

## THE KYOTO PROTOCOL: AN AGREEMENT WITHOUT A FUTURE?

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### I INTRODUCTION

Following two and a half years of intense negotiations culminating in some frantic last-minute bargaining, the *Kyoto Protocol to the United Nations Framework Convention on Climate Change* ('*Kyoto Protocol*')<sup>1</sup> was adopted in December 1997 at the Third Conference of the Parties to the *United Nations Framework Convention on Climate Change* ('COP 3'). At that time, there was a tangible sense of achievement and relief among the conference participants; the *Kyoto Protocol* was regarded by many as a significant advance in the quest to address, through international cooperation, the problems associated with global warming and climate change.

Most significantly, the United States ('US') and 37 of the world's other industrialised countries had agreed to build upon the general terms and objective of the *United Nations Framework Convention on Climate Change* ('UNFCCC')<sup>2</sup> – to stabilize atmospheric concentrations of 'greenhouse gases' – by committing to specific legally binding targets to limit or reduce emissions of six specific greenhouse gases.<sup>3</sup> It was calculated that compliance with these targets would result in an overall global reduction in greenhouse gas emissions of slightly in excess of five per cent from 1990 levels during the first commitment period (2008-12).

Moreover, the *Kyoto Protocol* represented a quite radical approach to the issue of international environmental regulation, through the incorporation of specific market mechanisms as a significant component of the proposed

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1 Opened for signature 16 March 1998, 37 ILM 22.

2 Opened for signature 4 June 1992, 31 ILM 849 (entered into force 21 March 1994). Given the current stance taken by the Bush Administration in relation to the *Kyoto Protocol*, it is ironic to note that President George Bush Snr signed the UNFCCC on behalf of the US at the Rio Earth Summit in 1992 (see note 8 below).

3 These are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.

framework.<sup>4</sup> These innovative 'flexibility mechanisms'<sup>5</sup> were developed to enable Annex I countries<sup>6</sup> to comply with their commitments in a more cost efficient manner. One of these, the Clean Development Mechanism ('CDM'), was included with the additional specific purpose of helping developing countries to achieve sustainable development.<sup>7</sup> This concept has been a principal objective of the international environmental law community ever since the 1992 Earth Summit<sup>8</sup> and will be a cornerstone of the 2002 World Summit on Sustainable Development.<sup>9</sup>

As a result, compliance with and implementation of the existing terms of the *Kyoto Protocol*, as well as any additional binding commitments that may follow in subsequent commitment periods, would mean that the scientific benefits associated with reduced greenhouse gas emissions accrue to the global environment whilst, at the same time, industrialised countries would be able to take advantage of specific market mechanisms in order to reduce the costs arising from their actions. Furthermore, the CDM may aid developing countries in their quest for sustainable development and potentially allow them to gain access to the transfer of 'green' technology through the implementation of projects jointly with Annex I countries.

All of these activities could help to formalise processes and create relationships that might themselves foster additional cooperative partnerships between nations in the international community. The optimists among us might even suggest that these evolving environmental joint activities might encourage further collaborative efforts to address other issues of global concern in the future.

Viewed in this overall context, the general terms of the *Kyoto Protocol* appear to provide for a 'win-win' situation. This is how it was portrayed, at least in the

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4 The use of so-called 'market mechanisms' in international environmental agreements is not, however, unique to the *Kyoto Protocol*. In pursuance of the goals of the *Montreal Protocol on Substances that Deplete the Ozone Layer*, opened for signature 16 September 1987, 26 ILM 1550 (entered into force 1 January 1989) ('*Montreal Protocol*'), for example, the United Nations Environment Program ('UNEP') established a halon 'clearinghouse' that has so far resulted in nearly 3 000 tonnes of existing halon being traded, thereby reducing the demand for newly produced halon. Halon is one of the gases being phased out by the *Montreal Protocol*. Nevertheless, the *Kyoto Protocol* places even greater significance on the use of such mechanisms, without which it appears that it would have not received sufficient tangible support from industrialised countries to have been concluded at COP 3.

5 These are the so-called 'Bubbling' (art 4), Joint Implementation (art 6), the Clean Development Mechanism (art 12) and International Emissions Trading (art 17).

6 The *Kyoto Protocol* commits those industrialised countries listed in Annex I of the *UNFCCC* to individual and legally binding greenhouse gas emission targets. The specific target for each country, referred to as a 'party quantified emission limitation or reduction commitment', is set out in Annex B of the *Kyoto Protocol*.

7 *Kyoto Protocol* art 12(2).

8 United Nations Conference on Environment and Development ('UNCED'), Rio de Janeiro, 3-14 June 1992. It was held to coincide with the 20 year anniversary of the first international United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972.

9 The World Summit on Sustainable Development, also known as 'Rio + 10', will be held from 2-11 September 2002 in Johannesburg, South Africa. It will bring together representatives from governments, United Nations agencies, multilateral financial institutions and various non-government organizations ('NGOs') to assess developments in relation to sustainable development since the UNCED.

period immediately following COP 3, as governments and environmentalists claimed that it represented a very significant first step by the world's industrialised countries towards positive action to address the pollution problems resulting from the emission of greenhouse gases. Although the link between greenhouse gas emissions and changes to the global climate has not yet been definitively proven, most experts believe that important positive consequences will result from unconditional compliance by all nations with the provisions and, more significantly, the spirit of the *Kyoto Protocol*. Indeed, recent satellite imaging has, for the first time, provided direct observational evidence that the climate had changed over the period 1970-97 in almost exactly the way that had been anticipated by those scientists warning about the greenhouse effect.<sup>10</sup>

## II CLIMATE CHANGE – A GLOBAL ISSUE

The signing of the *Kyoto Protocol* projected the issue of climate change, and the ways that it might be addressed, into an even more prominent limelight than previously. The commitment to binding emission target levels has led governments, industry and non-government organizations to consider in detail the ways in which the flexibility mechanisms should eventually be structured and the extent to which they could be utilised by Annex I countries in order to meet their commitments. In addition, a number of industrialised countries, particularly in Europe, have introduced proposals to establish national legal regimes designed to reduce domestic greenhouse gas emission levels.<sup>11</sup> These and other actions have, over recent years, generated to some extent an irreversible 'process of change' in the strategies of many industrialised countries, and indeed in other countries as well, towards a more general acceptance of the underlying principles of the *Kyoto Protocol*.

The debates following COP 3 focussed considerable attention on the actions proposed by Annex I countries to meet their commitments. An increasing number of scientists, including the influential Intergovernmental Panel on Climate Change ('IPCC'),<sup>12</sup> are tending towards a consensus view – though they are by no means unanimous – in their calls for appropriate measures to be taken to redress the deleterious effects of greenhouse gas emissions on the global

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10 This research was carried out by atmospheric physicists from Imperial College in London. They compared two separate sets of data gathered by satellites in 1970 and in 1997 and analysed long-wave infra-red radiation levels. They concluded that the amount of radiation escaping from earth fell markedly and in direct correlation with predictions based upon the known increases of major greenhouse gases during that period: 'Getting real', *The Economist*, 15 March 2001, <<http://www.economist.com>>.

11 A recent (April 2001) example is the announcement by the Swedish State Energy Agency that, in accordance with national laws intended to achieve a two per cent cut in carbon dioxide emissions in the period to 2010, it had selected 10 municipalities for a state-subsidized project to reduce carbon dioxide emissions and reduce energy consumption: 'Sweden picks 10 towns for greenhouse gas cuts', *Planet Ark*, 6 April 2001, <<http://www.planetark.org/index.cfm>>.

12 The IPCC was established in 1988 by the World Meteorological Organization and United Nations Environment Program. It brings together leading scientists from around the world and provides important input into the climate change process.

environment. The issue of global warming has galvanised many sections of the international community. Moreover, on the assumption that this move towards binding emission targets had become an accepted government strategy, corporations in industrialised countries have come to understand the significant commercial, market and public relations opportunities inherent in the *Kyoto Protocol* framework.

These elements have led to many domestic and cross-border cooperative initiatives, including (as a small sample) the following examples:

- (1) the enactment of the Australian *Renewable Energy (Electricity) Act 2000* (Cth) which establishes a system of 'renewable energy certificates' and also mandates power producers to produce increased amounts of their output from eligible renewable energy sources by 2010;
- (2) the approval and endorsement of over 150 Activities Implemented Jointly ('AIJ') under the pilot phase of the Joint Implementation mechanism established under the *Kyoto Protocol*;
- (3) the establishment of an experimental renewable energy certificate trading scheme on 1 January 2001 operating across Norway, Sweden, Finland, The Netherlands, Germany, Italy and (from April 2001) the United Kingdom;
- (4) the increasing acceptance of emissions credit trading as evidenced by the recent sale by the NSW Government-owned Macquarie Generation of 2 000 tonnes of emissions savings – equal to the carbon dioxide emissions of 13 000 cars for one year – to Japan's Chubu Electric Power Company and Tomen Corporation; and
- (5) the purchase in April 2001 of 4 000 tonnes of carbon credits by the Dutch Foreign Ministry from Poland, Romania and the Czech Republic for 79 million guilders (US\$32 million).

### III POLITICAL ROADBLOCKS

Despite these positive signs, the reality has at least thus far not lived up to the promise and expectations envisaged in Kyoto in December 1997. Indeed, at the time of writing this commentary (June 2001), there exists a real possibility that the *Kyoto Protocol* might never actually come into force. To become a binding document, ratification is required by a minimum of 55 countries, accounting for at least 55 per cent of total carbon dioxide emissions by Annex I countries in 1990. For this level to be achieved, virtually all of the major industrialised countries need to ratify the *Kyoto Protocol*, although it is at least mathematically – if (arguably) not politically – possible that the required levels might still be reached without ratification by the US. At present, 34 countries have ratified the *Kyoto Protocol* – however, not one of these is a Group of 8 ('G8') or, indeed, an Annex I country.

As is frequently the case with international environmental agreements, the unavoidable spectre of both international and domestic *realpolitik* has played

and will continue to play a crucial role in determining the fate of the *Kyoto Protocol*. Given the pressure on countries to achieve a 'result' at COP 3, much of the detail regarding the scope of the *Kyoto Protocol* and the terms of implementation of the flexibility mechanisms was left for future negotiation and finalisation. It simply was not possible in 1997 to reach agreement as to the specifics of how industrialised countries were, in reality, going to comply with the broad commitments that were made. Nor was there any possibility of clarifying whether, and under what circumstances, developing countries would also agree to reduce their own greenhouse gas emissions on anything other than a voluntary basis. Indeed, it had already been agreed in 1995 at the First Conference of the Parties to the *UNFCCC* ('COP 1') – under what became known as the 'Berlin Mandate'<sup>13</sup> – that non-Annex I countries would *not* be required to commit to binding emission target levels for the purposes of the first commitment period.

Clear variances in approach were already in evidence at this time, both between the industrialised countries and the developing countries, and among the industrialised countries themselves. These remained somewhat in the background in the period leading up to the Sixth Conference of the Parties to the *UNFCCC* ('COP 6') in The Hague in November 2000, where it had been intended that much of the detail of the flexibility mechanisms would be agreed. Prior to COP 6, the major industrialised countries had effectively decided not to ratify the *Kyoto Protocol* pending the resolution of significant outstanding issues.

#### IV FAILURE IN THE HAGUE

It was assumed that agreement at COP 6 was vital if the *Kyoto Protocol* were to come into force by 2002 – the 10 year anniversary of the United Nations Conference on Environment and Development ('UNCED'). Indeed entry into force after that time would make it almost impossible for many of the industrialised countries, as well as business and industry, to complete preparations and institute appropriate legal regimes and national systems<sup>14</sup> in time for the commencement of the first commitment period in 2008.

Yet these lingering fundamental differences became all too apparent during the subsequent negotiations, culminating in the very public failure of delegates to reach agreement on a number of major points of principle in The Hague. Whilst progress was made on various important administrative matters, the major Parties failed to agree on substantive and detailed issues relating to exactly how the commitments of Annex I countries were to be implemented. To a large

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13 *UNFCCC Secretariat, 'The Berlin Mandate' (Decision 1/CP.1) in Report of the Conference of the Parties on its first Session, held at Berlin from 28 March to 7 April 1995: Addendum, UN Doc FCCC/CP/1995/7/Add.1 (1995).*

14 Article 5 of the *Kyoto Protocol* requires all Annex I countries to have in place 'a national system for the estimation of anthropogenic emissions by sources and removal by sinks' of greenhouse gases by not later than 2007.

degree the debate on these issues was taken out of the hands of developing countries, and, at the risk of over-simplifying the matter, the 'success' of the conference revolved around all night negotiations and bargaining between the European Union ('EU') countries on the one hand and the US (supported by an 'Umbrella Group' of countries comprising Australia, Japan, Canada and New Zealand) on the other.

The major points of contention at The Hague concerned the extent to which the concept of carbon 'sinks' would include existing forest and farmland and what limits, if any, should be placed on an Annex I country's use of the flexibility mechanisms to meet its commitments. The US argued for an expansive interpretation as to what constituted a sink and for no quantitative restrictions to be placed on the use of the flexibility mechanisms. The EU, however, argued from the viewpoint that Annex I countries must take tangible domestic measures to reduce greenhouse gas emissions and meet their commitments primarily through these domestic actions, and therefore did not agree with the US approach. In the end, even though some members of the EU side and the US negotiators did think that a last-minute compromise was possible, this did not turn out to be the case. Disappointment and, in some cases, despair amongst developing countries and environmentalists were followed by recriminations, most publicly between the British Deputy Prime Minister John Prescott and the French Environment Minister Dominique Voynet.

## V A DIFFERENT US APPROACH

Subsequent discussions in December 2000 in Ottawa failed to resolve these issues and allow for agreement to be reached with the outgoing Clinton Administration. As subsequent events have shown, a vital opportunity had been missed, although it was agreed that COP 6 would resume in Bonn in July 2001.<sup>15</sup> A new Administration was taking over in Washington and EU leaders and environmentalists were anxious as to the approach it would take to the ongoing negotiations, particularly given the pro-energy background of both President Bush and Vice President Cheney.<sup>16</sup>

In one sense, they have not been 'disappointed'. The US is the world's largest greenhouse gas emitter, both in absolute terms – it is responsible for one-quarter of the world's greenhouse gas emissions – and on a per capita basis.<sup>17</sup> The

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15 The resumption of COP 6 was initially scheduled for May 2001 but, at the request of the US, was postponed until July 18-27 2001. Despite the recent stance taken by the US Administration in relation to the *Kyoto Protocol*, it has agreed to attend that conference.

16 President Bush had previously been an oil industry executive in his native Texas. Moreover, his environmental record as Governor of Texas is poor; during his tenure Houston became the worst American city in terms of air pollution. Vice President Cheney had been the former top executive of US oilfield services giant, the Halliburton Company.

17 In 1997, total greenhouse gas emissions by the US amounted to 6 503.8 million tonnes of carbon dioxide equivalent, representing 24.3 million tonnes per person. China was the second highest emitter of greenhouse gases (4 964.8 million tonnes) but this represented only 4 million tonnes per person: 'More heat than light', *The Economist*, 14 June 2001, <<http://www.economist.com>>.

Clinton Administration had taken a firm line in relation to the *Kyoto Protocol*, calling for tangible evidence of 'active participation' by developing countries before it would submit the agreement for ratification. The failure of its negotiators to ultimately reach agreement with the EU countries in The Hague reflected its stance, as well as political reality given that there were already doubts as to whether the Senate would have approved ratification in any event.<sup>18</sup> Nevertheless, the fact that agreement appeared to be so close in The Hague indicated that the Clinton Administration had been prepared to discuss the issue of global warming within the framework established by the *Kyoto Protocol*.

The Bush Administration has, however, taken the discussion to another level and the 'unthinkable' is now reality. Shortly after delivering what was at the time a major blow to the spirit of the *Kyoto Protocol* by renouncing a campaign promise to impose carbon dioxide emission restrictions on power plants,<sup>19</sup> President Bush went further than most observers thought was possible. He announced in March 2001 that the US would not support the implementation of the *Kyoto Protocol*. In his view the scientific evidence was 'incomplete' and, in any event, it was not in the United States' best interests to proceed with the *Kyoto Protocol*, which he regarded as 'flawed', 'costly' and 'unfair' in that it did not bind major developing countries such as China and India.<sup>20</sup> Arguments that had been won (and lost) over the previous six years had now resurfaced.

The announcement that the US would not implement the *Kyoto Protocol* was followed by an almost unprecedented level of condemnation from many countries.<sup>21</sup> Developing countries expressed outrage,<sup>22</sup> given that they were the

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18 In 1997 the US Senate had voted 95-0 against acceptance of the *Kyoto Protocol* on the basis that it did not include binding commitments upon major developing countries: Andrew Revkin, 'Impasse on Gases: Who Moves First?', *The New York Times*, 16 June 2001, <<http://www.nytimes.com>>.

19 The Bush Administration labelled the campaign promise as a 'mistake' on the basis that carbon dioxide is not regarded as a 'pollutant' under the Federal *Clean Air Act*, 42 USC s 7401 (1977). President Bush's announcement was welcomed by Saudi Arabia, a staunch opponent of the *Kyoto Protocol*, but was criticised by several EU countries, Japan, China and Canada as well as various environmental NGOs.

20 Vice President Cheney was quoted on ABC television as saying that the *Kyoto Protocol* 'was a dead proposition before we ever arrived in Washington ... All we did was make it clear that the US would not be bound by it': Paul Eckert, 'Update - EU says China to back climate pact without US', *Planet Ark*, 10 April 2001, <<http://www.planetark.org/index.cfm>>.

21 Among the critical reactions to the Bush Administration's decision, the European Parliament condemned it as 'appalling and provocative', Japanese lawmakers called it 'shocking', China declared the *Kyoto Protocol* 'in the common interest of mankind' and labelled the American decision as 'irresponsible' and United Nations Secretary General Kofi Annan described it as 'unfortunate'. On the other hand, the Canadian Government blamed the EU's 'rigid position' on global warming for the new US position. The Australian Government has said that it 'sympathised' with the position taken by the Bush Administration regarding the failure of the *Kyoto Protocol* to bind large developing countries like China. Environment Minister Robert Hill has been quoted as stating that the *Kyoto Protocol* was now 'all over', believing that Europe and Japan would not ratify it without the participation of the US: 'Australia says *Kyoto Protocol* "all over"', *Space Daily*, 20 May 2001, <<http://www.spacedaily.com>>.

22 The director of environmental affairs in the Ministry of Environment of the Maldives referred to the matter as one 'of life and death' and forecast that residents of his country would become 'environmental refugees': Scott McDonald, 'Maldives says US emissions about-face spells woe', *Planet Ark*, 5 April 2001, <<http://www.planetark.org/index.cfm>>.

most likely to suffer from the effects of global warming. Fears have surfaced of a new era of 'environmental isolationism' emerging from the world's largest economy. The EU countries were incensed by the approach taken by the new Bush Administration. After initially attempting (and failing) to persuade the US to review this decision by holding out the possibility of renegotiation, various EU countries<sup>23</sup> have since reiterated the need to proceed with the implementation of the *Kyoto Protocol*, and have committed to ratifying it in 2002 even without the involvement of the US.

The Chairman of COP 6, Dutch Environment Minister Jan Pronk, has continued to express the hope that the US could at some stage be brought back to the *Kyoto Protocol* process. Yet this seems even more unlikely given the subsequent initiatives of the Bush Administration. Responding to what President Bush called 'the most serious energy shortage' since the 1970s,<sup>24</sup> a new energy policy developed by a task force led by Vice President Cheney was unveiled in May 2001. It focuses primarily on the production of additional energy to meet domestic demand through the use of coal and oil, as well as increased utilisation of nuclear power.<sup>25</sup> The EU and Canada have both expressed the fear that this strategy will lead to *increased* greenhouse gas emissions, a claim which seems to be affirmed by US Energy Department projections.<sup>26</sup> Even the subsequent agreement of the US to the *Stockholm Convention on Persistent Organic Pollutants* ('*Stockholm Convention*')<sup>27</sup> has not lifted the gloom and uncertainty that currently prevails in relation to the US environmental strategy.<sup>28</sup>

Referring to the threat posed by global warming to his country of 10 000 inhabitants, the Tuvalu Finance Minister Lagitupu Tuilimu told a United Nations conference in Brussels in May 2001 that the *Kyoto Protocol* 'may be the only means to safeguard the survival of an entire living society': Michael Christie, 'Update - US energy plan a "crime" - Pacific activists', *Planet Ark*, 21 May 2001, <<http://www.planetark.org/index.cfm>>.

23 President Chirac of France, Chancellor Schroeder of Germany, EU President and Swedish Environment Minister Kjell Larsson and COP 6 Chairman Jan Pronk are among those who have recently called for the *Kyoto Protocol* to be implemented regardless of whether the US is involved.

24 Paul Casciato, 'Wrapup - Environmentalists say US energy plans disastrous', *Planet Ark*, 18 May 2001, <<http://www.planetark.org/index.cfm>>.

25 The energy policy does reserve approximately US\$10 billion in tax credits for energy efficiency and renewable energy sources. However this has not stopped various governments and environmentalists from criticizing the policy for its overall pro-fossil fuel focus.

26 It is predicted by Energy Department officials that rising energy demand in the US, which the new energy policy seeks to meet, will lead to a 35 per cent increase in carbon dioxide emissions by the US over the next 20 years: Randall Mikkelsen, 'Update - US hopes for alternative to Kyoto by June', *Planet Ark*, 23 May 2001, <<http://www.planetark.org/index.cfm>>.

27 Opened for signature 22 May 2001, UN Doc UNEP/POPS/CONF/2 (also at <[http://irptc.unep.ch/pops/POPs\\_inc/dipcon/meetingdocs/conf-2/en/conf-2e.pdf](http://irptc.unep.ch/pops/POPs_inc/dipcon/meetingdocs/conf-2/en/conf-2e.pdf)> at 1 July 2001). This convention was agreed and signed by 90 countries in May 2001 and was immediately ratified by Canada. The convention relates to the so-called 'dirty dozen' Persistent Organic Pollutants ('POPs') which represent a significant threat to the health of humans and wildlife. They include various pesticides such as DDT, PCBs and dioxins. Article 26 of the *Stockholm Convention* requires ratification by 50 countries for it to come into force.

28 Many commentators believe that US 'enthusiasm' for this convention is an attempt to deflect the criticism it has received following its decision on the *Kyoto Protocol*. In any event, the *Stockholm Convention* is unlikely to have a major effect on the US since it had already banned or restricted most of the dirty dozen. See 'The Dirty Dozen', *The Economist*, 23 May 2001, <<http://www.economist.com>>.



## VI SEARCHING FOR AGREEMENT

In response to the protests from other countries, President Bush announced in mid June 2001 that the US would adopt a 'science-based' approach to the issue of global warming and would remain 'committed to a leadership role' in addressing the problem.<sup>29</sup> At the same time, however, he reiterated his opposition to the *Kyoto Protocol*, proposing voluntary rather than legally binding emission targets for developed countries and calling for developing countries – particularly China and India – to also undertake greenhouse gas emission reductions. As this commentary was being completed, President Bush was meeting in Gothenburg with his European counterparts to discuss a number of issues of common interest, including global warming. Whilst a joint EU-US communiqué at the conclusion of those meetings called for 'strong leadership' in the efforts to address global warming, there has not been any concrete resolution to the differences in approach between the EU countries – which continue to push for ratification of the *Kyoto Protocol* in 2002<sup>30</sup> – and the US.

As a result, the other Annex I countries are left with a difficult choice: to continue on the path towards ratification of the *Kyoto Protocol* without the assurance that sufficient numbers will be reached for it to come into force, or to accept that a different approach towards the issue of climate change must be negotiated and agreed. This second option would obviously take time, particularly given the large number of vested interests involved – time that various elements of the scientific community feel is not available. Yet to proceed with the *Kyoto Protocol* in circumstances where the world's greatest polluter might not to play a role (at least initially) in the first commitment phase would highlight uncertainties and hinder the cooperative spirit which the flexibility mechanisms had been designed to encourage.

Whilst a reappraisal of the whole process may, in the end, be the only realistic scenario given the current circumstances, it is nonetheless extremely regrettable. The continued absence of a legally binding obligation on the US in the area of greenhouse gas emission control will only serve to reinforce the stance of the developing countries in relation to their own future obligations. Their long-held view has been that the industrialised countries, particularly the US, must first take tangible steps to reduce emissions and provide aid to developing countries – in the form of finance, joint projects and the transfer of green technology – before the developing countries will contemplate binding commitments on their own part.

It is therefore far more desirable, though increasingly unlikely, that the various Parties will, over the next few weeks leading up to and including the discussions

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29 This comment was seized upon by various environmental groups as referring to the US role in causing rather than solving the problem: 'More heat than light', *The Economist*, 14 June 2001, <<http://www.economist.com>>.

30 Following the meetings in Gothenburg, the EU leaders provisionally agreed to finalise a ratification document relating to the *Kyoto Protocol* by the end of 2001, in order to facilitate its entry into force in 2002: 'EU provisionally sets 2001 deadline for Kyoto', *Planet Ark*, 18 June 2001, <<http://www.planetark.org/index.cfm>>.

in Bonn in July, find a way forward to overcome the seemingly intractable problems that the *Kyoto Protocol* still presents, and reach an agreement – including *all* major Parties – to proceed with the ratification of the *Kyoto Protocol*.

## VII MAINTAINING THE MOMENTUM

Yet, despite this unsatisfactory picture, all is not doom. As mentioned above, the very existence of the *Kyoto Protocol*, and the discussion it has generated among various aspects of the international community, have already created a momentum and mindset that are now well in train. Processes are being put into place to address the issues associated with greenhouse gas emissions and their (probable) effect on climate change. The international community is now more than ever aware of the potential risks of doing nothing. Many governments are working to put domestic legal regimes in place to encourage and at times mandate the reduction of emissions. Emission reductions and renewable energy trading schemes are being introduced on a regional basis. A growing number of international cooperative projects are being agreed and implemented which involve the use of technology based on the production of renewable energy. Perhaps most significantly, an increasing number of large multinational industrial corporations have committed to the reduction of greenhouse gas emissions, having recognised the commercial benefits associated with the market mechanisms envisaged by the *Kyoto Protocol*.<sup>31</sup>

## VIII CONCLUSION

It is undoubtedly preferable that agreement is reached by all Parties in relation to the *Kyoto Protocol*. For that to happen, the US must be persuaded to re-enter the framework, and various issues of detail need to be resolved. These are very large ‘ifs’ and it is by no means clear whether the *Kyoto Protocol* will eventually come into force, at least in its current form. But even should these formidable obstacles be overcome, that would not be the end of the matter. It is widely understood that, even if the greenhouse gas emission reductions currently specified under the *Kyoto Protocol* were achieved – and this now seems

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31 One example is an international business group, Partnership for Climate Action, which is attempting to adapt specific market-based mechanisms and other programs to limit greenhouse gas emissions. Its members include DuPont, Alcan, Shell International, Suncor Energy and Entergy Corp. The Ford Motor Company has recently (May 2001) announced that it viewed the fight against global warming as ‘its single biggest corporate challenge’: ‘Entergy volunteers to limit greenhouse gas emissions’, *Planet Ark*, 7 May 2001, <<http://www.planetark.org/index.cfm>>.

increasingly improbable<sup>32</sup> – this would not be sufficient to solve the problems associated with global warming. More, much more would still need to be done. The framework envisaged by the *Kyoto Protocol* is only the beginning – in essence it is the catalyst to engage the world's governments, corporations, environmentalists and other stakeholders in ongoing discussion and cooperation in relation to this matter of vital global importance.

Perhaps, in this regard at least, and despite the obvious problems that still abound, the *Kyoto Protocol* can be considered even now as a moderate success. Even if it should itself fail to come into force, some other international framework for addressing climate change will be necessary. It cannot be doubted that this is the goal towards which all stakeholders in this debate must strive.

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32 A European Commission report on greenhouse gas reductions in EU countries in November 2000 indicated that the 15 EU member states may themselves not be able to meet their *Kyoto Protocol* commitment targets: Robin Pomeroy, 'Analysis – Energy experts say EU may not meet Kyoto target', *Planet Ark*, 23 May 2001, <<http://www.planetark.org/index.cfm>>.

Subsequently, in April 2001, Robert Watson, the Chairman of the IPCC has stated that 'if the US did not ratify the *Kyoto Protocol* then clearly the emissions will not be reduced by an average five per cent during the 2008-12 period, it will be significantly less than that': 'Kyoto emissions targets unreachable without US: UN panel', *SpaceDaily*, 5 April 2001, <<http://www.spacedaily.com>>.

COP 6 Chairman Jan Pronk has also warned that the new US energy policy 'will make it extremely difficult, perhaps impossible' to meet the *Kyoto Protocol* targets: Eva Sohlman, 'Interview – UN says US energy policy fuels global warming', *Planet Ark*, 22 May 2001, <<http://www.planetark.org/index.cfm>>.