to meet the minimum threshold of 55% of the total CO₂ emissions of Annex I Parties (at 1990 levels). The Union must therefore initiate a process to itself ratify the agreement as soon as possible, without waiting for other countries, in particular, the US. It must also start exploring possible ways in which agreement could be reached with Russia and Japan to engage their commitment to ratify the Protocol as well. This will require a carefully designed diplomatic effort involving compromise on all sides.

As part of this bargaining process, the EU might have to demonstrate increased flexibility with regard to the Kyoto Mechanisms. As a result, it should be possible to agree on a fee on all trading transactions, as well as strict monitoring, reporting and verification procedures, which ensure the environmentally effective use of the instruments. If a comprehensive plan can be established, the EU should also be able to prevent a further dilution of the sink categories under the Protocol.

Second, an EU Leadership Initiative should introduce measures for *domestic implementation* of the Kyoto obligations and should encourage the international co-ordination of such measures. Numerous studies have provided evidence of the vast potential of low-cost and no-cost options for reducing greenhouse gas emissions in the EU and elsewhere. Concerns about reduced economic competitiveness could be minimised by a co-ordination of policies, most importantly with Japan. The EU and its Member States have a wealth of experience in policy co-ordination which could provide a sound basis for pursuing international co-operation.

The co-ordination should not consist of common, binding measures but should focus on a transparent and accountable process of co-ordination, which could stand up to a high standard of public scrutiny. In order to be successful, the initiative should concentrate on a limited set of measures upon which agreement is most likely. A leadership group of committed countries could thus demonstrate that ecological protection and sustained economic growth are not only compatible, but also mutually reinforcing targets. Potential areas of fruitful co-ordination could include "green taxation", a large-scale R&D effort for renewables and the efficient use of energy, dismantling climate adverse subsidies, energy efficiency standards and, finally, climate friendly public procurement.

Third, the involvement of *developing countries* in the climate process is of utmost importance for the medium and long term effectiveness of climate protection and for the future development of the international climate regime. Developing countries' needs and interests must be addressed first. Immediate emphasis might focus on an adaptation strategy. This should include the mobilising of additional resources for adaptation, e.g. through the establishment of an adaptation fund financed by a transaction fee on all Kyoto Mechanisms. Further efforts should be directed at the co-operative elaboration of the Clean Development Mechanism (CDM) under Article 12 of the Kyoto Protocol. This will ensure that the needs of developing countries are duly recognised without compromising on the ecological effectiveness. And finally, the European Union and its allies should enter into a constructive medium-term dialogue with developing countries on the fair and equitable allocation of emission rights.

If this proposed EU Leadership Initiative can be successfully established, it will catalyse numerous opportunities. It will reinvigorate the Kyoto Protocol and will create further incentives to governments to implement effective policies and measures to mitigate climate change. It will also generate much needed public awareness to demonstrate that economic well-being can be improved without having to burn increasing amounts of fossil fuels. An EU Leadership Initiative within the climate regime would thus ensure the progress needed to protect the Earth's climate for the benefit of humankind.

PREFACE

Ratifying the Kyoto Protocol for Earth Summit 2002

In December 1990, the United Nations General Assembly asked an International Negotiating Committee to develop a new international climate treaty. The UN Framework Convention on Climate Change was signed at the 1992 Earth Summit in Rio, but lacked specifics on greenhouse gas reduction numbers and timeframes. More than five years later, in December 1997, the first legally binding instrument to reduce greenhouse gas emissions worldwide was agreed upon in Kyoto, Japan.

The Kyoto Protocol, despite its apparent flaws and modest targets, is a milestone in the history of environmental policy. Now the Protocol has to be ratified and implemented. In consecutive budget periods, its targets should be strengthened step by step, new countries should join its commitments to limit and consequently reduce their emissions, and common and coordinated measures should be approved. The Kyoto Protocol is a work in progress, but it is the only game in town. Those who reject the Kyoto Protocol reject the achievements of ten years of international cooperation to combat climate change.

Ten years after Rio, at the Johannesburg World Summit for Sustainable Development in September 2002, the Kyoto Protocol should finally enter into force. Until then, 55 countries will have to ratify the Protocol covering at least 55 percent of emissions of industrialised countries based on 1990 levels.

However, one country that will not be a party when the Kyoto Protocol enters into force, is the United States of America. The U.S. were one of several countries that have continuously slowed down the negotiating process. The U.S. Senate which has to ratify international treaties before they can become law, had demonstrated a strong hostility toward the Kyoto Protocol even before its content was known. Ratification by the U.S. Senate of any international agreement that sets legally binding reduction commitments for greenhouse gases remains highly unlikely for the coming years.

At the 6th Conference of the Parties to the Climate Convention in The Hague, Netherlands in November 2000, the outgoing Clinton-Gore administration was unwilling to agree on a precise definition of the Kyoto Protocol's so-called flexibility mechanisms, like emissions trading, carbon sinks and the Clean Development Mechanism. The European Union did not reject the notion of flexibility and cost-effective implementation, but rightfully demanded a precise quantification of which amount of the Kyoto Protocol's reduction commitment could be offset by the flexibility mechanisms. The outgoing U.S. administration did not demonstrate the necessary political strength to agree on any quantitative restriction on the use of the mechanisms.

Now, that the Bush-Cheney administration has declared the Kyoto Protocol dead, the European Union, Russia, Japan, developing countries and others have the task of ratifying and implementing the Kyoto Protocol alone.

The reason for the United States's failure to provide leadership in international climate policy is the lack of any serious domestic climate policy program.

Both the Clinton-Gore and the Bush-Cheney administrations have been slow in implementing climate policy measures domestically. The new administration has cut funding for energy efficiency and renewable energies, challenged existing and proposed Federal standards for cars and household appliances and has brought forward a national energy plan that focusses on the supply of coal, oil and gas, not on efficiency, demand side management and renewables.

The American love affair with even bigger cars stands emblematically for a development path that leads the U.S. continuously away from fulfilling its commitments under the Rio Climate Convention. On the question whether President Bush would call on drivers to sharply reduce their fuel consumption. White House press secretary Ari Fleischer recently, on May 7, 2001, answered: "That's a big no. The president believes that it's an American way of life, and that it should be the goal of policymakers to protect the American way of life. The American way of life is a blessed one."

But the reason why international climate policy has been moving at a snail's pace is not so much the laggards, but the absence of leaders.

In 1999, the Heinrich Böll Foundation had therefore asked two experts to develop a new leadership initiative to get international climate policy moving again. Hermann Ott, scientist at the Wuppertal Institute for Climate, Energy, Environment, and currently working for the Planning Department of Germany's Foreign Ministry, and Sebastian Oberthür, Senior Fellow of the Ecologic Institute, a Berlin based think-tank for European and international environmental research, propose the following three elements for such an initiative:

- A combined effort of the European Union, together with Eastern European countries
 including Russia and other CIS states plus key developing countries to achieve early
 ratification of the Kyoto Protocol, if necessary without initial U.S. participation.
- A coordinated effort to jumpstart national climate policy programs. Credible national implementation is key to convince others that the Kyoto Protocol works. International coordination of policies and measures, like economic instruments, technical standards or trade rules, will help to facilitate national implementation and smooth conflicts with other economic development goals.
- Protocol foresees a number of new funding mechanisms and economic instruments for North-South cooperation. Those instruments must be created in a way that allows broad and equal participation, transparency and a maximum ecological benefit.

Even if the Kyoto Protocol will enter into force without U.S. participation, the door for the U.S. and others has to remain open. Any country should be legally and technically able to join during later budget periods, provided the environmental integrity of the Protocol is preserved. The U.S. has a lot to contribute scientifically, technically, financially and politically to solve the global environmental crisis. In other phases of its history, the U.S.

has been a leader on international environmental cooperation, the Montreal Protocol to protect the ozone layer being a prime example that would not have been possible without strong U.S. initiative. Last but not least, U.S. emissions continue to contribute significantly to the problem. U.S. policies should therefore also contribute to the solution.

At the eve of Earth Summit 2002, the world has to take stock of what has been achieved since Rio. The Framework Convention on Climate Change that promises to "achieve ... stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous interference with the climate system" was signed in Rio, amongst others by then U.S. President George Bush Senior. Ten years later, it is time to fulfil its commitments. The Kyoto Protocol is a first but necessary step to coordinate the global effort to meet this global challenge. When heads of state meet in Johannesburg, they should celebrate the Kyoto Protocol's entering into force, but also look ahead and do more

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June, 2001

BREAKING THE IMPASSE: FORGING AN EU LEADERSHIP INITIATIVE ON CLIMATE CHANGE

By Hermann E. Ott and Sebastian Oberthür

1. Introduction1

The Kyoto Protocol to the United Nations Framework Convention on Climate Change (FCCC) was - and still is - a remarkable achievement for international climate policy.² Negotiated in little more than two years and concluded in 1997, this extremely complex treaty has the potential to constitute the foundation of the climate regime for the next century. Its most important cornerstone is undoubtedly the quantitative obligation for industrialised countries to reduce emissions of a set of greenhouse gases (GHGs) by a specified percentage in the period of 2008—2012 (Article 3 and Annex B of the Protocol).³ The implementation of these differentiated targets, ranging from minus 8% for the EU and some Eastern European countries to plus 10% for Iceland (see Table 1) would lead to a stabilisation of emissions at 1995 levels and thus constitute a deviation from present emission trends (see Figure 1).⁴

Table 1: The Differentiated Quantitative Obligations of Annex B Parties

	•
Target (percentage reduction from base year or period)	Party
- 8%	Austria, Belgium, Bulgaria ^a , Czech Republic ^a , Denmark, Estonia ^a , European Community, Finland, France, Germany, Ireland, Italy, Latvia ^a , Liechtenstein, Lithuania ^a , Irelando Monaco, Natherlando Bortugal Bornania ^a
	Slovakia ^a , Slovenia ^a , Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland
- 7%	United States of America
- 6%	Canada, Hungary ^a , Japan, Poland ^a
- 5%	Croatia ^a
Stabilisation	New Zealand, Russian Federation ^a , Ukraine ^a
+ 1%	Norway
+8%	Australia
+ 10%	Iceland

^a Countries that are undergoing the process of transition to a market economy Source: Annex of Decision 1/CP.1 in FCCC/CP/1997/7/Add.1.

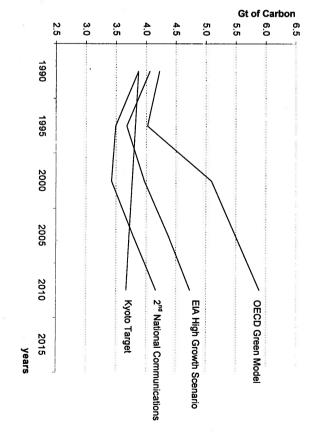
This will, however, depend on the domestic implementation of the treaty and on the ratification by at least 55 Parties to the Climate Convention representing at least 55% of industrialised country emissions in 1990 (see Chapter 3.1). As well, the design of the so-called Kyoto Mechanisms that form part of the Protocol (Emissions Trading, Joint Imple-

mentation and the Clean Development Mechanism) and the future treatment of sinks will no doubt have a decisive impact. However, the Kyoto Mechanisms are inherently contradictory. While they provide for the cost-effective implementation of the reduction targets, they can also be used by Parties to evade effective action at the national level.⁵ A constructive dialogue on the environmentally and economically effective design of these instruments is therefore of utmost importance.

At present, the pace of the climate negotiations is far too slow and the prospects for its entering into force remain rather uncertain. The negotiating process has been marked by a lack of meaningful discussion on the strategies needed for effective climate protection, not to mention the absence of much-needed constructive co-operation in the development of policies and measures to implement the Kyoto Protocol. Instead, post-Kyoto negotiations have concentrated on the Kyoto Mechanisms and have generally been characterised by battles of retreat. Because momentum is so clearly lacking, a Leadership Initiative is urgently needed now more than ever.

This paper aims to develop the design for such an initiative. The first substantive part analyses the state of affairs of international climate policy at the turn of the century (Chapter 2). Subsequently, a concrete response to the ongoing problems in the negotiating process is presented in the form of a Leadership Initiative on climate change to revitalise international climate policy and re-energise the Kyoto Protocol process (Chapter 3).

Figure 1: Projected Impacts of the Kyoto Protocol on Emissions of Greenhouse Gases from Annex I Parties



Source: OECD 1993; EIA 1999; 2nd National Communications of Annex I Parties, FCCC/CP/1998/11/Add.2.

2. The Landscape of International Climate Politics at the Turn of the Century

The future prospects for international co-operation on climate change depend on whether and when the Kyoto Protocol will be ratified and implemented by the major players. The following section describes the international landscape of climate politics through an

analysis of the current state of implementation and ratification of the Protocol by the major players. And in light of the ever-growing influence of civil society, new developments in the climate NGO arena are also examined. This is followed by an analysis of the state-of-play of the international negotiating process.⁶

2.1 The Domestic Climate Policy of the Major Players after Kyoto

Domestic climate policy is the basis of a national government's international position with progress at the international level thus requiring effective domestic measures.

Unfortunately, efforts to implement the Kyoto obligations and to prepare for the entry into force of the Protocol have been insufficient in the two years following its adoption in December 1997. Emission trends under business as usual scenarios therefore continue to rise with continued uncertain ratification prospects.

Low Expectations for the EU and the Applicant Countries

As regards the international process, the EU has continued to strive for international leadership in the post-Kyoto phase. In particular, it has attempted to maintain pressure on the US and other laggard countries to adopt an environmentally effective design for the Kyoto Mechanisms. Furthermore, the EU has made some effort to respond to criticism of its inward-looking focus during the Kyoto negotiations. As part of this effort, it has succeeded in strengthening its ties with countries with economies in transition (CEITs) and developing countries.⁷

In June 1998, the EU reached an agreement on an internal burden-sharing arrangement. This will form the basis of its declaration on joint fulfilment under Article 4 of the Kyoto Protocol (i.e. the redistribution of its overall commitment among EU Member States) upon its ratification. Despite this agreement, however, the EU has not yet taken the necessary steps for early ratification of the Kyoto Protocol. This appears to be due primarily to strategic considerations (see also Chapter 3.2). Until the EU ratifies the Kyoto Protocol, however, it will hardly be able to achieve any real progress in developing its policies for limiting GHG emissions. The main post-Kyoto achievement has been an agreement with European car manufacturers in 1998 to limit average CO₂ emissions of new cars to 140 mg per kilometre by 2008. This represents a 25% reduction from current levels and could contribute about one-sixth of the reductions needed to achieve the Kyoto target for the EU. Nevertheless, and despite strengthened efforts by some Member States like Germany, according to the European Commission's estimates of May 1999, EU total GHG emissions are still expected to increase by some 6% from the 1990 level by 2010 if further measures are not taken. The control of the control of

There has also been a notable lack of progress on a number of internal policy initiatives. By mid-1999, a long-awaited proposal for legislation supporting the feed-in of electricity produced by renewable energy sources, had still not even been tabled by the European Commission. Negotiations on a proposal for the taxation of energy products appeared to be deadlocked as well.¹³ In addition, the EU has been slow to develop policies and

measures for the non-CO₂ GHGs. Regarding the fluorinated gases (HFCs, PFCs, SF₆), the Union had not elaborated a strategy until mid-1999. ¹⁴ Furthermore, internal divergence with respect to the Kyoto Mechanisms has become increasingly obvious as some Member States continue to explore the full potential of the mechanisms. For example, the Netherlands are planning to realise 50% (compared to a business as usual scenario) of their target under the burden-sharing agreement of 1999 by drawing on Emissions Trading, Joint Implementation (JI) and the Clean Development Mechanism (CDM). ¹⁵

Close ties have developed between the EU and Central Eastern European CEITs, partly as a consequence of the EU enlargement process. This is expected to lead to the accession of the Czech Republic, Estonia, Hungary, Poland, and Slovenia early in the 21st century. More CEITs will follow in subsequent years. As part of the enlargement process, the accession countries will be required to adapt their national legislation and administrative structures to the EU standards and requirements. As a result, these countries can be expected to largely follow the example of the EU and its current Member States. There is little doubt that, once the EU and its Member States ratify the Kyoto Protocol, these countries will follow suit.

The "Umbrella Group": Flight into the Mechanisms

In the post-Kyoto period, the "umbrella group" has been the main counterpart to the EU in international climate politics. The members of the group are Australia, Canada, Iceland, Japan, New Zealand, Norway, the Russian Federation, Ukraine, and the US. The umbrella group encompasses all major GHG emitters among the industrialised countries except the EU. It includes the two CEITs with the highest GHG emissions and the greatest interest in trading "hot air", i.e. the surplus emission allowances that are available as a result of the steep fall in emissions that has taken place in these countries since 1990 (but which remained unaccounted for in the determination of the Kyoto targets).¹⁶

Little has changed in *US climate politics* since Kyoto. The US Government has continued to make the "meaningful participation of key developing countries" a precondition for considering the ratification of the Kyoto Protocol. Furthermore, it has worked forcefully during international negotiations to prevent any quantitative restrictions on the use of the Kyoto Mechanisms. Domestically, little progress has been achieved. To the contrary, the Senate Budget Committee deleted climate-friendly tax incentives and research grants in 1998, and a number of Republicans pledged to block any administration budgetary or regulatory moves towards implementing the US's Kyoto target. ¹⁷ US GHG emissions are projected to increase by 23% from 1990 levels by 2010. ¹⁸ The longer the internal US climate policies remain in stalemate and the longer legislative action is postponed, the more dependent the US will become on the Kyoto Mechanisms for reaching its target of minus 7%. It may already be too late for the US to execute its commitment by domestic action alone, although a number of developments point in a more positive direction. ¹⁹ Overall, however, US ratification prospects are very uncertain.

Japan has a strong diplomatic interest in the success of the Kyoto Protocol, since the agreement was reached in Kyoto. Regarding domestic implementation, Japan has seriously

investigated its options for reaching the Kyoto target of minus 6% and has developed an overall strategy for meetings that target. This strategy aims, among other things, at a stabilisation of CO₂ emissions and increased use of JI²⁰ and Emissions Trading to contribute 1.8% towards its total 6% GHG emission reduction target.²¹ Assuming that the final design of the Kyoto Mechanisms will allow Japan to make use of JI and Emissions Trading to some extent, Japan can be expected to join the Protocol early in the next century (if the EU does so as well).

The prospects for *Russian climate policy* are most uncertain, reflecting its current economic and political situation. Since climate protection interests are barely represented in Russian politics, ratification of the Protocol will mainly depend on the design of Emissions Trading, since this will be decisive for Russia's ability to sell its excess emission allowances (otherwise referred to as "hot air").

The ratification of other non-EU industrialised OECD countries is not as decisive for the entry into force of the Kyoto Protocol, since their share of the total Annex I CO₂ emissions is relatively small. The smaller emitters could, however, tip the scales for reaching the necessary 55% of the total Annex I CO₂ emissions in 1990 for the Protocol to enter into force. No uniform development is visible in that respect. Norway and Switzerland, both having a history of constructive participation in international efforts, succeeded in reaching their objectives in Kyoto to a large extent. They may thus be expected to become members of the accord eventually. Others (Australia, Canada, New Zealand) may ratify so as to "join the club", but are likely to allow others to launch the Protocol. Overall, these countries have taken little domestic action to revert GHG emission trends.

Developing Countries: Wait and See

Because a minimum of 55 ratifications are required for the Protocol to enter into force, developing countries must be included in the game. Their involvement in several aspects is decisive for the future success of the international co-operation required by the framework of the Protocol. In the short and medium term, their constructive input will be needed to reach agreement on the Kyoto Mechanisms, in particular Emissions Trading and the CDM. In the long term, the developing countries will themselves have to limit and reduce their own GHG emissions.

In the post-Kyoto phase, *AOSIS* has been torn between two partially competing objectives. On the one hand, they have striven to maximise support for those countries which are particularly vulnerable to climate change, which could imply the possible extensive use of the CDM. On the other hand, this has partially conflicted with AOSIS' intention to ensure that industrialised countries' obligations are fulfilled by taking domestic action. Overall, AOSIS will remain the moral conscience of the international climate negotiations. Indeed, as of 16 June 1999, 7 AOSIS members were among the first 10 countries to have ratified the Protocol. Other AOSIS members can be expected to follow in order to contribute to the 55 ratifications needed for the entry into force of the Protocol.

OPEC countries still have the potential and capability to slow down the process, although the Kyoto process has shown that their influence is limited when the other big players are determined to continue. If the Kyoto Protocol enters into force, they can be expected to join the club, if only to be able to influence the future game. After all, these countries had the political insight to join with all other countries in adopting the Protocol.

Overall, little effort has been made by other developing countries to ratify the Protocol. However, interest to do so is expected to increase once entry into force becomes likely. At this point however, the G-77 and China have become increasingly divided internally. One of the most controversial issues concerns the matter of voluntary commitments of developing countries. This issue was catalysed by Argentina's declaration to announce such a commitment at the fifth Conference of the Parties (COP 5). This does not necessarily mean the total breakdown of G-77 solidarity (which has been declared many times in the past). But other large and powerful developing countries, India and China in particular, have voiced principal concerns about the allocation and distribution of emission rights under the Protocol.²²

"Grey" Business NGOs: Beginning to Rise to the Challenge

At first glance, business has continued in the post-Kyoto phase much in the same way as it had done before. In the United States, the "Carbon Club" launched a campaign to obstruct the Kyoto Protocol. The fossil fuel lobby continued its work both internationally and domestically to prevent effective action and ratification of the Protocol. However, a number of developments reinforce the expectation that the balance of power in the business community may well shift towards the more moderate and progressive forces. In April 1998, the oil giant Shell followed the example of BP and severed its ties with the Global Climate Coalition.²⁴

In addition to their strategic re-positioning in 1997 by investing heavily in solar energy, Shell and BP have declared plans to reduce their own GHG emissions by 10% from 1990 levels by 2002 (Shell) and by 2005 (BP). As another example, Du Pont announced at a conference organised by the Pew Centre on Global Climate Change in late 1999 that it would reduce GHG emissions by 65% from 1990 levels by 2010, would hold total energy use flat and use renewable energy sources for 10% of its overall energy use. Furthermore, a number of transatlantic mergers exposed their new US branches to pressure from their more moderate European partners. For example, BP Amoco, has since adopted the more progressive stance of BP. At the same time, the progressive lobby groups within business, like Cogen, the Business Council for a Sustainable Energy Future and its European counterpart (e⁵), have since consolidated and strengthened their own influence.

"Green" Environmental NGOs: In Danger of Losing their Message

Environmental NGOs have continued to work on the international process and the domestic implementation in industrialised countries. US groups in particular have shifted their focus from the international to the domestic level, in light of the importance of congressional support to the potential ratification of the Protocol. Environmental NGOs,

co-operating within the framework of the Climate Action Network (CAN), have worked for early ratification of the Protocol and an environmentally effective design of the Kyoto Mechanisms. However, green NGOs have faced two particular problems in the post-Kyoto period. First, the importance of climate change has generally declined on the political and public agendas of industrialised countries. Second, NGOs have had difficulties conveying clear messages to the public because of the increasing technical complexity of the issues. With the adoption of the Kyoto Protocol, the environmental lobby has appeared to have lost its rallying point, which in turn has reinforced these problems.

2.2 The Post-Kyoto International Arena

In the immediate period following Kyoto, exhaustion prevailed and international climate policy was characterised by a low level of activity, thus reflecting the slow implementation of domestic-level obligations. Governed by a mandate adopted by COP 3, and reinforced by COP 4 in Buenos Aires, the Kyoto Mechanisms and the issue of sinks have since become the current focus of climate diplomacy. Furthermore, the participation of developing countries has remained high on the international agenda.

Focus on the Kyoto Mechanisms

The Kyoto Mechanisms (Joint Implementation, CDM, Emissions Trading) have been the primary focus of attention in the post-Kyoto process. Many design features were left unresolved in the Protocol, including the institutional set-up, monitoring and verification, responses to non-compliance, eligibility criteria for projects among others. ²⁷ In addition to the many technical issues concerning the concrete terms of the mechanisms, one highly politically charged question that remains relates to whether upper limits ("caps") should be set on the use of the Kyoto Mechanisms in order to ensure that the purchase of emission allowances abroad remains "supplemental" to domestic action.

The political "camps" confronting each other on the design of the Kyoto Mechanisms have remained very much unchanged since Kyoto. On the one hand, the US and other members of the "umbrella group" prefer as little regulation as possible so as not to constrain the availability of the mechanisms and, above all, Emissions Trading. On the other hand, the EU proposed a rather complicated formula for a quantitative "ceiling" on the use of the Kyoto Mechanisms in 1999.²⁸

The work programme on the Kyoto Mechanisms,²⁹ which forms part of the Buenos Aires Plan of Action adopted at COP 4, specifies that detailed rules for all mechanisms should be adopted in one package at COP 6, scheduled to take place in late 2000 or early 2001 (probably in the Netherlands). By consolidating the rules of all three Kyoto Mechanisms, industrialised countries successfully pressured developing countries to agree not only on the rules of the CDM, for which many had shown a particular interest, but also on Emissions Trading and JI. There is, however, the danger that concerns regarding the environmental effectiveness of the instruments will receive inadequate attention.³⁰

Another potential threat to the effectiveness of the regime would be a hasty expansion of the sink categories under the Kyoto Protocol.³¹ After lengthy discussions in 1998, Parties at COP 4 linked both the treatment of forest sinks and the inclusion of further categories of sinks to a special report by the IPCC to be adopted after the year 2000.³² Although the issue was thus effectively postponed, the US and other non-EU industrialised countries, tried to push the debate at the political level during the Subsidiary Body meetings in Bonn in June 1999.³³

This behaviour was felt to be questionable, since the US was in effect trying to expand sink categories in advance of the publication of the IPCC special report. Unfortunately, the EU seemingly demonstrated limited interest nor effort in resisting these attempts.

The Demand for Early Developing Country Participation: Stifling Progress

Although the question of developing country participation in the Kyoto Protocol is not currently on the official agenda, it has remained one of the most prominent issues throughout the post-Kyoto discussions.³⁴ There have been continuing calls from the US and other non-EU industrialised countries for the "meaningful participation" of developing countries in combating climate change. In response, China and India have made the per capita distribution of emission rights one of their central demands. The result has been deadlock in the negotiations.

The event that triggered and deepened the debate at COP 4 in Buenos Aires was the announcement by Argentina's President Menem that his country would adopt a voluntary quantitative commitment by COP 5, coupled with a call for equal access to Emissions Trading. To many observers, these types of voluntary emission limits could threaten to further dilute industrialised countries' reduction obligations. In particular, a high Argentinean voluntary target, based upon a (strategically increased) business-as-usual energy scenario, could introduce a large quantity of excess emission allowances into the trading system.

Some progress in the post-Kyoto phase was achieved with respect to the strengthening of the provisions related to the transfer of financial resources, technology and know-how. Decisions on the transfer of technology³⁶ and the financial mechanism³⁷ were approved as part of the Buenos Aires Plan of Action. The GEF was entrusted with the operation of the financial mechanism, which will be reviewed every four years. The GEF will also finance measures designed to assist vulnerable developing countries in adapting to climate change impacts, such as rising sea levels. At the same time, compensation for potentially negative effects of climate protection, such as a reduced demand for fossil fuels and raw materials, will remain, as a result of the request by OPEC members, on the agenda of the Convention organs as well.

Slow Progress on Other Issues

The number of other topics on the international climate policy agenda has certainly not decreased in the post-Kyoto phase. Some activities from the pre-Kyoto period continue to be addressed, such as the elaboration of a non-compliance procedure and the development

of policies and measures (PAMs) for the mitigation of climate change.³⁸ In addition, COP 4 endorsed the work programme on methodologies, as well as the national communications and emission inventories, which had been elaborated at the sessions of the subsidiary bodies in the summer of 1998.³⁹ These items will be further addressed during the preparations for the first session of the Conference of the Parties serving as the meeting of the Parties (COP/MOP) to the Protocol.

In another field, the laggards clearly gained some points. The first review of the "adequacy of commitments" of industrialised countries under the FCCC at COP 1 in Berlin resulted in the Berlin Mandate, which in turn led to the Kyoto Protocol. In view of the importance of such provisions, Article 4.2(d) of the Convention had mandated a second review by 31 December 1998 at the latest. This review, however, did not take place in Buenos Aires, in part because of the deadlock between industrialised and developing countries. Of particular note and concern in this context is the fact that the Parties to the Convention apparently do not find it troubling to disregard concrete deadlines that are set out in the treaty. Equally serious was the inability of the Parties at COP 4 to agree upon a date for a third review.⁴⁰

2.3 Conclusion: The State of Climate Policy and some Underlying Factors

Developments in civil society regarding climate policy have been characterised by contradictory trends. On the one hand, the importance of climate change has diminished on the public agenda in many industrialised countries, despite a high level of public awareness. On the other hand, business and industry have increasingly accepted the need to act. However, GHG emissions have continued to increase in almost all countries.

The international landscape of climate politics has remained relatively stable in the post-Kyoto period. The Buenos Aires Plan of Action set the stage for the future international process. However, the international process has lost considerable momentum in the post-Kyoto period, with progress having been seriously threatened. Various laggards appear to grasp every opportunity to undermine the Kyoto agreement and to retreat from their obligations.

Several underlying trends help to explain this situation. First, domestic implementation of the Protocol, the key to and basis for progressive positions on the international level, continues to be superficial at best (see Chapter 2.1). Second, the domestic political conflicts of the US have been replicated at the international level, with many problems created by the US in its call for the "meaningful participation" of developing countries.

Third, the institutional capacity of the COP and the COP/MOP of the Protocol to deal with these problems appears to be woefully inadequate. The Convention process still lacks formally agreed voting rules and this shortcoming has similarly affected the Kyoto Protocol, threatening to further stifle progress. The consensus requirement will lead to even more decisions based on the lowest common denominator, since it enables individual countries and small groups of countries representing special interests, like OPEC or Australia, to exercise undue influence.

Fourth, the post-Kyoto negotiations have been characterised by immense complexity. By insisting on dealing with several Kyoto Mechanisms at once, and by including GHG sinks in the Kyoto Protocol, the laggards managed to overload the process with a multitude of technical problems. As a result, it has become increasingly clear that no individual can grasp the overall picture in the post-Kyoto phase.

As a consequence, the NGO community now finds itself caught up in the complexity trap. Not only have they become trapped in the minutiae of technical details, they have also become partly deprived of their role as intermediaries to the media. Once the Kyoto Protocol had been agreed, NGOs lost the central compelling message that had been used to mobilise public pressure.

Under these circumstances, the prospects for the entry into force and implementation of the Kyoto Protocol remain uncertain. International climate policy has arrived at a critical juncture at the turn of the millennium. After a decade of international discussions, the time is ripe for a leadership initiative based on strong domestic implementation of the Kyoto targets. At present, the European Union is the only industrialised player who could provide such leadership.

3. The European Union Must Lead on Climate Change

Following the third Conference of the Parties (COP 3) at Kyoto in November 1997, the Kyoto Protocol was regarded with some degree of awe and characterised as a "koan" in the Zen tradition. Since then, the international process has become entrenched in battles of retreat, most notably as regards the concrete design of the various flexibility instruments, the so-called "Kyoto Mechanisms" (see Chapter 2.2).

Time, however, is running out and with each year that implementation of the Kyoto targets is delayed, the potential for their full realisation becomes that much more unlikely. If the entry into force of the Kyoto Protocol is not achieved by 2003/2004, the challenge of saving the Kyoto Protocol from complete failure will be a giant's task, if not an unattainable one. 42 In this case, it will be impossible to reach the domestic targets established by the Kyoto Protocol (in particular for the US and Japan), in light of the considerable time it takes to reverse emission trends.

According to projections made by the International Energy Agency, CO₂ emissions in all major industrialised countries will rise considerably by 2010 if no additional measures are taken. Drastic policy changes are thus required soon in all major industrialised countries in order to achieve the Kyoto targets. If these changes are not realised, the much-needed reorientation of industrial societies towards climate-friendly economies with low fossil fuel consumption will be delayed. A stagnant climate policy on the part of the Western industrialised countries, behind which most countries follow, would only serve to reinforce the conventional economic development path now followed by the developing countries. This in turn, would present considerable impacts on future global emissions.

The international process thus lacks fresh momentum, vision and leadership and suffers from a dangerous level of inertia. While the more progressive industrialised countries (essentially a number of EU Member States) wait for the US to exercise its responsibility and join forces with them, the US and other laggard countries like Australia are striving to delay action further in order to extract more concessions. The longer it takes to reach agreement and to start action, the stronger the case for the laggard countries to attempt to dilute existing obligations on the spurious grounds that existing ones are no longer realistic nor viable.

3.1 The Rationale of a Leadership Initiative on Climate Change

The EU has remained committed rhetorically to leadership on climate change in the post-Kyoto phase, but its actions have not reflected its stated commitments. The EU's post-Kyoto strategy of attempting to persuade the US into an agreement at all costs has proven to be ineffective. By contrast, experience with other regimes has shown that leadership can be best mobilised through a combination of three components. First, the leader must make use of general political and economic weight. This is referred to as structural leadership. Second, leadership in international negotiations requires the skilful building of coalitions, otherwise referred to as instrumental leadership. Third, and perhaps most importantly, credible leadership is most effectively advanced by demonstrating solutions to others, i.e. directional leadership. Domestic action, in the form of leadership by example, is a decisive element of this third factor.⁴³

The emergence of the Montreal Protocol on Substances that Deplete the Ozone Layer in the mid-1980s is a prime example of strong environmental leadership on the part of the US (an unlikely possibility in the 1990s). 44 Similar leadership strategies proved highly successful in the negotiation of the Land Mines Treaty. A pioneering group assuming leadership on climate change would receive massive support from non-governmental organisations, as could be observed during the establishment of an International Criminal Court in Rome in June 1998. Given the reluctance demonstrated by the US and Japan, the EU is the only candidate that might reasonably be expected to forge a Leadership Initiative on climate change. Led by the Union, a coalition could be formed on the international level, which actively and publicly pursues climate protection. With some potential for success, the EU could aim at winning support on different issues from a number of CEIT countries, from committed developing countries and, possibly, from Japan as the host of COP 3. In this manner, the critical mass of countries necessary to breath new life into international climate policy could be achieved.

The Initiative would have to be pursued within the framework of the climate regime, albeit independently of the laggard states.⁴⁵ As stated before, independent action is required at this point, since waiting for the laggards would ultimately paralyse the process. At the same time, however, it is important that a leadership group remains firmly committed to the climate regime, since divergence from the existing regime could severely jeopardise the climate process as such. As fragile as this approach may seem, it is the only credible and viable way to save the intergovernmental negotiating process in the short and long-

term. The FCCC and the Kyoto Protocol have considerable potential, since they provide much of the structure needed to mobilise the necessary international co-operation, which in turn is needed for effective climate protection. The climate regime furthermore enjoys wide public attention and approval. Weakening the FCCC and the Kyoto Protocol could thus play into the hands of those inimical to the concept of restraints on the use of fossil fuels.

A Leadership Initiative should help give momentum to the international climate process through concurrent action on the international and domestic levels. Should it adopt this role, Europe must liberate itself from the influence, pace and position of the US. Many consider US participation to be vital, a result of fears concerning competitive economic disadvantages. Yet, by exploiting the available low-cost potentials for reducing GHG emissions and by investing in strong ecological protection measures that will eventually lead to economic benefits, there is much room for acting without the US (see Chapter 3.3 below). It is important to recognise that the EU and others have been waiting for the US for nearly a decade now. Rumours suggest that COP 6 might be postponed until early 2001 in order to wait for the outcome of the next presidential elections in the US in November 2000. Climate protection was postponed in a similar way by the US presidential elections in 1992 and in 1996. Although the candidate supported by environmentalists won both times, the US has not altered its position much. The time has definitely come for the EU to take the lead.

In many respects, the Union has a considerable potential for forging a new Leadership Initiative. It is without doubt one of the most influential players in international affairs, climate policy in particular, and has command over significant political and economic resources (structural leadership). It could use these resources to pressure its negotiating partners and to build effective coalitions. Moreover, its diverse diplomatic capabilities are enhanced by the combined experience of the Member States in foreign relations (instrumental leadership). The UK and France, but also Germany and other EU members, have long-established close relations with many parts of the world. If these advantages were to be combined, the EU could initiate a strong and effective leadership coalition on climate change. And finally, both the diverse experiences with implementation in the Member States and the existing system for co-ordinating policies on the European level give the Union exceptional tools for taking domestic action, and thus for leading by example and increasing the pressure on the US and others (directional leadership).

The envisioned Leadership Initiative might focus on the following core elements. First, it should aim for the *early ratification* of the Kyoto Protocol. This should be top priority. Second, the initiative should introduce measures for *domestic implementation* of the Kyoto obligations and make a concurrent effort to co-ordinate such measures internationally. Third, since the involvement of *developing countries* in the climate process is of utmost importance for the medium and long term effectiveness of climate protection, special efforts need to be undertaken to integrate these countries into the formation of international climate policy. Each of these elements is explored in the following sections.

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3.2 The First Element of a Leadership Initiative: Early Ratification

Ratification prospects and the entry into force of the Protocol are rather bleak at this point (see Chapter 2). Since almost all of those AOSIS countries that are Parties to the Convention will join, the 55 ratifications required for entry into force of the Protocol will most likely be met. A serious obstacle is, however, presented by the requirement that the ratifying Annex I Parties represent at least 55% of the total CO₂ emissions of 1990 allocated to Annex I Parties. Therefore, at least two of the three main emitters (the US, EU and Russia) must ratify (see Table 2).

Table 2: Emission Percentages of Parties or Groups of Parties

Party / Group of Parties	% of Annex I emissions in 1990
EU	24.2
CEITs	7.4
(without Russia)	
Russia	17.4
JUSSCANNZ	50.8
USA	36.1
Japan	8.5
Canada	3.3
EU + Russia + Japan + CEITs	57.5

Source: FCCC/CP/1997/7/Add.1, Annex. Note that since Ukraine had not submitted a first communication, its emissions in 1990 of roughly 5% of Annex I Parties are not considered for ratification purposes.

First and foremost, this requires an internal strategy for a synchronised ratification of the Union and its Member States, as proposed by the Commission in mid-1999. ⁴⁸ To date, the EU and its Member States have done little to accelerate ratification. Officially, the EU maintains that it must know what it will be subscribing before it actually ratifies, and thereby continues to level pressure on the US and the "umbrella group" by threatening with non-ratification. ⁴⁹ The Union should realise that trying to force reluctant parties with threats of inaction is an ineffective strategy. Taking the lead by initiating ratification would also expose the laggards to the public at large as the true forces which are responsible for preventing the Kyoto Protocol from entering into force. Finally, stronger EU leadership would in turn generate much-needed pressure on Member States to finally implement effective policies and measures to reduce GHG emissions on the national and European levels. Such leadership could prove that effective climate policy is a realisable goal and that the Kyoto Protocol is a robust and effective instrument for achieving that goal.

Furthermore, EU ratification must be seen as the first step of a strategy for ensuring the entry into force of the Kyoto Protocol. Because of the fierce opposition to the treaty in the US Senate, entry into force will probably have to be achieved without the US and possibly Canada, Australia or New Zealand. Thus, the Union should attempt to induce Russia and

Japan (and the Ukraine) out of the "Umbrella Group" and obtain the support of other countries with economies in transition. ⁵¹ In the case of those CEIT countries that are planning to accede to the EU in the medium or long term, joining forces with the EU on climate change should be an obvious component of the accession process. Many of the accession candidates had tended to align themselves with the EU during the 1990s. Therefore, forging continued and greater collaboration on the climate issue with the accession countries could be an important component of a larger strategy of building stronger East/West cooperation within Europe. As regards Russia, a Protocol-focused diplomatic initiative by the EU could likewise underlie a larger effort aimed at improving co-operation with that country.

Table 2). Regarding climate change, Russia's major interest is to sell as much of its hot air (i.e. its excess emission allowances, which resulted from the transition process) as possible. However, since Russia's ability to sell this hot air depends on the entry into force of the Protocol and on a trading system, Russia has a strong interest in an operational climate regime. While it would like to have the US as a possible buyer on board, it would be more profitable for Russia to sell at least *some* of its emission allowances to interested European countries (and Japan) than to sell none at all, as would be the case should the Protocol not enter into force. Alignment with the US as a probable outsider, which might prevent the entry into force, therefore entails some degree of risk for Russia.

The Union could exploit this situation, but this will require a carefully designed diplomatic effort towards Russia and Japan. This effort must take into account the special interests of these countries and the fact that past conflicts were in fact mainly related to the design of the Kyoto Mechanisms. Sa A sustained diplomatic initiative towards Russia and Japan might thus require a more proactive stance on these Mechanisms. Sa Just as US Vice President Gore charged his negotiating team at COP 3 to "show increased negotiating flexibility if a comprehensive plan can be put into place", Sa EU negotiators should be similarly instructed. Compromise on all sides will be necessary if agreement is to be reached.

Without such an effort, entry into force of the Protocol will be delayed along with increasing pressure to widen the "loopholes". Moreover, it will become increasingly difficult for many industrialised governments to meet their targets in the absence of domestic implementation. This is also the case for a number of EU Member States, which are intending to rely heavily on Emissions Trading, JI and the CDM for the fulfilment of their obligations (see Chapter 2.1).

As a result of this potential diplomatic initiative, it might also be possible for the emerging leadership group to agree upon a fee for all activities under the Kyoto Mechanisms (particularly on Emissions Trading), as is the case for the CDM. This would level the playing field between the different mechanisms, thereby increasing the chances of obtaining the approval of many developing countries that are interested in the CDM. It would also raise the transaction costs of Emissions Trading and thereby provide domestic measures with a comparative advantage. And finally, this might provide the necessary financial resources for the establishment of an adaptation fund as part of the third pillar of the Leadership Initiative (see Chapter 3.4).

would demonstrate again that the world can act independently of the last remaining event, it would end the de-facto veto power of the US in the international process and it new century. This would increase the pressure on others to join so as to be able to intocol, which are only quantifiable in the rarest of cases, might undermine the basis of the climate regime. Finally, an inflationary addition of new categories of sinks under the Proare of prime importance for the environmental and economic effectiveness of the emerging would prove that the Kyoto Protocol is, despite assertions to the contrary, alive. In any fluence future decisions. It might even facilitate the ratification process in the US as it achieve an early entry into force of the Protocol after COP 6, during the first year of the would have substantial influence in the elaboration of the Kyoto Mechanisms and could between the blocks (i.e. the EU versus the Umbrella Group) by forging new coalitions. It tages required to enable the entry into force of the Protocol. Japan has a profound diplostrategic alliance with Russia and Japan. This in turn, would secure the emission percenon the defensive, if it insists upon a sound design for the Kyoto Mechanisms and for the Kyoto Protocol. The Union would stand to gain considerably, and would put its opponents reporting and the effective enforcement of the rules of the mechanisms. These measures Furthermore, the Union should continue to insist on clear definitions, strict monitoring and superpower, as it has done in other cases. matic interest in the success of the Kyoto Protocol and this will provide it with a further rules on sinks. Agreement upon these issues could pave the way for the formation of a incentive to join this new alliance. This alliance would end the stifling confrontation

3.3 The Second Element of a Leadership Initiative: Measures for Domestic Implementation and their Co-ordination

Domestic implementation is possibly the most fundamental basis for exercising leadership on climate change. Despite all its weaknesses during the negotiations of the Kyoto Protocol, EU leadership was most credible when it started to lay the ground for domestic implementation. However, in the post-Kyoto phase, the pace of domestic implementation has slowed considerably. This is due to several factors, including: lack of political will; the fear of comparative disadvantages within global markets; serious resistance on the part of some industrial sectors; and an overall lack of public pressure.

A second pillar of a Leadership Initiative could therefore be the implementation of policies and measures among a larger group of countries in order to begin the long process of structural decarbonisation of the economy. Even before Kyoto, a number of studies had provided evidence of the vast potential of low- and no-cost options for reducing GHG emissions in the EU and elsewhere. This evidence has since been confirmed and reinforced in the post-Kyoto period. An analysis of the European Commission in 1999 concluded that the EU can indeed achieve two-thirds of its target of minus 8% for the first commitment period by implementing low-cost measures of up to 5 Euro per tonne of CO₂ equivalent. Shoother study concluded that the average net annual savings due to measures to reduce CO₂ emissions in the US by 7% below 1990 levels by 2010 amount to US \$ 46 billion or US \$ 393 per household. Shoother study concluded that the average net annual savings due to measures to reduce CO₂ emissions in the US by 7% below 1990 levels by 2010 amount to US \$ 46 billion or US \$ 393 per household.

Given this cost-saving potential, it is very clear that it is not the economic costs per se, but rather the political opposition, which prevents implementation of the Kyoto targets. Within the framework of an EU Leadership Initiative, such impediments could be addressed through the exertion of common political will of the EU Member States and other allies. Remaining concerns about competitiveness could be minimised through the co-ordination of policies, for example with Japan. The EU and its Member States have a wealth of experience in policy co-ordination which they can easily employ for this purpose, in light of the preparatory work, which has been done by the European Commission and others in past years.

Experience with the rather unsuccessful attempts of the EU to establish binding policies and measures in the Protocol⁵⁷ suggests that, first, emphasis should not be placed on binding measures but on a transparent and accountable process of co-ordination. Second, due to the benefits that can be expected from co-ordination, the Leadership Initiative should concentrate on a limited set of measures upon which agreement can most likely be reached. A leadership group of committed countries could thus be formed to demonstrate that ecological protection and an efficient and strong economy are not only compatible, but also mutually reinforcing targets.

Fiscal policy is one of the most important tools of climate policy. Even minor tax differentiations can be very effective, as the experience with the phasing out of leaded petrol in Europe shows. ⁵⁸ A number of countries (especially in Europe) have already successfully implemented energy/carbon taxes and there is sufficient experience in successful design and development. ⁵⁹ This economic instrument does have a direct impact on the competitive situation of various businesses, and many of the relevant countries have therefore granted tax exemptions of various degrees to relevant industries. Because of this competitiveness aspect, the case for a European and international co-ordination of related efforts is compelling. Taxation on a global level, however, appears to be politically unfeasible, in large part due to fierce US opposition. ⁶⁰ Japan is generally more supportive of the use of such economic instruments and as such, it could be an ally for the co-ordinated national implementation of carbon/energy taxes. ⁶¹

Furthermore, structural decarbonisation in the next century will require the rapid development of low- or no-carbon energy sources. A second focus of the leadership group could be directed towards a large-scale co-ordinated effort in research and development (R&D) for renewable energy sources and for the promotion of energy efficiency. The coordination of such efforts certainly has a significant potential for producing much-needed synergies. And by relying partly on existing international institutions and research networks, such a co-ordinated R&D strategy could bring about substantial progress within the next 10 years, if funded appropriately.

A third focus should be on forging international agreement on guidelines for dismantling climate adverse subsidies in order to mobilise new resources. Numerous studies have shown that vast amounts of financial resources are flowing into carbon intensive and unsustainable industries and activities. For example, subsidies for fossil fuels and nuclear energy in OECD countries amount to some US \$ 65 billion annually (US \$ 145 billion

world-wide).⁶⁴ The rationale for such subsidies is frequently the protection of relevant industries from international competition. Internationally co-ordinated action could thus help address this concern. Such an initiative could be linked to efforts within the World Trade Organization. At least part of those subsidies could then be diverted into R&D and into temporary support for the development and introduction of renewable energy sources into the market.

Fourth, there is a need to co-ordinate efforts to strengthen the energy efficiency standards existing in all major industrialised countries. Improving the efficiency of energy use is not only of major strategic importance for a significant reduction of global GHG emissions. Co-ordination of efficiency standards (for household appliances, etc.) should also be of interest to most industrialised countries since it would ultimately facilitate international trade by removing or avoiding potential trade barriers (e.g. where efficiency requirements are a precondition for entry into foreign markets). Finally, reaching agreement on climate-friendly public procurement and emission reduction measures for the public sector should be politically feasible as well. The public sector accounts for a large share of domestic demand and can thus exercise formidable influence on the market. 66

These proposed EU Leadership Initiative activities directed towards the co-ordination of domestic measures could both decisively assist the members in implementing their obligations under the Kyoto Protocol and could catalyse of public awareness and education. It should be complemented by strong public statements for ratification and implementation by the group of Parties. Such a strategy was highly successful in the ozone negotiations, where various leading countries, in the absence of a consensual agreement on further measures, annexed resolutions and declarations of support to the reports on the Meetings of the Parties. It is interesting to note that the majority of these demands were actually met in the next round of negotiations.⁶⁷

There are numerous advantages to proceeding in a co-ordinated manner in the aforementioned areas. In addition, and irrespective of broader international co-ordination, there is ample room for unilateral action to implement the Kyoto commitments both within the EU and elsewhere. Such unilateral efforts will be essential for ensuring the successful implementation of the Protocol and for the mobilising of leadership on climate change.

3.4 The Third Element of a Leadership Initiative: Enhanced Involvement of Developing Countries

For a long time, indeed since the historical alliance that was forged between the EU and many developing countries at COP 1 in Berlin, ⁶⁸ the EU has neglected its traditionally close relations with these countries. Increased participation of developing countries in the climate regime should therefore be a third goal of the Leadership Initiative. Although the demand of the US for "meaningful participation" is inappropriate at this point and could well undermine the present stage of development of the international climate regime, there can be no doubt that the long term sustainability of our planet will require the substantial involvement of those countries in the not-too-distant future. ⁶⁹ Because the forceful

demands of the US and others before and after Kyoto have increased the sensitivity of developing countries, any such diplomatic effort must be conducted with great care if it is to succeed.

The needs and interests of developing countries must be addressed first. A primary interest of many developing countries lies with adaptation, since they are particularly vulnerable to changes in the global and regional climate. For this reason, an adaptation component was included as part of the Clean Development Fund proposed by Brazil in the run-up to Kyoto. After Kyoto, the participants at the African Ministerial Conference on Environment (AMCEN) in October 1998 recommended the establishment of an "adaptation fund" and a "seed fund". At present, limited funds are available through the GEF for adaptation. Article 12.8 of the Kyoto Protocol furthermore requires that "a share of the proceeds" from CDM activities is to be used to assist developing countries to meet the costs of adaptation. However, these resources are rather limited, and will continue to be so even after the CDM becomes operational.

A first emphasis of the Leadership Initiative might therefore be on the elaboration and implementation of an adaptation strategy led by the EU and some key developing countries. This should include both the financing of studies related to impacts and adaptation and the mobilising of additional resources for adaptation, e.g. through the establishment of an adaptation fund. The resources needed to finance an adaptation strategy could be generated by a fee (similar to the one already applicable under the CDM) on activities under all three mechanisms (see above), which could be used, at least partly, for such a fund. As a beneficial side-effect of this initiative, the true costs of adapting to climate change could well become visible. And this in turn would put cost estimates for mitigating climate change into perspective.

Such an initiative on adaptation would generate much support within and outside of the climate regime. It would demonstrate that the special situation of developing countries is being taken into account, without raising fears of a hidden agenda. And it would free AOSIS countries from their dilemma as regards the CDM (see Chapter 2.1).

A second short-term component of the Leadership Initiative could consist of a diplomatic collaborative effort to design the CDM in an environmentally effective and economically efficient manner. The issues to be addressed include the proper functioning of this instrument, for example through the definition of verifiable and strict baselines, comparable methodologies for verification etc., but also those that are primarily emphasised by developing countries, such as the "financial additionality" with regard to other sources of funding (Official Development Assistance) and the integration of sustainable development objectives. A truly collaborative effort to design the CDM in a mutually beneficial manner could serve as a confidence-building exercise.

Third, the Leadership Initiative could begin a dialogue with developing countries on the fair and equitable allocation of "emission rights". The allocation of "assigned amounts of emissions" on the basis of 1990 emissions ("grandfathering") in the Kyoto Protocol was perceived by many to be inequitable. A number of alternative proposals have been made

for the distribution of emission rights, including the pre-Kyoto Brazilian proposal to allocate emission rights on the basis of historic emissions (i.e. "effective emissions"). The most prominent proposal is the one which aims at convergence towards equal per-capita emissions, as advocated by India at COP 1 in Berlin. Others have proposed to take GDP per capita and other factors into account to allocate emissions allowances.⁷⁵

This is an extremely sensitive issue. Emphasis should therefore be placed on building confidence and common understanding through a discussion process separate and apart from the official negotiations. Such a discrete process might also remove some tension from the international negotiating process if the EU (and its allies) carefully avoid placing pressure on their partners. Apart from addressing the difficult issue of allocation of emission allowances between industrialised and developing countries, these discussions might also pave the way for a more constructive approach towards differentiation between developing countries.

The problem is partly rooted in the binary classification of Parties as Annex I/non-Annex I countries in the Convention. Annex B of the Kyoto Protocol perpetuates this artificial division. The dividing line in economic and ecological terms, in contrast, runs through these categories. Some of those countries labelled as developing countries are more affluent than their counterparts. For example, the GDP per capita of Singapore, South Korea and Israel is equal or higher than that of some members of the European Union, such as Greece, Spain and Portugal. 78

A process for differentiating commitments for developing countries appears therefore to be a reasonable goal. The Kyoto Protocol itself recognises the need for differentiation through the specific targets listed in Annex B and through the "joint fulfilment" mechanism under Article 4, which allows the EU Member States to reach their reduction target by way of internal burden-sharing. During the 1990s, a number of countries sought to establish differentiated targets based on a variety of possible criteria. The Aconsiderable number of Latin American and AOSIS countries are amenable to some form of specific commitments for developing countries.

The failure of industrialised countries to respond adequately to the challenge of climate change so far has not enhanced the willingness of developing countries to contribute to mitigation efforts in the near future. ⁸¹ Nevertheless, major developing countries have effectively de-coupled economic growth and emissions of GHGs to a larger extent than many industrialised countries. ⁸² Under these circumstances, a thoughtfully developed effort is needed to commence the process for involving developing countries in a fair and equitable manner.

4. Conclusion

After a decade of talk, it is imperative that the international community enters the new millennium with renewed momentum and commitment to drive international climate policy towards action to reduce GHG emissions. The EU is the only industrialised player

in sight with the ability to undertake a Leadership Initiative aimed at (1) ratifying the Kyoto Protocol and bringing it into force, (2) initiating broad domestic implementation of the Kyoto targets and international co-ordination of measures in that respect and (3) starting an international process of discussion with the long term goal of involving developing countries more closely and more equitably in the international efforts.

reality in the second decade of the 21st century. After nearly 10 years of development of commitments by the biggest emitters amongst developing countries could also become a ments will be required in order to direct industrialised countries towards the long term goal countries for the second commitment period from 2013-2017 will be on the international next steps of the international process. In this respect, quantified targets for industrialised sures to mitigate climate change. It will also set into motion a process of much-needed dynamic progress towards protecting the Earth's agenda in the middle of the next decade. A substantial strengthening of existing commitwithout burning ever increasing amounts of fossil fuels. This could decisively facilitate the public awareness raising to demonstrate that overall well-being can indeed be improved further incentives to governments world-wide to vast array of future opportunities. It will re-invigorate the Kyoto Protocol and will provide If the envisioned Leadership Initiative can be established successfully, it will open up a of an emission reduction in the order of 80%. If the climate regime, the Leadership Initiative would thus provide the opportunity for an equitable scheme can be devised, climate for the benefit of humankind. implement effective policies and mea-

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Literature

Sebastian Oberthür and Hermann E. Ott: The Kyoto Protocol, International Climate Policy for the 21st Century. 1999. XX, 359 pp. 14 figs., 15 tabs., 3-540-66470-X, DM 98,- (Recommended Retail Price)

Literature

Bail, Christoph 1998: Das Klimaschutzregime nach Kyoto. *Europäische Zeitschrift für Wirtschaftsrecht*, Vol. 9, No. 15, 457—464.

Baumert, Kevin A., Ruchi Bhandari and Nancy Kete 1999: What might a Developing Country Climate Commitment Look Like? Washington, D.C.: World Resources Institute. Benedick, Richard Elliot 1998a: Ozone Diplomacy. New Directions in Safeguarding the Planet. Second edition, Cambridge (Massachusetts): Harvard University Press.

Bernow, S., K. Cory, W. Dougherty, M. Duckworth, S. Kartha and M. Ruth 1999: America's Global Warming Solutions. Washington, D.C.: WWF/Energy Foundation. Breidenich, Clare, Daniel Magraw, Anne Rowley and James W. Rubin 1998: The

American Journal of International Law, 1998, 315-331.

Centre for Science and Environment 1998: The Kyoto Protocol. What it says? New

Kyoto Protocol of the United Nations Framework Convention on Climate Change.

Delhi (India): CSE.

Coenen, Reinhard and Gerhard Sardemann 1998: Das Kyoto-Protokoll zum Schutz des Klimas—Erfolg oder Mißerfolg? Karlsruhe: Forschungszentrum Karlsruhe/ITAS.

Cooper, Richard N. 1998: Toward a Real Global Warming Treaty. Foreign Affairs, Vol. 77, No. 2, 66—79.

Davies, Peter G.G. 1998: Global Warming and the Kyoto Protocol. The International and Comparative Law Quarterly, Vol. 47, April 1998, 446-461.

EIA 1999: International Energy Outlook. Washington, D.C.: Energy Information Administration.

European Commission 1998b: Climate Change — Towards an EU Post-Kyoto Strategy. Commission Communication to the Council and the European Parliament (COM(98)353 final), Brussels.

European Commission 1999: Preparing for Implementation of the Kyoto Protocol. Commission Communication to the Council and the Parliament (COM(99)230 final), Brussels.

Feenstra, J., I. Burton, J. Smith and R. Tol (eds.) 1998: Handbook on Methods for Climate Change Impact Assessment and Adaptation Strategies. version 2.0., Nairobi/ Amsterdam: UNEP/Vrije Universiteit Amsterdam.

Fischer 1998: Fischer Weltalmanach 1999. Frankfurt am Main: Fischer.

Flavin, Christopher 1998: Last Tango in Buenos Aires. *World Watch*, November/ December 1998, 11—18.

Friends of the Earth International 1998: Carbon Justice! Developing an Equitable Global Solution to Stabilize Greenhouse Gas Concentrations at a Safe Level in Accordance with the Climate Convention (Climate Change Briefing Oct. 1998). Amsterdam. Grubb, Michael, Christiaan Vrolijk and Duncan Brack 1999: The Kyoto Protocol. A Guide and Assessment. London: The Royal Institute of International Affairs, Earthscan. Gupta, Joyeeta and Michael Grubb (eds.) 1999: Climate Change and the Leadership Paradigm: Options for the European Union. Dordrecht: Kluwer (forthcoming).

IEA (International Energy Agency) 1998: World Energy Outlook 1998 Edition. Paris: IEA/OECD.

INFRAS AG/TERI 1997: Long term carbon emission targets aiming towards convergence. New Delhi.

finished Business. Foreign Affairs, Vol. 77, No. 4, 54—66. Jacoby, Henry D., Ronald G. Prinn and Richard Schmalensee 1998: Kyoto's Un-

Kinzig, Ann P. and Daniel M. Kammen 1998: National Trajectories of Carbon

Global Environmental Change, Vol. 8, No. 3, 183-208. Emissions: Analysis of Proposals to Foster the Transition to Low-carbon Eonomies

to Oil in the United States (a report for Greenpeace). Koplow, Douglas and Aaron Martin 1998: Fueling Global Warming. Federal Subsidies

Loske, Reinhard 1996: Klimapolitik. Im Spannungsfeld von Kurzzeitinteressen und Langzeiterfordernissen. Marburg: Metropolis.

and Environment Alike. Winnipeg: IISD. Meyers, N. and J. Kent 1998: Perverse Subsidies: Tax \$s Undercutting Our Economies

Moor, André de and Peter Calami 1997: Subsidizing Unsustainable Development. Undermining the Earth with Public Funds (commissioned by the Earth Council).

Müller-Kraenner, Sascha 1998: Zur Umsetzung und Weiterentwicklung des Kioto-Protokolles. Zeitschrift für Umweltrecht, Vol. 9, No. 3, 113—115.

Climate Policy for the 21st Century. Berlin: Springer. Oberthür, Sebastian and Hermann E. Ott 1999: The Kyoto Protocol. International

Oberthür, Sebastian and Hermann E. Ott 1995: UN/Convention on Climate Change: The First Conference of the Parties. Environmental Policy and Law, Vol. 25, No. 4/5,

Ott, Hermann E. 1998: The Kyoto Protocol. Unfinished Business. Environment, Vol. 40, **OECD 1995**: Subsidies and the Environment — Exploring the Linkages. Paris: OECD. No. 6, 16—20, 41—45.

Ott, Hermann E. 1998a: Umweltregime im Völkerrecht. Eine Untersuchung über neue Schutz der Ozonschicht und zur Kontrolle grenzüberschreitender Abfallverringerung. Baden-Baden: Nomos. Formen internationaler institutionalisierter Kooperation am Beispiel der Verträge zum

as Much as Industrialized Countries to Slow Climate Change? Climate Notes, July 1997. Reid, Walter V. and José Goldemberg 1997: Are Developing Countries Already Doing Washington, D.C.: World Resources Institute.

Climate Change. Energy Policy, Vol. 26, No. 3, 233—237. Reid, Walter V. and José Goldemberg 1998: Developing Countries are Combating

Berlin: Springer. Schlegelmilch, Kai 1999: Green Budget Reform in Europe — Countries at the Forefront,

Schneider, Stephen S. 1998: Kyoto Protocol: The Unfinished Agenda. Climatic Change, No. 39 (1998), 1—21.

Smeloff, Edward A. 1998: Global Warming: The Kyoto Protocol and Beyond. Environmental Policy and Law, Vol. 28, No. 2, 63-68 Smith, Joel S., Megan M. Lawson and Stephanie S. Lenhart 1999: Compendium of

Secretariat/Stratus Consulting. Decision Tools to Evaluate Strategies for Adaptation to Climate Change. Bonn: UNFCCC

Measures for CO₂ Emission Reduction (edited by Dian Phylipsen, Kornelis Blok and Chris Hendriks). Utrecht (Netherlands): WWF. WWF 1998: A Review of the Stage of Implementation of European Union Policies and

Yamin, Farhana 1998: The Kyoto Protocol: Origins, Assessment and Future Challenges. Review of European Community & Int. Environmental Law, Vol. 7, No. 2, 113—127.

Notes

¹ This paper is the result of many years of participation in the international climate negotiations by the tw authors. It is furthermore the quintessence of a book, published in early October 1999, on the history and content of the Kyoto Protocol; see Oberthür/Ott 1999. the international climate negotiations by the two

Environment 1998; Yamin 1998; Ott 1998; Smeloff 1998 998; Breidenich et al. 1998; Müller-Kraenner 1998; Da For an assessment of the Protocol see Oberthür/Ott 1999; Grubb et al. 1999; Centre for Science and vies 1998. Coenen/Sardemann 1998; Bail 1998; Simonis

^{*} According to projections of the International Energy Ag fossil fuels will, under a business-as-usual scenario, rise by 32% relative to 1990 until 2010, for OECD Europe the figure is slightly lower, see IEA 1998. For a detailed account see Oberthür/Ott 1999, pp. 115 et seq. and Grubb et al. 1999, pp. 115 et seq. According to projections of the International Energy Agency, emissions of CO₂ from the combustion of

This problematique is discussed in more detail in Oberthür/Ott 1999 and Grubb et al. 1999.

⁶ See in more detail Oberthür/Ott 1999, pp. 287 et seq.

Switzerland) have presented a number of common positions on relevant topics in the post-Kyoto process; see e.g. FCCC/CP/1998/MISC.7; FCCC/SB/1998/MISC.1/Add.3/Rev.1 and Add.6. See also European Commission 1998b. As a first positive result, the EU and several CEITs (as well as

See Oberthür/Ott 1999, pp. 147 et seq.

See the reminder in European Commission 1999, p. 11. See WWF 1998.

EWWE, Vol. 7, No. 15, 7 August 1998, pp. 35.

See European Commission 1999, p. 3.

ENDS Daily, 26 May 1999.

See European Commission 1999.

ENDS Daily, 23 June 1999; see also the website of the Dutch Environment Ministry (VROM) at

http://www.minvrom.nl/milieu/broeikaseffect/f.htm?41901.htm> as of 24 June 1999

[&]quot;Global-Warming Debate Gets No Consensus in Industry", Wall Street Journal, 16 April 1998 16 See Oberthür/Ott 1999, pp. 197 et seq.

appear to accept the need for action, a trend that might be reinforced by the entry into force of the Protocol (see Smeloff 1998, p. 67). Furthermore, President Clinton has ordered all federal government agencies to improve energy efficiency in government buildings by 35% from 1985 levels and to reduce GHG emissions from energy use in government buildings to 30% below 1990 levels by the year 2010 (Global Environmental Change Report, Vol. XI, No. 11, 11 June 1999, p. 3). As regards ratification prospects, the presidential and congressional elections in November 2000 may provide an opportunity for changing the internal balance in 19 First, it has become increasingly evident that the clin 18 FCCC/CP/1998/11/Add.1. among scientists the influence of which is set to decline. avour of climate policies. As typical of US politics, publ ic opinion will have a decisive say in the end. Second, growing sectors of the business community nate skeptics represent an infinitely small minority

²⁰ Already in 1998, it started exploring possibilities for JI projects in Russia; see "Japan and Russia Conclude Landmark Greenhouse Gas Swap", Reuters News Service, 19 April 1998.

Bonn (on file with authors); see also "Law Concerning the Promotion of Measures to Cope with Global Warming", in: Japan Environment Quarterly, Vol. 3, No. 4, December 1998. global warming (October 1998), and plans to expand the use of nuclear power greatly in order to achieve its target; see "Analyses on Japan's Post-Kyoto Policy Measures to Achieve the Kyoto Target", 31 May 1999, ²¹ Japan has passed some legislation to this end, including a law for the promotion of measures to prevent

²³ "Industrial Group Plans to Battle Climate Treaty", The New York Times, 26 April 1998. See Oberthür/Ott 1999, pp. 233 et seq.

²⁴ See Dow Jones Newswires, 21 April 1998, "Shell oil withdraws from powerful U.S. energy lobby group"; Greenpeace Press Release, "Shell pulls out of U.S. Anti-Climate lobby group", 21 April 1998, available at http://www.greenpeace.org/pressreleases/1998apr21. html>.

²⁵ Washington Post, 14 September 1999.

^{26 &}quot;BP Clashes with Esso over Action on Global Warming", The Guardian, 15 April 1999

²⁷ See Oberthür/Ott 1999, Ch. 13-15.

²⁸ For the EU cap proposal see Council Conclusions on a Community Strategy on Climate Change, E 8346/99, 18 May 1999. However, the EU has become increasingly divided internally on these issues.

²⁹ See Decision 7/CP 4 in FCCC/CP/1998/16/Add 1 Community Strategy on Climate Change, EU Doc.

See Decision 7/CP.4 in FCCC/CP/1998/16/Add.1.

³⁰ Cf. Grubb et al. 1999 See Oberthür/Ott 1999, pp. 130 et seq.

Decision 9/CP.4 in FCCC/CP/1998/16/Add.1

³³ On these meetings see Earth Negotiations Bulletin, Vol . 12, No. 110, 14 June 1999.

³⁴ The issue attained utmost prominence in the corridors and backrooms of COP 4 in Buenos Aires and was partly responsible for the sluggish progress at the conference.

- 35 See Annex I of FCCC/CP/1998/16.
- Decision 4/CP 4 in FCCC/CP/1998/16/Add.1.
 Decisions 2 and 3/CP 4 in FCCC/CP/1998/16/Add.1.
- 38 Regarding the former, COP 4 established a joint working group on compliance, which is to report to PAMs, Parties at COP 4 mandated the Secretariat to report on relevant "best practices" in late 1999 and to This might result in the elaboration of a non-compliance procedure by COP 6. With respect to
- organise a workshop on the matter in 2000.

 39 Decision 8/CP.4 in FCCC/CP/1998/16/Add.1; on the latter aspect see also FCCC/SBSTA/1998/9 and FCCC/SBI/1998/7.

- ⁴⁰ See Oberthür/Ott 1999, pp. 253 et seq.
 ⁴¹ Earth Negotiations Bulletin, Vol. 12, No. 76, 13 December 1997, p. 14.
 ⁴² See also Grubb et al. 1999, pp. 253 et seq.
- 43 See Gupta/Grubb 1999.
- ⁴⁴ Benedick 1998a; Flavin 1998.
- 45 This is different from the approach proposed by Christopher Flavin, who suggests the formation of a leadership group of committed countries outside of the climate regime, joined by regional governments
- cities and companies; see Flavin 1998.

 46 See European Commission 1998b.
- ⁴⁷ See Oberthür/Ott 1999, pp. 261 et seq.
- ⁴⁸ See European Commission 1999, p.11.

 ⁴⁹ Furthermore, the Union appears to be speculating internally on the accession of the first Eastern European countries. If this happens prior to ratification, this would enable the EU to incorporate some of the "hot air" available from these countries into its bubble agreement. See Oberthür/Ott 1999, pp. 141 et seq.

 ⁵⁰ Although it should be noted that Australia because of its growth target probably has a strong interest to
- Although it should be noted that Australia because of its growth target probably has a strong interest to
- join the Protocol and sell its excess emission allocations.

 The Umbrella Group was formed in Kyoto and comprises the US, Japan, Canada, Australia, Norway, New Zealand, Russia and the Ukraine. United by the common goal to design the Kyoto Mechanisms as flexibly as possible, this group has effectively played the counterpart to the EU in the post-Kyoto negotiations to date.

 The past, Russia and Japan were able to point out that the EU advocated strict limitations for the Kyoto
- Mechanisms while at the same time securing for itself the possibility to jointly fulfil its obligations under an EU bubble under Article 4 of the Protocol. For an analysis of Article 4 of the Protocol see Oberthür/Ott 1999, pp. 141 et seq.
- 28 May 1999, p. 1; see also "Clinton accuses EU of Trying to Rewrite Global Warming Pact", Wall Street quote by James Foley of the State Department in Global Environmental Change Report, Vol. XI, No. 10 of ⁵³ The attempt by the EU to establish a quantitative cap on the use of the Kyoto Mechanisms was unsuccessful in Kyoto and the US therefore accused the EU of trying to "rewrite the Kyoto Protocol"; see the Journal, 18 May 1999.
- the original), Conference of the Parties, 8 December 1997, Kyoto, Japan.
 55 Furning Commission 1000 p. 10 ⁵⁴ See Remarks by Vice President Al Gore, The United Nations Committee on Climate Change (mistake in European Commission 1999, p. 10.
- 56 Bernow et al. 1999.
- See Oberthür/Ott 1999, pp. 103 et seq. See European Commission 1999, p. 7.
- ⁵⁹ See Schlegelmilch 1999.
- ⁶⁰ See for example the call by Cooper 1998 and Schneider 1998.
- ⁶¹ According to a recent poll released by the Japanese Environment Agency, the majority of Japanese firms support a tax on fossil fuels to curb CO₂ emissions, http://biz.yahoo.com/rf/990527/u.html as of 27 May
- 62 See Jacoby et al. 1998, p. 61
- ⁶³ See also the Battelle Global Energy Technology Strategy Project to Address Climate Change.
- http://gtsp.pnl.gov/ge/home.nsf/webpage/> for a technology-based initiative.

 Meyers/Kent 1998, pp. 55-78; see also OECD 1995; Moor/Calami 1997; more specifically on climate see Koplow/Martin 1998.

 65 See "Clinton orders
- Report, Vol. XI, No. 11, 11 June 1999, p. 3. See "Clinton orders government to reduce energy use and emissions", Global Environmental Change
- Climate Friendly Technologies: Leadership Through Government Purchasing"; June 1998, available at Benedick 1998a, p. 20; see also the Climate Technology Initiative of the IEA: "Enhancing Markets for
- 67 See for example Ott 1000 --- (*) See for example Ott 1998a, pp.
- See for example Ott 1998a, pp. 200 et seq. See Oberthür/Ott 1995; Loske 1996, p. 250
- See Oberthür/Ott 1999, pp. 233 et seq. See FCCC/AGBM/1997/MISC.1/Add.3.

- ⁷¹ See UNEP press release 1998/11.
- Change: Post-Kyoto Perspectives from the South", TERI, New Delhi, http://www.teriin.org/climate/cp- Dakar, http://www.enda.sn/energie/cdmequity.htm as of 15 October 1998; Mathur, Ajay: "Climate Development of Adaptation Guidelines in the Pacific at http://www.sidsnet.org (as of September 1999).

 The See also Humphreys, Stephen/Sokona, Youba/Thomas, Jean-Philippe: "Equity in the CDM", ENDA TM, et al. 1998; Smith et al. 1999 and South Pacific Regional 4/contents.html> as of 7 July 1999 For some relevant support material that has been deve Environmental Programme (SPREP), The oped with respect to adaptation so far see Feenstra
- 18/07/1997 http://www.gci.org.uk/contconv/cc.html as of 9 June 1999; see also Friends of the Earth International 1998; INFRAS AG/TERI 1997; Kinzig/Kammen 1998; Baumert et al. 1999.

 The presenting its "Annex X" before Kyoto, the EU did give the impression that it was open for non-Cyber 1999. Humphreys et al., see footnote above.See "Contraction and Convergence: A Global Solution give the impression that it was open for non-OECD to a Global Problem", Global Commons Institute,
- ⁷⁸ In comparison with recent OECD countries like Mexico, Turkey and Hungary their figures are up to nine OECD member since 1996. oping countries, which severely strained its relations with these countries.
- gov/cia/publications/factbook> as of 6 April 1999. Their proposals were issued as FCCC/AGBM/MISC.3 and MISC.3/Add.1 to 3.

times as high; see Fischer 1998; CIA World-Factbook 1998 http://www.odci.

- 80 For example Argentina, Kazakhstan and Costa Rica have already announced their willingness to take on OECD/IEA Climate Change Forum in Paris, 10 March 1999 (on file with the authors). Presentation by Mr. Raeckwon Chung on behalf of the Korean Ministry of Foreign Affairs and Trade at the binding commitments. South Korea is considering this as well, see "Towards Global Participation",
- the end of the millennium (FCCC/CP/1998/11/Add.2). GHG inventories, 3 February 99, http://www.epa.gov/globalwarming/ inventory/1999inv.html> as of 9 June 1999); of the 24 countries listed in Annex II, only seven In the United States, net emissions of all GHG increased by 21.54% from 1990 to 1997 (EPA draft US are expected to emit CO₂ at or below 1990 levels by
- See Reid/Goldemberg 1997; 1998

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