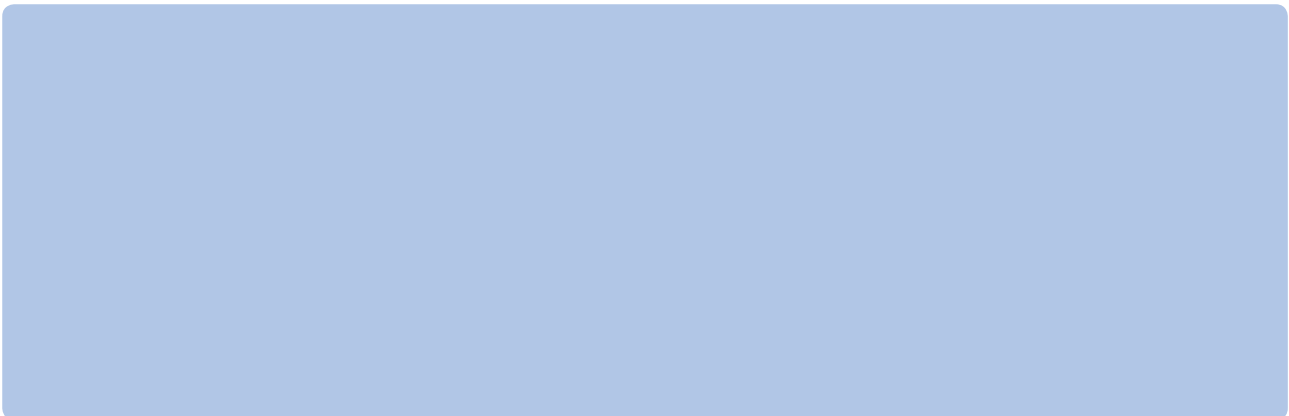


The United Stances of America

Opportunities and Pitfalls in US
Climate Change Policies

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The United Stances of America:

Opportunities and Pitfalls in US Climate Change Policies



A Country Report for the Swedish Energy Agency ('Efter Kyoto Uppdraget')

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Abstract

The broader aim of the present study is to discuss the opportunities and pitfalls for future greenhouse gas reductions in the United States. It does so by reviewing past and present US climate change policies from an implementation perspective, where the main objective is to identify the factors and conditions affecting policy outcomes. The discussion is intended to answer three major questions:

- 1) What is currently taking place in the United States in terms of emission trends, energy consumption as well as policy initiatives?
- 2) What are the principal factors (political, administrative, economic, institutional and others) that ultimately explain the final outcome of climate change policies in the United States?
- 3) What are the possible scenarios with regards to the United States' engagement in international collaboration on climate change?

In addition, the report elaborates extensively on the trend of recent initiatives by states to develop their own programs to mitigate greenhouse gas emissions. This question of lower administrative units driving the development in federal or other multi-level type systems is highly relevant for our understanding of the US (it could also enhance our appreciation for what is going on in the European Union).

The analysis demonstrates a complex interaction between institutional, economic, and political factors, largely framed by the federal system of governance and the practice of Common Law. This generates a number of general and specific observations. Some of the more important are:

- The United States is by far the largest greenhouse gas emitter and energy consumer in the world with a rapid growth in both areas. There are no indications that either trend is slowing down.
- The reduction of greenhouse gas emissions poses a larger challenge to the United States than to many other countries, mainly because of the structure of the economy which has more than half of its electricity from coal-fired power plants.
- The likelihood of the United States ratifying the Kyoto Protocol is virtually nil, regardless of who becomes president after this year's election. There is simply not enough political support for the Kyoto process and an almost general agreement that the treaty largely disfavors the US economy.
- Current US climate change policies, as laid out in the Bush Administration's Global Climate Change Initiative, makes an explicit claim of seeking long-term solutions to global warming through the application of efficiency-targets, reliance on science and technology development, and voluntary measures. The plan has been severely disputed and many observers have criticized it for primarily serving corporate interests. There may be some merit to this argument, even though a similar dispute on policy content is largely ideological.

- The most serious obstacle to more proactive climate change policies in the United States is, instead, the ways in which the Bush Administration discretely has tried to influence the subsequent implementation of policies by manipulating regulations, stalling administrative processes, reallocating budgets, and occasionally even disregarding science in order to prevent further reductions of greenhouse gases. These are in themselves serious violations of fundamental democratic principles such as transparency.
- Another major obstacle to the successful implementation of climate change policies is the deep fiscal crisis that most states are facing. In the last few years, states have lost several of their main revenue sources, while at the same time having been forced to take on the costs and responsibilities for a number of services previously covered by the federal government. Thus, under the current circumstances of relatively high unemployment rates (or the threat of such unemployment), climate change mitigation not likely to be a priority issue.
- An important trend in light of these issues is the emerging set of climate change initiatives currently evolving at the regional, state and local levels in the United States. This phenomenon, which involves a spectrum of innovative efforts, deserves particular attention since many of these policy initiatives emerge in the context of a lack of federal policies. At the same they are well in line with the American federal tradition, where most major policy issues through history have been initiated at the state level and thereafter confirmed by the federal government.
- Another intriguing issue from these observations is the question of what possibly encourages states to take these types of initiatives. One way to approach the issue is to frame it as a matter of ‘competition’ where states compete over, among other things, resources and external support. This notion of ‘competition’ is useful in the sense that it provides a conceptual tool to explore the interaction between the public and private sector. By discussing what competition means for both state and private actors we may be able to identify the circumstances for synergetic effects to emerge or key processes become stalled.

Acronyms

CCAP	Climate Change Action Plan
CCX	Chicago Emission Exchange
CDM	Clean Development Mechanism
DNR	Department of Natural Resources
EPA	Environmental Protection Agency
EU	European Union
GHG	Greenhouse Gases
IPCC	Intergovernmental Panel on Climate Change
UNCED	United Nations Conference on Environment and Development
UNFCCC	United Nations Framework Convention on Climate Change
NAS	National Academy of Sciences
NESCAUM	Northeast States for Coordinated Air Use Management
NSR	New Sources Review
OPEC	Organization of Petroleum Exporting Countries
RPS	Renewable Portfolio Standards
UCS	Union of Concerned Scientists
WTO	World Trade Organization

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1. Introduction

When President George W. Bush in March 2001 declared that the United States was not going to participate in the continuing negotiations of the Kyoto Protocol, it was in many ways the ultimate manifestation of what had long been a major conceptual transatlantic rift on climate change issues. In fact, ever since the signing of the initial Climate Change Convention in 1992, the Western European countries had been highly critical of the US interpretation and position on global warming. Over the years, the US has not only been accused of downplaying the consequences of climate change, and thereby avoid its responsibility for future mitigation, but also of relying too heavily on market incentives and voluntary emission targets as the principal policy responses. Behind the US stance is the notion that science still knows very little about the causes and effects of climate change and, therefore, we should not commit us to specific strategies but leave room for major technological breakthroughs. The European critique, in turn, has often met fierce resistance from the US side and occasionally resulted in heated and emotional controversies.

At the same time it is clear that the US withdrawal from the Kyoto process has had far-reaching practical consequences. With the United States being by far the largest emitter of greenhouse gases (GHG), and at the same time principal engine in the world economy, the prospects of achieving a comprehensive global strategy to lower the emissions of GHGs has been seriously shattered. Thus, the question that the world community currently faces is how to reinitiate some form global collaboration on climate change – be it within the framework of the Kyoto regime or not.

This ambition to reinitiate global talks on climate change goes straight to the heart of the present study. The point in case is simply that a similar task under all circumstances will require a more profound understanding of the factors that effectively guide US climate policies. What are the conceptions, interests, and institutional premises that in one way or the other influence how policies are designed and ultimately implemented in the US? The reason for raising these questions is simple. Only by confronting them in an open-ended way, with the objective to actually understand the US on its own terms, will we understand how to most effectively influence US policies – as well as learn from the country's experiences. The latter statement on learning is important. Despite all controversies it should be recognized that the US over the years has, in fact, made important contributions to the climate change debate. Indeed, many of the mechanisms within the Kyoto Protocol that we nowadays take for granted, like for example the Clean Development Mechanism (CDM) and Emissions Trading, were originally drafted by the US negotiators – and met at the time strong opposition from most Western European delegations. Thus, given the many additional similarities between the US and European societies it seems as if there are also important lessons to be learnt from one another as we inevitably will confront future challenges together.

The present study constitutes an effort to take on some of the issues outlined above. It does so in the broader context of a larger government assignment, "After Kyoto Assignment" (*Efter Kyoto Uppdraget*), given to the Swedish Environmental Protection Agency (*Naturvårdsverket*) and the Swedish Energy Agency (*Energimyndigheten*) in the annual directives of 2003. The ambition of this larger project is to gather as much information as possible, ranging from strictly scientific and technological studies to socio-economic analyses of particular countries as well as the on-going international negotiation process, in order to feed in to a continuous assessment of the Swedish national position on climate change. The present study is, in other words, only one piece of the puzzle.

This implies that the task of this report has been given from the outset. In effect, the Terms of Reference (ToR) evolves around three major questions.

- 4) What is currently taking place in the United States in terms of emission trends, energy consumption as well as policy initiatives?
- 5) What are the principal factors (political, administrative, institutional and others) that ultimately explain the final outcome of climate change policies in the United States?
- 6) What are the different scenarios with regards to the United States engagement in international collaboration on climate change?

To facilitate the reading the report will also be structured largely along these questions. However, the study has also given results that actually add to the analysis. The most important observation is, perhaps, the need to go beyond the notion of the US as one administrative entity. The present study emphasizes, instead, that we will never understand US policies unless we also consider the various initiatives taking place at state and local levels. This, it will be argued, is the way that the US federal system always evolved, and only by giving additional attention to state activities will we be able to capture the variety of policy options and responses occurring in the US.

The additional focus on state initiatives thereby has repercussions on the present study insofar as it adds a section that outlines some examples of this development and discusses some of the factors driving this process. At the same time it should be pointed out that this discussion is by no means complete but serves to illustrate a phenomenon that deserves additional attention. The question of lower administrative units driving the development in federal systems, it seems, is not only highly relevant for our understanding of the US more specifically but could also enhance our appreciation for what is going on in the European Union.

The report will thus come out in four parts. Part I outlines the basic premises for US climate change policies by discussing the issue's implications on US economy and how this, in turn, has affected the US perception of the problem at large. The ambition here is to understand the larger objectives and considerations that drive the subsequent formulation of policies. Part II focuses thereafter on the conditions for putting policies into practice. Here the ambition is to discuss how and under what circumstances institutional, administrative, and political factors may affect formulation and implementation of policies. Part III shifts the attention to the emerging set of climate change initiatives currently evolving at the regional, state and local levels in the United States. This section starts with a descriptive overview of the various regional, state, and corporate initiatives and outlines some of their basic traits, differences, and points of convergence. From there the analysis leads over to a more specific discussion about how states 'compete' and the way it could affect climate change policies. Finally, Part IV discusses some scenarios of the United States' future role in the international collaboration on climate change.

Part I: Outlining the Basic Premises

This part of the analysis lays the ground for our understanding of US climate change policies by discussing the issue's implications on US economy and how this, in turn, has affected the US perception of the problem at large. The ambition here is to understand the larger objectives and considerations that drive the subsequent formulation of policies.

The section is divided into two parts. It starts with an overview that discusses the basic premises for current US policies; how the issue emerged on the political agenda and thereafter has been treated in the political debate, current emissions trends and its relation to the US economy at large, and, finally, contemporary mitigation policies as suggested by the present Bush Administration. This, in turn, lays the ground for a more thorough discussion about how the climate change issue actually is perceived in the US. Only by making a serious attempt to understand the objectives and values at stake will we comprehend why policies are formulated the way that they are.

2. Background and Current Trends

This section outlines the basic premises for what is currently taking place in the US. It starts with a brief discussion on how the climate change issue emerged on the US policy agenda and how it subsequently has been dealt with. How is climate change understood in the US context? What have been the major considerations and policy suggestions raised both internationally and within the US itself?

With this as a starting point the analysis thereafter proceeds with an overview of current emissions trends and a discussion about the US energy profile. The ambition here is to get a sense of the challenges lying before any US administration. At what rate and in what sectors are emissions increasing? How is that linked to the US economy at large? Only by confronting these issues will we be able to understand the considerations affecting US climate change policies.

Finally, with this as a background this section ends with a discussion about the current climate change policies as suggested by the Bush Administration. What are the principal corner stones in this program? What is it that the administration seeks to achieve? The ambition here is to analyze the actual content of the program. Hence we will return to the question of implementation shortly.

2.1. History

If one were to make a short summary of the US history with regards to climate change, it would be largely one of skepticism and reluctance to make any major commitments. Also, ever since the climate change issue emerged on the international agenda in the late 1980s the US position has been remarkably consistent. Obviously, the wordings have changed depending on the political context but the fundamental themes remain the same.

One theme that has been constant over the years is the tendency for all US administrations to *challenge science and question whether climate change actually is for real*. What are the causes and effects of climate change? To what extent does the phenomenon even exist? If so, are the perceived changes in the environment man-made or, rather, natural changes in a global, long-term climate cycle? At the heart of this debate lies the issue of scientific uncertainty and the question as to what extent we are able to make any predictions or statements about climate change. Ultimately, this has also very practical consequences insofar

as it defines the scope and character of any climate mitigation policies. Consequently, the US has also been a strong proponent of more research, and over the years it has made large investments in scientific climate change research both within the US as well as abroad.

However, the policy implications of these scientific doubts go further than that. Given the scientific uncertainty the US has also been *reluctant to make any commitments on target emissions and alike* but, instead, emphasized voluntary approaches based on various types of market incentives. The argument behind these efforts is that they maintain flexibility while at the same they support innovation. The risk with too stringent regulatory requirements, it is argued, is that we create a technological dead-end that is impossible to get out of once we understand future needs.

Building on the previous argument, all US administrations have also made it very clear that *the US will not submit to any agreement that ultimately could harm the country's economy*. There are two aspects of this argument. First, there is the question of mitigation costs where the US, due to its energy profile and emission trends, run the risk of seeing its internal economy effectively stalled. Secondly, there is a competitive component where the position and competitiveness of the US industry is at stake. Put simply, the US will not sign any agreement that does not impose the same costs on all other countries and, ultimately, their industries. As we shall see later, this has generated an outspoken demand from the US to also have developing countries effectively participating in any form of international climate change agreement.

Again, these positions on part of the US have been remarkably consistent over the years. Moreover it is fair to say that US has been strident and never hesitated to make its point despite meeting harsh criticism at times. Also, for better or worse the country has been relatively successful in defending its position. A more influential example on this is, again, the notion of emissions trading that nowadays has become a generally accepted instrument for greenhouse gas (GHG) mitigation. We will return to these issues shortly.

Most of the themes outlined above unfolded already during the preparations for the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro when the United Nations Framework Convention on Climate Change (UNFCCC) was negotiated and finally signed on June 12, 1992. The discussions leading up to the conference were harsh, as the US initially even resisted the idea of an international treaty on climate change claiming uncertainty about the economic and environmental impacts of global warming. In the end, it was not until the treaty text specified the intended emission reduction targets as non-enforceable that the US agreed to sign. In return, the US had then backed off from its initial claim that also developing countries had a responsibility to take action. Finally, the treaty text came out as a compromise in which it recognized that nations have 'differentiated responsibilities'. In essence, the UNFCCC thereby called upon industrialized countries to take a lead in reducing emissions – but only if they were willing to do so. It would seem as if the US got most of what it wanted out of the negotiations. These diplomatic achievements during the negotiations, however, did not come without a price. The US administration was severely criticized both during and after the conference, with President George H W Bush being called everything from 'environmental villain' to 'party pooper'.¹

Perhaps the best indication of the relative success of the Bush administration is illustrated by the speed by which the UNFCCC was ratified. Already on September 8 President Bush sent the treaty for advice and consent of the U.S. Senate, and, after having gained approval of the Foreign Relations Committee, the Senate thereafter consented to ratification on October 7, 1992. There was no debate or dissent as the decision was taken by a voice vote with a two-

¹ Brown, 2002 and Brooke, 1992.

thirds majority vote. A week later, on October 13, 1992, President Bush signed the instrument of ratification and deposited it with the U.N. Secretary General. In doing so the United States became the first industrialized nation to ratify the FCCC. It would take another two years before the UNFCCC, on March 24, 1994, had received the more than 50 countries' instruments of ratification necessary for the agreement to enter into force.²

As things turned out, however, it would be up to the Clinton Administration to carry out the obligations set out by the UNFCCC. After having won the Presidential elections in the Fall of 1992, the new administration took office in January the following year on what appeared to be a strong environmental agenda. To many, the new Vice-President, Al Gore, was the key and guarantor of success. Gore had over the years distinguished himself as being highly committed to the global warming issue and during the campaign forcefully argued for more active climate change policies. This raised expectations among environmental activists both within the US as well as abroad. Eight years later, many of them would be disappointed.

The Clinton Administration set out on a fast course. Only after a few weeks it proposed a British thermal (BTU) unit tax which was designed to raise \$ 72 billion over five years while at the same time cutting the federal deficit and reducing GHG emissions. The proposal never came through. Instead, it became clear that both Republicans and Democrats in Congress were skeptical to any climate change program and, hence, would not accept anything but voluntary measures. To Clinton it was a swift lesson that day-to-day politics is something completely different from the campaign trail and ideological visions.

The Clinton Administration soon learnt from this experience. When it shortly thereafter started the work of drafting a national plan for mitigating greenhouse gas emissions, as called for by the UNFCCC, it announced that the plan was going to be based on voluntary policies. When the resulting plan, the so called *Climate Change Action Plan* (CCAP), finally was presented on October 19, 1993, it consisted of some 50 programs intended to stabilize US greenhouse gas emissions at 1990 levels by the year 2000 – all in line with the UNFCCC. To get to these levels, the CCAP called for comprehensive voluntary measures by industry, utilities and other large-scale energy users. It also stressed energy-efficiency upgrades through new building codes in residential and commercial sectors, along with other improvements in energy generating or using technologies. Similarly, large-scale tree planting and forest reserves were encouraged to enhance sequestration of carbon dioxide and to conserve energy. Finally, the plan also addressed mitigation of greenhouse gases other than CO₂. This was all going to be achieved by giving \$5 billion in tax breaks and other economic incentives to U.S. companies. Another important strategic component was a restructuring of the electric utilities industry. As an overall theme, however, the CCAP avoided mandatory command and control measures.

The Congress, nevertheless, was not impressed and effectively impeded the full implementation of the plan by consequently cutting its budget every fiscal year. As a result, CCAP would never have the intended impact and by the late 1990s no one was paying much attention to it. Still, it is worth emphasizing that CCAP did leave some traces; the Green Lights, Climate Change, and Energy Star programs are still among the most influential climate change initiatives in the US.³

A couple of years into the Presidency it was also clear that the international efforts through the UNFCCC did not have the desired impact. New negotiations started therefore with the ambition to extend the existent treaty with a protocol that specified mandatory targets for the

² Jacoby and Reiner, 2001, p. 299 and Justus and Fletcher, 2003, p. 8

³ This section on the Clinton administration's policies have largely been based on Brown, 2002, Justus and Fletcher, 2003 and Warrick and Baker, 1997. See also

Signatory Parties – or what in December 1997 would become the Kyoto Protocol. The Clinton Administration soon found itself immersed in these discussions. To them it was vital to participate in these talk and defend what they perceived of as US interests.

Many analysts in recent years have debated the Clinton Administration's agenda going into the Kyoto negotiations, and opinions differ as to why the administration played the cards the way it did. What is clear, though, is that it entered the negotiations with a very clear mandate from the Senate. In June 1997, anticipating the meeting in Kyoto, Sen. Robert C Byrd (D – West Virginia) introduced, with Sen. Chuck Hagel (R – Nebraska) and 44 other co-sponsors, a resolution stating that the United States should not be a signatory to any international climate change agreement that would harm the US economy, or that omitted commitments from developing countries in the same compliance period. The resolution, more often called the Byrd-Hagel Resolution, got a massive support and was passed by a vote of 95-0. Even though the resolution itself was non-binding, this was of utmost importance to the Clinton Administration since any international treaty has to be approved by the US Senate by a two-thirds majority.

In other words, already going into the Kyoto negotiations the Clinton Administration was, in reality, stuck between two potential fires. On the one hand it was clear from the get-go that the administration had a policy agenda that would be highly controversial at the meeting. At the same time the soar points were precisely the issues that the Senate regarded as non-negotiable.

The meeting unfolded as one would have expected. At the opening assembly here, the Clinton Administration made it perfectly clear that it did not intend to go beyond any commitments suggested in the UNFCCC. Instead, it characterized the more stringent proposals made by the European Union and others as unrealistic or ineffective.⁴ These comments were met in the assembly hall with silence.⁵

From that on the US was, once again, regarded as the 'global environmental villain', primarily by environmentalist and the European Union that each argued that the US, being the world's largest emitter of greenhouse gases, had a responsibility to take on deeper emissions cuts. However, there were also those that supported the US position. Industry representatives and countries like Australia, which depends almost exclusively on coal for its energy, were both strong proponents of an actual increase in greenhouse gas emissions.⁶ A similar argument was also made with a somewhat different twist when the Organization of Petroleum Exporting Countries (OPEC) claimed that emissions cuts would deprive its member nations "the legitimate right to economic development".⁷ The prospects of getting to a global consensus on greenhouse gas emissions seemed at that point very small.

However, other issues also surfaced during the meeting. One crucial topic was European Union's "bubble" system for mitigating greenhouse gases and at the same time distributing the economic pain among its members. Through this system the EU promised to cut emissions overall to 15 percent below 1990 levels by 2010. Still, within the European bubble some countries would be allowed to reduce emissions only a little, while a few nations could increase their output by as much as 40 percent. In the views of the Clinton Administration this would give Europeans an advantage and ultimately harm US trade interests.⁸

⁴ Going into the negotiations the US proposed cutting emissions to 1990 levels between 2008 and 2012, while the EU had proposed a further 15 percent cut by 2010.

⁵ Jordan, 1997.

⁶ Sullivan, 1997.

⁷ As quoted in Jordan, 1997.

⁸ Jordan, 1997.

Another issue that reemerged from earlier talks was the role of developing countries in any future climate regime. This was in every way an old debate revisited. The US argued, for its part, that developing nations, which soon will surpass the industrialized world as the leading emitters of greenhouse gases, would have participate in any treaty reached in Kyoto. The developing countries, for their part, claimed their right to economic development and pointed also to the historical responsibility of the industrialized world for current emission levels. Surely, the developing would have less stringent commitments – if any at all! Here there seem to have been some progress as the US finally declared itself willing to discuss a proposal to lighten the burdens of some countries that face unusual difficulties in cutting greenhouse-gas emissions.⁹

Finally an issue that came forward in the discussions was how to deal with nations that do not meet their emissions cuts obligations under any future treaty. The Clinton Administration, for its part, argued for fairly strict enforcement measures, while European officials hesitated to include penalties in any deal. Again there was a clear transatlantic rift on one of the core issues.¹⁰

It is worth spending some time on this background simply to understand what actually came out of the subsequent negotiations. When later policy instruments and practical efforts were discussed, the Clinton Administration had a clear agenda; any future treaty had to be built on voluntary measures and various types of market incentives. Also it had some concrete suggestions on such mechanisms.

The basis of the US proposal was the idea of a global system for emissions trading, where a nation would be able to sell credits for the amount of emissions it reduced beyond a given baseline. Conversely, then, any country that did not comply with its obligation would then be able to live up to its commitments by buying the ‘surplus’ of the other country. This, in view of the Clinton Administration, would give the right incentives for business and nations to engage in emissions reduction and at the same time maintain economic development. Another proposal, following from the notion of emission trading, was the idea of a similar mechanism for technology transference to developing countries. Here, industry would be able to offset credits while developing nations would be given financial incentives to acquire energy-efficient technology. This is what we today know as the Clean Development Mechanism (CDM).

Both of these proposals received harsh critique at the meeting. To many the notion of emissions trading was just another attempt of the US to effectively ‘buy itself out’ of its obligations. A similar set of schemes, it was argued, would only enhance the global economic divide and, hence, increase greenhouse gas emissions over time.

At this point the negotiations were clearly heading towards a breakdown. Thus, in a last effort to break the deadlock Vice-President Al Gore made a one-day trip to Kyoto, where he promised more flexibility from US negotiators without offering any specifics. It is hard to judge the impact of Gore’s one-day whirl through the conference. His visit cheered some participants and enraged others, while the large majority more likely was confused by his message.¹¹ Still, it did seem to have some effect. During the remaining 48 hours of the conference the central negotiating committee, under the strong chairmanship of the Argentinean diplomat Raúl Estrada-Oyuela, managed to hammer out a final treaty intended to combat global warming – the Kyoto Protocol.¹² The reactions that followed were mixed, but,

⁹ Jordan, 1997.

¹⁰ Sullivan, 1997.

¹¹ Sullivan, 1997.

¹² The particular role of Raúl Estrada-Oyuela is regularly pointed out by observers. See for example Hutton, 1997 and Warrick, 1997.

again, it seemed as if the US essentially got what it wanted. The treaty contained both the emissions trading and the clean development mechanisms. On the question of emissions targets the US agreed to a differentiated system, where the US committed itself to cut emissions by 7 percent below 1990 levels by 2012. The particular role of developing countries' participation was effectively postponed for another year, mainly on the insistence of China and India.¹³

From the Clinton Administration's perspective, however, the battle had only begun. Now it confronted the even greater challenge of pulling the treaty through the Senate for ratification. The critique from the US political establishment was devastating. The head of the Republican Policy Committee, Sen. Larry E. Craig (R – Idaho), simply called upon President Clinton to "promptly submit the treaty and allow the Senate to kill it".¹⁴ Also Clinton's colleague from the Democratic Party, Sen. John F. Kerry (D-Mass.), known as being both environmentally concerned and proactive, stated that "[w]hat we have here is not ratifiable in the Senate".¹⁵ Also others were opposed. In fact the opposition to the Kyoto agreement included a powerful amalgam of groups representing business, agriculture and organized labor.¹⁶ In the end, the Clinton Administration would not even try to get the Senate's approval for the Kyoto Protocol.

This situation of being caught between two fires with regards to its climate change policies continued throughout the rest of the Clinton presidency. At home the administration soon paid a heavy price for the Kyoto negotiations when Congress, citing the Byrd-Hagel Resolution, included restrictions on federal climate change activities in several funding laws. The first of these restrictions, written by Rep. Joseph Knollenberg (R – Michigan), was enacted in 1998 as part of the appropriations act that funded the U.S. Environmental Protection Agency (EPA) for fiscal year (FY) 1999, and it effectively prohibited the EPA from proposing or issuing rules, regulations, decrees, or orders implementing the Kyoto Protocol.¹⁷ As we shall see later, the Knollenberg Resolution and other similar measures were to have a decisive impact on the implementation of climate change policies under the Clinton Administration.

The principal objection by Congress was that any commitment to the Kyoto Protocol should be preceded by an analysis of the economic consequences of legally binding emission reductions. In response, the Clinton Administration released an economic analysis in July 1998 that concluded that the costs of implementing the Kyoto Protocol could be reduced as much as 60% from many estimates. These results, however, were soon contested. Other economic analyses prepared by the Congressional Budget Office and the DOE Energy Information Administration (EIA), demonstrated potentially large declines in GDP from implementing the Protocol. This lack of consensus would in effect further stall the process.¹⁸

Also on the international arena the Clinton Administration continued to meet resistance. While the Kyoto Protocol had sketched out the basic rules for a global reduction of greenhouse gases, it did not flesh out details of how these rules were going to be applied. This, instead, was to be elaborated in a fresh round of negotiations on the Fourth Annual Conference of the Parties (COP 4) in Buenos Aires in November 1998. This round of talks, based on an ambitious work program called the Buenos Aires Plan of Action, linked negotiations on the Protocol's rules to discussions on implementation issues – such as finance and technology transfer – under the umbrella of the Convention. The deadline for negotiations

¹³ Miyakawa and Sasamoto, 1997.

¹⁴ Dewar and Sullivan, 1997.

¹⁵ Dewar and Sullivan, 1997.

¹⁶ Balz, 1998.

¹⁷ Pew Center on Global Climate Change, 2002, p. 7.

¹⁸ Justus and Fletcher, 2003 and Warrick, 1998.

under the Buenos Aires Plan of Action was set for COP 6 at The Hague in the Netherlands in late 2000.¹⁹

In the talks that followed the US administration soon ran into problems. Some of them referred to the issues that had been left unresolved at the Kyoto meeting. In what ways should developing countries obtain financial assistance? What should be the consequences of non-compliance? Another area of controversy concerned the technical aspects of a future trading system. What is the appropriate measurement of emissions reductions? How do you give credits for 'carbon sinks' in forests and agricultural lands? As the discussions proceeded the tensions grew worse, and when the COP-6 finally convened in The Hague in November 13-25, 2000, the bubble finally burst. At that point the disagreements between the US and the European Union had simply become unsurpassable, and despite a last-minute effort by the British Deputy Prime Minister, John Prescott, to reach a compromise the situation could not be saved. There was no agreement coming out of The Hague, and the discussions that had started in Buenos Aires were simply postponed.²⁰

The breakdown in The Hague was in effect a lost opportunity to develop the Kyoto Protocol with continued US participation. Only three months later, the newly elected President George W. Bush declared that the US was effectively going to withdraw from any continued negotiations of the treaty. The Kyoto Protocol, he argued, was 'fundamentally flawed' and constituted a serious threat to the US economy, since it "fails to establish a long-term goal based on science" and is "ineffective in addressing climate change [by excluding] major parts of the world".²¹ Instead, the President suggested voluntary measures and increased investments in breakthrough technologies.

Since then the Bush administration has presented both a comprehensive energy plan as well as its own strategy to mitigate climate change. Both of them have been severely contested and Congress finally rejected the Energy Bill in December 2003. The Climate Change Plan, in turn, follows largely the voluntary approach outlined above and has been criticized by international observers as well as environmental interest groups and parts of the scientific community. We will take a closer look at the different policy suggestions in a while.

However, what is interesting to note is that Congress shortly after President Bush's withdrawal from the Kyoto process in March 2001 reacted by moving legislation that supported engagement in the international climate change negotiations. First, the Senate passed a budget resolution for the fiscal year of 2002 that included funds for US participation in the international climate change negotiations. Then, the House of Representatives passed, as part of its bill directing the activities of the US State Department, a non-binding resolution urging the United States to continue its participation in international negotiations with the objective of completing the rules and guidelines for the Kyoto Protocol.²² These measures have also had practical effect. In fact, despite having rejected the Kyoto Protocol, the Bush administration sent more than 60 officials to the COP 9 meeting Milan — one of the largest American delegations ever to the climate-treaty talks — to promote alternative approaches to curbing emissions growth.²³

To conclude it could be argued that the fundamental issues guiding the US stance on climate change have been consistent ever since the signing of the UNFCCC in 1992. Moreover, in pushing for the use of market-based instruments, while at the same time emphasizing the need

¹⁹ UNFCCC. "Caring for Climate: A Guide to the Climate Change Convention and the Kyoto Protocol", 2003, p. 3.

²⁰ Jacoby and Reiner, 2001, pp. 301ff.

²¹ As cited from Grubb, et al., 2001.

²² Pew Center on Global Climate Change, 2002, p. 8.

²³ Myers and Revkin, 2003.

for developing country participation, in any global effort to curb greenhouse gas emissions, the US has constantly been at odds with a large part of the international community. This, in turn, partly explains the dilemmas of the Clinton Administration that in many respects was caught between two fires. On the international arena it had to defend both the policy lines set up by Congress as well as the country's emissions record. At home, the administration was, instead, criticized for 'selling out' the US position, and, as a result, Congress ultimately impeded the full implementation of the intended national Climate Action Plan by slashing its budget. In that sense the Clinton Administration has, somewhat paradoxically, had a greater impact on the international climate change debate than the US agenda. Indeed, neither emissions trading nor the CDM mechanism would have seen the light without a US participation in the global climate change debate. At the same time, the Bush Administration's recent rejection of the Kyoto process is probably more representative of a US position on international climate change collaboration.

2.2. US Greenhouse Gas Emissions – Trends and Projections

So, what are the practical realities facing the US administration? What are the current greenhouse gas (GHG) emissions levels and what are the trends? What are the sources and what economic sectors will be affected by any effort to curb emission rates? These questions are crucial if we want to understand the challenges and policy options lying before any US administration.²⁴

Starting at the global aggregate level, the US is by far the single largest GHG emitter in the world and responsible for about 24% of the global discharge.²⁵ More important, the levels are still rising. In 2001, total US greenhouse gas emissions amounted to 6.936 tons of carbon dioxide equivalents (CO₂Eq.), which then signified a 13,0 percent increase from the 1990 emissions level set up as a baseline in the Kyoto Protocol.²⁶ This increase has been attributed the rapid economic growth and an accompanying rise in demand for energy. Several recent reports predict that this trend will prevail and project therefore that emissions will reach an additional 43,4% by the year of 2025.²⁷ Just to put these numbers in perspective, Europe and Japan accounted in 2001 for 3.300 and 1.300 million tons respectively, while Sweden held a modest 55 million tons. This only emphasizes the influential role of the US in any international effort to stall climate change.

As in any other country the link between GHG emissions and energy consumption is crucial. Today, nearly 84% of GHG emissions in the US come from CO₂ with fossil fuel combustion as the largest source.²⁸ The main contributor is the coal-driven electric utility sector that accounts for nearly 33 percent of all CO₂ emissions. Almost as influential is transportation that with its use of petroleum makes up for a corresponding 27 percent.²⁹ Other important end-use sectors that also contribute to CO₂ emissions from fossil fuel combustion are the industrial, residential, and commercial sectors.³⁰

This link between energy source and economic activity is also largely responsible for differences in CO₂ emissions between various parts of the US. The states in the Northeast and on the West coast are, clearly, more efficient when it comes to curbing GHG emissions. Texas, on the other hand, along with some steel producing states with coal-based energy consumption, has the highest CO₂ rates per capita.

²⁴ This section is partly be built on Pettersson and Hurtig, 2004.

²⁵ DOE/EIA, 2003. 15.

²⁶ EPA, 2003, p. ES-2

²⁷ DOE/EIA, 2004, p. 62.

²⁸ EPA, 2003, p. ES-4.

²⁹ EPA, 2003, p. ES-22.

³⁰ EPA, 2003, p. ES-14.

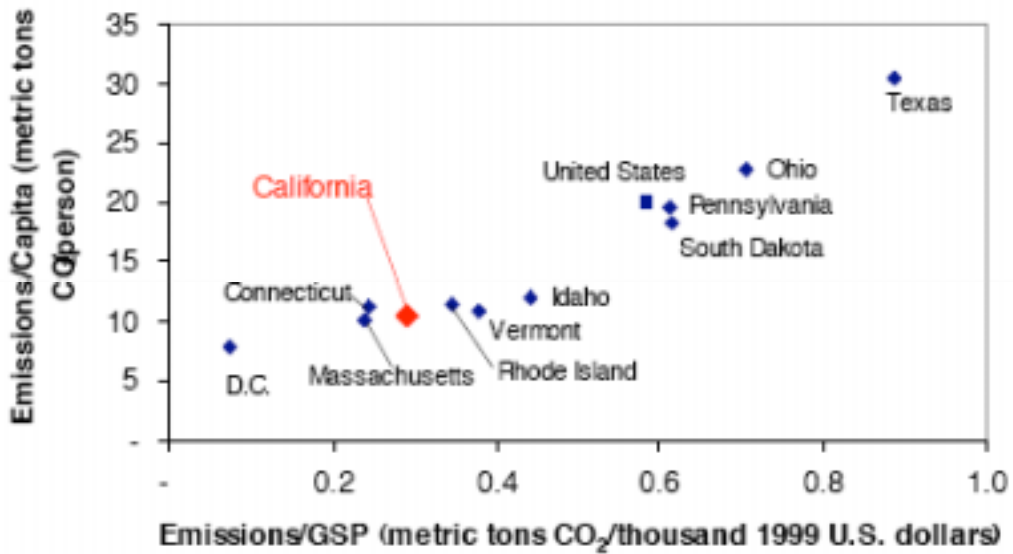


Figure 1. "1999 Carbon Intensity from the Combustion of Fossil Fuels for California and Selected States" California Energy Commission, 2002, p. 11.

Already today the US uses more energy than any other country, or four times the world average per capita. Still, the consumption is projected to increase by another 40% by year 2025. The largest increase, 54%, is expected for renewable resources. This, however, is an insignificant change in absolute terms, since renewable energy sources only constitute 6% of the total energy consumption. Instead, it is the increase in the use of petroleum (44%), coal (43%), and natural gas (38%) that is going to have the principal impact on emissions. The largest growth is expected within the transportation sector, followed by the service sector (49%) and industry (33%).³¹ Hence one of the greatest challenges facing any US administration today is how to avoid becoming overly dependent on foreign sources of energy for the internal consumption. We will return to that question shortly.

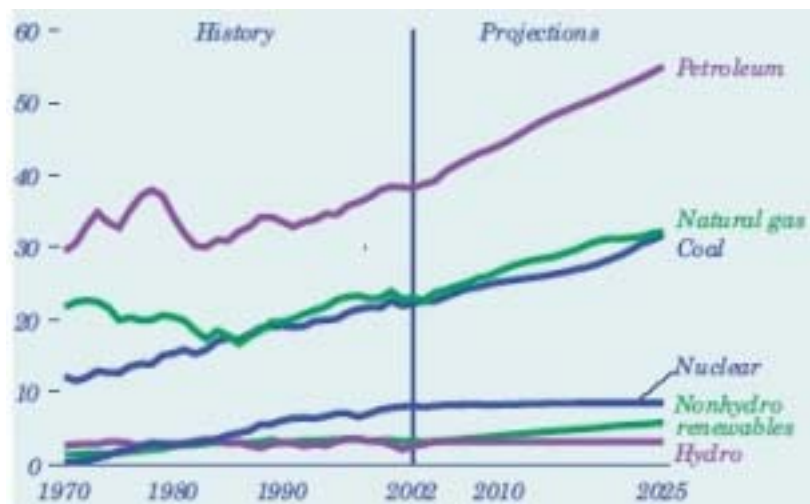


Figure 2. "Energy Consumption by Fuel, 1970-2025 (Quadrillion Btu)" EPA, 2003, p. 5.

³¹ EPA, 2003, p. ES-4f.

2.3. Bush's Climate Change Policies: Content and Current Status

Given the challenges outlined above, along with the skepticism about the Kyoto process, what alternative climate change policies has the Bush Administration presented so far? What are the concrete suggestions and how have they been received? What is the current status with respect to their implementation?³²

At the policy level there are various activities underway that in one way or the other relate to climate change. Essentially they each fall under the broader domains of energy policies, air pollution, and climate change more specifically. Together they comprise what we could perceive of as a comprehensive climate strategy for the US.

2.3.1. Energy Policies

The first set of efforts refers to energy policies. As pointed out above, climate mitigation is intimately linked with energy policies, wherefore these issues have to be dealt with interchangeably. Energy was also a major issue for the Bush Administration already from the outset and only two weeks after taking office the President had created a new 'task force', the National Energy Policy Development Group led by Vice-President Dick Cheney, to design a new long-term National Energy Plan.³³ A similar plan, most observers would agree, had long been called for and the appointed group set out to take on a number of challenges; to achieve higher energy efficiency, to upgrade and extend existent infrastructure, to increase access of energy without compromising the environment, and to increase energy security.

The report came out three months later, in May of 2001, and it was soon criticized for relying too heavily on market-incentives and, essentially, serving the interests of big industry – many of them major campaign contributors to the Bush Administration. One of the issues that got wide media attention was the suggestion to open up the Alaskan wildlife refuge for the expropriation of natural gas. Another soar point was the emphasis on coal-energy that was to be achieved by a regulatory rollback and large investments in breakthrough technologies, like clean coal and carbon sequestration. The main instruments to grapple with climate change, on the other hand, were to suggest tax credits for renewable energy sources along with the use of ethanol as a fuel additive. The critique got considerable support. Since its presentation the Plan has been negotiated on numerous occasions but still not passed Congress. In November of 2003 it was rejected in the Senate by a vote of 57-40.³⁴

2.3.2. Air Quality

A second set of issues refers to the question of air quality. This has long been an area of particular concern in the US and perhaps the single-most important driver of environmental policies. Hence expectations were high when President Bush presented his Clear Skies Initiative on February 14, 2002. The suggestions coming out of the program were largely in line with this of the Energy Plan. The principal theme of the Clear Skies Initiative was to put strong emphasis on market incentives, mainly by stressing the use of cap-and-trade programs. The reactions following its presentation were similar to the ones of the Energy Plan, as both environmental groups and scientists criticized the effective scaling down of regulations. Since then the program has been introduced in Congress as proposed legislation on two occasions but not yet passed.

³² This section is partly built on Pettersson and Hurtig, 2004.

³³ National Energy Policy Development Group, 2001.

³⁴ 2003.

2.3.3. Climate Change

A third area of action is those policies that refer to climate change more specifically. These efforts are outlined in the so-called Global Climate Change Initiative that was also presented on February 14, 2002. This plan focuses specifically on global warming and constitutes in many ways the Bush Administration's alternative to the Kyoto process. Essentially it rests on three pillars.

First, the plan emphasizes the use of *intensity-based emissions targets* for greenhouse gases. The concept of greenhouse gas intensity (GHG intensity) is in itself a new concept created in response to the fixed targets of the Kyoto protocol, that the Bush Administration has deemed as "an unrealistic and ever-increasing regulatory straitjacket".³⁵ By introducing the notion of GHG intensity the Administration seeks, instead, to link greenhouse gas emissions with economic development. GHG intensity is, in other words, simply the ratio of greenhouse gas emissions (carbon dioxide equivalent) to economic output (dollars of gross domestic product). The virtue of the concept, according to its proponents, is that it focuses on efficiency and thereby creates an incentive to develop new technology – which, in turn, is made possible by continued growth and prosperity. The key here is that intensity-based reduction targets can be met without reducing or stabilizing CO₂ emissions, as long as the economic growth is greater than the increase in emissions. This makes intensity-based targets, still in the view of its proponents, a more realistic tool and also more relevant to developing countries that presumably would be ready to accept it.

Through the Global Climate Change Initiative the Bush Administration committed itself to reduce the GHG intensity of the US economy by 18 percent over the next 10 years. According to the Administration's own estimates, this goal is then comparable to the average requirements of nations participating in the Kyoto Protocol.³⁶

This argument on economic growth and efficiency is interesting and potentially important, wherefore the implications of a GHG intensity target deserve attention. GHG intensity in the US has declined steadily in the past decades and is expected to do so also in the future. In fact, data suggest that within a business-as-usual scenario greenhouse gas intensity will decline by 14 percent between 2002 and 2012. If, in addition, the measures included in the Climate Change Initiative are fully implemented the intensity could be reduced by another 4 percent, by producing an absolute reduction in emissions of 100 million metric tons carbon equivalent in 2012 and more than 500 million metric tons cumulatively over the 2002-2012 period.³⁷

The reactions towards GHG intensity targets have ranged from positive to highly critical. Some commentators welcome this concept with the argument that it is a far more realistic and politically feasible tool than fixed targets. The principal problem with the Kyoto approach, they claim, is that it requires the US and all other industrialized nations to regulate their total quantity of emissions in brief five-year periods. The truth, however, is that policymakers really do not have much control over the short-term volume of emissions. Hence, GHG intensity would better match goals with the real leverage policymakers.³⁸

³⁵ Houlder, 2003.

³⁶ The White House, 2002.

³⁷ DOE/EIA, 2003, p. 163.

³⁸ See for example Victor, 2002.

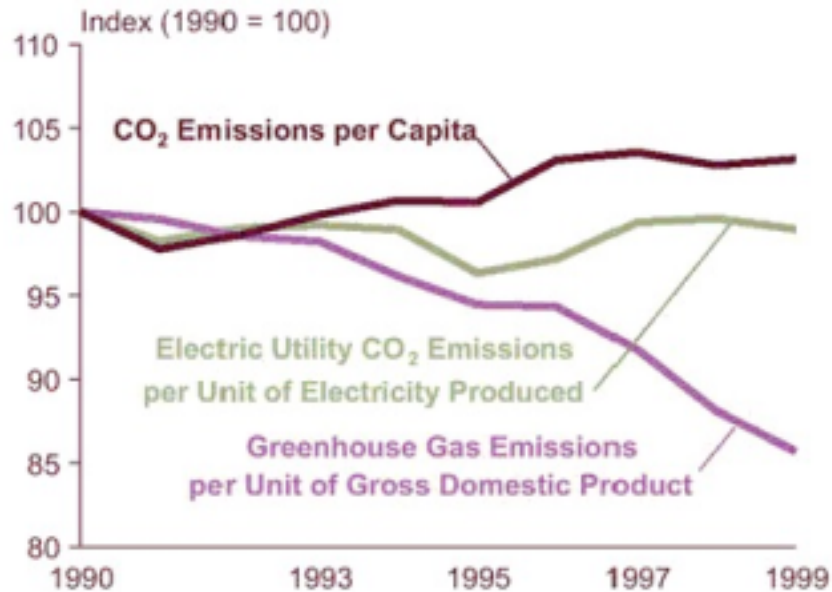


Figure 3. "Carbon Dioxide Emissions Intensity of US Gross Domestic Product, Population, and Electricity Production, 1990-1999", p. 4.

A similar point could be made for the possibility of getting a truly global commitment to greenhouse gas emissions. One of the principal US objections to the Kyoto Protocol is that it does not put any restrictions on developing countries that are likely to be the fastest growing emitters in the future. These countries, on the other hand, has made clear that they will never accept any targets that prevent them from economic development. A GHG intensity target, however, would be potentially interesting for everyone, since it establishes a link between emissions and economic development.

Finally, others argue that the real virtue using GHG intensity targets is the focus on efficiency and, indirectly, technological innovation. Here the US itself is often used as an example. Since 1973 the US economy has grown by 126%, while energy us has increased by only 30 percent.³⁹ Presumably this would then be the result of technology improvements. As we shall see, this is not entirely clear.

At the same time there are also serious objections to GHG intensity targets. The most fundamental is, obviously, that it does not guarantee a given level of environmental protection. The best illustration is the US itself, where GHG intensity have fallen considerably over the last two decades, 21% in the 1980s and 14-16% in the 1990s, while total emissions have continued to rise. The question is, instead, what actually drive these numbers; is technological improvements, or structural changes in the economy? If we look at previous data we find that the falling GHG intensity in the US over the last two decades is explained by energy efficiency improvements, the introduction of new information technologies, as well as the continued transition from heavy industry to less energy-intensive, service-oriented industries. This only emphasizes the need to take a closer look at the concept.⁴⁰

A second component in the Bush Administration's climate change strategy is the emphasis on what it calls a '*science and technology-based approach*'. This policy approach is based on the argument that any sustainable reductions in GHG emissions have to be sought on a long-term basis and through the application of new technology. Put simply, we still know very little

³⁹ National Energy Policy Development Group, 2001, p. xii.

⁴⁰ See for example Pew Center on Global Climate Change, 2003.

about climate change and, thus, many of the potential break-through technologies have not yet been developed. Therefore, the argument goes, we have to make the necessary investments now, instead of regulating ourselves into a technological dead-end. This emphasis on long-term technology-based policies to curb GHG emissions, as opposed to more near-term regulatory efforts, is probably the principal departure from previous efforts under the Clinton Administration.

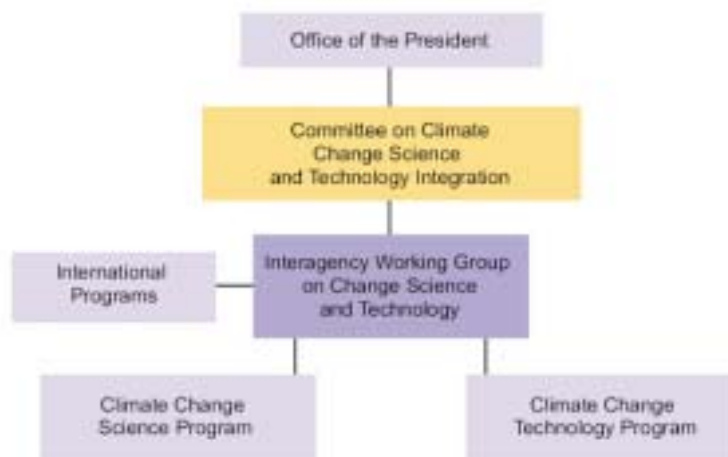


Figure 4. The organizational management structure of US climate change research.

These particular views on science and technology is also reflected at the organizational level with the creation of two complementary bodies, the Climate Change Science Program (CCSP) and the Climate Change Technology Program (CCTP), that each coordinate research activities within their respective areas. As the name indicates, the primary objective of the CCSP is to advance the knowledge of climate change science; i.e. the causes and effects of climate variability, the potential response of the climate system to human-induced changes, and from this suggest various management options for natural environments. The CCTP, on the other hand, is responsible for coordinating research related to the development of climate change technology and make sure that it corresponds to specific climate change goals and objectives. The idea is that these two programs should work together and complement one another.

Currently, the federal government spends about \$1.7 billion a year on climate research, which is more than any other country in the world. This is a large number also in relative terms as it amounts to 2.7% of the US GDP. The corresponding numbers for Europe and Japan is 1.9% and 3% respectively. The research is almost exclusively completed by public and private entities outside government. The Administration is also pushing for an increased private sector participation to achieve higher degrees of synergy, and it has therefore made it an outspoken objective to stimulate public – private joint ventures. Moreover, it strongly emphasizes international collaboration in areas of research, with the US being particularly active in areas related to hydrogen technology, carbon sequestration, and nuclear power.

The reactions towards the emphasis on science and technology have also been mixed but at the same time taken another character. Here it is not so much the objective itself as the foci and priorities that have been questioned. Most commentators seem to support the Administration’s intention to invest more in scientific research on climate change and future energy technologies.

What instead have raised concern are the Administration’s views on science itself and the way it was rapidly being politicized. In fact, one of the reasons for pulling out of the Kyoto

process was that the Protocol was based on what the Administration regarded as ‘flawed science’. Since then the Administration has also challenged what many would regard as an established scientific consensus about the causes and effects of global warming and, instead, called for new studies. As part of that process it quickly called upon the National Academy of Sciences (NAS) to produce a report to establish what was the current state-of-the-art science of climate change. The report, presented in May 2001, came out largely in disfavor of the Bush Administration since it established that, in fact, there is a scientific consensus on climate change.⁴¹

Since then the NAS has, at the request of the Administration itself, carried out two separate evaluations of the White House’s plan to address climate change. The first report, presented in February 2003, was largely critical and claimed that the Bush plan lacked “a guiding vision, executable goals, clear time timetables and criteria for measuring progress, an assessment of whether existing programs are capable of meeting these goals, explicit prioritization and a management plan”.⁴² Since then, however, the plan has been revised and a more study by the same NAS group is now more positive. What still remains a critical point, though, is the way in which the climate plan refers to already existent research, in particular research examining the potential effects of climate change around the US. Similarly, questions have been raised as to what extent there is enough money going into this effort and if existent funds are appropriately allocated.⁴³

The third pillar of the Global Climate Change Initiative is the emphasis on *voluntary measures* and what it calls ‘market-based, common-sense tools’. Again, the idea here is simply that present regulations are too complicated, too stringent, and that they thereby prevent continued economic growth. In addition, they may stall innovative processes and make us dependent on present technology.

Instead, in order to work regulations have to be initiated by industry itself and be compatible with economic realities. The solution, in the view of the Administration, is to create various types of mitigation programs and reporting protocols to which industry can enroll and report on a voluntary basis. These efforts, in turn, should be combined with different types of economic incentives, like transferable credits for emission reduction and tax incentives for investment in low-emission energy equipment and renewable energy. Some examples on similar voluntary initiatives are; the Energy Star program through which industry is encouraged to reduce emissions, and Climate Leaders, a public-private partnership encouraging individual companies to develop long-term, comprehensive climate change strategies.

This is probably the most controversial component in the Bush Administration’s climate change policies. The idea of voluntary measures has raised strong sentiments from all parties. Industry has been almost exclusively positive and praised the Administration for its efforts. "By encouraging voluntary, cost-effective solutions, it will curb emissions without undermining our energy supply or putting the brakes on economic growth," says Thomas Kuhn, president of the Edison Electric Institute.⁴⁴ Clearly, the electric utility sector is also one of the greatest beneficiaries of these policies. However, other heavy industries like steel manufacturers, carmakers, petrochemical refiners, and others also stand a lot to win from this.

The principal argument against voluntary measures is that they rarely work. Instead, previous experiences show that emissions continue to rise as gains from these efforts are outpaced by

⁴¹ National Academy of Sciences, 2001.

⁴² Revkin, 2003.

⁴³ Revkin, 2004.

⁴⁴ Fuller, 2003.

economic expansion, changing consumer preferences, and population growth. Here, the UNFCCC itself is a case in point. The fundamental problem with voluntary measures is that, while being voluntary and only minor diversions from the "business as usual" path, they do not advance specific policy solutions. Consequently it is unclear how similar goals translate into actual reductions in GHG intensity across various sectors of the economy.⁴⁵

Another problem refers to actually apply a system of voluntary reporting, or, better said, how to judge what is actually being reported. The point here is that any kind of emissions reduction targets require some sort of reporting to a joint, more often public, database. This is where things get complicated. Unless there are clear standards as to what companies should report, the resulting data could be virtually useless. Also, even if there are clearly defined standards, companies in a voluntary system still have broad discretion in choosing what data to report. The lack of supervision and verification will be a constant dilemma.

To sum up this part it seems as if the principal difference between the Bush Administration's climate change policies and those under President Clinton is that the current administration applies a long-term perspective and relies far more heavily on voluntary measures. These, on the other hand, are not minor differences. Other than that, several observers point out, the current climate change plan is largely a 'repackaging' of the Clinton Plan; most of the programs remain the same, funds have simply been reallocated, and many of the organizational changes are simply cosmetic. Whether that is a good or a bad thing is an open question. Some would argue that continuity is a virtue.

2.3.4. Current Status and Implementation

What, then, is the current status of all these programs? To what degree has the Bush Administration been able to translate its stated policies into practical undertakings? This discussion, along with some thoughts as to *why* policies are implemented or not, is largely the theme of the upcoming sections. However, before we proceed we might want to get an overview of the current situation.

Most commentators today seem to agree that there is little, if anything, coming out from the federal government that would support any further GHG reductions. This, however, is not to say that there is no activity at the federal level. Quite the contrary, there a lot of efforts to effectively pull through and further institutionalize the ideas of voluntary measures and regulatory rollbacks. This is made both publicly and, as we shall see, more discreetly through, for example, administrative resource allocations, legal reinterpretations, and changes in regulatory statutes. A separate question is to what extent this is an effective climate change policy or not. Many observers would say it is completely detrimental and is, in fact, only intended to serve big corporate interests. The Bush Administration, on the other hand, would defend itself by arguing that this is the only way to get things done. Ultimately, this controversy is largely ideological. What is worrisome, though, is that so much is being done outside public scrutiny. This only raises the suspicion that the Bush Administration, in fact, has a hidden agenda. In the meantime there are no indications that GHG emissions are slowing down.

It is in this context that the initiatives currently evolving at the local, state, and regional levels become particularly interesting. These programs are mostly initiated and carried out with the more or less explicit ambition to curb GHG emissions. Interestingly enough, they have all developed without any support from, and sometimes even in outright opposition to, federal policies. The fact that they often result from a close collaboration between government, the private sector, and other interest groups raises also several intriguing questions about current

⁴⁵ Pew Center on Global Climate Change, 2003.

and future US climate change policies. What drives these efforts? To what extent do they constitute an alternative, and perhaps more viable way, confronting the climate change issue in the US? What is the actual impact of these efforts? We will return to some of these issues later.

However, before concluding this it must in all fairness also be recognized that it may be too early to assess the full impact of recent US climate change policies. Many of the voluntary programs have only just started and the research investments are, in fact, explicitly long-term. Similarly, it is hard to establish what would have happened with a stricter regulatory approach.

What is absolutely clear, though, is that the Bush Administration, regardless of its factual environmental intentions or records, has created a vivid debate on climate change issues. Clearly, there are some strong sentiments out there that, in turn, have brought attention to the problem. In the longer term, this is probably more important than anything else. From a policy perspective there is nothing worse than urgent problems that receive no attention. This, in turn, is often decided by the characteristics of the issue itself. Climate change is particularly difficult in this sense, since it is hardly visible and also long-term. Thus, the fact that it is now getting attention has a value in itself.

3. The Climate Change Issue: Conception and Practice

“I oppose the Kyoto Protocol because it exempts 80 percent of the world, including major population centers such as China and India from compliance, and would cause serious harm to the US economy.”

President George W. Bush

The international reactions towards the Bush Administration’s decision to pull out from the Kyoto process were highly critical. Most foreign observers regarded it as outright irresponsible by the world’s largest emitter not to proceed with a scheme to cut its emissions. Moreover, the justification for doing this was to many incomprehensible. How could the world’s richest nation claim that they were unable to afford emission cuts? Also, how could they claim that developing countries should assume the costs for a problem they did not cause in the first place, and thereby, presumably, be deprived of their own right to economic development?

At the same time the US claims were not new. In fact they were the same arguments that the Clinton Administration and President George H. W. Bush before it had pushed in Kyoto and Rio de Janeiro. On both occasions the US government had been severely criticized from what was ultimately a moral and ethical standpoint. Thus, the overall result has been a highly emotional debate where positions are locked up. This situation is unfortunate, since it prevents us from asking some crucial questions; to what extent, and in what ways, are current international emissions targets *de facto* hurting the US economy? What would be the consequences for the US economy if the country actually complied with the suggested reductions?

These questions are critical in the sense that they go straight to the heart of politics. More often the very essence of politics is that we have different perceptions of the same problem and, therefore, literally talk passed each other. Under those circumstances the only way to break the deadlock is to try to understand the other party from its own perspective. This is not to say that one ultimately has to agree with that position. Rather, it is making sure that we are

effectively talking about the same thing, so at some point we can progress beyond mere debating. This aspect of how the issue is framed, and the impact of the more cognitive aspects of politics, is often an important factor explaining the subsequent implementation of policies and their outcomes.

The discussion on issue framing seems particularly relevant in this case. As we look at the internal US debate there are, in fact, many who condemn the policies and practices of the current Administration. Still, most of the same critics would agree that the Kyoto Protocol is not a workable solution for the US. This indicates that we have to take President Bush’s claim under serious consideration.

3.1. The Kyoto Protocol and the US Economy

Perhaps the most important claim of the President’s statement is that a full US commitment to the obligations of the Kyoto Protocol would cause ‘serious harm’ to the country’s economy. If that were to be true it is, in fact, a global concern that not only will affect the Kyoto process but ultimately could impact also the global economy as a whole. Needless to say this would have far-reaching consequences beyond climate change mitigation and the President’s claim should therefore be taken seriously. On the subsequent pages we will discuss some of the most critical aspects of this argument.

3.1.1. The Dependency of Coal and Transportation

Absolutely central to the US position on climate change is the link between energy consumption, GHG emissions, and economic activity. Presently, almost 86% of all primary energy in the US comes from the burning of fossil fuels (natural gas, coal, and petroleum). This implies that the reduction of GHG emissions is, in effect, a question of energy consumption – with all the implications that follows. Unlike countries with a more varied energy profile, the reduction of greenhouse gases in the US will directly impact the very nerve of economic life, i.e. the access to energy. Regardless of what technology path one chooses, curbing emissions rates will require major alterations in the current energy system. This is likely to be both costly and time consuming. In the meantime reducing emissions is largely a function of reduced energy consumption.

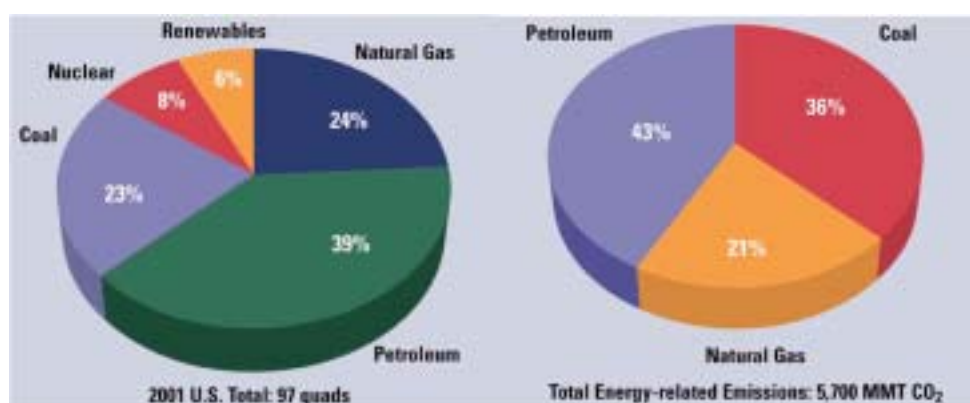


Figure 5. “Sources of Primary Energy” and “CO₂ Emissions by Fuel”. Source DOE/EIA, 2002.

This picture becomes even more intricate as we consider the importance of different energy sources and their respective impact on GHG emissions. Today, nearly 43% of all CO₂ emissions in the US come from petroleum, while coal and natural gas make up for 36% and 21% respectively. This leads to two observations. The first is, obviously, the large proportion

of emissions from petroleum. Still, perhaps even more important is the amount of emissions coming from coal.

The question of coal is crucial because it is almost exclusively used by the electric utility sector (90%) that, conversely, is highly dependent on coal. Currently, more than 50% of all electricity in the United States comes from coal-fired power plants. The electric utility sector is thereby the largest emitter of greenhouse gases in the US (33%), and it accounts for more emissions than the annual emissions of Argentina, Brazil, Indonesia, Mexico, South Africa, and South Korea combined – or some of the largest developing nations together.⁴⁶ There are many reasons for this emphasis on coal. One is its sheer abundance. Recent estimates indicate that the US has enough coal to keep consumption at the present rate for another 250 years. Also, coal-fired energy is relatively cheap and good business.

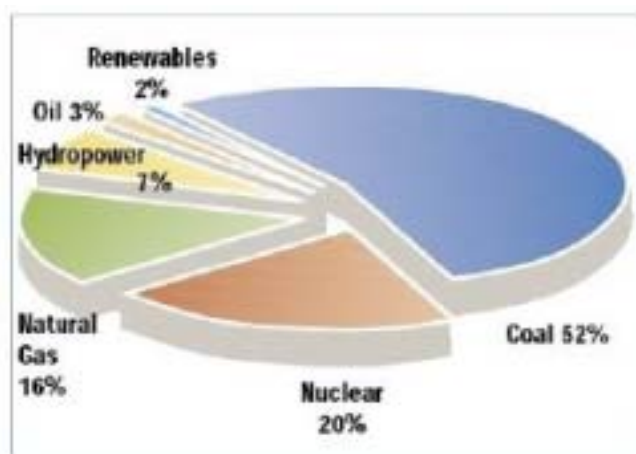


Figure 6. "Fuel Sources for Electricity Generation in 2000". Source National Energy Policy Development Group, 2001, p. 1-6.

Particularly the latter point deserves some attention in this context. One of the reasons why coal-fired energy is good business is because production costs are low. Due to lax regulations it has been possible to keep old plants running for many years without technological upgrades. The economic pitch is obvious. Once investments are covered for, every day the power plant runs is sheer profit. Thus what we have is a situation where there are no incentives for technology improvements – but large profits at stake.

The consequences are clearly visible at the plant level. Presently, the coal-fired electric utility sector in the US is almost exclusively dominated by old technology, with the oldest operating power plant dating from 1819(!). Needless to say, this is devastating from an environmental perspective and it certainly affects GHG emissions. Still, probably more worrisome is the implications this has on the US economy. It goes without saying that any major restructuring of the electric utility sector will have serious repercussions on nearly every other economic sector. After all, electricity is the basis for all economic activity.

What further complicate matters are the physical characteristics of the country. The US is in every aspect a continent and holds as such large climatic differences, ranging from the Arctic cold of Alaska to the dry heat of the South, that affect both land use and the resource base. This implies that energy needs vary considerably between different regions. Similarly there are also large variances in population patterns, with the major urban centers concentrated on the coasts.

⁴⁶ Baumert and Kete, 2003, p. 2.

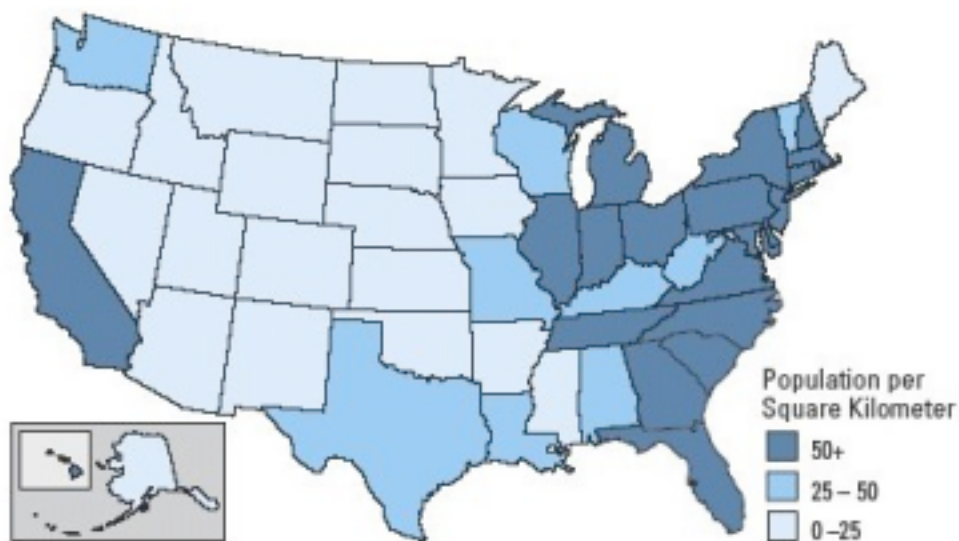


Figure 7. "US Population Density: 2000" U.S. Department of State, 2002, p. 11.

This emphasizes another structural aspect of the electric utility sector, namely the transportation of energy. The point here is that some of the major coalfields are located far from the big urban areas, or in places like the Rocky Mountains (Montana, Wyoming, Colorado, New Mexico, Utah, Arizona), the Great Plains (North Dakota), and the Gulf Coast (Texas, Louisiana). Other major coal producing states are Kentucky and West Virginia that are also relatively sparsely populated. From all these places either the coal or the energy has to be transported, something that involves large infrastructural investments in the form of power grids and roads.

This inevitably leads to some comments about the transportation sector, that is the second largest emitter of greenhouse gases in the US (27%).⁴⁷ The American emphasis on cars and trucks as means of transportation is well known, as well as the preference for big and gas-consuming vehicles. Still, the transportation sector's impact on GHG emissions is staggering. The United States, which has 5 percent of the world's population, burns 10 percent of the world's crude oil output every day just to power its cars and trucks.⁴⁸ This implies that transportation fuels alone account for about two-thirds of the country's oil consumption.⁴⁹ At the same time, the amount of cars only increases. Between 1960 and 1998, the total number of cars and trucks registered in the United States almost tripled, from nearly 75 million to more than 210 million. This trend was accompanied by a rapid increase in the amount of miles traveled.⁵⁰

Just as in the case of energy production, there are historical explanations to this situation. In fact, the use of cars in the US is largely a result of government policies. Some decades ago the federal government made it an explicit objective to venture in automobiles as the principal means of transportation. Consequently, the country's infrastructure has been set up to support and incentivize the use of cars, often to the outright expense of railroads and public transportation. As a result, the US is now trapped in the sense that any alterations in the present infrastructure will involve enormous costs.

⁴⁷ EPA, 2003, p. ES-22.

⁴⁸ Banerjee, 2003.

⁴⁹ National Energy Policy Development Group, 2001, p. 1-10.

⁵⁰ U.S. Department of State, 2002, p. 22.

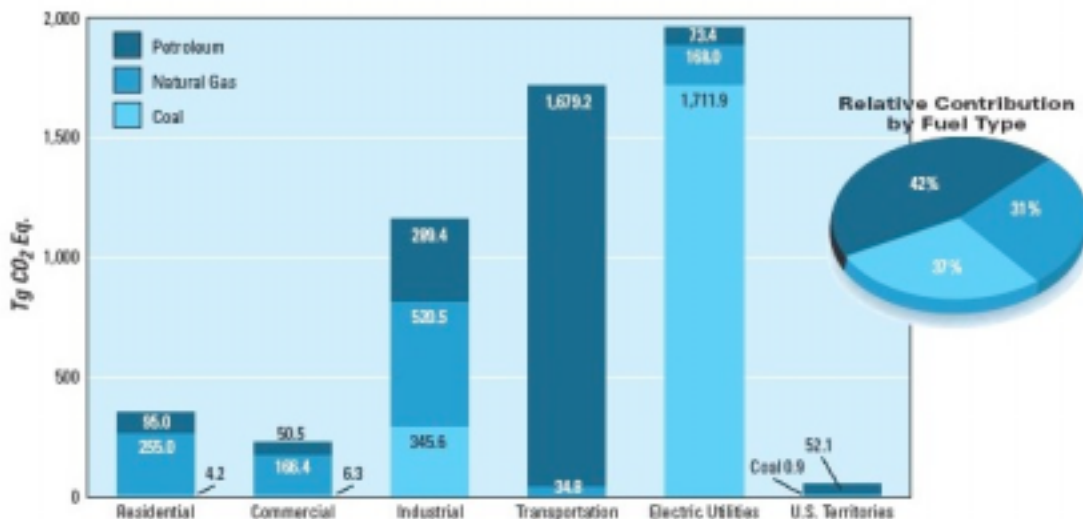


Figure 8. "1999 CO2 Emissions from Fossil Fuel Combustion by Sector and Fuel Type" U.S. Department of State, 2002, p. 40.

At the same time, the need for transportation is higher in the US than in many other places. The country is, as already pointed out, huge, with its major population centers concentrated on the coasts. This leaves large areas in the middle of the country almost deserted and makes transportation imperative. This pattern is also repeated in the cities. In fact, the population density in US metropolitan areas is far lower than in other places in the world – and they continue to decline. This, in turn, only emphasizes the reliance on decentralized travel modes, such as the car, and further increases the relatively high per capita energy use.

In addition to these structural limitations there are also more dynamic factors affecting transportation and the use of cars. One is the increasing mobility of the population. Other aspects are shifting patterns of land use, the changing composition of the work force, along with reduced marginal costs of driving.⁵¹

Regardless of the opinions one has about the 'American Consumerist Lifestyle' the transportation sector holds, clearly, a number of traits that makes it very difficult to alter overnight. Just as in the case of coal there are, obviously, a number of opportunities in greenhouse mitigation that in the long-term may offset the cost of any changes – and maybe even make it more profitable. The problem, however, is that these changes require both time and enormous initial investments. During such a transition the economy will suffer. The problem for the US is that its greatest emitters are, precisely, the energy and transportation sectors, since they constitute the structural pillars of the economy at large. These sectors require an infrastructure that is both physically extensive and very costly. Moreover, a number of supporting industries depend on their respective operations and would thus be seriously affected by any major alterations.

3.1.2. The Question of Energy Security

Another issue of increasing concern for the US economy is the question of energy security. Over the last decades the increase in the country's consumption of crude oil and natural gas has steadily outpaced internal production. Presently, the extraction of crude oil is actually diminishing, while there is only a slow growth in the production of natural gas. According to

⁵¹ U.S. Department of State, 2002, pp. 11 and 22.

recent projections the net import of oil is therefore expected to rise from 54% of total demand in 2002 to a corresponding 70% in 2025.⁵²



Figure 9. "Total Energy Consumption and Production, 1970-2025 (quadrillion Btu)". Source DOE/EIA, 2004, p. 7.

This constitutes a major problem for the US, insofar as it makes the country increasingly dependent on oil from politically unstable regions in the Middle East and elsewhere. In a worse case scenario, the US could find itself with an energy shortage that effectively stalls industry production and thus the economy at large. It is therefore an outspoken ambition of the Bush Administration to increase the internal energy production of the US.

This question of oil has recently gained increasing attention as oil prices reached a 13-year high in March 2004 with prices reaching almost \$40.0 per barrel. The development is due to a number of factors; mainly low inventories in the US and a strong demand from China. Also, the decline is partly a result of the dollar's decline against particularly the euro. Still, it emphasizes thereby the United States' vulnerability on energy issues. Most analysts today expect gasoline prices to rise well beyond \$2.0 per gallon this summer and the issue has already become a matter of debate in the upcoming presidential election.⁵³

In this context coal once again emerges as a viable option. Only a few years ago, natural gas was by many considered to be the best alternative for an increased internal energy production. However, since then the price on gas has risen and there is an increasing uncertainty about the actual scope and quality of the existent natural gas reserves. This has put renewed to coal as an alternative. The use of coal is many ways appealing. Again, it is cheap and the US has enough of it to be self-sufficient for centuries. To that extent an extended use of coal could certainly provide increased energy security.

Most certainly coal will be an important component of the US energy profile also in the future. The current Administration is, as already indicated, currently investing heavily in coal-related research, with strong emphasis on clean-coal technology and carbon sequestration projects. Moreover, it has tried to give the coal-fired electric utility sector a boost by lessening some of the environmental regulatory requirements.⁵⁴ The latter, the argument goes, will increase investment in modern and more efficient technology – and, hence, ultimately reduce GHG emissions. It remains to be seen whether that will be the case. Many fear the worse. Again, the link between energy consumption, GHG emissions, and economic activity is given a new twist.

⁵² DOE/EIA, 2004, p. 7.

⁵³ Schurr, 2004; Norris, 2004; and Wald and Tierney, 2004.

⁵⁴ Lee, 2003.

3.1.3. The EU, 'hot air' and the US as the Engine in the Global Economy

Another issue on which the US position diverges from that of many other, primarily European, countries is the Kyoto Protocol's use of fixed GHG reduction targets. President Bush himself has called the agreement 'a regulatory straight jacket' on US industry and claimed that it gives a competitive advantage to European firms by effectively preventing the growth of US firms. This critique is one of the President's principal arguments in his overall claim that the Kyoto Protocol could seriously hurt the US economy. The question is to what extent and what ways that might be true.

One objection that came forth early in the negotiations of the Kyoto Protocol concerns the European Union's 'bubble system' for distributing economic pain among its members states while reducing GHG emissions. According to the Protocol, the EU agreed to cut emissions overall to 8 percent below 1990 levels between 2008 and 2012. Within the 'bubble system', however, some European countries would be allowed only minor reductions, while a few nations even could increase their output by as much as 40 percent. From an American perspective, this would give some European industries a major competitive advantage vis-à-vis their American counterparts.

This argument has later gained additional strength by the unfortunate choice of 1990 emission levels as the baseline for future GHG reductions. The key here is that several key European countries clearly benefited from the 1990 base year for reasons completely unrelated to climate. Newly reunified Germany, for example, saw its emissions fall by some 15 percent as inefficient East German industries collapsed. Overnight the country had thereby complied with its Kyoto commitments and could, in fact, let its industry grow on the basis of this new 'hot air'. Britain, in turn, was helped by the breakdown of the coal mining unions and the electric utility sector's subsequent conversion from coal to recently discovered North Sea natural gas. Now they were also on the safe side. In fact, only a few minor countries, like the Netherlands and Denmark, saw rapid growth in GHG emissions throughout the 1990s – i.e. according to the 1990 baseline. At the same time, the overall economic growth in Europe was substantially lower than in the US.⁵⁵

This possibility of distributing the economic effects of emission reductions within a 'European bubble', combined with the 1990 base year and the resulting existence of 'hot air', has become a serious predicament in the US – European interpretations of the Kyoto Protocol. In the views of the US Administration, this gives the European countries hidden buffers in their reduction of GHG emissions, while the US will have to comply with absolute targets. The implications for industry are obvious and, according to the US Administration, the Kyoto Protocol has thereby become a regulatory instrument by which the EU can prevent the US economy from growing.

In many respects it is very the success of the US economy, in combination with the problems of the European market, that has led to this situation. While the US effectively served as the engine of the global economy in the 1990s, Europe staggered through its own problems of creating a political union. As a result, US greenhouse gas emissions soared during these years, while European levels were significantly lower. At this point, the different trajectories matter since they effectively decide the chances of meeting Kyoto targets. Europe, for its part, will have to achieve a cut below its forecast baseline of some 17 percent (adding an estimated 9 per cent growth to the 8 per cent Kyoto cut), while the United States will require a reduction below baseline of around 30 percent. This situation would be considerably different without 'the bubble' and 'the hot air' – even if it would not alter the position of the US as the larger emitter. It is easy to see why many Americans are skeptical about the Kyoto targets.

⁵⁵ Jacoby and Reiner, 2001, p. 300.

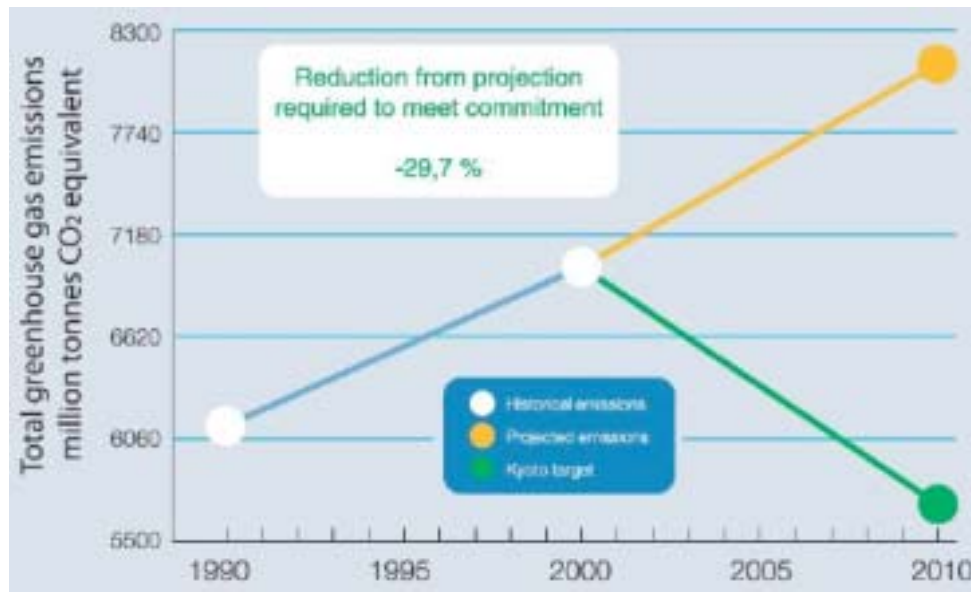


Figure 10. "Actual and Projected Emissions from Six Greenhouse Gases". Source FCCC, 2003.

3.1.4. The Kyoto Protocol and Developing Countries

The other component of President Bush's objection to the Kyoto Protocol concerns the fact that the agreement exempts developing countries from any mandatory emissions reductions. This was, as already indicated, a highly disputed area already from the outset of the global climate change negotiations and it has, really, never been resolved. Developing countries claim, for their part, that they should be exempted from any reduction targets since it would restrain industrial expansion and thereby their right to economic development. Moreover, they question why they should take on the costs of a problem they did not cause in the first place. The principal argument against these claims, and this is the official US position, is that these countries, if they let their economies grow in an uncontrolled fashion, rapidly will be large emitters of CO₂. Hence if they were not given some sort of emission restraints we would in the end have accomplished very little with regards to global warming.

At the same time there is, obviously, more to this issue than just emissions growth. Clearly, there is also a strong economic component of involved. The major preoccupation from a US standpoint is, no doubt, that some of these emerging markets would outperform the US economy through lower production costs. This, in turn, would not only affect the export of US products but American producers could, unless import tariffs were raised, be outperformed also on their home market by cheaper foreign alternatives. In addition US unemployment rates could rise as American firms move their production to 'environmental havens' where production costs are lower.

To be fair there seems to be some truth in this argument. In fact, much of what has just been described is already happening even without a global climate change regime. China, for example, has seen as almost exponential growth in economic activity over the last few years and the use of energy is rising accordingly. Only last year, China's electricity consumption jumped by 15 percent while the country built so many new cars, factories, airports and high-rises that it passed the United States to become the world's biggest steel importer, accounting for almost a third of the world's consumption of finished steel. As a result China's oil imports rose by nearly 30% and domestic coal production increased by 100 million tons – and there were still energy shortages. At the same time the numbers are probably modest compared with what is estimated for the future. Earlier projections expect the country's energy needs to more than double by 2020. The more recent trends, however, indicate that these estimates

might even be in the lower range. From a climate change perspective the outcome could be disastrous. Like the United States, China's primary energy source is coal, which accounts for almost 70 percent of the power supply. With the current economic growth CO₂ emissions will increase a lot – and rapidly! In 2001, China and India together accounted for 17 percent of total world carbon dioxide emissions, as compared with the 24-percent share made up by US emissions. Now experts predict that by 2020 China could pass the United States to become the world's biggest source of carbon dioxide. And then we have not yet accounted for other major emerging like Brazil and India.⁵⁶

This improved performance by some of the emerging market economies have also affected the US economy in some of the ways outlined above. One indication is the growing US trade deficit. Here the trend is really spectacular. For the year 2003 the gap between exports and imports reached a whopping \$489.4 billion. Yet the trend indicates even growing numbers. In January 2004 the US trade deficit climbed to a monthly record of \$43.1 billion, as imports flooded in from China and American exports were hurt by diminishing demand from Europe and other parts of the world. This points to a new trend. China's trade surplus with the United States that last year amounted to \$124 billion is now larger than that of any other country, including the entire European Union. At the same time, an increasing number of American firms move their operations abroad to reduce their production costs and remain competitive. As a result, the United States is currently struggling with what has been called a 'jobless economic recovery'. Even though the American economy is improving at the aggregate level it does not generate any new work opportunities. Hence, there is a general notion that jobs are moved overseas to low-salary countries. This, in turn, has raised a debate on free trade versus protectionism that is likely to be one of the primary issues in the up-coming Presidential elections later this year. As we can see, this overall debate is intimately linked to the climate change issue.⁵⁷

From this perspective it also understandable why the United States wants developing countries to commit to binding emissions targets. In this case mandatory environmental standards has the effect of shifting and imposing costs that would enable the US to regain competitive advantage. In fact, it could even be a way to create markets for new environmental technology. Well aware of their future energy problems, China is already today investing in American cutting-edge hydrogen and clean-coal technologies. If that trend were to be reinforced the US could suddenly be in a much stronger economic situation again.

3.2. Conclusion

The ambition with this section has been to confront the question of issue framing and how it may impact our understanding of US climate change policies. It appears to be an important task. Over the years the climate change debate has become increasingly animated, and often the 'transatlantic rift' seems to be more a function of preconceived value judgments than rational discussions about the different challenges we are each facing. Too often the conception, or framing, of a problem is confused with the subsequent formulation, and implementation, of preventive and alleviating policies. Instead, the desire to see specific results makes us blind to the fact that our goals may differ and that there are different pathways to reach the same goal. This failure to recognize how we perceive of problems differently is worrisome since it might prevent us from considering what is politically feasible, as opposed to individually desirable, and, perhaps even worse, what we could learn from one another. After all, politics is ultimately about seeking collaboration despite diverging interests and preferences. Hence, the first step towards success is to try and understand how the other party perceives of the problem.

⁵⁶Yardley, 2004; 2003 and DOE/EIA, 2003, p. 15.

⁵⁷ Andrews and Bumiller, 2004 and Herbert, 2004.

The present section has attempted a first step in this direction by taking the Bush Administration's statement that the Kyoto Protocol could 'cause serious harm to the US economy' at face value and thereafter discussed the basis for that statement. The effort is enlightening. Once we focus on the link between energy consumption, GHG emissions, and economic activity it is also clear that there are aspects of this relationship that make the US economy particularly vulnerable to any drastic GHG mitigation efforts. One issue of particular importance is the high dependency on coal for the generation of electricity.

This focus on the structural premises for the economy also explains the US position over time. As already pointed out the US has been relatively consistent in its argumentation over the years. What have differed between the various administrations, however, are their respective beliefs in the international collaborative process as well as the policies suggested to confront the problems. Also, there are, as we shall see, major differences in terms of how policies are implemented – or not. Again, perception is not implementation.

At this point it should also be mentioned that there are several forward-looking economic studies indicating that the US could, in fact, even gain from more progressive GHG reduction policies. This could well be true but it deserves some comments. First, there is a high degree of uncertainty in similar type of studies and, consequently, their conclusions vary a lot. Second, not even the most positive projections contradict what has been said here. It may very well be true that the US economy can gain from progressive climate policies over the long-term. What is clear, though, is that it will require a major restructuring of the infrastructure which certain to involve huge initial investments.

In addition, the section discussed the US position that developing countries also should commit to binding emissions targets. Again, the argument is comprehensible from a US perspective. Apart from the potential rise in global emissions, which is something that will affect us all, the US industry, clearly, runs the risk of being outperformed by emerging market competitors, because of the lower production costs that follow from less stringent environmental requirements. At the same time, the more interesting point is the general argument that follows from this observation, namely that the imposition of stricter environmental regulations could be a means to gain economic competitive advantage. This, obviously, has implications for policy-making, insofar that it provides a link between economic development and improved environmental performance. This is, clearly, an area that should be explored further.

Again, the overall ambition here has been to illustrate that perceptual differences matter. Regardless of what we think about the other party's views they are what they are, and we all have to deal with it. If we don't they become giant hurdles during the subsequent implementation of policies. The question of whether a perception is rational or not is something different. We still have to deal with it.

A final illustration of this last point is the American consumerist lifestyle with its fascination for four-wheel-drives and desire for ever-bigger houses with year-round air-conditioning and heating. When President Bush's previous spokesman, Ari Fleischer, once was asked whether Americans needed to 'correct their lifestyles' to solve what the Administration had called an 'energy crisis' in the US the answer was clear. "That's a big no," Fleischer replied. "The President believes that it's an American way of life, and that it should be the goal of policy makers to protect the American way of life. The American way of life is a blessed one."⁵⁸ Obviously this is also part of the equation here. Again, perceptions matter.

⁵⁸ "The Bad Oil On Bush's Energy Plan," 2001, p. 23.

Part II: Getting from Intentions to Practice – Opportunities and Pitfalls

This part of the analysis discusses the conditions for putting policies into practice. What are the restraints and opportunities while moving from ideas and intentions to agreed-upon policies? What are the factors that determine the outcome of climate change policies once they are decided upon? The ambition here is to illustrate how and under what circumstances institutional, administrative, economic, and political factors may affect formulation and implementation of policies.

The section is divided into two parts. It starts with a discussion about the institutional premises for decision-making in a federalist state. Essentially it will be argued that the US has some specific characteristics that make the very formulation and decision of policies very different from that of a more centralist state like Sweden. These traits, it will be argued, influence the actual content of policies. From here the analysis leads over to a similar discussion about factors that in one way or the other affect the way policies are put into practice. In this part we discuss how structural factors as well as politics and day-to-day decision-making within administrative governmental entities influence the implementation of policies. In that sense this section will give a clearer view of what is currently going on in the United States.

4. Decision-making in a Federalist Political System

Now that we have established how climate change mitigation will affect the US economy and discussed how the issue is being framed within that context, the next question is how these considerations are negotiated and turned into agreed-upon policy declarations. In doing so we enter the realm of decision-making that, it will be argued, creates a number of restraints and opportunities in the formation of policies. The factors involved are both structural as well as political. There are, for example, a number of institutional premises, like legal areas of competence and voting rules in different governmental bodies, which define how decisions are made. At the same time, these very structures also frame the political game that take place as various interests negotiate policies.

One additional aspect of a federal state like the US is that these structural and political factors operate both horizontally, i.e. between different actors at the federal level, as well as vertically, i.e. in the relation between federal and state governments. Again, here is a critical aspect of the US policymaking process that has far-reaching implications also on climate change policies.

4.1. Getting to Closure: Division of Power and Political Representation

One fundamental trait of the US federal political system is the clear separation of power between legislative, executive, and judicial branches of government. This of division competencies is though by no means unique to the US. Rather, what makes it special is the way it is combined with a 'checks-and-balances system' where each of the different branches effectively can veto one another. This goes right to the essence of the federal state, where the principal objectives is to strike a balance between regional preferences and the ambition to coordinate issues of joint interest. The challenge is to make sure that one group does take precedence over another. In that sense the US federal system of governance is struggling with the same issues as the European Union.

This horizontal separation of powers within the federal government, along with the implications it has for political representation, is crucial for our understanding of US climate change policies. Of particular importance is the role of Congress. As already indicated, Congress has precedence over a number of critical and crosscutting issues, such as passing legislation and deciding about budget issues. Moreover it is institutionally set up to balance various interests. In effect, Congress thereby becomes the arena where tensions between federal policies, popular will, and regional interests are effectively fought out. Under these circumstances the way institutions are set up will also largely define the debate. For those, primarily non-American readers, unfamiliar with the UUS system of governance a brief introduction of its basic features is provided in Appendix 1.

4.1.1. The Role of Congress: Legislation and Budget

Congress' power in determining how the United States responds to the challenges of global climate change comes, as already pointed out, mainly from two sources. One is the creation of the laws and regulatory regimes necessary to curb emission rates. The other resides in the oversight of the federal executive branch, a role that also involves the capacity to appropriate funds for environmental purposes.

The legislative process is itself an extensive undertaking, where each piece of legislation has to be approved by both the House and the Senate before it can take effect. In order to facilitate this process Congress has therefore developed a committee system, where both the House and the Senate have a number of standing (permanent) committees and select (special and temporary) committees. Occasionally they may also form joint committees to consider subjects of common interest. These committees hold regular meetings and public hearings in areas of concern. Also, since no act of Congress is valid unless both houses approve an identical document, conference committees are sometimes formed to adjust disputed versions of legislation. It is in this context that all legislation is discussed and negotiated.

Needless to say, this is a very time consuming process and the effort to strike a deal between regional interests and a national public will is often cumbersome, particularly in areas like energy and environmental policy. This has caused some observers to warn for an increasing mismatch between institutional capacity and political reality. As the US population and economy grow rapidly there is an enormous inertia the political machinery that keeps energy and environmental legislation pending for years in congressional processes.⁵⁹

This point about institutional capacity and speed in legislative processes is rarely made in discussions about US climate change policies. Yet it is essential to many of the central issues. Just to take the Kyoto Protocol as an example. As some commentators have pointed out, the difficulty is not just in the Kyoto reduction targets but also in the associated timetable. Even if the US Senate somehow ratified the treaty within the next year, it would take Congress several years to develop and approve the necessary implementing legislation and the administration to prepare the needed federal rules and regulations.⁶⁰ Still, the question is whether there are alternatives to this decision-making process. Others would argue that it is precisely what makes the United States work.

What is interesting to note, though, is that congressional activity on environmental issues has mounted with the increase in scientific evidence of climate change. In fact, as one points out the number of climate change-related legislative proposals rose from seven introduced in the 105th Congress (1997-1998) to 25 in the 106th Congress (1999-2000), to over 80 in the 107th

⁵⁹ Grubb and Yamin, 2001, p. 271.

⁶⁰ Jacoby and Reiner, 2001, p. 304.

Congress (2001-2002). By the mid-term of the 108th Congress (2003-2004), in August 2003, 45 such legislative proposals had already been introduced.⁶¹

This also shows how that the budget process works. In fact, the legislative and budgetary processes are for practical and institutional reason often intertwined. At the end of the day the budget itself is a piece of legislation. Still the principal here is that Congress has final discretionary power over the allocation of money to the various government agencies. This also includes funding for programs to curb greenhouse gas emissions. This implies that Congress also effectively sets the premises for any future implementation of policies by deciding whether to starve, or support, a policy presented by the executive. This was exactly what happened when President Clinton presented his Climate Change Action Plan in 1993. On that occasion, Congress was not impressed and decided, effectively, to restrain its implementation by cutting its budget – a fate that it shared with many of the other climate change policies put forth by the Clinton Administration. This, then, only underscores the other major point, namely that congressional action sometimes differs significantly from that preferred by the President.

4.1.2. The Senate and the Kyoto Protocol

Another area where the institutional framework sets the premises for policy decisions concerns the way in which the Senate controls the US participation in the Kyoto process. This is an area that has been widely overlooked in the discussions on global climate change collaboration. Yet it is precisely here that the key to any international participation on part of the US resides.

According to the US Constitution, the Presidency holds the principal responsibility for negotiating and signing international agreements. In order for these agreements to take effect, however, they have to be ratified by the Senate with a two-third majority. This underscores that it is the particular dynamic of the Senate itself, rather than who is President, which will determine any future ratification of the Kyoto Protocol.

What, then, are the particular traits of the Senate? How will they influence decisions? In this case it is largely a question about political representation. As already noted, the Senate is primarily intended to protect the interests of all regions within the Union and each state is therefore given equal representation regardless of its size. This has far-reaching implications on how decisions are made. Critically important, Senators vote primarily in the interest of their own state constituency, rather than in accordance with any official party line. Moreover, it gives disproportionate influence to smaller but regionally concentrated interests, like farmers and local oil refineries. As a result, political negotiations in the Senate are often pragmatic and regionally focused, with a higher rate of bipartisan bills and deals than in the House of Representatives.

This pattern is likely to be both repeated and reemphasized if the Kyoto Protocol were ever brought before the Senate for ratification. One of the things that distinguish the Kyoto agreement from many other international treaties is that it has a direct impact on local economies in all states of the Union. Obviously, some states will be more hurt than others. Those that would have the hardest time complying with the suggested emissions reductions are, clearly, the coal-producing and industrial states in the mid-West. To no surprise, their Senators have also taken a clear stance against the Kyoto Protocol and will no doubt form strong alliances in any future ratification process. Under such circumstances it will be very difficult for any incumbent President to influence this process given the absence of party discipline in the Senate.

⁶¹ Pew Center on Global Climate Change, 2003.

This leads to a few observations. First, the Senate has thereby a powerful role in influencing also future policies by making declarations about its positions on specific issues. In this case the very anticipation of a particular decision could, in fact, influence day-today politics. Ironically, this was precisely what was intended with the Byrd-Hagel Resolution in June 1997. On that occasion the Senate, anxious to make a statement to the Clinton Administration before going into the Kyoto negotiations, declared with a vote of 95-0 that the United States should not be a signatory to any international climate change agreement that would harm the US economy, or omitted commitments from developing countries. Interestingly enough the Clinton Administration disregarded this message and proceeded, instead, in the negotiations, even though they would have known that the resulting Kyoto Protocol would be 'dead on delivery' in the Senate.

This leads to the second observation, namely that the current Bush Administration thereby is more representative of a US position on global change than the previous Clinton Administration – at least when it comes to its stance on the Kyoto Protocol. From this we can also conclude that a ratification of the Protocol is very unlikely.

Still, and this is the third point, this pattern of more bottom-up based initiatives with strong alliances between states could also provide an opening for more progressive climate change policies. Some commentators would argue that such a change is already under way. One sign in this direction is the bipartisan legislative bill, the so-called McCain-Lieberman Climate Stewardship Act, presented by senators John McCain (R-AZ) and Joseph Lieberman (D-CT) in the Fall of 2003. This proposal came out largely as a reaction against the lax and voluntary standards suggested by the Bush Administration and it suggests, instead, mandatory caps on greenhouse gas emissions for electric utilities and other industries. These cuts, in turn, are to be achieved through a market-based system of emissions trading, patterned after the highly successful acid rain program in the 1990 Clean Air Act. If they were to be realized it would in the lines of the US commitments in the Kyoto Protocol.

The bill, that was crafted in close consultation with industry leaders and supported by the environmental community, was finally voted down by a margin of 55-43. This slim margin has raised new hopes among many climate change activists. Clearly the result stands in stark contrast to the 95-0 vote of the Byrd-Hagel Resolution. Furthermore, the bill also found surprising support among Democrats and Republicans from big industrial and coal-producing states. This would then seem to indicate that the tide is changing. Still, a word caution is in place. The McCain-Lieberman bill was a so-called 'free vote' and the outcome was clear from the outset. This, many analysts argue, also explains the numbers. Put somewhat differently this was a chance for some senators to improve their environmental voting record without putting anything at stake.⁶²

Finally, with specific regards to the Kyoto Protocol the treaty is under all circumstances a dead-end. In many ways the greatest obstacle to the treaty is the agreement itself. All the disputes and emotions that has surrounded its development have over time made it almost a tainted word in the US climate change debate, and few, if any, serious observers of US congressional politics see how it could be ratified in its current form – or even under the current name. This is not to say that the United States would be unwilling reengaged in some form of international collaboration on climate change. It just has to be under another process.

4.1.3. Checks and Balances

Another aspect of the US federal system that affects the way decisions are made is the 'checks-and-balances system', by which each of the three branches of government controls

⁶² Paltsev, et al., 2003; "Promising Vote on Global Warming," 2003; and Holly, 2003.

one another. This has already been commented upon indirectly, primarily by the joint approbation of legislation by both houses in Congress, but it is worthwhile to actually spell out some other implications of this system.

One crucial component in the checks-and-balances system is the presidential veto of legislation. In short every piece of legislation has to be signed by the president before it can take effect. Accordingly, he can also refuse. On such occasions the president's veto may be repealed by a two-thirds vote of each chamber of Congress. This implies that the presidential powers effectively influence the procedures of Congress. The mere possibility that a bill could be vetoed allows the president to exert influence over what legislation Congress will consider initially and what amendments will be acceptable. Again, here is the moment of anticipation. Moreover it explains why the legislative process is sometimes so slow.

Another component of the checks-and-balances system, though not expressly covered in the text of the Constitution, is the judicial review. This particular construction gives power to the courts to examine the actions of the legislative, executive and administrative arms of government to ensure that they are constitutional. This is, no doubt, a most influential institutional characteristic of the US policy-making process with far-reaching on both the formulation and implementation of policies. Through this arrangement courts, as its role in continuous lawsuits and judicial reviews, become very much part of the political process. We will return to this issue later.

4.2. The Legal Premises: Federation vs State

Another fundamental aspect of the federal state is the distribution of power between the federal government and the various state entities. This is in itself a delicate matter that ultimately raises the question; who decides what about what? As already pointed out, in a federal system of government the ambition is to give each state a high degree of independence while the federal government coordinates issues of joint interest to all states. This ambition to work together and still allow each and everyone to maintain a fundamental political integrity, clearly, makes policy-making very different from that of a centralist political system like Sweden.

The potential problems of legislative overlap are evident just by considering the areas of competencies for the different levels of government. The federal government, on the one hand, is responsible for inter-state commerce, defense, transportation, and energy related issues. At the same time, states control land-use, road decisions, building codes, and legislation regarding the operation of electric utilities. The challenges are obvious. How do you separate transportation issues from road decisions? How do you coordinate comprehensive energy legislation without controlling the operation of electric utilities? Is it at all possible to design a national climate change plan without being able to influence land-use? The question becomes even more complicated as we consider the great variation between the states in terms of climate, geography, land use, resource base, and population growth.

While the problems of legislative overlap are obvious, the federal system also makes it difficult to coordinate policies and regulations in areas that are the sole responsibility of states. One such area is fuel standards for gasoline. There are today hundreds of different gasoline types in the US and they all differ between the states – or even within states. The reason is, again, the way institutions frame economic and political interests in the decision-making process. The fact that each state has discretionary powers over fuel standards increases the leverage of smaller, local refineries to maintain standards that serve their individual purposes. To them, any upgrade to meet alternative standards is likely to be costly and even threaten their existence. To the politicians, local refineries are often influential actors in their home regions and therefore a strong constituency has to be satisfied. Thus,

what we have is a situation where local refineries push to maintain existent local regulations as a source of competitive advantage against bigger corporations – and are successful in return for political support. The resulting multitude of fuel standards is, no doubt, detrimental to global climate change mitigation since, clearly, there are many efficiency gains from national fuel standards. Still, the example only further illustrates how the federal system itself influences policies.

This question of vertical division of powers becomes even more complicated when we consider how it all works in practice, i.e. when laws are effectively implemented. Without taking the argument too far we find that states, in fact, implement many federal environmental, energy, agriculture, transportation, waste, and natural resource laws. Moreover they issue more than 90 percent of all environmental permits and conduct more than 75 percent of all environmental enforcement actions.⁶³

This grey zone with unclear responsibilities and discretionary powers can occasionally stall both the formulation and effective implementation of policies. Clearly, there are situations where federal and state interests differ. This raises the question as to who have the ultimate authority. The way to resolve these types of statutory disputes is, regularly, to bring a lawsuit and let the courts decide. Needless to say, this could take months – sometimes even years – before it is settled and in the meantime policies, or intended activities, remain unaltered.

One recent case that illustrates this tension between federal and state authority is a Clean Air Act dispute between the federal Environmental Protection Agency (EPA) and the state of Alaska over conditions for allowing the world's biggest zinc mine, the Red Dog Mine, to expand its operations. In 1996, the mine owner, Teck Cominco Alaska Inc., proposed its intention to expand production by 40 percent. The plan, however, required a special Clean Air Act permit because Alaska, having met the national standards for nitrogen dioxide pollutants, is required by the statute not to allow 'significant deterioration' of its good air quality.

The law is very clear on these issues. In order to get the permit a firm would have to use 'best available control technology'. Still, what ultimately became an issue was who finally decides whether these criteria have been fulfilled or not. In this particular case Alaska's Department of Environmental Conservation initially accepted Cominco's proposal to install an anti-pollution technology known as Low NOx, for low nitrogen oxide, that was "logistically and economically less onerous" than a more efficient, but also more expensive, alternative technology. This raised concern at EPA that decided to veto the decision on the grounds that Alaskan authorities had not insisted on the best available alternative. The case was finally settled in January 2004 when the Supreme Court decided to uphold EPA's authority a 5 to 4 vote. This ruling is interesting for various reasons. At the more general level it illustrates the constitutional tension between states and the federal government. Moreover it has far-reaching practical implications for climate change policies insofar that it affects the new generation of coal-fired power plants being planned across the Rocky Mountain West. These will require permits under the same provisions of the Clean Air Act that the Supreme Court ruled in the Alaskan case.⁶⁴

As we conclude this section it is thus clear that the federal system of government poses a number of challenges for the formation and implementation of federal climate change policies. This, however, is not to say that the federal system is entirely flawed. Quite the contrary, it may still be the best institutional framework to achieve a more comprehensive national climate change strategy in the US. In those instances where consensus has been

⁶³ Rabe, 2002, p. 4.

⁶⁴ Greenhouse, 2004.

attained the federal system has, in fact, created new opportunities for states to innovate. One such example is the 1992 Energy Policy Act that set broad rules for restructuring the delivery of electricity and attempting to reduce American dependence on foreign oil. In doing so, states were given new latitude to redesign their electricity markets and consider alternatives to fossil fuels. On a similar account, the 1990 Clean Air Act Amendments also introduced many states to the practice of emissions trading.⁶⁵ In other words, the point here is not to make a qualitative judgment about the federal system as such but rather point to the fact that its policy-making process is considerably different from that in a centralist state. Instead, what seems to be the principal lesson for our understanding of US climate change policies is that many initiatives are likely to come from the individual states.

5. From Paper to Practice: Implementing Climate Change Policies

Once policies are formulated the next step is to see that they are put into practice, or implemented. In this process of converting ideas into practical measures other parts of the political system, like government agencies and administrative bodies, normally take over. Their job is, essentially, to execute political decisions so that they reach and affect citizens in the intended way.

However, this distinction between the formulation and implementation of government programs is largely theoretical. In fact, policies are often formulated as they are carried out and, occasionally, actions are even sanctioned *post facto* by new policy declarations. This is not necessarily a bad thing. Quite the contrary, depending on the particular issue at stake it is equally important to assure flexibility and provide means for adaptation. This proximity between ideas and action suggests, however, that the implementation of policies is, in fact, a highly political endeavor, in which interests and actors are constantly played out against one another. Under those circumstances organizations and administrative routines matter, insofar as they set the ‘rules of the game’ for any activity and thereby define the opportunities of each actor. Similarly, the larger socio-economic context also matters, especially when it is suddenly altered by larger unexpected events like wars or natural disasters. To sum up, this only implies that one efficient way to affect policy outcomes is to control parts of the implementation process. Instead of taking a public fight over a certain policy, you influence, instead, the way things are being done. For the creative one this opens up numerous possibilities.

From an analytical point of view this only underscores the importance of treating the implementation of policies as something different from their previous formulation. Only by making an analytical distinction between ‘policy formulation’ and ‘policy implementation’ will we understand how and when these two efforts interact empirically. In other words, it enables us to get straight to the heart of politics.

This focus on the implementation process seems particularly relevant for our discussion about US climate change policies. In fact, it is precisely on this account that the Bush Administration has been most severely criticized. Over the years the Administration has been accused of manipulating regulations, stalling administrative processes, reallocating budgets, and even to have deliberately disregarded science in order to prevent any alterations in current climate change policies. The ultimate purpose, it is argued, has been to serve corporate interests and major political fundraisers. These are serious accusations and, clearly, some of them are less grounded in real facts. Still, on a balance there is disturbing evidence that the Bush Administration has, in fact, discretely manipulated the political-administrative system on a day-to-day basis to reach its own, less outspoken objectives.

⁶⁵ Rabe, 2002, pp. 4 and 12.

The following pages take on these issues from both a general and specific viewpoint. Thus the overall ambition is to focus on some critical aspects of any implementation process and discuss how the particular characteristics of the American political system affect US climate change policies. In this effort we will also assess the critique of the Bush Administration and get a sense for how these conditions have affected its performance more specifically. Again, sometimes policy outcomes are restrained by structural and institutional factors in the implementation process. On other occasions outcomes are a function of how particular actors exploit these conditions for their own benefit. This latter, more political, aspect of the implementation process could in itself both promote and impede proactive climate change policies. Clearly, the US federal system also provides a number of opportunities to further promote climate change policies also at the administrative level. Some of these will also be discussed.

5.1. Revisiting Initial Policies – Politicizing Science

One aspect critical to the implementation of government programs is to what extent the intended policies actually address the problem they are intended to solve. Are these the right measures for the particular problem? Will they alleviate the problem policymakers intend to solve? In the particular case of climate change, this causality issue goes straight to the heart of science. What do we know about the causes and effects of climate change? How can we be sure that we are doing the right thing?

Another aspect of government program's impact on the implementation process is how policies are effectively articulated. In practice, this is often a delicate balancing act where, again, flexibility often is the principal objective. On the one hand, it is vital to provide some leeway for local adaptation and make sure that technical expertise and bureaucrats are given the means to add their knowledge. By doing so, however, one also runs the risk of making loose statements that do not provide any guidance to professionals. What are the intentions with the stated policies? What is it that one wants to achieve – and how? At the same time, this may be precisely the point. By blurring and opening up the language for various interpretations you effectively stall the execution of policies. Hence such a deliberate manipulation of the language, more often intended to push a hidden agenda, is thereby right at the heart of politics.

One of George W. Bush's arguments for pulling out of the Kyoto process was that the agreement was based on what he called 'flawed science'. In fact, the President even questioned whether there was such a thing as man-induced changes in climate patterns. Consequently, the Bush Administration subsequently made science and technology development one of the cornerstones of its climate change policy. It seems to have been seriously intended, as a large amount of money later have gone into climate change research.

At the same time this raises the question whether the intended policies address the right things and to what extent it makes the right priorities. Here, opinions differ. One of the first things that the Bush Administration did when it came into office was to call upon the National Academy of Science (NAS) to review climate 'state-of-the-art' climate change research. The results came out largely against the President's initial statement, as the NAS report largely endorsed the findings by the *Intergovernmental Panel on Climate Change* (IPCC) and concluded that – yes – there is a scientific consensus on the existence of a man-induced climate change.⁶⁶

As already pointed out, the NAS has since then carried out two separate evaluations of the Bush Administration's climate change plan and the findings have gone from being largely

⁶⁶ National Academy of Sciences, 2001.

skeptical to more positive. In the process the Administration has also revised the plan in accordance with the suggestion of the review panel. To that extent it seems to be an open and transparent process.

At the same time, things are far more complicated than that. In February 2004 the Administration received the hardest critique on its science policy so far when the Union of Concerned Scientists (UCS) released a report, in which they accused the Bush Administration of misrepresenting scientific knowledge to deliberately mislead the public about the implications of its policies. The critique was devastating. According to the report, the Administration has repeatedly censored and suppressed information by its own scientists, stacked advisory committees with unqualified political appointees, allowed industries with conflicts of interest to influence technical advisory committees, disbanded government panels that provide unwanted advice, and refused to seek any independent scientific expertise in some cases. This, the report acknowledged, has happened also under previous administrations, but it added at the same time that “the scope and scale of the manipulation, suppression, and misrepresentation of science by the Bush administration are unprecedented”.⁶⁷ The statement, in this case, got additional weight by the fact that it came from 60 of the most proficient scholars in the United States, out of which more than 20 were Nobel Laureates and several former advisors under previous Republican administrations. The Bush Administration, obviously, reacted with complete denial and the President’s science advisor, Dr. John Marburger III, called some of the allegations ‘preposterous’.⁶⁸

One of the examples that the UCS report mentions concerns climate change more specifically, and it refers to an incident in June 2003 when the Bush Administration removed a section on from the Environmental Protection Agency’s (EPA) annual state of the environment report. On this occasion, the White House took a draft report and deleted critical portions on climate change that directly mentioned industrial pollution and vehicle exhaust as contributors to global warming. Other parts were completely rewritten to the extent that they made no sense. For example, the Administration reportedly took out a phrase that said: “Climate change has global consequences for human health and the environment” and replaced it with: “The complexity of the Earth system and the interconnections among its components make it a scientific challenge to document change, diagnose its causes, and develop useful projections of how natural variability and human actions may affect the global environment in the future. Because of these complexities and the potentially profound consequences of climate change and variability, climate change has become a capstone scientific and societal issue for this generation and the next, and perhaps even beyond.”⁶⁹ Needless to say, the objective with such a formulation can only be to confuse the reader and thereby stall the implementation of that particular policy – whatever it was. Allegedly, this was also too much for some of the EPA staff members that decided to delete entire discussions on climate change to avoid criticism that they were selectively filtering science to suit policy. As a result, the final report was simply missing various discussions on climate change. The official justification was that they were awaiting data from ongoing studies.⁷⁰

This was not the first time the White House had interfered with the Agency’s operation. Only a few weeks earlier, in the end of May 2003, the at that time Head of EPA, the former governor of New Jersey Christine Todd Whitman, resigned ‘to spend more time with her family’. Her problem was that she a year earlier had sent a report to the United Nations that reconfirmed that ‘human activity’ is a real cause of the greenhouse effect. George W. Bush’s

⁶⁷ Union of Concerned Scientists, 2004, p. 2.

⁶⁸ Glanz, 2004; Research in a cold climate; and Revkin, 2004.

⁶⁹ Quotes from Jackson, 2003.

⁷⁰ Revkin and Seelye, 2003.

response was to embarrass her publicly by saying that he had “read the report put out by the bureaucracy.” This was obviously too much for Whitman to take. She resigned.

There are numerous examples like this and they only indicate that science has become increasingly politicized under the current Bush Administration. As one observer noted, “On the climate issue, we appear to be on the brink of having Republican science and Democrat science”.⁷¹ From a purely political perspective the strategy appears to have been successful. By asking for ‘sound science’, which is a perfectly reasonable claim, the Bush Administration has managed to create an image of scientific dispute over causes and effects regarding climate change that, really, does not exist.

This framing of the policy content has, on the one hand, has had important implications for the continuous debate on future climate change policies. One critical aspect is that enabled corporate actors now can raise seemingly reasonable objections to further greenhouse gas reductions by, instead, emphasizing its effects on economic development. For the uninformed, and some would say ‘misled’, public this becomes an alien discussion, since science policies for their very nature are almost impossible to evaluate. The loss of jobs, on the other hand, is very tangible.

At the same time, the Administration has also tried to take stock of this ‘uncertainty’ to also manipulate the implementation of science politics. Still, it could be that this strategy is now backfiring as large and prominent parts of the scientific community are now publicly opposed to the Bush Administration’s handling of the climate change issue. This is, indeed, quite remarkable since academia and science, supposedly, were to be the main beneficiaries from the Global Climate Change Initiative. It just proves, though, that policy content and policy implementation are two different things.

5.2. The Influence of Administration and Bureaucracy

Many of the examples mentioned above point to another aspect of the implementation process, namely how the daily operation of bureaucracy and administration also affect policy outcomes. What matters in this case is the institutional-administrative environment and the way it interacts with individual initiatives and capacities. Ultimately, just as successful management of the administrative and bureaucratic system is a precondition for progress and success, a deliberate manipulation of the same system could be an effective means to stall any project or policy.

What makes the implementation process particularly critical, though, is that it is less open to public scrutiny than the formulation of policies. The previously mentioned UCS report already pointed to several ways in which the Bush Administration has tinkered with the bureaucratic system; by censoring and suppressing information, politicizing advisory committees, disbanding government panels etc. However, there are also other means to interfere in the implementation of policies that refers, more directly, to the daily operations of the bureaucracy.

One such area is the allocation of resources. The Administration has, unless otherwise stated, discretionary powers to decide about the specific use of money within the broader items in the federal budget. This means that particular policy efforts can be either visualized and promoted, or effectively ‘drowned’ in more comprehensive policy programs. Through such ‘creative accounting’ an administration can always give the impression that it is accomplishing more than it actually is. This, many would suggest, is precisely what is happening with regards to climate change research. According to the same critics, the recent

⁷¹ Robert Pielke, University of Colorado as quoted in Revkin, 2004.

investments in the current science and technology programs is, in fact, nothing but a re-packaging of money that been in the federal budgets for years. On a similar account, other observers indicate that money related to climate change activities within state agencies like, for example, EPA are reallocated to other, less sensitive areas within the same agency.

The issue of money allocation is something that deserves attention, particularly since there are signs, if difficult to interpret and certainly part of larger ‘policy package deals’, that Congress might be shifting its position on climate change and, possibly, could provide more money in future federal budgets. As already indicated, Congress was perhaps the principal obstacle to an effective implementation of the Clinton Administration’s climate change policies. Over the years it constantly cut the budgets for climate change programs, and in 1998 it even got to the point that Congress, citing the Byrd-Hagel Resolution, included restrictions on federal climate change activities in several funding laws. The first of these restrictions, written by Rep. Joseph Knollenberg (R – Michigan), effectively prohibited the EPA from proposing or issuing rules, regulations, decrees, or orders implementing the Kyoto Protocol. These restrictions were thereafter extended to appear in six of the thirteen FY 2000 appropriations acts, including those for the EPA, the Department of Energy, the Department of Agriculture, the Department of State, and the Agency for International Development, and in eight of the FY 2001 appropriations acts. When the Bush Administration thereafter took office it requested continuation of the Knollenberg restriction. This request, however, was not granted but, instead, the language was ultimately struck from all FY 2002 appropriations bills.⁷²

Since then Congress seems to have somewhat altered its position on climate change. When President Bush declared that he was going to withdraw from the Kyoto process, Congress reacted by moving legislation that supported engagement in the international climate change negotiations. First, the Senate passed a budget resolution for FY 2002 that included funds for a US participation in the international climate change negotiations. Then, the House passed, as part of its bill directing the activities of the US Department of State, a non-binding resolution urging the United States to continue participation in international negotiations with the objective of completing the rules and guidelines for the Kyoto Protocol.⁷³

It is in this context that the allocation of funds within the bureaucracy should be understood. In a situation where Congress has gone from explicitly prohibiting certain climate change activities, to perhaps even support policies that are against the interests of the Administration, there are still means to influence how money is spent. This, again, deserves, continued attention. We will return to some other economic aspects of US climate change policies shortly.

Another way to influence the implementation of climate change policies is even more ‘hands-on’ and goes back to what the NCS report said about stacking committees with political appointees. Clearly, the same strategy could be very effective also to control the daily operation of an agency. One for an administration to make sure that the appropriate agenda is set and certain priorities are made is simply to have people ‘on the ground’. In fact, this has many advantages since it could keep policy makers informed of problems and unforeseen challenges that occur once policies are applied.

The previous point goes hand in hand with the elaboration of bureaucratic directives and the effective administration of work routines within the bureaucracy. Without taking the argument too far, there seems to be ample evidence that the workload of the individual bureaucrat working with climate related issues not only has increased but also changed in US agencies. Several observers note that the number of assessments, evaluations, follow-up

⁷² Pew Center on Global Climate Change, 2002, p. 7f.

⁷³ Pew Center on Global Climate Change, 2002, p. 8.

reports, notes, and proceedings that agency personnel have to fill out has increased. Needless to say, this takes time and, more importantly, it delays any progress on policy related work. Thus, the question is to what extent the undisputable need for follow-up routines and assessments are used to stall the continued implementation of climate change policies.

At the same time there is something to be said about different management styles and how the executive uses agencies. This goes back to the content of policies. One of the main critiques of the Clinton Administration is that it focused too much on short-term policy goals that were easily quantifiable. This, in turn, led to an inefficient use of bureaucratic capacity, in the sense that agencies like the EPA worked hard preparing short-term legislative proposals that did not stand a chance of getting Congressional approval. The question is if they had, in fact, accomplished more by focusing on more long-term issues, like science and technology. After all climate change will require long-term solutions. In some parts of the bureaucracy you will also hear those that prefer the current Administration's way of working.

Finally a few words should also be spent on the Bush Administration's attempt to seek exemption from public disclosure rules. This is a serious matter that goes straight to the heart of democracy itself. By impeding the public's opportunities to seek out information on the daily operation of government entities, you are effectively eroding transparency in the policy process. Yet, this is precisely what happened when the Bush Administration attempted to block citizen groups from obtaining sensitive energy policy documents relating to the Bush administration's Energy Plan. As already indicated, the President formed in early 2001 a task force, led by Vice President Dick Cheney, to develop a national energy policy. This group was later criticized for seeking extensive advice from utility companies and the oil, gas, coal and nuclear energy industries, and even incorporating their recommendations word for word into the energy plan. When environmental interest groups, led by the Natural Resources Defense Council (NRDC), asked the US Department of Energy (DOE) to release some of the documents, the Administration responded by filing a brief in federal district court to prevent their access to the documents. What the Administration thereby said was, in effect, that virtually anyone employed or detailed to the White House is exempt from public access laws such as the Freedom of Information Act, the Federal Advisory Committee Act and the Administrative Procedures Act. Needless to say, this could have serious implications on both the formulation and implementation of policies. At the time of writing, in April 2004, the case is still unresolved, awaiting a final verdict in the Supreme Court.⁷⁴

5.3. The Legal System and Its Impact

The latter example of data being withheld from public access illustrates how policy implementation also is influenced by the legal system. In this particular case, the Bush Administration immediately sought legal protection to block access to certain documents. The environmental groups' natural response was to file a lawsuit. This particular role of the court system is a specific trait of the US policy process that has a tremendous impact also on the implementation of government programs. Thus, in order to fully understand current US climate change policies we also have to comprehend the basic rationale of the country's Common Law System. What are the main principles guiding the rule of law? What are the judicial procedural codes and how do they affect day-to-day implementation of policies? As we shall see, the legal system provides both obstacles and opportunities for proactive climate change programs. More alarming, though, this is the area where the Bush Administration has been most active in its effort to delay, and even stall, further greenhouse gas reductions.

To any foreign observer, the predominant role of courts and legal entities in the United States is striking. Americans sue each other – and a lot. Moreover, court procedures are highly

⁷⁴ NRDC, 2002.

adversarial and they often involve a lot of money. Thus, for anyone raised in a Continental European Civil Law system, the US legal structure is both alien and sometimes perceived of as aggressive. Yet, it merely reflects a different perception of law itself.

5.3.1. The Impact of the US Common Law System

The fundamental premise of a Common Law system is that legal codes should reflect a practical reality – a reality that we all know is constantly changing. Thus, in order to adapt the legal body has to be built continuously and through experiences as we meet them. This implies that every case has a value in itself. As courts confront new problems that they have never dealt with before, the particular case sets a precedent for future court cases. This basic notion of what laws are differs fundamentally from that of Civil Law that, instead, regards legal codes as a matter of principles. In Civil Law particular cases do not have the same weight as precedents. Rather, it is the intention of the law, or what the law wants to achieve, that matters. This distinction between Civil Law and Common Law is neatly summarized in the following statement:

A civilian system differs from a common law system much as rationalism differs from empiricism or deduction from induction. The civilian naturally reasons from principles to instances, the common lawyer from instances to principles.⁷⁵

This distinction between Civil Law and Common Law is important, since it has far-reaching implications on how the law thereafter is applied. Given the importance of the cases themselves, Common Law systems emphasizes that the best way to get at the truth, or something akin to it, is through court hearings where the parties battle it out. This ‘adversary procedure’, which common lawyers see as the ruling principle of procedural law, is an important feature of the US court system.⁷⁶

This particular view of how the law is built and applied has practical consequences for the implementation of policies in the sense that courts become the principal arena for problem solving. The reason is obvious and understandable. If there are any disagreements, or doubts, about specific policies it is important that they are tried, particularly since they could set a precedent of the future. This is particularly true for environment and health issues that are relatively new aspects of public policy. Also, issues like inter-state pollution often raises disputes over federal versus state jurisdiction and many environmental cases are, consequently, litigated in federal courts. Under all circumstances court hearings are time-consuming and will thus effectively stall any process until a final verdict has been reached. Just to add to the complexity, there are also appeals courts that could further prolong this stalemate.

The crucial point here is that legal processes in the United States, to a much larger extent than in Civil Law systems, thereby become part of the political process. In fact, they are probably the most influential policy instruments in the US. The possibility of suing, or being sued, is always a matter of consideration and depending on what position you are in this could be either a threat or an opportunity. As a result, the actual wording of laws, regulations and contracts is of enormous significance. Before anyone agrees to anything, they want to make sure what they commit to – or could be liable for.

As already indicated, there is ample evidence that the Bush Administration has used the court system to effectively stop, and even reverse, current greenhouse gas regulations. Yet, the way it is being done illustrates also another aspect of how legal-institutional conditions affect policy implementation. In this case, it appears as if the Administration has deliberately

⁷⁵ Cooper, 1950. As quoted from Zweigert and Kötz, 1987, p. 267.

⁷⁶ Zweigert and Kötz, 1987.

avoided congressional debate by, instead, transforming domestic policy through regulatory revision.

The way this is done is truly insidious and it relates to the earlier remarks on how government agencies could be controlled through political appointees. In this case the ambition is not to put industry representatives in the prominent positions. Quite the contrary, this only draws unnecessary attention. Instead, the White House has appointed officials directly from industry into the lower rungs of power, i.e. as deputy secretaries and assistant administrators. In this position as second-tier appointees they are far more efficient. They know exactly which rules and regulations to change, because they have been trying to change them for years on behalf of their industries.

5.3.2. Regulatory Review: The New Source Review (NSR)

One case that further illustrates these points is the many disputes surrounding a key part of the Clean Air Act, the so called 'New Sources Review' (NSR), that Congress enacted in 1977 to control pollution from the country's oldest and dirtiest power plants and factories. Essentially, the NSR came about as a means for industry to gradually adapt to the requirements specified by the Clean Air Act in 1970. Soon after the latter had been signed it became clear that many firms would not be able to meet the new national air-quality standards intended to take effect by 1975. The reason was simple. Retrofitting every existing plant immediately would be tremendously costly and, potentially, cripple entire industries. Consequently, Congress agreed that the tough standards only should be applied on newly built facilities. The idea was to open up for a gradual phase-out, in which older plants were to be retired and replaced with newer, cleaner plants. As a safeguard, though, the law included the NSR provision, which required that if an older plant underwent changes that increased its emissions, it would have to install modern air pollution controls.

The reactions from industry were critical. Particularly the power companies strongly objected to the new rules and called them 'arbitrary, expensive and outmoded'. The principal dilemma was to determine the difference between a significant 'physical change', which would require an upgrade, and 'routine maintenance', which would not. As the disputes went on, most power companies simply decided to disregard the rules. After all, federal assessment and enforcement was at the time minuscule.

At the end of the Clinton Administration, however, EPA got increasingly active on the NSR issue. After nearly two years of investigation it stood clear that many of the nation's biggest energy companies had systematically broken the law and updated their plants without putting in any new pollution controls. Thus, they were illegally releasing millions of tons of harmful pollutants. According to Sylvia Lowrance, former top official for enforcement and compliance at EPA (1996-2002): "This was the most significant noncompliance pattern E.P.A. had ever found. It was the environmental equivalent of the tobacco litigation".⁷⁷ The EPA immediately raised complaints – complaints that industry executives and their lawyers simply refused to address. This stalemate went on for months until, finally, in November 1999, the EPA decided to take the polluters to court. Among them were some of the country's biggest power companies.

To industry this was a serious blow. In their view, the EPA was now changing the rules in the middle of the game – and the amount of money at stake was enormous. The potential penalties ran to \$27,500 per plant for each day it had been in violation, and since many charges dated from the 1970's the potential fines reached tens of millions of dollars. In

⁷⁷ Barcott, 2004.

addition, the costs for updating the power plants to be operational with the new standards were estimated in the hundreds of millions of dollars.

It is here that the legal battle and subsequent manipulation of regulations starts. The utility industry immediately turned to the Republican-controlled Congress for relief from the lawsuits. Moreover, they also asked sympathetic House members to attach a rider to an appropriations bill, which would allow energy companies to perform 'routine maintenance' while the lawsuits were pending. To many the latter was, clearly, an attempt by industry to maintain 'business-as-usual' while its lawyers further delayed the EPA lawsuit in court. In the end, however, the rider never got the necessary support and it ultimately died. For some utilities this was enough. Faced with Congressional rejection and mounting fines they started, instead, bargaining with the federal government. Finally, it seemed as if the NSR was starting to have the intended effects.

It is in this context that the Bush Administration takes office and, clearly, this gave new hopes to the energy industry. Given that both President Bush and Vice-President Cheney had a background in the oil business, surely, they would be susceptible to the energy sector's claims. Industry representatives lost no time. Only a few months into the new Administration, just as the Vice-President's task force had started to work on its new National Energy Plan, industry lobbyists approached the Department of Energy (DOE) and suggested that the administration weaken the NSR requirements. The move had the desired effect. A few months later the task force included a recommendation to review NSR regulations in its final Energy Plan.

In the meantime, the Justice Department was reviewing the power companies' appeals to the EPA lawsuits. Finally, in January 2002, it concluded that the lawsuits were both legal and warranted. In fact, the Justice's lawyers even declared that they intended to prosecute the cases more 'vigorously'. Needless to say, this was a serious blow to the power companies that had to accept that the legal door now was closed.

It is here that the Administration changes strategy. Over the months it had become increasingly clear that also the political process was a dead-end. Not only had the National Energy Plan been severely criticized, but also it was evident that any bill overtly attacking environmental protection stood little chance of surviving in Congress. The only way to push the Administration's agenda, it seemed, was to operate at another level. In practice, this meant using political appointees in the bureaucracy to carry out policies less visibly, through closed-door legal settlements and obscure rule changes. When you can't change the law, change the regulations that define it!

The Bush appointees at the EPA went to work immediately. The critical point, now that the NSR was a fact, was where to draw the line between 'routine maintenance' of plants, which do not trigger NSR pollution upgrades, and 'significant overhauls', that do. There seem to have been various proposals on the table and the issue caused a heated debate within the agency itself. Finally, there was an agreement on a financial threshold, according to which a utility could spend 0.75% of the total value of each generator on renovations and still define it as routine. More concretely, if the total value of a generating unit was \$1 billion, a power company could spend up to \$7.5 million a year on routine repair and maintenance without being required to install new pollution controls.

The EPA's review of the NSR process was presented in November 2002 and, apparently, the whole event took place without any pomp or circumstances so as to not attract too much attention. Even more important, though, the Bush EPA appointees had also excluded the definition of routine maintenance from the final report, under the pretext claimed that they were still working on a final revision of these crucial NSR criteria. As a result, the economic threshold of 0.75 percent was never mentioned.

The final definition of routine maintenance came, instead, eight months later in August 2003. However, now the game was completely altered. Instead of the previous 0.75 percent, the EPA declared that utilities would be allowed to spend up to 20 percent of a generating unit's replacement cost per year, without being required to install new pollution controls. The change from the previous definition was simply mind-boggling. According to the new rules, a company operating a \$1 billion generating unit could do just about anything it wanted, as long as the company did not spend more than \$200 million a year on the unit. Needless to say, this allowed power companies to do a lot of patchwork on their old plants before they had to install the new technology intended in the original Clean Air Act. Matching a \$7.5 million or \$200 million threshold makes a lot of difference.

Industry, of course, was delighted. To them, this was a far better deal than they could ever have imagined, particularly since it also critically weakened the pending lawsuits. To the enforcement division at EPA, however, it was a devastating blow. "Under the new rules," one official said, "almost everything we worked to achieve is wiped out." Before the year had ended, several of the agency's top enforcement officials had resigned.

At this point, however, the NSR issue gained increasing attention also outside industry circles. Already in the early 2003, before the important 20 percent threshold was announced, the attorneys general of nine North-Eastern states, led by Eliot Spitzer of New York, filed suit to stop the new NSR rules from taking effect. The lawsuit argued, in effect, that the Bush administration's administrative approach to undoing NSR was against the law. Given that the changes were so sweeping and damaging the EPA could simply not pursue this track without Congressional approval.

After the final criteria for 'routine maintenance' had been established the reactions were even more devastating. In October 2003, a new lawsuit, including 12 states and more than 20 cities, was filed in the U.S. Court of Appeals for the District of Columbia Circuit.⁷⁸ Parallel with this, several environmental groups and interest organizations also filed similar suits. Then, on Christmas Eve, 2003, two days before the new-source review rules were to take effect, a federal appeals court finally halted their implementation. Instead, the court ruled that the new regulations would not go into effect until the lawsuit brought by Eliot Spitzer and the other attorney generals had been heard. In the end, the particular characteristics of the US court system had also been used to protect climate change policies from being manipulated through regulatory review.⁷⁹

5.3.3. Final Remarks

After a little more than three years in office, the Bush Administration has had little success in getting its environmental agenda through Congress; the Energy Bill is stuck and highly disputed, just like the Clear Skies Initiative, and the Arctic National Wildlife Refuge remains closed to oil and gas exploration. Yet, few would dispute the Administration's impact on US climate change policies. This only emphasizes the need to look closer at the implementation process and discuss how it affects policy outcomes.

The NSR process makes for a good illustration of some of the main points in this section. First, it shows that the implementation of policies often is something different from stated policy objectives. As we look at the process after the fact, it seems clear that the Bush

⁷⁸ The Attorney Generals signing the lawsuit were from New York, Connecticut, Maine, Maryland, Massachusetts, New Hampshire, New Mexico, New Jersey, Pennsylvania, Rhode Island, Vermont, and Wisconsin. Other signatories were legal officers for New York City, Washington, San Francisco, New Haven, and other cities in Connecticut.

⁷⁹ This section has largely been based on Drew and Opiel, 2004; and Barcott, 2004.

Administration has had a hidden agenda already from the outset and, in fact, avoided public debate. Furthermore, it illustrates how any administration can influence policy outcomes by controlling the bureaucracy through political appointments. Clearly, this control can also be exerted through other means, such as budget allocations and administrative routines. However, the key here is that political appointees in this case made it possible to tinker also the legal system through regulatory review. What makes the case really interesting, though, is that it illustrates how the various aspects of implementation open up opportunities and pitfalls for everyone. In the end, the Bush Administration's regulatory rollback was in fact stalled by a number of lawsuits. In the US Common Law system this is often the best way to postpone a particular process.

Finally, one might also reflect a bit on the NSR case more specifically. Without going into the exact numbers, that seem to have been generous to industry to say the least, it is not self-evident that more stringent economic thresholds are the most efficient way to promote more environmentally friendly technology in the US electric utility sector. The reason is not ideological but, rather, one of costs. Given the power companies' complete disregard for existent regulations under many years, many utilities are simply terribly outdated. This makes it not only very expensive to invest in new technology and have the plants modernized. Even worse, in some cases the alternative, to close them down, is actually even more expensive, since it would require enormous investments in environmental clean-ups or, otherwise, being sued. The situation has thereby the character of a Catch 22, where – perhaps – the only way out is to focus on the practically feasible rather than the environmentally desirable, at least in the first instance. After all electricity is the blood of economic development.

5.4. Getting the Resources: The US and its Economic Crisis

This brings us finally to a discussion about the status of the US economy. To say that the climate change issue is intimately linked with economic considerations is, if anything, an understatement. Instead, from a policy perspective the question of how climate change mitigation interacts with economic concerns *is*, precisely, the issue. In the previous sections we have discussed some ways in which this interaction takes place and how it affects the formulation of climate change policies. Now, on the upcoming pages we shall take an additional, and somewhat different, view on this relationship. The principal focus here is, rather, the ways in which current economic premises affect the more direct implementation of climate change policies.

One notion guiding this effort is the need to get beyond aggregate economic data and, instead, discuss what is taking place at the state levels and how this affects the lives of ordinary citizens. It seems that we all too often take a one-sided perspective on the US economy by only looking at its overall performance and selected parameters. But, as we break down the numbers, the different regions vary a lot. This is important. After all, climate change policies require practical efforts influencing almost all aspects of life and, more often, states and local government are the ones executing them. From this follows that greenhouse gas mitigation in its most practical sense involves various trade-offs, where climate change is weighed against other policy priorities. In this context, clearly, economic conditions matter. Just as robust economic growth typically leads to higher greenhouse gas emissions and degradation of environmental resources in general, environmental issues only get priority if the economy is stable and there is little concern about unemployment. Hence the ambition in this section is to describe the US economy's current status, both at the federal and state levels, and discuss how it affects the implementation of climate change policies.

5.4.1. An Overall Perspective

Just to get the message upfront. The US economy is in deep crisis. Worse, it is likely to continue to struggle for many years to come. After a decade of continuous economic growth, the economy suddenly collapsed in 2001. There were several reasons for this development; the 'internet bubble' and the subsequent crash of the stock market, the events of September 11, the following military build-up to fight global terrorism, the emergence of several corporate scandals etc. The Bush Administration's response has been to carry out a series of major tax cuts intended to stimulate the economy. At the time of writing this seems, finally, to have had the desired effect, as the US economy closed 2003 with an annual growth of 4.1 percent making it, again, one of the more dynamic economic regions in the world.⁸⁰

Still, this seeming economic recovery has not come without a price and there is another reality behind the numbers. The obvious point is that the Bush Administration, mainly through these tax cuts and increased military spending, is quickly running up an enormous federal budget deficit. Last year, in 2003, the federal deficit reached \$375.1 billion. Only three years earlier, in 2000, the corresponding number gave a surplus of \$236.4 billion. What is more worrisome, though, is that the trend only seems to be going in one direction. According to the Congressional Budget Office's estimates, the federal deficit grow will grow to somewhere between \$477-521 billion this year and it predicts that accumulated debts will total \$1.9 trillion over the next decade.⁸¹

This trend towards increasing indebtedness goes through all sectors of the US society. According to the quarterly federal funds report, the total national debt, excluding the obligations of banks and other financial institutions, grew 8.1 percent last year, which is the fastest pace since 1988. Within this broader picture, households increased their debts by 10.4 percent, mainly through the mortgaging and re-mortgaging of homes, while the federal government expanded its borrowing by 10.9 percent. The only ones that actually held back somewhat was industry, with corporate borrowing growing by only 3 percent. Expressed in absolute numbers this implies that the nation's debt grew by some \$1.7 trillion last year to reach a total of \$22.4 trillion. Out of that the federal government accounted for about 18 percent of the total, local governments for roughly 7 percent, households for 42 percent and businesses for 33 percent.⁸²

The question is how these debts are going to be recovered. One critical component is obviously to increase trade. But also here the United States is in serious trouble. The country has for quite some time run a trade deficit, the gap between exports and imports has widened sharply in recent years. Only in 2003 it amounted to a staggering \$489.4 billion, which is to say that it is larger than the entire federal deficit. There are no signs of any change. Quite the contrary, in January 2004 the trade deficit hit a new monthly record when it reached \$43.1 billion. To put this in perspective, last year's trade deficit thereby equaled 4.5 percent of the nation's gross domestic product. Just as all the other indicators, this portion has also grown from 4 percent in 2002 and 1.9 percent in 1990.⁸³

⁸⁰ 2004.

⁸¹ Andrews, 2004; and Andrews, 2004.

⁸² Porter, 2004.

⁸³ Andrews and Bumiller, 2004.

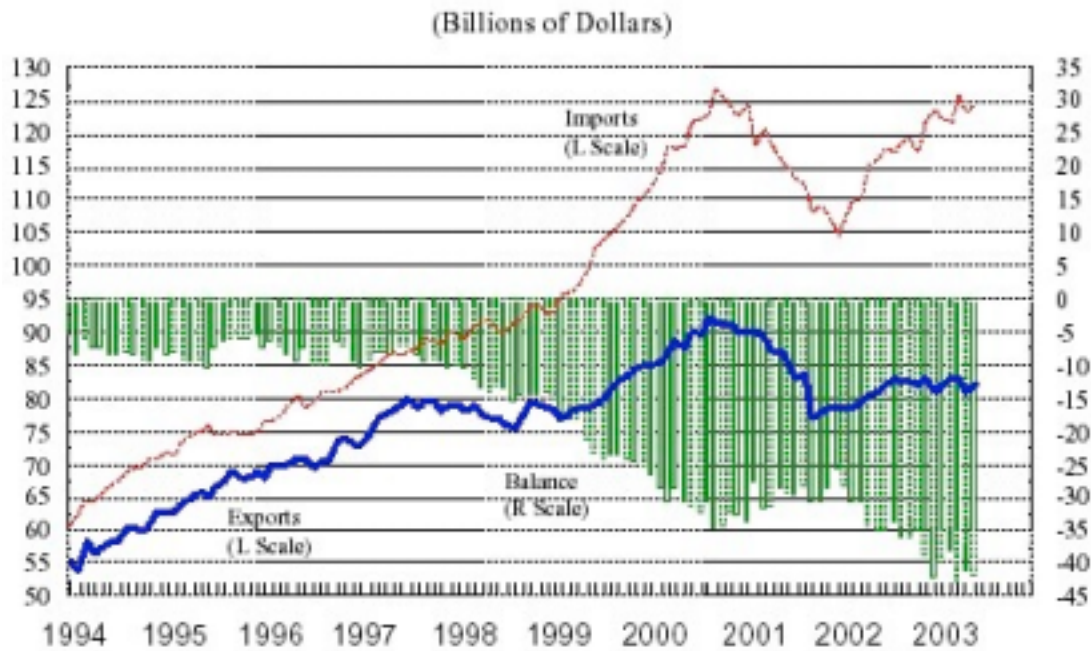


Figure 11. "US International Trade".

The growing deficit is worrisome from various perspectives. For one thing it has led to a huge increase in the United States' overall indebtedness to the rest of the world. The nation's net foreign obligations, which include debt and the claim on American profits by foreign investors, are now equal to more than one-quarter of total American output. In other words, foreigners are slowly buying up the country. This points, in turn, to another phenomenon, namely the ongoing changes in trade patterns, with China emerging as a new crucial player. Already today, China's trade surplus with the United States is larger than that of any other country, including the entire European Union. Obviously this has far-reaching implications also on climate change policies. As already pointed out, China has, like the United States, most of its electricity from coal – without being restrained by any greenhouse gas reduction targets from the Kyoto Protocol. Faced with this increasing international competition, particularly from China, it is safe to say that there will be little political support in the US for any major restructuring of the country's energy sector.⁸⁴

Still a more alarming aspect of the trade deficit is the effect it is having on the American job market. Put simply, the current macro-economic recovery does not convert into new jobs. Instead, there is an increasing concern that American firms are moving their operations overseas to low-cost production countries, like China. This situation is getting critical. More than 2.3 million people have now lost their jobs since President Bush took office in January 2001, and if it were not for 1.6 million people dropping out of the labor market in the past year, the unemployment rate of 5.6 per cent would probably be higher. At the same time, the situation seems to have got stuck. When the first reports for this year came out, they showed that total employment rose by a modest 21,000 in February, which was well below the forecasted 150,000 new jobs. Even worse, this increase was entirely accounted for by new government employees. Or, as one observer candidly noted: "The clear message of these figures is that companies have been able to crank up output without the need for new

⁸⁴ Andrews and Bumiller, 2004.

workers”.⁸⁵ Obviously this development is far from President Bush’s promise of creating 2.6 million jobs only this year.⁸⁶

Since then the unemployment issue has also emerged as the principal topic in the upcoming presidential campaign, where it has given extra fuel to Democratic Candidate John Kerry’s protectionist agenda. Interestingly enough, now all of a sudden more recent government data also show a break-through on the job market, with 308,000 jobs created only in March, which would imply that the economy is finally generating robust employment growth. This number was the biggest monthly increase in four years and almost three times the expected figure. Moreover, the same report also revised the numbers for the previous two months, which took payrolls a further 87,000 higher than had been estimated. At first, it seemed as if the President had got a timely effect from his economic policies, just as the presidential election campaign was starting to take off.⁸⁷ However, the good news only further emphasized the fundamental problems of the economy. Only a few days later news came out revealing that the nation’s unemployment rate had by a tenth of a point to 5.7 percent as the improving jobs picture encouraged people who had dropped out of the labor market to come back and start looking for work again.⁸⁸ Under all circumstances economic considerations has definitely reemerged as the principal priority of most Americans.

5.4.2. The State Fiscal Crisis

Still, the most serious aspect of the current economic situation in the United States is, perhaps, the state fiscal crisis that has been deep and prolonged. Just like everyone else, states were hit hard by the economic downturn in 2001, when increasing unemployment rates and a crashing stock market battered some of their main revenue sources. Since then, states have struggled to close total deficits of approximately \$190 billion. The fight is far from over. More than half of the states in the Union are currently running fiscal deficits, and the more optimistic projections estimate the FY 2005 shortfall to somewhere between \$39 billion to \$41 billion. Some states are hit harder than others. In eight of the fifty states, the estimate deficit exceeds 10 percent of the total budget.⁸⁹ Nowhere is the situation as bad as in California, where the state government only recently released \$15 billion of new state bonds only to maintain near-term liquidity.⁹⁰ However, other ‘economic powerhouses’, like New York and New Jersey, are also facing similar challenges. In many cases, the situation has now reached a point where local government no longer can provide basic community services, let alone implement climate change programs.⁹¹

One way out of this situation, it seems, would be to pursue the federal government’s strategy of using tax cuts as a means to, temporarily, stimulate the economy. Yet, herein lies the legal crux that makes state economies different – and at the same time so crucial to the climate change analysis. Unlike the federal government, states are in fact required by law to balance their budgets. Hence, they cannot run operating deficits but are, instead, forced to close budget gaps through some combination of spending cuts and revenue increases. Obviously, this puts a serious constraint on states’ maneuverability to cope with the situation. As a result, several states have also increased taxes at a time when the political mantra of the federal government is to ‘give people back their money’. Needless to say this only works to a certain

⁸⁵ Nigel Gault, Director of US research at the economic consultancy Global Insight as quoted in Swann, 2004.

⁸⁶ Andrews and Bumiller, 2004; and Swann, 2004.

⁸⁷ Swann, et al., 2004.

⁸⁸ Associated Press, 2004.

⁸⁹ The eight states are: Alabama, Alaska, Arizona, California, Kansas, Mississippi, New Jersey, and New York.

⁹⁰ Morrison, 2004.

⁹¹ Johnson and Zahradnik, 2004.

degree and many states have therefore also been forced to roll back basic services like health care and education.⁹²

Projections of FY 2005 State Budget Deficits

State	FY 2005 Deficit Projection (In Millions of Dollars)	Deficit as a Percent of General Fund
Alabama	\$620	11%
Alaska	475	21%
Arizona	1,100	17%
Arkansas	0	0%
California	15,000	21%
Colorado	200 to 300	4% to 5%
Connecticut	200	2%
Delaware	0	0%
Florida*	0	0%
Georgia	700 to 900	5% to 6%
Hawaii	0	0%
Idaho	0	0%
Illinois	2,000	9%
Indiana	595	5%
Iowa	336	7%
Kansas	600	13%
Kentucky	200	3%
Louisiana	500	8%
Maine	173	7%
Maryland	738	7%
Massachusetts	1,000 to 1,500	4% to 7%
Michigan	900	4%
Minnesota	185	1%
Mississippi	709	20%
Missouri	600 to 900	7% to 11%
Montana	0	0%
Nebraska	211	8%
Nevada	0	0%
New Hampshire	0	0%
New Jersey	5,000	21%
New Mexico	0	0%
New York	5,100	13%
North Carolina	400 to 800	3% to 5%
North Dakota	0	0%
Ohio	0	0%
Oklahoma	300	6%
Oregon	0	0%
Pennsylvania	0	0%
Rhode Island	188	7%
South Carolina	300 to 500	6% to 10%
South Dakota	17	2%
Tennessee	0	0%
Texas	0	0%
Utah	0	0%
Vermont	0	0%
Virginia	927	8%
Washington	0	0%
West Virginia	120	4%
Wisconsin	0	0%
Wyoming	0	0%
District of Columbia	0	0%
Total	\$39,393 to \$41,093	7.4% to 7.8%

Notes:

Florida: Substantial structural shortfall expected in FY 2006

Figure 12. "Projections of FY 2005 State Budget Deficits". Source Johnson and Zahradnik, 2004, p. 5.

⁹² McNichol, 2003.

What makes this situation particularly worrisome, though, is the ways in which states thereby are locked into federal policies. Surely, the state fiscal crisis is a concern also to the federal government and some efforts have been made to alleviate the situation. Last year, for example, Congress provided states with a \$20 billion fiscal relief over the next four years. This was an important measure, but it pales in comparison to the problems that the states are facing. The crucial point is, instead, that other federal policies at the same time counter-acted the states' fiscal efforts, by directly reducing state revenues and imposing additional costs on them. In fact, a conservative estimate suggests that federal policies will cost states and localities about \$185 billion over the four-year course from FY 2002 through FY 2005. This outweighs the effects of the fiscal relief by almost one to ten.

There are many ways in which federal policies have enhanced the state fiscal crisis. One is by directly reducing state revenues. The critical point here is that the state tax systems are tied to the federal tax code in ways that makes certain items entirely dependent on federal budget initiatives. One such tax item is the estate tax that most states have set equal to the federal tax credit. This proved fatal once the federal government decided to eliminate the federal credit. Overnight also state estate taxes were effectively abolished. Another federal tax cut that has caused a similar loss in state revenues is a business tax cut known as 'bonus depreciation', enacted in 2002, by which businesses can deduct 30 percent of the cost of equipment directly after purchase, rather than writing it over a number of years. There are several other examples like this. What is important, though, is that there is an increasing effort among states to 'decouple' their budgets from the federal tax code. Not all of them, however, are able to do so.

In addition to this, federal policies are also preventing states from raising revenues in a number of areas. According to the Internet Tax Freedom Act, for example, states cannot collect taxes on Internet access fees. Even more important, though, are Supreme Court decisions that bars states from collecting sales taxes on items purchased over the internet and through catalogs. This not only hurts small businesses and in-state retailers but it also precludes state of raising nearly \$60 billion per year.

A third way in which federal policies directly affect state budgets is by simply passing on new demands and requirements to states and local governments without adequate funding. These so-called unfunded mandates that include requirements in the area of homeland security, election reform, the education of disabled children (IDEA), and the Leave No Child Behind law are rapidly becoming most important factor influencing state economies. The National Conference of State Legislatures has estimated that these unfunded mandates cost states and localities somewhere between \$23 and \$82 billion a year. Looking at the four-year period of the state fiscal crisis, a conservative estimate is that states have spent at least \$80 billion meeting unfunded mandates.

Finally, there has also been a similar transfer of responsibilities and costs from federal to state government in already existent programs, particularly in the health sector. The last decade, for example, has seen a new seen a gradual shift in the cost of health care to low-income elderly and disabled people from Medicare, which is a federal program, to Medicaid, a program for which states bear 43 percent of the costs. This is partly explained by a change in treatment methods, where improved pharmaceuticals make it possible to manage health conditions and thereby lessen the duration of hospital stays. For beneficiaries covered by both programs, Medicare is the primary payer for hospital stays, while Medicaid, instead, provides outpatient prescription drugs. As a result, when the provision of health care lead to shorter hospital stays and greater reliance on pharmaceutical therapies, costs shift from the federal government to the states. What is important to note, though, is that the recently enacted Medicare drug bill

only enforces this pattern by leaving states responsible for the large majority of these drug costs years beyond 2005.⁹³

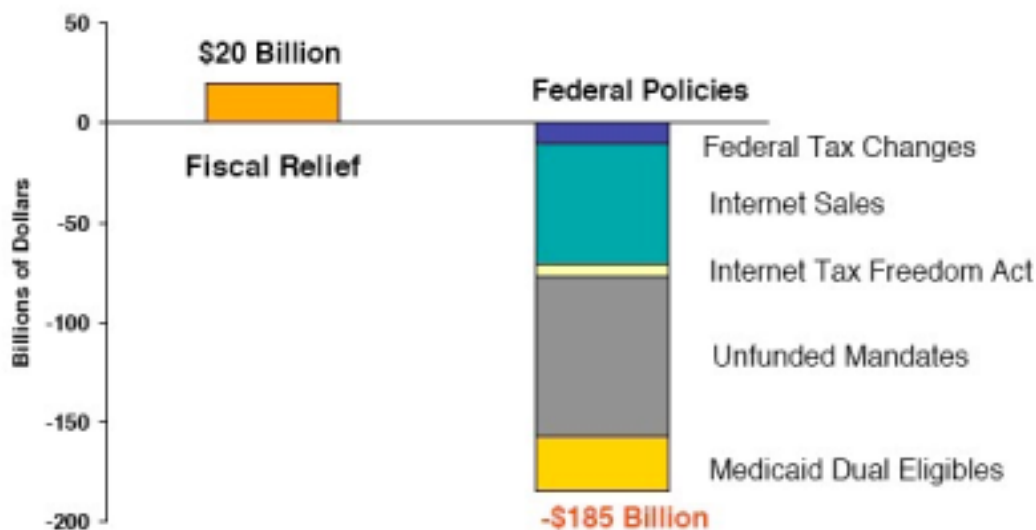


Figure 13. "Federal Policies Expensive for States During State Fiscal Crisis, FY 2002 - 2005". Source Lav, 2003, p. 2.

Bottom line here is that these economic conditions have significant implications for states' ability to implement climate change policies. In times when states are forced to cut some of their basic services, there is simply no room for additional spending. Instead, the counter-cyclical character of many public programs is likely to further stall this process. Put simply, costs will rise during economic downturns as programs take effect and assist those that have lost jobs or income. Finally, so as to further add to the problem, most federal grant programs are confined to analysis and action plan development, wherefore states are often the sole responsible for financing the implementation of climate change policies.

The result is that many existent climate change programs simply are rolled back, or abandoned, due to the lack of resources. Wisconsin, for example, initiated already in 1993 a mandatory reporting system for large CO₂ generators, where reductions could be registered at the state Department of Natural Resources (DNR). The ambition was to create an arrangement through which firms could obtain credits for reduction in any future federal or state greenhouse gas regulatory program. This reporting system was the first of its kind and has since then served as a model for similar initiatives elsewhere. After the fiscal crisis hit the state, however, most of its activities are stalled and its future is uncertain.

Needless to say, also future policies are affected in the same way. In July 2002, for example, the state of California passed a landmark legislation, Assembly Bill 1493, intended to put greenhouse gas emissions standards on passenger vehicles and light duty trucks in models from year 2009 and beyond. Effectively the Bill ordered the California Air Resources Board (ARB) to develop and adopt these regulations by January 1, 2005. It is no secret that this effort is facing serious constraints as the state itself faces a projected budget deficit for FY 2004-2005 of \$17 billion.

To conclude it seems clear that economic constraints will be a major obstacle to more progressive climate change policies in the United States during a foreseeable future, both at the federal level and – perhaps more importantly – also for state governments. One critical

⁹³ This section is largely based on McNichol, 2003; and Lav, 2003.

component in this context is, no doubt, the legal requirements that forces states to balance their budgets. This creates a situation in which the federal government is creating 'trickle-down debts' that states will have a hard time getting out of. In a best case scenario, however, it could force state and local actors to think more creatively about the economic opportunities possibly associated with greenhouse gas reductions. As we shall see there are also sign that such a development might be under way.

Part III: Initiatives at the Regional and State Levels – Exploring a New Set of Drivers

This part of the analysis discusses the emerging set of climate change initiatives currently evolving at the regional, state and local levels in the United States. This phenomenon, which involves a diverse set of innovative efforts, deserves particular attention since many of these policy initiatives emerge in the lack of and, indeed, sometimes even despite of active federal policies. Instead, these more local efforts are often the result of a close collaboration between local government, industry and different interest groups. Still, the analysis will argue that these bottom-up initiatives are not new to American policy making but, rather, well in line with the American federal tradition, where most major policy issues through history have been initiated at the state level and thereafter confirmed by the federal government. This, though, only emphasizes the influence of these initiatives. Only by considering these various local efforts and putting them in a wider historical-institutional context will we get a more complete picture of current US climate change policies. Perhaps more important, in doing so we may also learn something about state and local initiatives more generally. This, it seems, is of direct relevance also to the European context, where the policy process in some important aspects becoming increasingly decentralized.

The section is divided into two parts. It starts with a descriptive overview of the various regional, state, and corporate initiatives with the ambition to outline some of their basic traits, differences, and points of convergence. From there analysis leads over to a more specific discussion about the various factors that possibly encourage states to take these types of initiatives. One way to frame the issue, it will be argued, is to talk about states in the light of ‘competition’. How and why do states compete? What are the possible synergies with industry and when do they occur? The ambition here is not to come up with any final conclusions but, rather, to open up for a new research agenda that could be of importance.

6. An Overview of Various Sub-National Initiatives

The discussion so far has, no doubt, provided a somber picture of the prospects for more proactive climate change policies in the United States. Still there are signs that a change might be underway. The key here is the federal political system that also provides number of opportunities, particularly at the state and local levels, which are increasingly exploited. In fact, over the last three to four years there has been quite a dramatic change in the number of state and local climate change initiatives. At the time of writing, more than half of the states are addressing global warming, either through legislation, lawsuits against the Bush administration, or programs initiated by governors. Out of those states, twenty-eight have developed or are developing strategies and action plans to reduce greenhouse gas emissions.⁹⁴ Some of these strategies are explicitly intended to mitigate climate change, while others are not labeled as greenhouse gas programs, and some state have even set numeric goals for reducing emissions. This trend is a significant change from the years 1998 and 1999, when 16 states passed legislation or resolutions that were highly critical of the Kyoto Protocol and opposed its ratification by the US Senate.

At the same time, this development is entirely consistent with the long-standing ‘bottom-up’ tradition in the American federal political system, where states often have served as laboratories for subsequent federal policy. This has been true for all major policy issues through history. In fact, the abolitionist movement, the civil rights movement, and the

⁹⁴ Pew Center on Global Climate Change, 2004, p. 9.

suffragette movement were all initiated at the state level, and it was only after they had gained widespread support that the federal government decided to legislate. Once it did, it was more a *post facto* confirmation than any effort to rule and change the individual states.

The recent state initiatives are important, because they indicate that state governments could have a crucial role also in the long-term national mitigation of greenhouse gases. In fact, we can already now see this dynamic process in operation, as innovative efforts diffuse from one state to another and clusters of contiguous states initiate collaborative efforts. These initiatives are real and hold considerable potential. The fact that states start copying each other implies that policies will spread and with them also experiences regarding their implementation. This may have long-term implications also on federal policies. Once businesses start facing increasing regulatory diversity some will demand a more comprehensive set of federal rules. Similarly, active state policies may also provide national elected officials with the courage and political cover necessary to push federal climate change programs also at the federal level. Thus, from the perspective of getting a momentum for more active national climate change policies, a similar bottom-up approach could actually be particularly relevant for a nation as physically large and economically diverse as the United States. On the following pages we shall discuss what these initiatives seek to accomplish more specifically.⁹⁵

6.1. State Initiatives

The engine in this overall development is, clearly, the states that have a particular leverage as independent government entities within the Union. Through their authority over land use, transportation, utilities, taxation, and other policy areas affecting the environment, states have in fact various instruments by which they can potentially mitigate climate change. This provides many opportunities that can be adopted to local physical, economic, and political conditions. As we shall see, the various state efforts differ also considerably in between with regards to focus, scope, and ambition.

Broadly speaking there are three ways in which states have approached the climate change issue. In some places, mainly on the West Coast and in the Northeast, greenhouse gas mitigation has emerged as an outspoken policy objective. California's reputation as the country's principal environmental mover is well known, but on the West Coast Oregon and Washington states are also following suit. Only a couple of weeks ago Governor Gary Locke of Washington signed, for example, a new law that requires future power plants to offset 20 percent of their carbon dioxide emissions by planting trees, buying natural gas-powered buses, or taking other steps to curb pollution. When finally enforced, these will be the toughest standards in the nation for new power plants. On the East Coast similar initiatives are also emerging. In April 2001 the state of Massachusetts imposed new multi-pollutant regulations capping CO₂ emissions, along with SO₂ and NO_x, from its six highest-emitting power plants. The outspoken ambition with this move is to have CO₂ emissions from those plants reduced by 10 percent in 2006, as compared to the 1997-1999 emissions levels.

In other parts of the country, primarily in the Southwest, climate change mitigation is achieved without making it an explicit policy objective. Instead, these states have by addressing other issues, like energy and agriculture, thereby reduced greenhouse gas emissions as a co-benefit. One illustrative case in this regard is the state of Texas that in 1999 imposed legislative requirements on utilities to provide a certain amount of renewable power as part of their total offering of electricity. These 'renewable portfolio standards' (RPS), signed into law by then-Governor George W. Bush, came about as an attempt to meet the increasing energy shortage that the state was facing. By combining the legislative effort with a parallel introduction of a trading system for renewable energy credits, the state wanted to

⁹⁵ Rabe, 2002.

give energy companies an incentive to increase the use of wind power. At this point the initiative has had considerable success.

Finally, there are also states, principally in the South, that are outright opposed to climate change mitigation. Six of them – Alabama, Illinois, Kentucky, Oklahoma, West Virginia and Wyoming – have even gone as far as to pass laws that explicitly prohibit any mandatory reductions in greenhouse gas emissions. In most cases the guiding rationale is that proactive climate change policies constitute a threat to the local economy. Obviously this view is particularly strong in regions dominated by heavy, coal-energy intensive industry. Still, there seems to be other considerations behind this standpoint as well. Louisiana, for example, is remarkably passive despite the fact that the state runs the imminent risk of being inundated once global warming takes effect. Why the state government has taken this position is not clear.⁹⁶

These examples indicate that there is a great variety in states' responses to the threat of global warming. This is crucial for any discussion on US climate change policies, where we too often tend to focus exclusively on federal efforts. In fact, there is probably a greater diversity *within* the United States than between most countries, particularly if only compared in Europe.

A similar diversity can also be noted in the ways in which the more active states frame and implement their efforts. As for the latter, some states choose to enact new state laws and rules, while others utilize already existing legal authorities and programs. Similarly, some states prefer to administer their efforts through their environmental agencies, while others work mainly through other state agencies, such as agriculture and energy. Finally, states also differ in how much emphasis they put on voluntary measures and market incentives, like cap-and-trade systems. In the end, the choice of policy instrument and administering body is often a function of what the specific policy program seeks to achieve.

It is for this issue on content and focus that the various state initiatives become particularly interesting. What we have is, in effect, an impressive variety of innovative efforts to reduce greenhouse gas emissions that essentially fall into the following broader categories:

- Plans, Targets, and Standards
- Inventories and Reporting
- Carbon Sequestration
- Energy Efficiency
- Renewable Energy
- Agriculture
- Transportation
- Waste Recycling and Management

The resulting programs are, in turn, applied in virtually every sector of the economy and allow states to achieve cost-effective greenhouse gas emissions, while at the same time they also realize other health benefits, like reducing air pollution and toxic waste. In other words there seems to be a lot to learn from initiatives about the various ways in which we could reduce greenhouse gas emissions.

⁹⁶ This discussion is mainly based on Rabe, 2002; Pew Center on Global Climate Change, 2004; and Lee, 2003.

6.2. Regional Initiatives

In addition to these more policy related issues, the state initiatives also provide important insights to the political dynamic surrounding the climate change issue. Of particular interest are the recent regional initiatives where neighboring states have decided to collaborate on issues like; joint standards for increased energy efficiency, investments in renewable energy sources, and the development of standardized emissions registries with an objective to create future emissions trading systems.

There are two major regional initiatives evolving in the United States at the moment, one on the West Coast and another in the Northeast. Both of them display traits of relevance also for the larger climate change debate. Of critical importance is the fact that they are both largely bipartisan efforts. In fact, the Northeastern initiative was even instigated by a Republican, Governor George E Pataki from New York, in what most observers view as an outright protest against the Bush Administration's inability to take action. Similarly, both regions emphasize the importance of working through multi-stakeholder approaches that also involve representatives from industry, communities and other interest groups. Finally, both the West Coast and Northeastern initiatives are trying to reach outside the borders of the United States by also inviting Canadian territories and Mexican states to participate. In other words, what we could be witnessing is the US federal bottom-up approach to policy-making as it extends into the global climate change arena. The impact of these regional efforts is by no means insignificant. Taken together, the Northeastern states and California alone constitute the world's sixth largest emitter of greenhouse gases, which makes a successful implementation of programs in these states relevant also in an international perspective.

6.2.1. The Northeastern Initiatives

When Governor George E. Pataki in April 2003 invited ten Northeastern states (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Delaware, New Jersey, Pennsylvania, and Maryland) to participate in a regional strategy to reduce greenhouse gas emissions, it confirmed and built in many ways on a trend towards increasing collaboration between states that already had been evolving in the region for some time. More specifically, Governor Pataki called upon the other states to work with New York over the next two years to develop a flexible, market-based cap and trade program for carbon dioxide emissions from power plants. The effort focused thereby on the energy sector, and the idea was to build upon the experiences from the so-called Acid Rain Program, an already existent national cap and trade program for NO_x and SO₂ emissions that has met considerable success. The ten states were included because, along with New York, they constitute the three major electricity systems in the Northeast and it was clear that any effort to regulate utilities would have to be done in a way that does not interfere with the free flow of interstate electricity markets. In the end all states but Maryland decided to join, though the latter still keeps an observatory status.

This type of collaborative efforts to curb greenhouse gas emission was not new to the region. In fact, already in August 2001 the New England Governors and Eastern Canadian Premiers had approved a comprehensive Climate Change Action Plan to jointly reduce regional greenhouse gas emissions. This effort had a much larger scope than the subsequent Pataki initiative and involved efforts to mitigate all greenhouse gases. More concretely, the Plan sets out to reduce regional greenhouse gas emissions to 1990 levels by 2010 and then to further reduce emissions by 10 percent below 1990 levels by 2020. An important component to achieve these objectives is to develop a standardized greenhouse gas emissions inventory and registry that potentially could lay the ground for a subsequent trading mechanism to achieve cost-effective emissions reductions. Moreover, the Plan also includes measures for adaptation

intended to reduce the negative impacts that climate change is likely to have on regional economies and infrastructure. The various programs to achieve the common greenhouse gas emissions reduction goal will be carried out by individual jurisdictions.

6.2.2. The West Coast Initiative

This strive towards regional collaboration between states has gained terrain lately also on the West Coast. In September 2003 the Governors of California, Oregon and Washington announced a joint effort, the so-called West Coast Global Warming Initiative, intended to develop and implement new regional climate strategies. The idea, it appears, is to build on already existent programs. But the initiative also envisions new tasks. More specifically it sets out to:

- establish uniform specifications for the purchase of fuel-efficient vehicles and low-rolling resistance tires for motor pool fleets.
- reduce emissions from diesel fuel in transportation, primarily through reductions in the use of diesel generators in ships at west coast ports and diesel engines in trucks.
- encourage the development of renewable electricity generation resources and technologies.
- improve efficiency standards with the potential to reduce greenhouse gas emissions.
- develop greenhouse gas emission inventories, protocols for standard reporting, and accounting methods for greenhouse gas emissions.
- collaborate on improved scientific tools to measure the impact of climate change.
- create a working group to establish a future agenda for hydrogen fuel.

At the time of writing the initiative is still on the drawing board and it is therefore difficult to speculate about its eventual impact. According to a first timetable, affected state agencies have been asked to present more elaborate strategies by September 2004. In the meantime, there have already been attempts to extend the initiative by inviting other neighboring states as well as some of the Canadian Territories and Mexican states.

6.3. Corporate Initiatives

At the same time, states governments are not the only entities involved in climate change mitigation. Quite the contrary, as indicated earlier there is a general consensus that more sustainable policies require the active participation of both the public and private sector as well representatives from communities and other interest groups. In this context, clearly, industry has a particular role to play given that most of greenhouse gas emissions are directly related to its activities.

The role of industry and the opportunities and pitfalls associated with climate change mitigation has been the subject of increasing debate in recent years. It is an important issue that, if further elaborated, could provide important insights on how to turn policy declarations and programs into practical undertakings that effectively reduce the emissions of greenhouse gases. What are the drivers for industry? How do you turn environmental performance into a competitive advantage?

The mentioned discussion extends far beyond the scope of this particular report. Yet, at the same time it is critical for our understanding of the various state initiatives. As will be argued

shortly, it is precisely in those instances that there is a perceived benefit to both government and some industry actors that climate change programs are most likely to gain acceptance. Let us therefore spend just a few words on the issue.

There are essentially four positions that firms can take with regards to climate change:

- they can see economic and other benefits in taking a proactive stance
- they can recognize the problem and be prepared to take preventive measure even though it will impose more costs on them
- they can be indifferent to the issue
- they can view climate change as a threat to their existence and try to prevent any future mitigation efforts

In the United States most companies have so far been largely indifferent. To most of them greenhouse gas reductions are not directly associated with their production and, therefore, it is not perceived of as neither a threat nor an opportunity. The main exception from this is, obviously, the utility companies and industries that rely on heavily on coal-produced energy. They have, along with the transportation sector, in general been adamantly opposed to any greenhouse gas reduction efforts.

At the same time, there are indications that corporations are starting to look more closely at the climate change issue as a business opportunity. The firms come from all sectors of industry and so far evidence suggests that there are various ways in which individual firms could benefit from improved environmental performance. Just to mention a few it could; give a better image among consumers by showing a certain degree of ‘corporate responsibility’, create a technology advantage as future demands change, avoid the possibilities of future lawsuits as present activities later prove to have had a detrimental effect on the climate, and, finally, preventing opposition from investors and shareholders. Combined with a regulatory strategy, where firms also try to influence the way future laws and regulations are written, improved environmental performance could be an even more powerful component in a firm’s overall competitive strategy. Through more stringent regulations the individual firm could effectively segment markets, gain proprietary rights on certain technology, and impose additional production costs on its competitors. How these considerations – and there are many others – play out depend entirely on the circumstances for each individual firm. The point, however, is to illustrate that there are various ways in which firms could think creatively about greenhouse gas reduction as a means to gain competitive advantage.⁹⁷

It is in light of these considerations that we shall judge some of the recent voluntary measures taken by industry, mainly in the area of emissions reporting. Clearly, some of them are a first attempt to try out new grounds. In many cases this happens within some of the programs initiated by the federal government like, for example, Energy Star, Coalbed Methane Outreach Program, Green Lights, Voluntary Aluminium Industrial Program, Climate Leader, and Climate Vision, just to mention a few. The real impact of these programs is still a matter of debate and, clearly, they cover only a fraction of all US firms. Still the number of participants is growing and there is, apparently, an exchange of ideas and experiences.

Another corporate initiative that deserves attention is the Chicago Emission Exchange (CCX) that is effectively a stock market for trading of greenhouse emissions rights. The CCX opened on September 30, 2003 and represents the first voluntary, legally binding commitment to

⁹⁷ For further discussions, see for example Porter and van der Linde, 1995; Vogel, 1995; and Reinhardt, 2000.

reduce emissions through the establishment of a rules-based market. As such it enables members to receive credits for emission sources and offset projects in the United States, Canada, Mexico, and Brazil. Through the Exchange they can thereafter buy and sell credits to determine the most cost-effective means of achieving emission reductions. The CCX has currently more than 50 members, including the City of Chicago, American Electric Power, Ford Motor Company, Stora Enso North America, IBM, Dupont, Tuft University, and the World Resources Institute. These members have all committed to reduce their emissions of greenhouse gases in progressive rate each year until 2006 they reach four percent below the average of their 1998-2001 baseline. Obviously this particular initiative will never have any major impact, neither financially nor in terms of emission reductions. Instead, the outspoken ambition is to gain experience in building the institutions and skills needed to cost-effectively manage greenhouse gas emissions, and to also inform the debate on appropriate acting for managing the risk of global climate change. In this regards it is yet another effort to try out new grounds.

At the same time one can assume that the most innovative efforts to benefit from improved environmental performance are not displayed among these voluntary measures that focus mainly on reporting. Instead, the real corporate incentives are never made public. The reason is simple. If they work they are work they give important competitive advantage to the particular firm and will therefore never be disclosed. To the extent that these environmental performance measures do exist, however, they are likely to be linked to production and supply-systems management and issues like technology, innovation, and finance. This is, no doubt, an area that deserves further attention. Still, it is outside the scope of this particular report.

7. State Competition and Synergies With Industry

The dynamic and creative process of the various climate change initiatives outlined above suggests that state governments may have an important role also for future federal policy initiatives in their efforts to achieve a long-term reduction of greenhouse gases. As pointed out by Barry G. Rabe in a recent study, the different state initiatives tend to vary markedly from one another in detail but at the same time they also share a number of design characteristics. First, most of the initiatives tend to have been supported by broad, bipartisan coalitions that received additional backing from diverse stakeholders. Second, they have regularly viewed climate change mitigation as an economic development opportunity. In crafting policies to foster long-term economic wellbeing, state governments have thus been able to acquire broad based support for its efforts. Finally, the various initiatives have also provided abundant state-level opportunities for innovation and policy entrepreneurship, often involving state officials who build coalitions around a particular idea for new policy.⁹⁸

7.1. Promoting State Initiatives - Some Standard Explanations

These particular traits, however, do not tell us *why* state governments choose to promote these initiatives. After all it is not an easy or evident sell. Considering the financial pressures that many states are facing it is perfectly understandable if they would have other priorities. Consequently, just as in the case of corporations it is important to understand what drive states to improve environmental performance and mitigate greenhouse gases.

⁹⁸ Rabe, 2002.

7.1.1. Environmental Concerns – and the Lack of Federal Activities

One argument that is often made in the public debate is that the state initiatives are a response to the lack of federal policies and action on this important environmental issue. Given the deadlock in Congress and the Bush Administration's rejection of mandatory emission cuts, the present activities are, in the words of Eileen Claussen President of Pew Center, "[an attempt] to fill the policy vacuum at the federal level".⁹⁹ In other words, the end game of these initiatives is not necessarily to respond to local environmental needs but to also move federal policies. This suggests that the current development is largely in line with the long-standing bottom-up approach to US policy-making described earlier.

This strategy has in fact already proved efficient in some related environmental issues. In the 1980's, some states started, for example, to develop their own air toxics pollution programs, which eventually resulted in a patchwork of regulations and standards across the country. Clearly, this obstructed the operation of industry that eventually lobbied Congress for federal standards, which were subsequently incorporated into the 1990 Clean Air Act amendments.¹⁰⁰

The Bush Administration's reactions to the state initiatives have been positive – and herein lay the irony. Indeed, the different state activities portray the essence of the Administration's voluntary approach and it has therefore encouraged states to continue their experiments. Some, however, are not impressed and argues instead that state actions can never substitute for federal action. Governor Gary Locke from Washington, for example, argues that the administration is using the state initiatives as cover for its own inaction. "For the White House to say it is looking for leadership from the states is just an excuse to delay and procrastinate. We are limited in what the states can do. We need a national policy to address global warming."¹⁰¹ On the meantime, Governor Locke and others are taking the first steps to push the federal government.

7.1.2. Anticipation

Another argument that is often put forth as an incentive for states to take early action is the anticipation of upcoming regulations and the importance of being prepared for the inevitable. The guiding motivation here is to stay ahead of the curve or, to put it differently, avoid being left behind as new policies are implemented and regulations changed. These types of concerns are regarded as one of the main reasons behind the Northeastern states' attempts to create their own cap and trade program. This effort would then be largely driven by the expectation that the Kyoto Protocol, or some negotiated version thereof, eventually will take effect and create an international trading system for greenhouse gas emissions. In order to not be left outside these efforts, which is likely under current federal international climate change policies, the states are instead setting up their own system that in large parts follow the scheme of other international efforts. This would then allow US power plants, and eventually other industries, to trade their greenhouse gas pollution credits internationally. Or, as one observer noted: "There is a long-term possibility that we may, as a region, or as states, be able to participate in Kyoto in spite of the Bush administration's rejection of the treaty"¹⁰²

7.2. Factors Driving State Competition

The considerations outlined above have no doubt played an important role in states' decisions to proceed with their effort. Still, they do not provide the full explanation as to why states act,

⁹⁹ Houlder, 2003.

¹⁰⁰ Lee, 2003.

¹⁰¹ Revkin and Lee, 2003.

¹⁰² Bradley Campbell, Commissioner of the Department of Environmental Protection New Jersey. As quoted in Scherer, 2003.

particularly since they do not account for differences between the states themselves. Are, for example, states equally concerned about the impacts of climate change and for the same reason? Empirical data suggest otherwise.

When we compare how the climate change issue has emerged on the political agenda on the West Coast and in the Northeast respectively, it becomes clear that the situations differ quite dramatically. The West Coast has for its part a long-standing tradition of strong and dynamic environmental interest groups that for many years have been active in framing the political agenda and raising the general awareness about environmental issues. This is not the case in the Northeast, with the possible exception of Massachusetts that also has strong environmental interest groups. Yet it is in the Northeast that the first efforts on extended regional collaboration to reduce greenhouse gas emission were initiated. In this case, it was instead state governments, many of them run by Republicans, that stepped forth as the driving force. This indicates that there might be also other considerations behind the state initiatives.

One way to discuss states' actions with regards to climate change issues is to frame it as function of 'competition'. Just like private firms states also compete, even though their stakes and conditions differ. Unlike firms states have, for example, democratically elected officials and considerable requirements on transparency. Moreover they are set up to provide a set of service functions that for their economic nature are counter-cyclical and mainly paid for through taxes. Yet, at the same time states, like firms, also compete for resources and external support. Similarly they also have to mitigate for various types of risks. Hence, at the conceptual level state and corporate actors have in fact a lot in common.

There are a couple reasons why it could be constructive to pursue this discussion on how and why states compete. First and foremost states' considerations about their own competitive position is fundamental to their position on climate change. The priorities and foci may vary, and the result may well be to work against greenhouse gas mitigation. Still, thinking about this issue in terms of competition allows us to pinpoint the forces driving the process, pro et contra, in a generic way.

Similarly the notion of 'competition' also provides a useful conceptual tool to explore the interaction between the public and private sector. It is, for example, reasonable to argue that major synergetic effects with the potential of creating more sustainable alterations in behavior, only take place when the public and private competitive rationale overlap and interact. Similarly, if there is a mismatch between the two, processes often get stalled. One major analytical challenge is therefore to discuss what competition means for both state and private actors and under what circumstances their respective interests may overlap. Here it is fair to say that we know a lot more about 'firm competition' than 'state competition'. The business and economics literature has over the years developed a fairly sophisticated discussion on 'firm strategy' and 'corporate competitive advantage' that has no direct resemblance in the public policy literature. Hence, before discussing the public and private interaction from the perspective of competition, we first have to sort out how and why states and public entities compete.

Finally, the notion of 'competition' could also provide important insights to the innovative process in which the various state initiatives have emerged. In fact, there is an abundant literature suggesting that 'competition' goes hand in hand with 'innovation' that seems to have direct bearing also on the state efforts. The question is, again, what role these innovative efforts play in the state's overall competitive portfolio.

The question of 'state competition' is obviously a cosmos in itself, and it would be pretentious to even suggest that we could cover the issue on the remaining pages of this report. Yet, at the same time it might be instructive to give an illustration, or some 'snap-

shots’, of where such a discussion could take us. After all, some of the most interesting activities in the US are currently taking place at the state level. Moreover, it seems as if this broader discussion on ‘state competition’ could provide a number of lessons that are relevant also in a wider, primarily European, context. On the following pages we will therefore briefly illustrate some of the additional considerations that might have spurred states to pursue more proactive climate change policies with the additional ambition of achieving some form of competitive advantage. In doing so we hope to open up for a more elaborate discussion on the topic.

7.2.1. Securing and Managing the Resource Base

One area of major concern for any state government is to secure the region’s resource base. Decisions on how to manage natural resources are vital for states, since they set the basic conditions for economic activity and larger questions like regional development and human health – domains that are at the core of state governments’ responsibility. It is in this perspective that climate change adaptation and mitigation become an important consideration either as a threat, a necessity, or a possible opportunity.

Apart from their intrinsic value, all ecosystems, from the most natural to the more extensively managed, provide a variety of goods and services from which society benefits. Some products of ecosystems enter the market and contribute directly to the economy; forests, for example, serve as sources of timber and pulpwood, the seas provide us with fish, agro-ecosystems serve as sources of food etc. In these cases the economic connection is obvious and private actors are often directly involved in the management of the resource. Other parts of the environment provide a set of valuable services that are typically not traded in the marketplace and therefore to a larger extent also managed by state authorities. Forests and wetlands, for example, have the additional function of improving water quality, regulating stream flow, and thereby also provide some protection from floods. Finally, ecosystems are sometimes also treasured for recreational, aesthetic, and ethical reasons. Overall, these services are valuable to society by jointly contributing to a region’s capability of attracting investments, industry, people, and visitors. At the same time physical conditions differ considerably between regions that also compete by different means. Consequently their response to climate change will also differ as further mitigation either enhances or decreases the value of states resource bases.

One obvious case where greenhouse gas reductions have been seen as a major threat to the internal resource base is the coal-producing states in the Midwest and South. To them, alternative energy sources are clearly a major threat to their economies, and if climate change mitigation policies were to take effect on a larger scale it would seriously limit the competitive edge states – at least until a major technology breakthrough makes coal a viable option again. Consequently some of these states have also been loudly opposed to more proactive climate change policies.¹⁰³

At the same time climate change could also affect other ecosystems in ways that calls for preventive measures to save the local economy and avoid other social costs. Rising sea-levels, for instance, will definitely add to some of the stresses that coastal communities already are facing, including erosion, storms, and pressures from development. This is not an insignificant scenario. Approximately 53 percent of the US population lives on 17 percent of the area adjacent to or relatively near the coast. At the same time, populations in these coastal areas are growing more rapidly than anywhere else in the country. States like New York and New Jersey, for example, are therefore increasingly concerned about climate alterations that could erode their shorelines and thereby deteriorate their living conditions and destroy

¹⁰³ The energy issue is interesting in itself since energy is, perhaps, the most important resource of them all. Yet, many states are not self-sufficient on energy but have to import it from other places. To some of the net-importers climate change mitigation through renewables is therefore a potential source of competitive advantage, in the sense that it decreases external energy dependency. The question of energy might therefore be subject of a more elaborate discussion, or even be seen a category itself.

extensive tourist industry. Clearly, securing this resource base has also been a driving force in their recent climate change initiatives.

On a similar account, states also have an interest in providing for the human resource base and watch out for the effects that climate change might have on human health. The competitive argument in this case resides in keeping a healthy work force and providing and sound environment that attracts people and industry to locate in the region. Also health costs are, as already pointed out, becoming increasingly a state budgetary issue and thereby also contributing to the fiscal crisis. There are a number of potential illnesses and deaths associated with effect from climate alterations; temperature extremes, storms and other heavy precipitation events, air pollution, water contamination, and diseases carried by mosquitoes, ticks, and rodents. States are also becoming increasingly active on these issues. Air pollution has probably gained most attention so far and it has been a matter of concern for many years. Among its effects are; reduced work capacity, aggravation of existing cardiovascular diseases, effects on breathing, respiratory illnesses, lung irritation, and alterations in the lung's defense systems.

Finally, there are also an increasing number of examples on how a management of the resource base through climate change mitigation could be turned from a primarily defensive strategy into a source of competitive advantage. The agriculture issue provides an illustrative case. In the first instance global warming seems to have dire consequences for agricultural production, as extreme weather events, diseases and pest infestations cause crops to fall. However, more recent research suggests that the impact of global warming actually can be lessened, and even turned into a boon for agricultural producers, if farmers take such steps as setting up wind farms, engaging in the production of 'bio-diesel' and ethanol fuels and participating in carbon sequestration programs. In fact, tilling and organic farming practices seems to further increase the potential of agricultural land to serve as carbon sinks. Or, as one observer noted: "This is an enormous opportunity for farmers. /.../ They can now grow two crops: one above the ground — food; and one below ground — carbon."¹⁰⁴ In this case active climate change policies could actually be a way for the state to manage and secure the resource base, while at the same time gaining competitive advantage.¹⁰⁵

7.2.2. Becoming a Center for Technology Development

Another source of competitive advantage for states is to become the center for the development of a new leading technology. Being a technology center could, apart from generating a boom within the given industry, also have longer-term spin-off effects where various supporting industries choose to invest and locate in the region. In that sense innovation and technology development might serve as an important vehicle for regional development, just like the computer industry changed Silicon Valley from a sleepy town in the Californian desert to one of the world's most important and dynamic economic centers.

Clearly, the climate change issue provides ample opportunities in this respect. There is no doubt that the key to any major reductions in greenhouse gas emissions resides in the introduction of new technology and the possibilities are endless; ranging from small electrical appliances to research on new alternative energy sources, like photovoltaics and wind power, and solutions for storage of carbon dioxide.

¹⁰⁴ Richard Sandor Chairman and Chief Officer of the Chicago Climate Exchange as quoted in Barbosa, 2003.

¹⁰⁵ *Experts: U.S. Agriculture, Food Supply Face Major Dangers and Some Opportunities From Global Warming*, 2003; and *Organic Agriculture Yields New Weapon against Global Warming*, 2003.

One issue that illustrates this ambition to become an ‘innovation cluster’ is Governor Arnold Schwarzenegger’s ambition to make California the center for development of hydrogen technology. Already during his election campaign in September 2003, Schwarzenegger laid out a vision of a ‘hydrogen highway’ stretching ‘from BC to BC’, i.e. from Baja California to British Columbia. This promise has been reiterated since he took office and he has now presented a plan to build hydrogen fuel stations every 20 miles along major highways, thereby allowing motorists to buy clean-burning hydrogen-fueled vehicles without fear they will run out of gas. The whole effort is to be completed by the year 2010 at an estimated cost of \$100 million. It could be money well invested, even though many observers have expressed their skepticism.¹⁰⁶

At the same time, Governor Schwarzenegger is not the only one with similar plans for hydrogen. Several other states are also making major investments in hydrogen research and technology development, among them; Indiana, Illinois, New York, Michigan, Florida, and Maine. No doubt, they also see this new technology as a potential vehicle for regional development.

7.2.3. Supporting and Protecting Local Industry

Another way in which states compete is by supporting and protecting the local industry. This could be done in ways that either prevent climate change policies or, in fact, turns greenhouse gas mitigation into a powerful source of leverage. The different policy instruments used to reach these objectives include among others; outright economic support, tax breaks, investments in surrounding infrastructure, and various regulatory efforts. The intent here is not to go through them all but rather to illustrate how climate change issues come into play. Hence let us just go over two quick examples where states have tried to use regulations to protect their local industries, with different consequences for climate change policies.

The first example focuses on how states can support local industry by pushing for federal legislation that enhances the need for a local product. This was exactly what happened last year during the negotiations of the National Energy Plan, when Senator Tom Daschle pushed hard for a passage that would increase use of corn-based ethanol as a gasoline additive. The ambition was, clearly to create a new demand and market that would benefit corn growers in his home state, South Dakota, and across the Midwest. The side-benefit was, of course, the support of a renewable fuel that could reduce greenhouse gas emissions.¹⁰⁷

The other example illustrates how states can protect local industry by imposing local regulations and standards that raise the costs for outside competitors to enter the market. Like most other strategies, this could both favor and prevent more proactive climate change policies. One area where it so far has had a negative effect is fuel standards. As already indicated, states have discretionary powers to regulate fuel content. This in turn has prompted some Northwestern states, like Oregon, to set up specific local standards that protect smaller, regional refineries from outside competition. The logic here is simply that it becomes very expensive for the larger producer operating in several states to maintain various production lines in order to satisfy different local standards. Chances are, therefore, it decides to pull out of some of them, thereby leaving the market for the local producer that has no ambition of growing outside the area and therefore can concentrate on one standard. Again, we see how competitive concerns affect various aspects of states’ climate change policies.

¹⁰⁶ Thompson, 2004; and Bustillo and Polakovic, 2004.

¹⁰⁷ Hulse, 2003.

7.2.4. Increasing Internal Efficiency

A fourth source for states to become more competitive is to increase their internal efficiency. This could be done in various ways. One refers to the operation of the state apparatus itself and involves measures like; changing administrative routines, restructure the organization, outsource and privatize activities and services, and implement new technologies to provide easy access to services for costumers and clients. Other important measures are to improve basic the structural conditions in the regions, like; transportation, access to water, energy distribution, housing, and other infrastructure related measures. Behind all these efforts lays an increasing interest, awareness and use of various instruments for self-evaluation, assessment, and cost-benefit analyses.

Interestingly, there are many examples on how working with climate change programs has had the additional side-effect of also revealing ways in which to improve both structural and administrative efficiency and thereby reduce costs. One example is the Rhode Island Greenhouse Gas Action Plan that was initiated in the fall of 2001 as a response to the already mentioned agreement between the New England Governors and Eastern Canadian Premiers to reduce greenhouse gases in the region to 1990 levels by 2010, 10% below those levels in 2020, and by as much as 75% over the longer-term. The initiative took a multi-stakeholder approach in which the Rhode Island Department of Environmental Management and the State Energy Office invited a group of over 30 diverse stakeholders from business, industry, citizen groups, environmental organizations, and other government agencies to jointly develop a Greenhouse Gas Action Plan for the state.

Apparently the effort has been an eye-opener in many respects. The various modeling efforts carried out in the process indicate, on the one hand, that carbon savings can be achieved while producing substantial cumulative net economic benefits for the state of over \$700 million over the year 2020. This occurs largely because many of the options identified in the Plan also save energy and those savings exceed capital, operation and maintenance costs for the energy saving technologies and practices. Moreover several participants also stress the potential administrative efficiency gains that have come out from working together on this plan. In this sense, this particular climate change initiative has served as an important tool for self-evaluation and assessment that potentially could pave way for substantial efficiency gains to both the state and the other actors involved.¹⁰⁸ This is not an isolated case. In fact, there are many similar experiences from other private and public climate change initiatives.

7.2.5. Imposing Costs on State Competitors

At the same time competing is not only about your own performance. Quite the contrary, your competitive position depends just as much on your competitors' accomplishments. Sometimes conditions are such that they have the competitive edge and simply run ahead of you, no matter how much you improve your own performance. Under such circumstances the only way to compete is to effectively 'change the rules of the game' in a way that forces them to take on costs that stop their expansion in one way or the other.

This aspect of competition, it seems, holds considerable potential for pushing greenhouse gas reductions. When the New England states in various lawsuits bring up the question of stricter regulations on coal-fired power plants it is not entirely a matter of environmental concern. The case that they are making is that prevailing winds carry industrial pollution from the Midwest into the Northeast, where it causes serious air quality problems and acid rain – with large human and economic costs as a consequence. However, there is also a number side of the coin. Most of the states in the Northeast do not have the same access to energy from the start and are therefore already importing energy from various sources, of which a large part

¹⁰⁸ The Rhode Island Greenhouse Gas Stakeholder Process, 2002.

comes from hydroelectric power plants in Canada. In that sense they have a far more diversified energy profile than most Midwestern states that rely primarily on their own coal. Moreover, several Northeastern states have also taken the decision to upgrade their own facilities in an attempt to improve the local air quality and environment. Because of this, along with other factors, they also suffer from higher energy costs, which obviously have implications on industry production and states' competitiveness in general.

It is in this context that demands on further greenhouse gas reductions become an important instrument to gain competitive advantage. By demanding more stringent regulations the Northeastern states will effectively impose more costs on the Midwestern counterparts, as utilities are forced to update and retrofit their facilities and the state might have to reconsider its entire energy profile. This will under all circumstances involve enormous costs for both the state and local industries that from a Northeastern perspective clearly level the playing field by making Northeastern states and companies more competitive.

A similar logic is, somewhat ironically, also played out in the regional collaboration between the New England states and Eastern Canadian territories – only that in this case the roles are the reverse. It is hardly a secret that the Canadian Premiers have pushed hard to assure that the process does not lose momentum. The reason seems obvious. To the Canadian territories, the Northeastern United States is by far the most important economic market and there is, as already pointed out, a considerable economic activity between the two national regions. The Canadian territories, however, faces the possibility of at some point having to comply with the mandates of the Kyoto Protocol that the Canadian federal government both signed and ratified. This is, at least initially, likely to put economic constraints on Canadian business, while at the same time their US counterparts have no obligations. Thus, any collaborative effort that puts similar demands on the US states and industries will therefore, again, level out the playing field. Once more we see how climate change mitigation becomes an important tool for states to compete.

7.2.6. Avoiding Future Litigation Costs: Lawsuits and Insurers

A final aspect that states might consider in their effort to compete is risk management and the ambition to avoid future liability costs. This is a particularly sensitive area for an issue like climate change that from a legal perspective is just entering new and previously untouched terrain. Given the relative scientific uncertainty about the exact causes and effects of climate change, there are a large number of potential court cases that have not yet been tried. If, however, at some point science comes up with data that link certain activities with specific outcomes, it could open a virtual floodgate of lawsuits where industry and states are the likely targets for not having taken preventive measures. The money involved is potentially enormous, with millions of individuals bringing, and some insurance companies are therefore demanding that state and corporate actors start taking climate change into active consideration and apply a precautionary stance. Also, investors and shareholders are raising similar requirements in the corporate sector. None of these demands are likely to go unnoticed.¹⁰⁹

These types of considerations are likely to be more influential in the United States than in many other places because of the country's legal system. As already pointed out, the court system is crucial to the US policy-making process, where litigations and lawsuits are important instruments to actually move policies. As we have seen, there are also numerous lawsuits pending that relate to climate change. In several of them states are suing the federal government, and occasionally also each other, over the compliance with regulations as well as their actual content – and the number of lawsuits are growing rapidly. Clearly, this development is also having some effect as states have started to take preventive measures.

¹⁰⁹ Turner, 2003; and Murray, 2003.

One can only speculate about the effects of more fine-tuned scientific evidence on the effects of global warming.

7.3. Final Words

The ambition with the previous pages has been to start a discussion about the factors that possibly drive states to introduce new policy initiatives that ultimately lead to a reduction of greenhouse gases. One way to approach the issue, it seems, is to frame it in the broader context of ‘competition’, where states use different means and strategies to achieve certain beneficial objectives. The question, as it was posed, was in what the competition resides and how considerations regarding greenhouse gas reductions could come into play as either obstacles or means to gain competitive advantage. Such an analytical effort, it appears, has implications for policy-making and our understanding of how to promote further greenhouse gas reductions.

The discussion so far makes no claims of being comprehensive and the categories are by no means established or complete. Quite the contrary, these notes should be regarded as discussion points – nothing more, nothing less. However, the effort so far implies that the use of ‘competition’ as a primary analytical focus has some potential, especially since it opens up for a direct comparison with the competitive objectives of firms. Again, it would seem as if the more important and sustainable policy efforts are achieved when the competitive ambitions of public and corporate actors interact and synergetic effects emerge. How and under what circumstances these interactions take place is the ultimate challenge and also an issue that it highly relevant also outside the US context.

At the same time collaboration on climate change issues is hard, even under the best of circumstances, and the question on implementation of these state initiatives is therefore likely to become the next major issue in the upcoming years. A third of the way into the collaboration between the New England States and the East Canadian Territories it is, for example, clear that New England is on target to meet less than one-third of its 2010 goals. In fact, carbon dioxide emissions in the region appear to be growing, in part because people are driving more and using bigger, less-fuel efficient vehicles. This indicates that implementation is by no means given even with the best of intentions. Apart from sometimes being a ‘difficult sell’ to the public, the climate change issue also faces the challenge of mounting state fiscal debts, and a strong industry lobby in Congress – among other things. Kenneth Colburn, executive director of the Northeast States for Coordinated Air Use Management (NESCAUM), captures the situation when he states that: “We've all been astounded how complex moving ahead is”.¹¹⁰ Apparently the proponents of more proactive climate change policies are up to some fierce competition.

¹¹⁰ Associated Press, 2003.

Part IV: The US and the Global Climate Change Agenda

This part of the analysis discusses the United States' future role in the international collaboration on climate change. It starts from the assumption that the US is never going to ratify the Kyoto Protocol and elaborates, instead, on a number of other possible scenarios.

8. The US and International Collaboration: Some Scenarios

The starting point for this report was President George W. Bush's declaration in March 2001 that the United States would withdraw from the continued negotiations of the Kyoto Protocol. Most of the work up to this point has focused on why that decision came about, what the alternative strategies might be, and what the prospects are for more proactive climate change policies in the United States. In light of these discussions, however, we can now return to where we started and say something about the country's actuation also on the international arena.

As the report makes clear, the United States will most likely never ratify the Kyoto Protocol, probably not even in a renegotiated form. Over the years, 'Kyoto' has simply become a tainted word in US politics and the agreement will therefore never find the support necessary for ratification. Again, it does not matter who is President. When it comes to the ratification of international agreements of which the United States is part it is the Senate that decides. The question is therefore in what form the United States will engage in international climate change collaboration.

The answer to this question depends, partly, on the outcome of the presidential elections later this year 2004. Even though the President, for obvious reasons, does not have final authority over international agreements, it is the White House' responsibility to formulate and carry out foreign policy – something that has been very clear in the last three years. For every other reason than specific international accords it matters therefore who is President, also for the climate change issue.

As for the two presidential candidates, George W. Bush and John F. Kerry, their respective positions on climate change and environment differ considerably. George W. Bush's environmental agenda is by now well known and opinion polls consistently show this to be his most vulnerably point. John F. Kerry, on the other hand, has a very strong environmental record and has earned top ratings from most environmental groups. Their respective stance on international climate change collaboration differs also accordingly. While George W. Bush chose to pull out from the Kyoto process, John F. Kerry pushed instead hard in the Senate to secure a US participation in a revised Kyoto Protocol, or any other future binding climate change agreements. At the time of writing, in mid-April 2004, he has also started to attack George W. Bush in what seems to be an attempt to make environmental issues a main topic in the upcoming presidential race. It is, however, unclear to what extent this effort will have the desired effect. In times where issues like high unemployment rates, increasing international competition, and the US engagement in Iraq make most of the headlines, it will be hard to get the environmental message out. Moreover, John F. Kerry also runs the political risk of being portrayed by the Bush campaign as an environmental extremist.¹¹¹

So, what can we expect with regards to the future US engagement in international climate change collaboration? What are the different scenarios? How can the international community support a development towards a more active US involvement? The report identifies four

¹¹¹ Seelye, 2004.

possible scenarios that each depend on who gets elected; the Bilateral Scenario, the Issue Linking Scenario, The International Re-engagement Scenario, and the Regional Initiatives Scenario.

8.1. The Bilateral Scenario

A first scenario starts out from the assumption that George W. Bush is reelected. This will most likely lead to a continuation of the current US foreign policy stance, where unilateralism and neglect for international institutions and organizations are key features, and separate bilateral agreements instead are struck with individual states to reach specific policy objectives. A reelection of the incumbent President will no doubt be taken as an endorsement of current policies, and without the options of a third term chances are that the present policy pattern is even re-enforced.

Such a development will most likely lead to a growing rift between Europe and the United States. This will have implications also for the European Union that will have difficulties in agreeing on a joint policy towards the US. Clearly, some of the European member states will be tempted to strike separate deals with the world's largest economy. This will not only inflict upon global climate collaboration, but it could also have serious implications on the European ambitions to implement the Kyoto targets. After all, trade and economic growth are at the heart of the problem, and there are already today signs that the European commitments are being questioned at the highest level. When the European Union commissioner for transport and energy, Loyola de Palacio, in February this year openly challenged the European Union's commitment to the Kyoto protocol, by arguing that plans to implement cuts in greenhouse gas emissions pose a severe threat to European industry, she certainly struck a sensitive chord.¹¹² In what can only be interpreted as an effort to avoid a public debate, the President of the EU Commission, Romano Prodi, declared within a day that the Commission "strongly rejects all calls to change its position concerning the ratification of the Kyoto protocol and its full implementation by the European Union".¹¹³ Certainly, the last word has not been said on this issue.

Paradoxically, the great beneficiaries in this scenario could actually be developing countries that are likely to emerge as important actor in the overall US foreign policy strategy. As the United States seek political allies and new market for their products, supportive states will most certainly get preferential treatment and beneficial trade agreements. Ironically, this could lead to a faster introduction of environmental friendly technology in those selected countries. There are indications that this development is already underway. As indicated earlier, China has for example willingly opened its market to American firms working in the area of clean coal technology, carbon sequestration, and hydrogen fuel cells. That is quite a twist in the effort to have developing countries involved in the effort to mitigate climate change.

8.2. The Issue Linking Scenario

The problem with the scenario described above is, obviously, that the United States will act on its own terms and thereby effectively put an end to the ambition of joint efforts and global emissions targets. So, is there any way that the United States could be convinced, or forced, to collaborate?

One idea that has been presented in various international fora is to link climate change mitigation with trade, and bring a lawsuit against the United States for breaking the rules of

¹¹² Buck, 2004.

¹¹³ Buck, 2004.

the World Trade Organization (WTO). Such an effort would not focus on climate change primarily but rather on claimed illegitimate trading practices on part of the United States. One could, for example, argue that the Administration is giving hidden tax support to the country's industry by not having a carbon tax. Like some of the previously mentioned state initiatives, these measures would then have an indirect effort also on climate change.

A similar effort seems to have some potential. In December 2003, President Bush finally backed off from his March 2002 decisions to impose US tariffs on imported steel. The tariffs came about in an effort to protect the American steel industry that was eroding in the face of international competition. These measures outraged the European Union that took the case to the WTO and threatened to impose similar reciprocal tariffs on selected US products. Once the WTO ruled in favor of the European claims, the Bush Administration backed off from its previous decision. The last thing it needed was a major trade war.¹¹⁴

8.3. The International Re-engagement Scenario

At the same time there is also the possibility that the United States re-engages in multi-lateral collaboration. John F. Kerry has made it very clear that, if he were to become President, he would 'bring back the United States into the international community' by an active participation in international organizations, like the United Nations, and other ongoing negotiation processes. Exactly what that means and what the consequences would be for US climate change policies is hard to predict at this point. Clearly, the United States has currently a number of international commitments, not the least in Iraq, that are not just altered overnight and there are certainly a number of delicate policy priorities that have to be made before any major changes can take place. Given the institutional and political constraints mentioned earlier, John F. Kerry would face a tremendous challenge in Congress and any policies suggesting major reductions in greenhouse gas emissions will not come easy. Even if the Democrats were to get a majority in both the House and the Senate, he would still need a two-third majority in the Senate to ratify the Kyoto Protocol. Then, for anything concrete to happen, he would have to pass a corresponding budget through Congress – another formidable task in the US context. What seems clear, though, is that the international political climate would be considerably different with John F. Kerry as the President of the United States. Possibly, he could also play an important role within the United States facilitating the continuous expansion of the state and regional initiatives.

8.4. The Regional Initiatives Scenario

Finally, it is vital to keep an eye on the ongoing regional efforts described earlier. If they were to gain momentum they could be important drivers in achieving substantial greenhouse gas reductions, simply because they are for real and involve those state and private actors that ultimately have to make the adjustments. The fact that they are now seeking collaboration outside the United States illustrates also the potential of these efforts to pursue international cooperation on these issues, despite the White House' current foreign policy and climate change agenda. By building from step-by step from below and leading by example these initiatives could, possibly, provide important insights on how to accomplish real greenhouse gas reductions. They are worth further attention and support.

¹¹⁴ *Bush ditches steel import duties*, 2004.

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