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# Climate Change Policies an Ocean Apart: EU & US Climate Change Policies Compared

Cinnamon Carlame\*

## I. Introduction

Global climate change is one of the most pressing environmental issues of the Twenty-first Century. Climate change threatens the integrity of the natural environment as well as the physical and social stability of the human environment. Current research focuses on the existence of global climate change, the legitimacy and integrity of the international climate change regime, and the development of national climate change programs.<sup>1</sup> Much of this research concentrates on the authority and efficacy of the Kyoto Protocol.<sup>2</sup> Since the Kyoto Protocol to the UNFCCC came into effect in February 2005, countries all over the world have intensified their efforts to develop comprehensive national systems to meet their Kyoto obligations or, as with the United States, to meet their own national climate change goals.<sup>3</sup>

Between now and the first Kyoto compliance period (2008-2012), nations will undoubtedly focus considerable attention on developing effective climate change policies. There is, however, a dearth of research examining the diverse tactics that regions are using to combat climate

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1. Greg Kahn, *Between Empire and Community: The United States and Multilateralism 2001-2003: A Mid-Term Assessment: Environment: The Fate of the Kyoto Protocol Under the Bush Administration*, 21 BERKELEY J. INT'L LAW 548 (2003); Steven Sorrell, *Who Owns the Carbon? Interactions Between the EU Emissions Trading Scheme and the UK Renewables Obligation and Energy Efficiency Commitment*, 14 ENERGY & ENV'T 677 (2003).

2. See, e.g., *id.*

3. See, e.g., Elizabeth Demarco, Robert Routliffe & Heather Landymore, *Canadian Challenges in Implementing the Kyoto Protocol: A Cause for Harmonization*, 42 ALBERTA L. REV. 209 (2004).

change. Regional climate change programs are growing in a seemingly haphazard manner within diverse and highly localized political and legal environments.

In order to ensure the success of the Kyoto Protocol and the success of future international efforts to effectively manage climate change, there is an urgent need for comprehensive analysis of the disparate legal and political strategies the key actors are using. Alternative policies to address global climate change are being debated and used throughout the international community, but there is no objective data on the best political or scientific policies. Understanding the root causes of the successes and failures of these various regional approaches will significantly facilitate the formulation of effective long-term climate change policies.

The United States (US) and the European Union (EU) provide an appropriate context for analyzing why and how national climate change policies differ and for evaluating the successes and failures of disparate approaches in both the short and long-term. As two of the wealthiest and most influential political entities in global politics and two of the heaviest emitters of greenhouse gases in the world, the actions of the European Union and the United States will profoundly impact both the ability of developed countries to meet their initial Kyoto obligations and the willingness of the developing world to become equal partners in the struggle against climate change. Thus, early leadership by the European Union and the United States is critical to reducing global greenhouse gas emissions and coordinating future global climate change efforts. Accordingly, this article will analyze the substantive and theoretical differences between the US and the EU's climate change policies. As it compares and analyzes the policy regimes, this article will take as its basic premise that effective climate change regimes require participation in binding international regimes and a combination of mandatory regulations and voluntary regimes, rather than policies based on voluntary participation, further research, and delayed obligations.

This article represents but a small step in the research and analysis that must be done. The goal of this article is simply to begin the process of assessing, comparing, and analyzing highly disparate political and legal approaches to managing climate change. One of the key rationales for this research is to provide policymakers with cogent and reliable data for use in formulating effective climate change policies. To this end, this article aims to analyze the basic principles of the climate change policies in practice, then to compare the policies and, finally, briefly to begin to examine some of the underlying reasons for the policy differences. This article is not intended to provide an exhaustive analysis of regional climate change policies. Rather, it is intended to introduce the basic

principles and key differences of the US and EU climate change policies.

## II. Discussion

### A. *The International Global Climate Change Regime*

The Kyoto Protocol (Kyoto)<sup>4</sup> to the United Nations Framework Convention on Climate Change (UNFCCC)<sup>5</sup> embodies the legal commitments of the international climate change regime. The UNFCCC and Kyoto address the causes and consequences of global climate change.<sup>6</sup> Kyoto promotes the UNFCCC goal of “stabilizing atmospheric concentrations of greenhouse gas at a level that would prevent dangerous anthropogenic interference in the climate system.”<sup>7</sup> Accordingly, Kyoto creates legally binding obligations for developed countries that require them to gradually reduce human-induced greenhouse gas emissions to an average of 5.2% below 1990 emission levels.<sup>8</sup> These obligations represent the first time that developed nations have jointly agreed to reduce emissions from such a wide-range of gases and across such a cross-section of the economy, and the first time that a Multilateral Environmental Agreement has created the framework for an elaborate global market in emissions trading.<sup>9</sup>

### B. *An Introduction to Regional Climate Change Policies*

In the following section, this article analyzes the substantive and theoretical differences between the US’ and the EU’s climate change policies. The section pays particular attention to discerning the similarities and differences between the approaches of the United States and the European Union—and the reasons for these differences—in addition to examining US state and local policies and the policies of the United Kingdom (UK), which is the EU member state with the highest

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4. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 37 I.L.M. 32 (1998), available at <http://unfccc.int/resource/docs/convkp/kpeng.pdf> [hereinafter Kyoto Protocol].

5. United Nations Framework Convention on Climate Change, May 9, 1992, 31 I.L.M. 849 (entered into force Mar. 21, 1994), available at <http://www.unfccc.de/resource/conv/index.html> [hereinafter UNFCCC]. There were 181 parties as of Dec. 10, 1999.

6. See DUNCAN BRACK ET AL., INTERNATIONAL TRADE AND CLIMATE CHANGE POLICIES (2000).

7. See UNFCCC, *supra* note 5, at Preamble.

8. See Kyoto Protocol, *supra* note 4, arts. 4.1, 10, 12.

9. See Annie Petsonk, *The Kyoto Protocol and the WTO: Integrating Greenhouse Gas Emissions Allowances Trading into the Global Marketplace*, 10 DUKE ENV’T L. & POL’Y F. 185 (1999).

historical per capita greenhouse gas emissions and with one of the most aggressive climate change objectives.

The European Union, the United Kingdom and the United States disagree over both the certainty of global climate change and the appropriate political and legal responses to climate change. Since the early 1990's, the European Union and the United Kingdom have been steady, driving forces behind the negotiation and implementation of the international climate change regime.<sup>10</sup> For example, the European Union has adopted an aggressive and proactive approach to meeting its Kyoto obligations, focusing on mandatory laws and regulations.<sup>11</sup> The United States, on the other hand, played a leading role in early climate change discussions, including the negotiation of the UNFCCC, but by the late 1990s became a staunch resistor to the negotiation of a legally binding international climate change regime.<sup>12</sup> In fact, over the last decade, the United States has consistently challenged the veracity of global climate change.<sup>13</sup> Further, while the European Union and its member countries, including the United Kingdom, have approved and/or ratified the Kyoto Protocol,<sup>14</sup> the United States has steadily opposed ratification of the

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10. See Nuno S. Lacasta, Suraje Dessai & Eva Powroslo, *Rio's Decade: Reassessing the 1992 Earth Summit: Reassessing the 1992 Climate Change Agreement: Consensus Among Many Voices: Articulating the European Union's Position on Climate Change*, 32 GOLDEN GATE U. L. REV. 351, 352 (2002); see generally CLIMATE CHANGE AND EUROPEAN LEADERSHIP (Joyeta Gupa & Michael Grubb eds., 2000).

11. See Commission of the European Community, *European Climate Change Programme, Second ECCP Progress Report: Executive Summary*, at i-iv, COM (Apr. 2003), available at [http://europa.eu.int/comm/environment/climat/pdf/second\\_eccp\\_report.pdf](http://europa.eu.int/comm/environment/climat/pdf/second_eccp_report.pdf) [hereinafter *Second ECCP Progress Report: Executive Summary*].

12. See, e.g., Robert McKinstry Jr., *Local Solutions for Global Problems: The Debate Over the Causes and Effects of Climate Change and Emerging Mitigation Strategies for States, Localities and Private Parties*, 12 PENN ST. ENVTL. L. REV. 1 (2004); Glen Sussman, *The USA and Global Environmental Policy: Domestic Constraints on Effective Leadership*, 25 INT'L POL. SCI. REV. 4, 349-369 (2004).

13. See, e.g., Kahn, *supra* note 1; THE WHITE HOUSE, GLOBAL CLIMATE CHANGE POLICY BOOK (2002), available at <http://www.whitehouse.gov/news/releases/2002/02/climatechange.html> [hereinafter GLOBAL CLIMATE CHANGE POLICY BOOK]. However, U.S. states and localities are following the lead of the EU and the UK and are pushing for more progressive, obligatory climate change policies. This will be discussed in more detail in Section II(D)(i).

14. Council Decision 2002/358, 2002 O.J. (L 130) (EC), available at <http://europa.eu.int/scadplus/leg/en/1vb/l28060.htm> (concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfillment of commitments thereunder). See also UNFCCC, KYOTO PROTOCOL STATUS OF RATIFICATION, [http://unfccc.int/files/essential\\_background/kyoto\\_protocol/application/pdf/kpstats.pdf](http://unfccc.int/files/essential_background/kyoto_protocol/application/pdf/kpstats.pdf) (last visited Apr. 15, 2006). The Kyoto Protocol has 156 ratifications, accessions, and acceptances as of September 19, 2005.

Kyoto Protocol and has publicly repudiated the Protocol despite the fact that the United States was granted exactly what it demanded during the Protocol negotiations.<sup>15</sup> However, some US cities and states are moving in the opposite direction of the federal government and are voluntarily adopted emission reduction obligations, suggesting that focusing on federal policies alone does not provide a full picture of climate change policy in the United States.<sup>16</sup>

Overall, the language, the substance and the goals of the European Union/United Kingdom and the federal United States programs differ dramatically. The following sections begin the process of analyzing the disparate legal and political approaches the European Union and the United States use, and the social, legal and political, and economic factors driving these approaches.

### C. *The United States' Climate Change Policy*

The United States, unlike the European Union, is not a party to the Kyoto Protocol. Accordingly, despite the fact that the United States is the largest contributor of greenhouse gases of any country in the world, it is not bound by any international climate change obligations.<sup>17</sup> Further, President Bush continues to challenge the veracity of global climate change and alleges that Kyoto is based on the “unproven science” of global warming.<sup>18</sup> However, given significant national and international pressure to address climate change, the Bush Administration has developed a national strategy for tackling climate change.<sup>19</sup> President Bush’s climate change plan is based on reducing greenhouse gas “intensity.”<sup>20</sup>

As a brief background to current US climate change policy, under the UNFCCC, signed by President George H. W. Bush, the United States agreed to reduce greenhouse gas emissions to 7% below 1990 levels.<sup>21</sup> Currently, United States emissions are projected to increase by another 14% by 2012, which would mean that the United States will be 28% over

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15. See, e.g., Patrick Parenteau, *Anything Industry Wants: Environmental Policy Under Bush II*, 14 DUKE ENVTL. L. & POL'Y F. 363 (2004).

16. See, e.g., John C. Dernbach, *Symposium: Facing Climate Change: Opportunities and Tools for States*, 14 WIDENER L. J. 1 (2004).

17. See BARRY G. RABE, PEW CENTER ON GLOBAL CLIMATE CHANGE, GREENHOUSE & STATEHOUSE: THE EVOLVING STATE GOVERNMENT ROLE IN CLIMATE CHANGE 36-39 (2002), available at

<http://www.pewclimate.org/docUploads/states%5Fgreenhouse%2Epdf>.

18. See Parenteau, *supra* note 15, at 366.

19. GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13.

20. *Id.* at 2.

21. UNFCCC, *supra* note 5.

the target levels it agreed to meet in the UNFCCC.<sup>22</sup>

Under President George W. Bush's proposed climate change action plan, greenhouse gas "intensity" is projected to decrease by 18%.<sup>23</sup> This "intensity" metric, however, is merely a ratio of greenhouse gas emissions to economic output.<sup>24</sup> Thus, as long as US economic output increases over the next decade, this metric simply means that greenhouse gas intensity will automatically decrease, even if the US does nothing to actually reduce overall emissions. The administration's own figures show a projected net increase of 14% greenhouse gas emissions over the next decade.<sup>25</sup> The current administration promotes this approach as a "serious, but measured mitigation response," and a way to avoid "harming the economy in the short term."<sup>26</sup>

Further, unlike the EU and UK climate change programs, which are based on mandatory emission reductions, stringent regulations, and incrementally stringent industry obligations, the US program is largely reliant on carbon sequestration, voluntary obligations, "business challenges," technology transfer to developing countries, and the future development of obligatory emission reduction policies.<sup>27</sup>

#### 1. President Bush's Global Climate Change Strategy

The key components of the formal United States climate change policy seek to:

- Substantially Improve the Emission Reduction Registry
- Protect and Provide Transferable Credits for Emission Reduction
- Review Progress Toward Goal and Take Additional Action if Necessary
- Increase Funding for America's Commitment to Climate Change
- Take Action on the Science and Technology Review
- Implement a Comprehensive Range of New and Expanded Domestic Policies
- Promote New and Expanded International Policies to Complement Our Domestic Program<sup>28</sup>

All of these objectives, including the goal of implementing new domestic

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22. See Parenteau, *supra* note 15, at 368.

23. GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13, at 2.

24. *Id.*

25. See Parenteau, *supra* note 15, at 368.

26. GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13, at 6.

27. See, e.g., *id.* at 3, 15.

28. *Id.*

policies, are stated in aspirational and/or ambiguous terms. Rather than focusing on mandatory commitments, regulatory programs and legal requirements, the objectives are presented using such non-committal terms as: “*propos[ing]* improvements,” “*recommend[ing]* reforms,” “*challeng[ing]* American businesses” and “*promot[ing]* [] development.”<sup>29</sup> It even qualifies future domestic measures by reference to “sound science” and are stated in non-mandatory, non-specific and non-binding terms.<sup>30</sup> For example, when discussing the review of progress toward the policy goals, the United States policy states that, “if . . . we find that we are not on track toward meeting our goal, and *sound science justifies* further policy action, the United States will respond with additional measures that *may* include a broad, *market-based* program as well as additional *incentives* and *voluntary* measures. . . .”<sup>31</sup> Thus, both current and future climate change programs are heavily qualified and largely dependant on good faith efforts by governmental and industrial actors.

Most surprisingly, the section of the United States Global Climate Change Policy Book discussing the implementation of a comprehensive range of new and expanded domestic policies fails to outline any truly obligatory programs for government, industry or the public sector.<sup>32</sup> Central objectives for future domestic climate change policies include:

- Tax Incentives for Renewable Energy, Cogeneration and New Technology
- Business Challenges
- Transportation Programs
- Carbon Sequestration<sup>33</sup>

These goals are laudable and even essential to future efforts to address global climate change. First among these proposed policies is the tax incentive scheme. The goal of this scheme is to commit \$4.6 billion to clean energy tax incentives over the next five years.<sup>34</sup> The goal of these tax credits is to encourage investments in new and existing renewable technologies. Shifting away from a carbon-based economy is essential to combating climate change in the long-term. These incentives are essential in making this shift. However, it remains to be seen whether the government will follow through on its commitment to clean energy incentives, whether the level of these incentives will be sufficient, and

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29. *Id.* at 3, 4, 21.

30. *Id.* at 8.

31. *Id.*

32. *Id.* at 15.

33. *Id.* at 3.

34. *Id.* at 3, 8.



whether the incentive programs will be effectively designed and implemented. Significantly, one essential component that this objective omits is an obligatory commitment to renewable energy. For example, the United Kingdom has put in place a Renewable Obligation Commitment, requiring all electricity producers to provide at least 10% of their electricity from renewable sources.<sup>35</sup> This program will be discussed in detail in a later section, but it demonstrates how obligations can be incorporated along with incentives in the battle against climate change. The 2005 US Energy Act provides generous production tax credits for various renewable energy options, but it fails to provide for a national renewable portfolio standard or for anything comparable to the UK Renewable Obligation Commitment program.<sup>36</sup>

Second among the goals for domestic policies is a challenge to business.<sup>37</sup> In an effort to gain support for industry in the fight against climate change, President Bush has “challenged American businesses to make specific commitments to improving the greenhouse gas intensity. . . .”<sup>38</sup> States cannot meet individual or Kyoto commitments without the assistance of industry. To this end, the President’s ambition of involving industry in this challenge is of obvious importance. However, at this point in time, current policy makers, likely in order to avoid short-term economic harm, have chosen to rely on *challenging* business instead of *requiring/obligating* business to address climate change. And, again, even here, the challenge is framed in terms of greenhouse gas intensity rather than absolute reductions in greenhouse gas emissions.<sup>39</sup>

The third category of policy seeks to improve domestic transportation programs.<sup>40</sup> Goals of the transportation policies include the “FreedomCAR” initiative,<sup>41</sup> incentives for fuel cell technology research, tax credits for hybrid and fuel cell vehicles, modifications for the corporate average fuel economy standards (CAFE), a tire pressure monitoring system, and new agreements with private industry to develop

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35. United Kingdom Utilities Act, 2000 c. 27 (Eng.), available at <http://www.opsi.gov.uk/acts/acts2000/20000027.htm>.

36. Energy Policy Act of 2005, 42 U.S.C. §§ 15801-16524 (2005).

37. See GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13, at 3, 11.

38. *Id.*

39. *See id.*

40. *See id.* at 3, 8.

41. “On January 9, 2002, Energy Secretary Abraham, with the heads of General Motors, Ford Motor Co. and the Chrysler arm of DaimlerChrysler, announced a new partnership, FreedomCAR (Cooperative Automotive Research), to promote the development of hydrogen as the primary fuel for cars and trucks. The “FreedomCAR” program embraces the long-term strategic goal of developing a new breakthrough technology – the hydrogen-powered fuel cell – with a vision of ultimately eliminating our reliance on foreign oil.” GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13, at 12.

more efficient automobiles.<sup>42</sup> Transforming heavily fossil fuel transportation systems is a critical component of any state's climate change program. Nowhere is this more important than in the United States, which both profoundly depends on cars and has the technological and financial resources to pave the way for alternative transportation technologies. Here, again, the US's policy goals are admirable but fail to go far enough. Research initiatives are healthily funded, but tax credits lag and US CAFE standards are weak. In fact, US CAFE standards, while effective in the early years of development, have been frozen for many years and have failed to keep pace with technological development; recent political administrations have done very little to improve this situation.<sup>43</sup>

The fourth area of domestic policy receiving attention under current climate change policies is carbon sequestration.<sup>44</sup> Carbon sequestration<sup>45</sup> provides an important but, at best, limited solution to climate change. Carbon sequestration is often seen as a less costly and economically disruptive method of reducing greenhouse gas concentrations.<sup>46</sup> The United States is the country that pushed for carbon sequestration provisions under the Kyoto Protocol.<sup>47</sup> Despite winning the battle to be able to count carbon sequestration towards national greenhouse gas emission limitations under Kyoto, the United States failed to sign the Kyoto Protocol.<sup>48</sup> The United States, unlike the European Union and the United Kingdom, has made carbon sequestration a significant component of its climate change policies.<sup>49</sup>

The main areas affected by US carbon sequestration policies are agriculture and wetland protection. For example, the Conservation Reserve Program is a voluntary program that provides incentives for farm owners and operators to set aside environmentally sensitive land.<sup>50</sup>

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42. *Id.* at 8-20.

43. See Robert R. Nordhaus & Kyle W. Danish, *Assessing the Options for Designing a Mandatory U.S. Greenhouse Gas Reduction Program*, 32 B.C. ENVTL. AFF. L. REV. 97, 106 (2005).

44. See GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13, at 3-9, 14-17.

45. The United States Environmental Protection Agency defines carbon sequestration as "[t]he uptake and storage of carbon. Trees and plants, for example, absorb carbon dioxide, release the oxygen and store carbon. Fossil fuels were at one time biomass and continue to store the carbon until burned." EPA Global Warming Site, Glossary of Climate Change Terms, <http://www.epa.gov/opeoeel/globalwarming/glossary.html> (last visited Apr. 15, 2006).

46. For a discussion of carbon sequestration, see, e.g., Allen Keiser, *Carbon Sequestration Options Under the Clean Development Mechanism to Address Land Degradation*, 92 WORLD SOIL RES. REP. 7, 7-11 (2000).

47. See Parenteau, *supra* note 15, at 365-366.

48. *Id.*

49. See generally GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13.

50. Farm Security and Rural Investment Act of 2002, 7 U.S.C. § 7901 (2002);

The Environmental Quality Incentives Program helps farmers to make environmentally sensitive decisions in how to manage their lands.<sup>51</sup> Similarly, the Wetland Reserve Program is a voluntary program that seeks to increase the amount of wetland that will be aside for protection each year.<sup>52</sup> All of these programs represent important steps in re-thinking the way we use and manage land. However, all of the programs are voluntary, and the scope of the projects and the resources committed to the projects are modest compared to the magnitude of the problem. The programs provide excellent stepping stones, but they need to be further improved by expanding the scope of the projects, providing better and more consistent funding, and encouraging wider participation both by providing incentives and by adding obligations.

The domestic policies this administration is promoting represent essential but baby steps in formulating an effective domestic climate change policy strategy. All of the current policies promote commendable objectives but, compared to the resources at the United States' disposal and the heavy responsibility the United States bears for past and present greenhouse gas emissions, the programs are minimal and, arguably, lax.

More importantly, the US policies completely fail to address a critical component of climate change policy—the public sector. Current policies focus on research and changes in the way governmental bodies and businesses think about and respond to climate change. They do not, however, address the role of the larger general public. While industry may represent the most significant point sources of greenhouse gas emissions, the public sector—especially domestic homes and transport—contribute to daily emissions. Thus, many policy-makers believe that the public needs to be given a more central role and more responsibility in addressing climate change.<sup>53</sup> To this end, domestic climate change policies need to provide the public with the information, tools, and incentives necessary to ensure active public participation. Involving the public in efforts to halt climate change is a necessary step towards moving away from a carbon based economy.

A final component of the US' climate change strategy is a commitment to promoting international cooperation that compliments

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Conservation Reserve Program, 16 U.S.C. § 3843 (2002).

51. *Id.* at 16 U.S.C. § 3839aa-9.

52. *Id.* at 16 U.S.C. § 3837.

53. *See, e.g.*, INTERNATIONAL CLIMATE CHANGE TASKFORCE, MEETING THE CLIMATE CHALLENGE: RECOMMENDATION OF THE INTERNATIONAL CLIMATE CHANGE TASKFORCE 10-11 (2005), available at [http://www.tai.org.au/Publications\\_Files/Papers&Sub\\_Files/Meeting%20the%20Climate%20Challenge%20FV.pdf](http://www.tai.org.au/Publications_Files/Papers&Sub_Files/Meeting%20the%20Climate%20Challenge%20FV.pdf).

US policies.<sup>54</sup> Rather than working through the UNFCCC mechanisms and promoting Kyoto Protocol policies, the United States is seeking to promote international policies that are more in-line with its own approach to climate change. Many of the policies are complimentary to the UNFCCC, including investments in climate observation systems, increased funding for “debt-for-nature” conservation programs, expanded technology transfer, and cooperative research initiatives.<sup>55</sup>

While US efforts promote international cooperation to address climate change, the United States’ insistence on operating outside the auspices of the UNFCC and the Kyoto Protocol potentially undermines the legitimacy and efficacy of a powerful international framework for climate change. Managing global climate change requires concerted international effort. A solid and trusted international framework is necessary to effectively address global climate change. Thus, the United States would do well to ensure that its efforts to promote international cooperation on climate change compliment and strengthen the UNFCCC framework, and thereby contribute to a strong and effective international regime.

#### *D. United States’ State and Local Government Case Studies*

In the United States, state and local entities are making the true progress towards promoting progressive climate change policy-making. Unlike the European Union, the United States does not necessarily demand the same level of initiative among its states because the US federal government could, in theory, enact a command and control style framework climate change statute—in the same vein as the Clean Air Act,<sup>56</sup> the Clean Water Act,<sup>57</sup> or the Endangered Species Act<sup>58</sup>—that requires states to meet federal requirements in a specific way. This type of command and control style environmental law, however, has become both politically unpopular and increasingly difficult to adopt and implement. Additionally, in the context of climate change, the US federal government has demonstrated little interest in enacting any comprehensive and binding regulatory regime, much less one that is based on strict federal guidelines, rigid deadlines, and firmly established methods of meeting federal objectives. At the moment, in the absence of a strong federal regime, states have become the arbiters of change.

Faced with weak federal efforts to address climate change, states

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54. See GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13, at 4-5, 15-19.

55. See *id.*

56. 42 U.S.C. §§ 7401-7671(q) (2000).

57. 33 U.S.C. §§ 1251-1376 (2000).

58. 16 U.S.C. §§ 1531-44 (2000).

such as California and New York and cities such as Portland and Philadelphia are choosing to follow in the footsteps of the European Union. In fact, the policies and ideologies of these state and local entities increasingly have more in common with one another and with European nations and cities than they do with their own national government. So, leaving the United States federal government to sputter and stall, cosmopolitan states and cities are moving forward by learning from and mimicking climate change experiences and policies from abroad.

California is a prime example of this phenomenon. As will be discussed in more detail below, California climate change policies more closely resemble the policies of parties to the Kyoto Protocol than US policies. The following section will review several case studies that reveal how US state and local policy-makers are finding ways to implement climate change policies and how these climate change policies promote concrete and measurable steps towards developing a comprehensive climate change regime more in the vein of the European Union and EU states, such as the United Kingdom.

#### 1. State Programs

The increasingly active role of states in climate change policy reflects awareness of how climate change will affect states' economies and natural environments, including "the likely effects of climate change on agriculture, forestry, the availability of water, public health, and other areas of traditional state responsibility."<sup>59</sup>

States are playing a particularly active role in adopting greenhouse gas emission policies.<sup>60</sup> As early as 1997, states were addressing global climate change. Oregon initiated state policy-making efforts.<sup>61</sup> In 1997, the Governor of Oregon, John Kitzhaber, signed into law the first law in the nation to set carbon dioxide standards for new energy facilities in the state.<sup>62</sup> And, in 2000, New Jersey established state-wide targets for reducing greenhouse gas emissions based on voluntary public and private programs.<sup>63</sup> A year later, in 2001, Massachusetts upped the ante by becoming the first state to establish carbon dioxide emissions caps for

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59. Dernbach, *supra* note 16 at 173.

60. *See generally*, McKinstry, *supra* note 12.

61. *See* PROGRESSIVE POLICY INSTITUTE, STATE AND LOCAL GOVERNMENTS AND CLIMATE CHANGE (2003), [http://www.ppionline.org/ppi\\_ci.cfm?knlgAreaID=116&subsecID=900039&contentID=251285](http://www.ppionline.org/ppi_ci.cfm?knlgAreaID=116&subsecID=900039&contentID=251285) [hereinafter STATE AND LOCAL GOVERNMENTS AND CLIMATE CHANGE].

62. *Id.*

63. *See* Rabe, *supra* note 17.

power plants.<sup>64</sup> Massachusetts' regulation mandates that the six largest and dirtiest power plants in the state cut sulfur dioxide and nitrogen oxide emissions by 50-70%, and carbon dioxide emissions by 10%, as well as reducing mercury releases.<sup>65</sup> Thus, by 2001, Massachusetts had managed to do what the federal government still has no plans to do—regulate carbon dioxide.

In addition to state's setting limits on greenhouse gas emissions, numerous states, including California, Texas, and Massachusetts, have implemented standards for increasing the amount of electricity generated from renewable energy sources.<sup>66</sup> States are also taking the lead in developing methods for identifying and tracking sources of greenhouse gas emissions. These are just a few examples of states that are taking measures to address global climate change by curbing greenhouse gas emissions; numerous other states have adopted or plan to adopt greenhouse gas emission regulations, including New York, New Hampshire, North Carolina, Florida, and Illinois, to name a few.<sup>67</sup> In addition, states are taking a leading role in addressing greenhouse gas emissions from motor vehicles, adopting legislation that exceeds the minimum regulatory requirements of the US Clean Air Act.<sup>68</sup>

a. California's Greenhouse Gas Emissions Law

California has taken an early and bold role in tackling climate change at the state level. On July 22, 2002, the former governor of California, Gray Davis, approved legislation that makes California the first US state to regulate greenhouse gas emissions from motor vehicles.<sup>69</sup> California's legislation requires that "no later than January 1, 2005, the state board shall develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of greenhouse gas emissions from motor vehicles."<sup>70</sup> While an earlier Assembly version of the bill regulated only carbon dioxide, the bill was amended in the Senate to include all greenhouse gases.<sup>71</sup> California's greenhouse gas regulations were to take effect on January 1, 2006 and were only to apply to motor vehicles manufactured in or after the 2009 model year and sold

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64. *Id.* at 16-18.

65. *Id.*; see also STATE AND LOCAL GOVERNMENTS AND CLIMATE CHANGE, *supra* note 61.

66. See, e.g., Rabe, *supra* note 17.

67. *Id.*

68. See generally Rachel L. Chanin, *California's Authority to Regulate Mobile Source Greenhouse Gas Emissions*, 58 N.Y.U. ANN. SURV. AM. L. 699 (2003).

69. *Id.* at 699.

70. 2002 Cal. Legis. Serv. Ch. 200, 3(a) (West 2002).

71. A.B. 1058, 2(a), 2001-02 Leg., Reg. Sess. (Cal. 2001) (as amended May 31, 2001), WL 2001 CA A.B. 1058 (NS).

in California.<sup>72</sup> Thus, the law only applies to motor vehicles sold in California and regulates vehicle emissions, rather than vehicle fuel economy standards. Despite its narrow geographic and technical confines, this legislation has significant national implications. To begin, the legislation is significantly more progressive than national efforts to combat climate change. In fact, the legislation runs contrary to President Bush's current climate change and air quality policies, which focus on voluntary agreements rather than mandatory regulation and which have backed away from rather than expanded or enforced existing federal air pollution laws, e.g., the Clean Air Act.<sup>73</sup> Further, California has always played the role of trailblazer in the field of environmental law. This legislation is no different. Furthermore, as in the past, it is likely that California's efforts will serve as a catalyst for other states to adopt similar climate change policies. For example, Connecticut and New Jersey have already adopted similar greenhouse gas emissions legislation.<sup>74</sup>

California's greenhouse gas legislation is particularly relevant to this discussion because it demonstrates the "growing effort by local, state and foreign governments to seize the initiative since President Bush has been reluctant to act."<sup>75</sup> In fact, proponents of the legislation candidly expressed their frustration with the federal government's failure to address climate change and suggested that California was filling the void and leading the way towards more progressive policies.<sup>76</sup> Thus, frustrated with the United States' disappointing stance on climate change, California is attempting to lead a mutiny from within. California's greenhouse gas legislation demonstrates the increasing importance of state actions in the area of environmental policy-making and states' growing willingness to adopt policies that surpass, or even conflict with national policies. California's victory, however, was short lived. Even before former Governor Davis signed the legislation into law, major automakers expressed extreme opposition to the bill, fearing that it would cost automakers billions of dollars to manufacture vehicles that met the California emission standards.<sup>77</sup> And, in January 2005, 13

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72. See Chanin, *supra* note 68, at 705-706.

73. See generally GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13; see also SIERRA CLUB, WAITING TO INHALE: BUSH ADMINISTRATION POLICIES MEAN MORE DIRTY AIR (2004).

74. See generally Rabe, *supra* note 17.

75. See Chanin, *supra* note 68, at 703 (citing Gary Polakovic, *Assembly Bill Targets Global Warming Trend*, L.A. TIMES, Jan. 26, 2002, at B1 (quoting Dan Sperling, director of the Institute for Transportation Studies at the University of California, Davis)).

76. *Id.*

77. See Deborah Keeth, *The California Climate Law: A State's Cutting-Edge Efforts to Achieve Clean Air*, 30 ECOLOGY L.Q. 715, 719 (2003).

California car dealerships and the Alliance of Automobile Manufacturers<sup>78</sup> filed a lawsuit in the U.S. District Court in Fresno alleging that the legislation violates Federal fuel economy laws and seeking to block the legislation from coming into effect in 2006.<sup>79</sup> The lawsuit is still pending and will likely evoke a ferocious battle that pits the progressive policy-makers within the State of California, supported by other states employing similar legislation, against not only the auto industry but also against the forces within the current presidential administration that oppose binding climate change policies. Nevertheless, all indicators suggest that California is not backing down from its firm stance against greenhouse gas emissions and that it has become a role model in a growing movement to address climate change at the local and regional level, in the absence of effective overarching federal policies. California's greenhouse gas legislation addresses climate change concerns directly, and constitutes only one element of California's efforts to address climate change. This initial effort will hopefully lead to even more comprehensive greenhouse gas emission programs in the future.

b. The Climate Action Plan

California is not the only state taking a progressive stance on climate change. States on the East Coast have also entered the fray. In July 2000, the Conference of New England Governors and Eastern Canadian Premiers (NEG/ECP) passed Resolution 25-9 addressing global climate change and its impacts on the environment.<sup>80</sup> NEG/ECP acknowledges that global climate change poses negative consequences both to environmental and economic health and is, thus, a trans-boundary concern demanding cooperative regional action.<sup>81</sup> After joint negotiations, the Conference developed an action plan, aptly named the Climate Change Action Plan, that "supports and complements other regional, state and provincial initiatives currently being implemented, including the NEG/ECP's Mercury Action Plan and Acid Rain Action

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78. The Alliance of Automobile Manufacturers is a Washington-based trade group represents nine automakers, including General Motors Corp., Ford Motor Co., DaimlerChrysler AG, Toyota Motor Co., BMW AG and Volkswagen AG.

79. See ENVIRONMENTAL DEFENSE, CARMAKERS SUE CALIFORNIA OVER GROUNDBREAKING CLEAN CARS LAW (2005), <http://www.environmentaldefense.org/article.cfm?contentid=4192>; Jeff Plungis, *Auto Industry Sues over California Air Plan*, AM. INT'L AUTOMOBILE DEALERS, Dec. 08, 2005, <http://www.aiadallists.org/>.

80. See The New England Governors & The Eastern Canadian Premiers (2001), <http://www.negc.org/02En003.html>.

81. *Id.* at Preamble.



Plan,”<sup>82</sup> and is designed to be compatible with the Canadian National Implementation Strategy for Climate Change.<sup>83</sup>

Following the development of the 2001 Climate Change Action Plan, in August 2002, the NEG/ECP took a second step towards regional action to address climate change by passing “Resolution 27-7 Concerning Climate Change.”<sup>84</sup> The resolution expands upon the 2001 Climate Change Action Plan by encouraging active participation of the academic sector, introducing initiatives for LED traffic lights throughout the region, and promoting energy efficient vehicle use in state and provincial fleets.<sup>85</sup> In addition, the plan contains various state and provincial measures to achieve specific greenhouse gas reduction goals.<sup>86</sup>

The NEG/ECP strategy exemplifies how regional partnerships, in the absence of strong national programs, can provide effective mechanisms for addressing environmental issues—whether it is climate change or sustainable development.

## 2. Municipal/Local Examples

Municipalities are rivaling states in their efforts to address climate change. For example, in the United States, 196 mayors from over 35 states have united to combat global climate change, with the objective of meeting the Kyoto Protocol target for the United States by reducing greenhouse gas emissions in US cities to 7% below 1990 levels by 2012.<sup>87</sup>

Officials at the local level have the advantage of being able to work directly with their constituents, including environmental, industrial, and civic representatives, to structure carefully tailored, pragmatic climate change programs. Local efforts based on cooperation and collaboration between interested parties have twofold benefits. First, the efforts facilitate policy-making that is effective in addressing climate change at the local level. Second, the local policies provide paradigms for structuring policies at the state and national level.

This section will briefly review the municipal efforts to develop climate change policies. These municipal endeavors involve both individual and cooperative programs.

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82. *Id.*

83. *Id.*

84. THE NEW ENGLAND GOVERNORS & THE EASTERN CANADIAN PREMIERS, *RES. 27-7: RES. CONCERNING CLIMATE CHANGE* (2001), <http://www.negc.org/02En003.html>.

85. *Id.*

86. *Id.*

87. U.S. Mayors Climate Protection Agreement, <http://www.seattle.gov/mayor/climate/default.htm#what> (last visited Apr. 15, 2006).

a. Cities for Climate Protection Campaign

The Cities for Climate Protection Campaign (CCP) seeks to assist local governmental efforts to reduce greenhouse gas emissions.<sup>88</sup> The CCP program, sponsored by the International Council for Local Environmental Initiatives (ICLEI), provides an umbrella organization helping cities to frame, adopt, and implement policies designed to achieve measurable reductions in greenhouse gas emissions, as well as to enhance air quality and community sustainability.<sup>89</sup> Currently, over 650 local governments are participating in the CCP and have committed to including climate change strategies into local decision-making processes.<sup>90</sup> The CCP is based on five milestones that local governments commit to when they join the CCP. The five milestones include: (1) conducting a baseline emissions inventory and forecast; (2) adopting an emissions reduction target for the forecast year; (3) developing a local action plan; (4) implementing policies and measures, e.g., energy efficiency and transport policies; and (5) monitoring and verifying progress on implementing greenhouse gas emission programs.<sup>91</sup> The milestones provide a comprehensive but flexible framework for cities to use to develop their climate change programs. The CCP exemplifies the ability and willingness of municipalities to work jointly to accomplish environmental objectives, even in the absence of strong federal leadership.

b. The City of Philadelphia, Pennsylvania

The City of Philadelphia is one of many US cities undertaking climate change initiatives. In 1999, the City of Philadelphia joined the CCP.<sup>92</sup> As a member of the CCP, the City is obligated to establish a local strategy to create a greenhouse gas emissions inventory. The City received a grant from ICLEI as well as staff support from the Commonwealth of Pennsylvania that it has used to jump-start its "Climate Wise" program, which facilitates partnerships between the City and local businesses to encourage voluntary emissions reductions.<sup>93</sup> Thus far, six Climate Wise Agreements, five Climate Wise Action plans,

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88. McKinstry, *supra* note 12, at 12.

89. See International council for local environmental initiatives- local governments for sustainability (ICLEI), Cities for Climate Protection (CCP), <http://www.iclei.org/index.php?id=800> (last visited Apr. 15, 2006).

90. *Id.*

91. *Id.*

92. Judith Samans-Dunn, *The City of Philadelphia -- The Government and Community Work Together to Reduce Greenhouse Gas Emissions*, 12 PENN ST. ENVTL. L. REV. 207, 208 (2004).

93. *Id.* at 209.

and five Letters of Support have been filed.<sup>94</sup> As well as joining the CCP and developing its “Climate Wise” initiative, the City of Philadelphia is also participating in the Greater Philadelphia Clean Cities Program, which is a US Department of Energy program designed to encourage alternate fuel vehicle programs.<sup>95</sup>

Finally, the City of Philadelphia has committed to reaching the UNFCCC global target of ensuring a 5% reduction in greenhouse gas emissions below 1990 levels by the first Kyoto Protocol commitment period, 2008-2012.<sup>96</sup> The City took this pledge one step further stating that it will attempt to achieve a 10% reduction in greenhouse gases by that time period.<sup>97</sup> As an added measure, in 2000, Mayor, John Street, introduced a Green Communities/Sustainable Lifestyles Campaign.<sup>98</sup> In these various ways, the City of Philadelphia is striving to help improve the local and global environment and offset the negative consequences of global climate change. The City’s climate change strategy is designed around tangible, measurable objectives, making addressing global climate change more manageable for the City and its citizens alike.

c. Portland, Oregon

As previously discussed, the state of Oregon passed the first law in the nation setting carbon dioxide standards for new energy facilities in the state.<sup>99</sup> The City of Portland, Oregon, has followed the lead of the State government by setting a goal of reducing greenhouse gas emissions to 10% percent below 1990 levels by 2010.<sup>100</sup> As one method for reducing greenhouse gas emissions, the City has adopted a green building standard for public facilities and building financed through the Portland Development Commission.<sup>101</sup> The City is also developing partnerships with the private sector to promote green building standards in the private sector and to encourage voluntary greenhouse gas emission reductions.<sup>102</sup> Using these and other measures, the City’s ultimate goal is to reduce greenhouse gas emissions while also creating secondary benefits, including “reduced energy demand, reduced traffic and congestion, reduced air pollution caused by automobiles, and reduced

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94. *Id.* at 211.

95. *Id.* at 209.

96. *Id.* at 208.

97. *Id.*

98. *Id.*

99. See STATE AND LOCAL GOVERNMENTS AND CLIMATE CHANGE, *supra* note 61.

100. CITY OF PORTLAND OFFICE OF SUSTAINABLE DEVELOPMENT, GLOBAL WARMING UPDATE (2001), [http://www.sustainableportland.org/engery\\_global\\_warming\\_2001\\_emissions.pdf](http://www.sustainableportland.org/engery_global_warming_2001_emissions.pdf) [hereinafter GLOBAL WARMING UPDATE].

101. *Id.*

102. *Id.*

fiscal demands upon the municipality.”<sup>103</sup>

Portland, like many US cities, is still in the early phases of developing its climate change plan. By focusing on regulatory and voluntary programs, however, it is laying the groundwork for a successful regime.

The CCP, the City of Philadelphia, and Portland’s climate change strategies reflect concurrent efforts taking place all over the United States. The buzz of activity at the local and state levels suggests the impatience of sub-national governments’ with the current stalemate among national politicians on climate change policy-making. This frustration is not confined to climate change policy-making; local governments’ are similarly keen to encourage sustainability policies, given the absence of national policies directly addressing this issue.

### 3. Climate Change Litigation In or Against the United States

State and local climate change policies create impetus for political change. These political efforts, however, are often slow to hammer away against federal inaction. One traditional avenue for directly engaging the US federal government in areas of environmental protection where legislative and executive attention lags is through the judiciary. Judicial actions can be directly addressed or appealed to the federal courts. In this way, issues otherwise under the federal radar may be able to work their way onto the political agenda.

In the context of climate change, there are three primary ways that plaintiffs, whether private citizens or the state and local officials, can use the judiciary to encourage the US federal government to address climate change. First, plaintiffs who believe climate change is harmful to them can sue the presidential administration in US federal court. Second, plaintiffs can bring actions against private companies alleging that the companies’ actions are contributing to climate change, resulting in specific harm to the parties. Third, plaintiffs can address climate change complaints against the US government to international tribunals, e.g., the International Court of Justice or the Inter-American Commission on Human Rights. In the sections that follow, this paper provides an example of each of these types of cases.

#### a. Private Suit Against the Federal Government

In 2002, two non-profit environmental groups and four cities sued the US government in federal court alleging that financial investments made by federal agencies have harmed the United States by escalating

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103. McKinstry, *supra* note 12, at 57; GLOBAL WARMING UPDATE, *supra* note 100.

the intensity of global warming.<sup>104</sup> The plaintiffs contend that, over the past 10 years, the Export-Import Bank (Ex-Im) and the Overseas Private Investment Corporation (OPIC) have granted over \$32 million in financial assistance, in direct financing and insurance, to oil and other fossil fuel ventures without first evaluating how the projects will contribute to global warming, or otherwise impact the environment in the United States as required by the National Environmental Policy Act (NEPA).<sup>105</sup> NEPA requires federal agencies to undertake environmental impact assessments for any major federal action likely to significantly impact the environment.<sup>106</sup> The plaintiffs contend that NEPA should apply equally to overseas projects that are financed by US government agencies.<sup>107</sup> Specifically, the members of the environmental groups and the cities claim that the pertinent projects produce significant amounts of greenhouse gases that contribute to global warming and impair the US environment.<sup>108</sup> Furthermore, by harming the environment, the plaintiffs have been injured.

This lawsuit is the first attempt by public or private plaintiffs to hold the United States directly accountable for its contribution to global warming. Not surprisingly, the US government has adamantly opposed the lawsuit. In fact, in 2004, Peter Watson, President and CEO of OPIC and Phillip Merrill, the former Vice Chairman and First Vice President of Ex-Im, sought a summary judgment, believing the case lacked the basis for a claim.<sup>109</sup> On August 23, 2005, however, Judge Jeffrey White, for the US District Court for the Northern District of California, denied the motion for summary judgment, allowing the case to proceed to trial.<sup>110</sup> Judge White's decision makes this the first time that a federal court has

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104. Organic Consumers Association, Global Warming Lawsuit Against U.S. Agencies Passes Court Test, <http://www.organicconsumers.org/Politics/globalwarm082505.cfm> (last visited Apr. 15, 2006); *In Landmark Decision Against Bush Administration, Federal Court Recognizes Harm Caused by Global Warming: Lawsuit by Environmental Groups and Cities Goes Forward*, CLIMATELAWSUIT.ORG, Aug. 24, 2005, <http://www.climatelawsuit.org/>.

105. *See id.*

106. The National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4347 (2002).

107. *See* Global Warming Lawsuit Against U.S. Agencies Passes Court Test, *supra* note 104; *In Landmark Decision Against Bush Administration, Federal Court Recognizes Harm Caused by Global Warming: Lawsuit by Environmental Groups and Cities Goes Forward*, *supra* note 104.

108. *See id.*

109. Defendants' Motion for Summary Judgment and Memorandum in Support, *Friends of the Earth, Inc. v. Watson*, Civ. No. 02-4106, (N.D. Cal. Feb. 11, 2005).

110. *See* Global Warming Lawsuit Against U.S. Agencies Passes Court Test, *supra* note 104; *In Landmark Decision Against Bush Administration, Federal Court Recognizes Harm Caused by Global Warming: Lawsuit by Environmental Groups and Cities Goes Forward*, *supra* note 104.

granted legal standing in a case where the alleged injury is solely based on the impacts of global warming and where the challenge is based on the US government's failure to assess the impact of its actions on the global atmosphere and the US citizenry.<sup>111</sup>

b. State Suit Against Private Industry

While it is imperative that the US government plays a leading role in addressing climate change, it is equally important that private industry in the United States actively participates in these efforts. Private companies are primary sources of greenhouse gas emissions in the United States. Ensuring their participation, either through regulatory regimes or financial incentives, is essential. Currently, however, there is no federal regulatory system ensuring that private industry substantially reduces its greenhouse gas emissions. Recognizing the importance of private sector participation, on July 21, 2004, eight US states, including California, Connecticut, Iowa, New Jersey, New York, Rhode Island, Vermont and Wisconsin, and New York Cited filed a public nuisance lawsuit in the US federal court of Manhattan against five of the United States largest power companies, Cinergy Corp., Southern Company, Xcel Energy, American Electric Power (AEP), and the Tennessee Valley Authority.<sup>112</sup> The plaintiffs allege that the defendants' practices constitute a public nuisance.<sup>113</sup> The lawsuit is unique, however, in that the plaintiffs are not seeking any monetary damages. Instead, the plaintiffs are asking the companies to reduce their CO<sub>2</sub> at 174 plants by 3% per year over the next 10 years.<sup>114</sup> The plaintiffs claim that the companies already have access to technology that will enable them to produce the same amount of electricity while simultaneously ensuring significant CO<sub>2</sub> emission reductions.<sup>115</sup>

This lawsuit is still in the early phases of development. There is little doubt that the plaintiffs will face staunch resistance from the defendant companies, and possibly, even from the federal government. Nevertheless, this is a revolutionary case. It allows state and city governments to show both the federal government and the private sector that, even in the absence of a strong federal climate change regime,

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111. *See id.*

112. *See* Press Release, Climate Justice Program, U.S. Utilities Sued Over Climate Change (July 21, 2004), <http://www.climatelaw.org/media/eight.states.sue>; Bob Egelko, *States to Sue EPA Over Refusal to Restrict Tailpipe Greenhouse Gases: Bush Expressed Doubts on Link Between Emissions, Global Warming*, SAN FRANCISCO CHRONICLE, Oct. 4, 2003, at A-5.

113. *See id.*

114. *See id.*

115. *See id.*

primary greenhouse gas emitters can still be held accountable for their contributions to global warming.

c. Inuit Suit Against US Government

While public and private plaintiffs are actively seeking to hold the US government and US industries accountable for contributing to climate change in the US courts, other groups are seeking recourse in international tribunals. On December 7, 2005, the Inuit people from Alaska and northern Canada filed a petition against the US government in the Inter-American Commission on Human Rights.<sup>116</sup> The case is based on the United States' contribution to and its failure to address global warming.<sup>117</sup> Specifically, the case will allege that the United States, with only 5% of the world's population, is responsible for 25% of the world's emissions, and that the US government is not only refusing to participate in the international climate change regime but is "actively impeding the ability of the global community to take collective action."<sup>118</sup>

In addition to the Inuit's claim, the government of the island nation of Tuvalu is planning to make a similar allegation against either the United States and/or Australia at the International Court of Justice.<sup>119</sup> Tuvalu is a low-lying island state and is thus especially vulnerable to climate change. Rising sea levels brought about by climate change are threatening the entire island of Tuvalu. Nevertheless, Tuvalu will have a difficult time making its case because neither the United States nor Australia is likely to agree to the jurisdiction of the International Court of Justice—the International Court of Justice's jurisdiction is based on State's voluntarily submitting to the Court's jurisdiction. Even if the International Court of Justice cannot obtain jurisdiction, the Court has the option of issuing an advisory opinion on the matter, which does not

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116. See CTR. FOR INT'L ENV'TL LAW, INUIT FILE PETITION WITH INTER-AMERICAN COMMISSION ON HUMAN RIGHTS, CLAIMING GLOBAL WARMING CAUSED BY UNITED STATES IS DESTROYING THEIR CULTURE AND LIVELIHOODS (2005), [http://www.ciel.org/Climate/ICC\\_Petition\\_7Dec05.html](http://www.ciel.org/Climate/ICC_Petition_7Dec05.html).

117. See *id.*

118. Yuill Herbert, *President Bush, See You in Court Judging the cost of climate change*, THE DOMINION, <http://www.tuvaluislands.com/news/archives/2004/2004-08-25.htm> (last visited Apr. 15, 2006).

119. *US Faces Legal Battles as Climate Bogeyman*, PLANETARK.ORG, Aug. 30, 2002, <http://www.planetark.org/dailynewsstory.cfm/newsid/17512/newsDate/30-Aug-2002/story.htm> (last visited Apr. 15, 2006); *Tuvalu and Greenpeace Sue US for Global Warming; Russia Ratifies: Kyoto Confirmed!; Colombia Invokes US-Style PATRIOT Act as Washington Pours in More Money*, THE-EDGE.ORG, Sept. 20, 2002, <http://www.earthisland.org/project/newsPage2.cfm?newsID=237&pageID=177&subSiteID=44> (last visited Apr. 15, 2006).

have a binding effect but is highly regarded by the international community.

Both the Inuit and the Tuvalu cases will attract considerable public attention. Neither case, however, is likely to have any binding effect on the defendant States. Nevertheless, the decision by affected groups to challenge the United States' climate change strategy in international tribunals suggests that, both within the United States and extra-jurisdictionally, people are increasingly willing and able to contest the United States' current stance on climate change.

#### 4. Overview of Case Studies

State and municipal policy-making coupled with on-going litigation reflects increasing intolerance for federal inactivity in the United States. The examples here reviewed provide only a small glimpse into the myriad of activities taking place within the United States on the climate change front. These case studies reveal that at all levels of sub-national government, there are countless political and civic leaders striving to implement the objectives of the Kyoto Protocol, and, at the same time, to integrate climate change strategies with on-going environmental and sustainability strategies. And, because climate change is a pressing issue with local, national and international dimensions, both national leaders trying to read the political mood of the country and local constituents closely watch the local and state strategies. The more sub-national climate change strategies that are implemented, monitored, and proved successful in meeting their measurable objectives, the more the national government appears weak for failing to execute and meet concrete climate change goals.

One of the primary issues that these case studies reveal is the gaping absence of a comprehensive, overarching US federal climate change strategy. Regardless of how active and aggressive local and climate change policies are or become, in the absence of full federal involvement, it will be an uphill battle to address climate change in the long-term. This is true because, in the absence of federal participation, policy-makers must anticipate problems, including federal preemption of local and state programs, competitive disadvantage and the lack of market security suffered by national industries, on-going judicial challenges of local and state programs, and the absence of federal government pressure to encourage big businesses to support voluntary programs.

However, the most important thing that these case studies show is that, confronted with the Federal Government's failure to join the international climate change regime and faced with disappointing



attempts to develop a comprehensive and progressive national climate change policy, individual state and local governments have risen to the challenge of pushing forward with climate change policies.

State and local governments are not the only entities putting pressure on the US government to modify its climate change policies. Recently, federal government and federally sponsored organizations have departed from the strict administrative line and suggested that climate change should be taken more seriously. For example, a recent Pentagon report, commissioned by influential Pentagon defense advisor, Andrew Marshall, surfaced despite efforts within the government to suppress the public release of the document.<sup>120</sup> This report suggests that “abrupt climate change could bring the planet to the edge of anarchy as countries develop a nuclear threat to defend and secure dwindling food, water and energy supplies.”<sup>121</sup> The surfacing of this memorandum suggest that divisions within the federal government exist and that the current administration’s hard-line against domestic or international limits on carbon dioxide emissions no longer receives absolute political support, even among presumed political allies.

In addition to the Pentagon report, a 2001 National Academy of Sciences (NAS) report confirmed the reality of human-induced global climate change, stating, “Greenhouse gases are accumulating in earth’s atmosphere as a result of human activities, causing surface air temperatures and subsurface ocean temperatures to rise.”<sup>122</sup> President Bush commissioned The NAS report; the report was written by 11 leading atmospheric scientists, including previous skeptics of global climate change. The NAS report “confirms once again the broad scientific consensus that has emerged over the last decade—that human-caused climate change is underway, and if ignored, could have severe impacts on natural and managed ecosystems and human systems, such as health and water resources.”<sup>123</sup> Commissioned by the President and supporting the general conclusions of the Intergovernmental Panel on Climate Change (IPCC), this NAS report places more pressure on the current administration to bring national climate change policies into line with international policies, as elaborated by the Kyoto Protocol.

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120. See Mark Townsend & Paul Harris, *Now Pentagon Tells Bush: Climate Change Will Destroy Us*, THE OBSERVER, Feb. 22, 2004, available at <http://observer.guardian.co.uk/international/story/0,6903,1153513,00.html>.

121. *Id.*

122. COMMITTEE ON THE SCIENCE OF CLIMATE CHANGE, DIVISION ON EARTH AND LIFE STUDIES, NATIONAL RESEARCH COUNCIL, CLIMATE CHANGE SCIENCE: AN ANALYSIS OF SOME KEY QUESTIONS (2001), available at <http://books.nap.edu/books/0309075742/html/>.

123. Union of Concerned Scientists, NAS Report: Climate Change Science: An Analysis of Some Key Questions, [http://www.ucsusa.org/ssi/climate\\_change/nas-report-climate-change-science.html](http://www.ucsusa.org/ssi/climate_change/nas-report-climate-change-science.html) (last visited Apr. 15, 2006).

Finally, in a speech at the most recent UN climate change conference in Montreal, former President Bill Clinton stated that the Bush administration is “flat wrong” in asserting that reducing greenhouse gas emissions to combat global climate change would harm the US economy.<sup>124</sup> As a well-respected member of the international community, President Clinton’s comments struck a cord with many of the delegates present in Montreal and exerted considerable pressure on President Bush’s Administration to re-think its current stance on global climate change policies. Thus, cracks are starting to emerge in the Bush administration’s approach to climate change strategy.

#### *E. The European Union’s Climate Change Policies*

As discussed, the European Union, EU member states, and the United States have all adopted climate change policy programs. The EU regional and national programs differ dramatically from the US program. The primary distinction is that the European Union and the EU member states have ratified and/or approved both the UNFCCC and the Kyoto Protocol and thus are bound to meet specific international climate change obligations.<sup>125</sup>

The European Union approved the UNFCCC on December 15, 1993<sup>126</sup> and the Kyoto Protocol on April 25, 2002.<sup>127</sup> For purposes of the Kyoto Protocol, the European Union operates as a “bubble.” That is, the European Union has an overall obligation to reduce its greenhouse gas emissions to 8% below 1990 levels by the first Kyoto Compliance period, 2008-2012.<sup>128</sup> The European Union has the responsibility for determining how, as a collective whole, it will meet this target.

Within the “bubble,” the 8% reduction obligation is divided among

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124. Charles J. Hanley, *Clinton says Bush is ‘Flat-Wrong’ on Climate Change Kyoto*, ABC NEWS INT’L, Dec. 9, 2005, <http://abcnews.go.com/Technology/wireStory?id=1390510>.

125. Council Decision 2002/358, 2002 O.J. (L 130) (EC), available at <http://europa.eu.int/scadplus/leg/en/lvb/l28060.htm> (concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfillment of commitments thereunder). See also UNFCCC, KYOTO PROTOCOL STATUS OF RATIFICATION, [http://unfccc.int/files/essential\\_background/kyoto\\_protocol/application/pdf/kpstats.pdf](http://unfccc.int/files/essential_background/kyoto_protocol/application/pdf/kpstats.pdf). The Kyoto Protocol has 156 ratifications, accessions, and acceptances as of September 19, 2005.

126. Council Decision 94/69, 1993 O.J. (L 033) (EC) (concerning the conclusion of the United Nations Framework Convention on Climate Change).

127. Council Decision 2002/358, 2002 O.J. (L 130) (EC), available at <http://europa.eu.int/scadplus/leg/en/lvb/l28060.htm> (concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfillment of commitments thereunder).

128. *Second ECCP Progress Report: Executive Summary*, supra note 11.

EU member states according to historical contribution to greenhouse gas emissions and national capacity to reduce emissions.<sup>129</sup> Each individual EU country is responsible for meeting its EU greenhouse gas emission reduction targets and for establishing national climate change policies.<sup>130</sup> Thus, for instance, under the EU scheme, the UK's Kyoto obligation is to cut emissions by 12.5% below 1990 levels by 2008-2012<sup>131</sup> and Germany's obligation is to cut emissions by 21% below 1990 levels by 2008-2012 while Greece and Ireland are actually permitted to increase their emissions from 1990 levels in the first compliance period—Greece by 25% and Ireland by 13%.<sup>132</sup> Once a country's emission reduction obligation has been established, the country is free, within the parameters of EU guidelines, to determine how it will meet its obligation. Countries are free to establish more ambitious reduction goals.<sup>133</sup> For example, the United Kingdom has set an ambitious domestic goal of cutting emissions by 20% below 1990 levels by 2010.<sup>134</sup> At a minimum, however, each country must meet its specific obligation in order to ensure that the European Union meets its 8% reduction target.

Analysis of the EU's current climate change policies reveals that the European Union has a multifaceted program designed with the ambitious goal of exceeding its Kyoto Protocol obligations.<sup>135</sup> The European Union began formulating climate change policies as early as 1991, when it developed its first Community wide strategy for limiting carbon dioxide emissions and improving energy efficiency.<sup>136</sup> The EU climate change program operates an umbrella program that not only sets minimum emission reduction requirements for its member states but also provides a forum for community-wide coordination, voluntary programs and trading schemes. Key European community-level measures already

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129. See Council Decision 2002/358, 2002 O.J. (L 130) (EC), available at <http://europa.eu.int/scadplus/leg/en/lvb/l28060.htm> (concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfillment of commitments thereunder).

130. See Joseph A. Kruger & William A. Pizer, *Greenhouse gas trading in Europe: the New Grand Policy Experiment*, 46 ENV'T 8 (2004).

131. DEPT. OF THE ENV'T, TRANSPORT & THE REGIONS (DETR), CLIMATE CHANGE THE UK PROGRAMME: SUMMARY (2003) [hereinafter DETR].

132. Press Release, Commission of the European Community, U.N. Conference on Climate Change: EU Set to Keep Momentum in the Global Fight Against Climate Change (Dec. 3, 2004).

133. Council Decision 2002/358, 2002 O.J. (L 130) (EC), available at <http://europa.eu.int/scadplus/leg/en/lvb/l28060.htm> (concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfillment of commitments thereunder).

134. See DETR, *supra* note 131.

135. See *Second ECCP Progress Report: Executive Summary*, *supra* note 11.

136. EUROPA, European Union Greenhouse Gas Emission Trading Scheme (2005), <http://europa.eu.int/comm/environment/climat/emission.htm> [hereinafter EU ETS].

in place include:

- a directive to promote electricity from renewable energy
- an Environmental Action Program providing for the establishment of a Community-wide Emission Trading System by 2005
- voluntary agreements between the European Commission and the European, Japanese and Korean car manufacturers to improve the fuel efficiency of new cars;
- measures under the Community-wide SAVE program which aim to improve energy efficiency and reduce the environmental impact of energy use in the transport, industry, commerce and domestic sectors, including proposals on the taxation of energy products;
- the European Best Practice Initiative, which showed the scope for coordinated action on energy efficiency best technology deployment across the European Union, and is based on the successful UK Energy Efficiency Best Practice Program;
- regulations, such as the Integrated Pollution Prevention and Control and Landfill Directives; and
- measures to raise the energy efficiency of appliances and equipment, including mandatory labeling, industry wide agreements and minimum standards.<sup>137</sup>

The core of the EU's climate change strategy is the European Climate Change Programme (ECCP), which was launched in 2000.<sup>138</sup> The stated goal of the ECCP is to "identify and develop all the necessary elements of an EU strategy to implement the Kyoto Protocol."<sup>139</sup> The development and implementation of the ECCP involves numerous stakeholders, including the EC, member states, industry and environmental groups.<sup>140</sup>

During the first phase of the ECCP, 2000-2001, the focus was on formulating policies aimed at the economic sectors most associated with greenhouse gas emissions, including the energy, transport and industry sectors.<sup>141</sup> To achieve this goal, the EC established working groups to

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137. See *Second ECCP Progress Report: Executive Summary*, *supra* note 11.

138. See *id.*

139. Commission of the European Community, Climate Change Homepage, European Climate Change Programme (ECCP), [http://europa.eu.int/comm/environment/climat/home\\_en.htm](http://europa.eu.int/comm/environment/climat/home_en.htm) (last visited Apr. 15, 2006) [hereinafter Climate Change Homepage].

140. See *Second ECCP Progress Report: Executive Summary*, *supra* note 11.

141. See *id.*

analyze the problem and make policy recommendations.<sup>142</sup> The result of the first round of working groups was the 2001 ECCP Report, identifying 42 measures that could potentially lead to double the emission reductions required of the European Union by the first Kyoto Compliance Period.<sup>143</sup> Further, the strategy was designed to achieve these emission reductions in a cost-effective manner, i.e., less than 20€ per tonne of carbon dioxide.<sup>144</sup>

The EC used the 2001 Report to develop a package of three measures to combat climate change.<sup>145</sup> First, the EC issued the, "Communication from the Commission," outlining the implementation strategy for the first phase of the ECCP.<sup>146</sup> Second, the EC proposed a plan for the EC to ratify the Kyoto Protocol, which the EC did in April 2002.<sup>147</sup> Third, the EC recommended a Directive on Greenhouse Gas Emissions Trading, which would allow specified businesses and industries to trade their allocations for CO<sub>2</sub> emissions and, thus, reduce emissions in a cost-efficient manner.<sup>148</sup> The trading system is one of the central features of the EC umbrella program and will be discussed in more detail below.<sup>149</sup>

The primary goal of the second phase of the ECCP was to "facilitate and support the actual implementation of the priorities identified in the first phase."<sup>150</sup> By March 2005, the Commission had made substantial headway in implementing the ECCP. For example, the Commission had prepared:

- The proposal for an EU framework for emissions trading (see discussion below);
- An action plan to improve energy efficiency in the EC;
- A proposal for a Directive on the promotion of electricity from renewable energy sources in the internal electricity market;
- A communication and proposal for a Directive on the

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142. *See id.*

143. *See id.*

144. Commission of the European Community, Brochure: EU Emissions Trading: An Open Scheme Promoting Global Innovation to Combat Climate Change (2004) [hereinafter Brochure].

145. *Second ECCP Progress Report*, *supra* note 11; *see also* U. Steiner Brandt & G. Tinggaard Svendsen, *Rent-Seeking and Grandfathering: the Case of GHG Trade in the EU*, 15 ENERGY & ENV. 69 (2004).

146. *See* Climate Change Homepage, *supra* note 139.

147. *See id.*

148. *See id.*

149. *See Commission Green Paper on Greenhouse Gas Emissions Trading within the European Union*, COM (2000), available at [http://europa.eu.int/comm/environment/docum/0087\\_en.htm](http://europa.eu.int/comm/environment/docum/0087_en.htm); Brochure, *supra* note 144.

150. Climate Change Homepage, *supra* note 139.

promotion of biofuels;

- A proposal for a Directive to promote combined heat and power (CHP) biofuels;
- A communication regarding vehicle taxation.<sup>151</sup>

Further progress was made toward developing policies and measures for implementing the Kyoto Protocol's flexibility mechanisms, for reducing greenhouse gas emissions from agriculture, and for understanding the potential value of using carbon sinks in both the agricultural sector and in forests.<sup>152</sup> In addition to working toward the goals of the first phase, during the second phase of the ECCP, work focused heavily on promoting the use of renewable energy sources.<sup>153</sup>

The EC actively worked to develop renewable energy since the late 1990s. In 1997, recognizing the role of renewable energy in reducing CO<sub>2</sub> emissions, enhancing sustainability, and ensuring the security of energy supplies, the EC issued the White Paper for a Community Strategy on renewable energy.<sup>154</sup> The White Paper established a Community strategy to "double the share of renewable energies in gross domestic energy consumption in the European Union by 2010 (from the present 6% to 12%), including a timetable of actions to achieve this objective in the form of an Action Plan."<sup>155</sup> The central feature of the Action Plan is the "Campaign for Take-Off for Renewables," which creates a framework for "action to highlight investment opportunities and attract the necessary private funding which is expected to make up the lion's share of the capital required."<sup>156</sup> One of the goals of the Campaign is to facilitate both public and private investment in renewable energy. Thus far, the Campaign has maintained a high profile and focused considerable attention on key renewable sectors, including solar, wind energy and biomass.

#### 1. European Community Emissions Trading

On October 13, 2003, the European Union established a scheme for GHG Emission Allowance Trading (ETS) within the European

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151. *Id.*

152. *See id.*

153. *See id.*

154. *Commission White Paper for a Community Strategy and Action Plan, Energy for the Future: Renewable Sources of Energy*, COM (1997) 599 final (Nov. 26, 1997), available at [http://europa.eu.int/comm/energy/library/599fi\\_en.pdf](http://europa.eu.int/comm/energy/library/599fi_en.pdf).

155. EUROPA, *New and Renewable Energies: Energy for the Future: Renewable Sources of Energy*, [http://europa.eu.int/comm/energy/res/index\\_en.htm](http://europa.eu.int/comm/energy/res/index_en.htm) (last visited Apr. 15, 2006).

156. *Id.*

Community.<sup>157</sup> The ETS began operating on January 1, 2005. The EU ETS is both the first and the “largest multi-country, multi-sector Greenhouse Gas emission trading scheme world-wide.”<sup>158</sup> Joint implementation, emissions trading, and the clean development mechanism are flexibility mechanisms developed under the Kyoto Protocol to assist states in meeting emission reduction obligations.<sup>159</sup> In the European Union, the flexibility mechanisms are supplemental to domestic actions. The ETS directive promotes the use of more energy efficient technologies, including combined heat and power.<sup>160</sup> Currently, the EC scheme is limited to trading CO<sub>2</sub> but, in the long run, coverage is likely to be extended to greenhouse gases other than CO<sub>2</sub>.<sup>161</sup> The ultimate goal of the ETS is to assist Member States in meeting their Kyoto commitments by facilitating cost-effective compliance programs.<sup>162</sup>

The EU ETS is based on tradable allowances. The Member States will allocate allowances among their public and private sectors and will establish electronic registries where allowances will be held. Each Member State is responsible for creating a “National Allocation Plan,”<sup>163</sup> using EC guidelines and advice. National Allocation Plans indicated the level of CO<sub>2</sub> emission allowances each Member State proposes to allocate during the first EU ETS program, 2005-2007, and the method for distributing these allowances among the companies that are responsible for CO<sub>2</sub> emissions.<sup>164</sup>

The EC analyzes each National Allocation Plan using eleven allocation criteria,<sup>165</sup> including “consistency with the country’s overall strategy to reach its Kyoto target and emissions developments, non-discrimination, respect for European Union competition and state aid rules, and certain technical aspects.”<sup>166</sup> As of June 20, 2005, the EC had reviewed and approved—often with revisions and modifications—

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157. Commission Decision of 29/01 2004 O.J. (C 2004) 130 final; Commission Directive 2004/101 2004 O.J.; Commission Directive 2003/87/EC 2003 O.J.

158. EU ETS, *supra* note 136.

159. See Kyoto Protocol, *supra* note 4, at arts. 3, 6, 12, 16.

160. EU ETS, *supra* note 136.

161. See *id.*

162. See Brochure, *supra* note 145; see also Kruger & Pizer, *supra* note 130.

163. See Commission Regulation 2216/2004, 2004 O.J. *supra* note 159; see also Commission Directive 2003/87/EC, *supra* note 159, arts. 9-11 & Annex III.

164. See Brochure, *supra* note 145, at 11.

165. See Commission Directive 2003/87/EC, *supra* note 159, Annex II.

166. Press Release, Commission of the European Community, Emissions Trading: Commission Approves Last Allocation Plan Ending NAP Marathon, June 20, 2005, available at

<http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/05/762&format=HTML&aged=0&language=EN&guiLanguage=en>.

National Allocation Plans for 25 countries, encompassing all of the Member States participating in the 2005-2007 trading period.<sup>167</sup> Together, the National Allocation Plans account for 6.57 billion allowances from more than 11,400 installations, representing almost half of all of Europe's CO<sub>2</sub> emissions.<sup>168</sup> The EU Central Administrator will oversee the registries using the "Community independent transaction log" to monitor transactions for irregularities.<sup>169</sup> Thus, the system will resemble bank operations except that instead of monitoring the ownership and movement of money, it will monitor the ownership and movement of emission allowances. During the first two years of existence, McKinsey & Company and Ecofys will monitor and review the program in order to analyze, evaluate, and understand the functioning, impact and success of the system.<sup>170</sup>

The ETS is additional to and supplements Member States' national programs as well as Member States' participation in Joint Implementation and Clean Development Mechanism projects under Kyoto's flexibility mechanisms. It is still too early to analyze the success of the EU ETS but the basic existence and the EU's commitment to the program represents a critical step in internalizing climate change concerns into private sector decision-making.

The benefit of the EU umbrella program is that it allows for both coordinated regional programs and state-specific strategies. Early data suggests that the European Union is making progress towards meeting its UNFCCC obligation of stabilizing emissions of CO<sub>2</sub> at 1990 levels by 2000.<sup>171</sup> To date, policies and record indicate that the European Union remains committed to achieving its Kyoto obligation of achieving an 8% cut in greenhouse gas emissions by 2008-2012.<sup>172</sup>

## 2. Current Progress and Future Challenges for the European Community

While the European Union is making progress towards its climate change goals, the Second ECCP Progress Report, issued in 2003, indicates that the European Union will not meet its Kyoto target if it relies solely on measures presently in place.<sup>173</sup> The European Union could, however, both meet and exceed its target by implementing

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167. *Id.*

168. *Id.*

169. *Id.*

170. EU ETS, *supra* note 136.

171. *See Second ECCP Progress Report: Executive Summary, supra* note 11.

172. *See, e.g., id.*

173. *Id.* at 4.



additional policies and measures.<sup>174</sup> The Second ECCP Progress Report provides a realistic overview of the successes and failures of early implementation of EU climate change policies. The Report suggests that while the implementation of measures concerning supplies of energy are on track and the strategy to reduce emissions from passenger cars is largely implemented, the implementation of other measures in the transport sector have proven difficult to put in place and more action is needed to address the growth in fluorinated gases, e.g., mobile air conditioning systems.<sup>175</sup> Further, while the EU has made progress in reducing greenhouse gas emissions from the agricultural sector and in identifying the potential for carbon sequestration in agricultural soils and forests, early efforts indicate that more work is necessary in both of these areas.<sup>176</sup> Overall, the Second ECCP Progress Report reveals both the level of commitment and the daunting task ahead of the European Union in meeting its Kyoto obligations.<sup>177</sup>

Despite its apparent commitment, the induction of 10 new member states to the European Union in 2004, the slow pace of policy implementation in existing EU member states, and the results of the Second ECCP Progress Report suggest that the European Union and its member states still have considerable steps to take in order to meet their Kyoto obligation. The critical difference between the US and EU approaches, however, is the EU's willingness to develop and implement concrete measures and to use regulations and legislation in conjunction with voluntary programs to achieve absolute and measurable reductions in greenhouse gas emissions.

#### *F. The United Kingdom's Climate Change Policies*

Under the EU umbrella, the UK's Kyoto obligation is to cut emissions by 12.5% below 1990 levels by 2008-2012.<sup>178</sup> The United Kingdom has taken this obligation one step forward by setting a domestic goal of cutting emissions to 20% below 1990 levels by 2010.<sup>179</sup> Based on early reports, the United Kingdom is currently expected to cut emissions by around 13.5% below 1990 levels in 2010.<sup>180</sup>

Consider the United Kingdom as an example of an EU member state's national climate change policy, because the United Kingdom has the highest historical per capita greenhouse gas emissions and one of the

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174. *Id.*

175. *Id.* at 2.

176. *Id.* at 2-3.

177. *See generally id.*

178. *See* DETR, *supra* note 131.

179. *Id.* at 4.

180. *Id.*

higher national emission reduction obligations under the EU umbrella. In addition, the United Kingdom has taken an early and leading role in efforts to manage climate change.<sup>181</sup> Thus, the United Kingdom provides a prime case for examining the national climate change policies of an EU member state.

The United Kingdom published its first climate change program in January 1994.<sup>182</sup> Since 1994, this program has been constantly reviewed and updated. The United Kingdom's current climate change program includes:

- a climate change levy package;
- agreements with energy intensive sectors to improve business' use of energy and to stimulate investment and cut costs;
- a domestic emissions trading scheme to compliment the EU ETS;
- regulations to stimulate new more efficient sources of power generation;
- the creation of a Carbon Trust;
- obligations to cut emissions from the transport sector;
- agreements to promote new energy efficiency in the domestic sector.<sup>183</sup>

In developing its climate change strategy, the United Kingdom has focused on involving multiple stakeholders to include, government, industry, and the domestic sector. And, the UK program focuses on the benefits climate change policies will bring, including the following:

- improved energy efficiency and lower costs for businesses and householders;
- more employment opportunities through the development of new, environmental technologies;
- a better transport system;
- better local air quality;
- less fuel poverty; and
- improved international competitiveness for the United Kingdom.<sup>184</sup>

By focusing on the positive impacts of reducing greenhouse gas

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181. *See generally* DEPT. FOR ENV'T, FOOD & RURAL AFFAIRS (DEFRA), CLIMATE CHANGE IMPACTS & ADAPTATIONS RESEARCH PROGRAMME (CC03) PROJECT SUMMARIES REPORT (1987-2003) (2003).

182. DETR, *supra* note 131.

183. *See id.*

184. *Id.*

emissions, the United Kingdom hopes to provide incentives for active private sector participation in efforts to address climate change. This focus is reflected in the policies and measures set out in the UK climate change program.

Policies and measures in the UK Climate Change Strategy fall into seven basic categories targeting business, power generation, transport, domestic, building, agricultural, and public sectors.<sup>185</sup> The policies aim to facilitate business' improved use of energy, as well as to stimulate investments and reduce the costs of energy-efficient operations.<sup>186</sup> In order to achieve this goal, the strategy adopts six measures that constitute the backbone of the UK Strategy. First, the government has created a climate change levy package. The package consists of improvement targets for energy intensive sectors via climate change agreements as well as supplementary assistance for energy efficiency measures in the business sector.<sup>187</sup> Second, the Government has created a domestic emissions trading scheme that compliments the EU ETS.<sup>188</sup> The government launched the program in 2003-2004 by investing £30 million in the scheme and by establishing financial incentives for businesses to assume binding emission reduction obligations.<sup>189</sup> Third, the United Kingdom set up a Carbon Trust.<sup>190</sup> The objective of the Carbon Trust is to encourage businesses to utilize cost effective, low carbon technologies.<sup>191</sup> Fourth, as part of the climate change strategy, the government will exempt high quality CHP and renewable sources of electricity from the climate change levy.<sup>192</sup> Fifth, the UK government has established a sophisticated system of energy labels, standards, and product-related measures intended to facilitate "market transformation" in the energy efficiency of lighting, appliances and other heavily traded goods.<sup>193</sup> Sixth, and finally, the strategy includes establishing a system for integrated pollution prevention and control.<sup>194</sup>

The second arm of the strategy seeks to encourage the development of new and increasingly efficient sources of power generation.<sup>195</sup> To accomplish this goal, the United Kingdom has created a scheme known

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185. *Id.* at 6-7.

186. *See generally id.*

187. Benjamin J. Richardson & Kiri L. Chanwai, *The UK's Climate Change Levy: Is It Working?*, 15 J. OF ENV'T'L.L. 39 (2003).

188. DETR, *supra* note 131, at 6.

189. *Id.*

190. *Id.*

191. Information on The Carbon Trust is can be found at <http://www.thecarbontrust.co.uk/carbontrust/>.

192. DETR, *supra* note 131, at 6.

193. *Id.*

194. *Id.*

195. *Id.*

as the Renewables Obligation Certificates Program (ROCs), as briefly mentioned in our discussion of US climate change policies.<sup>196</sup> This program requires electricity suppliers to increase the percentage of electricity provided by renewable sources to 10% by 2010.<sup>197</sup> The United Kingdom has also set a target of doubling its CHP capacity by 2010.<sup>198</sup> CHP is a fuel-efficient energy technology that is believed to be able to increase the efficiency of fuel use to 75%+ versus the 40% efficiency achieved from conventional electricity generation.<sup>199</sup> Thus, the United Kingdom strategy is combining fiscal incentives, grant support, a regulatory framework, and government leadership and partnerships with industry to promote the growth of CHP.

The third goal of the UK strategy is to cut emissions from the transport sector.<sup>200</sup> To do this, the United Kingdom is taking part in an EU-level agreement with car manufacturers to improve the average fuel efficiency on new cars by a minimum of 25% by 2008-2009.<sup>201</sup> This effort will be accompanied by modifications to vehicle excise duties and company car taxation schemes.<sup>202</sup> In addition, the UK strategy includes a "10 Year Plan" for the transport sector.<sup>203</sup> This plan includes investing £180 billion on improving the energy efficiency of the transport sector with the objective of reduce both congestion and pollution.<sup>204</sup>

In addition to cutting emissions from the transport sector, the fourth objective of the UK strategy is to promote increased energy efficiency in the domestic sector, thereby reducing domestic emissions and enabling households to save money.<sup>205</sup> In order to involve the domestic sector in the climate change strategy, the United Kingdom has initiated a new "Energy Efficiency Commitment" (EEC) program.<sup>206</sup> The EEC will promote cooperation between gas and electricity suppliers and domestic customers, with the goal of helping elderly and low income customers conserve energy and reduce their energy bills.<sup>207</sup> The strategy also encompasses the "New Home Energy Efficiency Scheme" (HEES) in

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196. See United Kingdom Utilities Act, 2000 c 27 (Eng.), available at <http://www.opsi.gov.uk/acts/acts2000/20000027.htm>.

197. *Id.*

198. See DEPT. FOR ENV'T, FOOD & RURAL AFFAIRS (DEFRA), SUSTAINABLE ENERGY: COMBINED HEAT AND POWER (2005), <http://www.defra.gov.uk/environment/energy/chp/>.

199. *See id.*

200. DETR, *supra* note 131, at 6.

201. *Id.* at 10-11.

202. *Id.*

203. *Id.*

204. *Id.* at 7.

205. *Id.*

206. *Id.* The Energy Efficiency Commitment program is the successor to Energy Efficiency Standards of Performance (EESOP).

207. *Id.*

England as well as comparable programs from Wales and Northern Ireland, and the “Warm Deal Initiative” for Scotland.<sup>208</sup> These programs assist fuel poor households in the private sector access affordable energy. To do so, the program provides grants for insulation and improvements that will increase the energy efficiency of private homes.<sup>209</sup> Thus, the schemes aim both to alleviate fuel poverty and to increase energy efficiency. And, the “Affordable Warmth Programme” will coordinate the installation of efficient gas central heating systems and insulation in a million homes.<sup>210</sup> Finally, the UK scheme promotes the growth and improvement of community heating systems and increasingly efficient lighting, heating and other domestic appliances.<sup>211</sup>

The fifth objective of the UK strategy is to improve the energy efficiency requirements of the Building Regulations.<sup>212</sup> The Building Regulations are issued by the Office of the Deputy Prime Minister and are intended to “ensure the health and safety of people in and around buildings by providing functional requirements for building design and construction.”<sup>213</sup> In addition, the regulations advance energy efficiency in buildings.<sup>214</sup>

Sixth, the UK strategy targets the agricultural sector.<sup>215</sup> One of the key goals of the UK policies is to reduce emissions from agriculture by improving countryside management, reducing fertilizer use, preserving and managing forests, and improving energy efficiency across the board within agricultural practices.<sup>216</sup>

The seventh and final goal of the UK strategy is to ensure that the public sector assumes a leading role in managing climate change.<sup>217</sup> To promote this objective, the UK government has set new targets for improving the energy efficiency of public buildings, local authorities, schools and hospitals, and is developing green travel plans for public officials.<sup>218</sup>

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208. *Id.* at 11.

209. DETR, *supra* note 131, at 8.

210. *Id.*

211. *Id.* at 8.

212. DETR, *supra* note 131, at 7.

213. Information on these regulations can be found on the homepage for the Office of the Deputy Prime Minister, “Building Regulations” available at [http://www.odpm.gov.uk/stellent/groups/odpm\\_buildreg/documents/sectionhomepage/odpm\\_buildreg\\_page.hcsp](http://www.odpm.gov.uk/stellent/groups/odpm_buildreg/documents/sectionhomepage/odpm_buildreg_page.hcsp) (last visited Apr. 15, 2006).

214. *Id.*

215. DETR, *supra* note 131, at 7.

216. *See, e.g.*, National Farmers Union, UK Agriculture & Climate Change, available at [http://www.nfu.org.uk/stellentdev/groups/public/documents/policypositions/ukagricultureandcli\\_ia432192b6.pdf](http://www.nfu.org.uk/stellentdev/groups/public/documents/policypositions/ukagricultureandcli_ia432192b6.pdf) (last visited Apr. 15, 2006).

217. DETR, *supra* note 131, at 7.

218. *Id.*

While one of the primary objectives of the strategy is to meet the UK's Kyoto Protocol obligations, the policies and measures the UK government is putting into place focus on impeding climate change in the long-term, well beyond 2012. Relying on a combination of regulations, partnerships, incentives, and innovation, UK emissions are now expected to be about 13.5% below 1990 levels in 2010.<sup>219</sup>

*G. United States, European Union and United Kingdom Climate Change Policies Compared*

Climate change policy-making is an inherently complex task. Scientific complexities, technological capabilities, economic well-being, social differences, and—perhaps most importantly—political will and commitment determine when and how States develop climate change policies. As the previous section demonstrates, even among the most affluent and technologically advanced States, climate change policies vary significantly. Recognizing the difficulties intrinsic in environmental policy-making and the differences in levels of responsibility and resources to respond to environmental problems, States often negotiate international environmental agreements to establish a framework and baselines for environmental policy-making.

International agreements have been negotiated in the field of global climate change. The UNFCCC and the Kyoto Protocol were drafted and came into force as a result of over a decade of multilateral negotiations. These institutions reflect common international principles and goals and establish the baselines that the international community deems necessary to effectively address global climate change. Participation in these multilateral agreements is extensive but not universal. Given its decision to abstain from participating in the Kyoto Protocol, the United States is not obligated to comply with internationally agreed baselines or to meet internationally negotiated commitments. This fact is reflected in the differences between the EU, the UK and the US current climate change policies.

The key distinction between the US and the EU and UK climate change policies is the general tone of the strategies. The fact that the United States has not made any international, compulsory commitments is clearly reflected throughout the US approach. First, the United States utilizes a completely different measure for progress than the European Union or the United Kingdom. That is, instead of setting climate change goals based on reductions in GHG emissions, the United States utilizes a

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219. DETR, *supra* note 131, at 4.

GHG “intensity”<sup>220</sup> standard which, as discussed, calculates the ratio of greenhouse gas emissions in relation to economic output. Thus, while the European Union and United Kingdom calculate GHG emissions based on absolute discharges regardless of economic activity, the United States relates GHG to economic prosperity.

Second, the European Union and the United Kingdom have established firm regional and national GHG emission reduction goals, e.g., 8% and 20%<sup>221</sup> below 1990 levels between 2008-2012. The United States, on the other hand, has not established a specific GHG emission reduction objective. Instead, the United States has merely stated that its GHG “intensity” is projected to decrease by 18% while projecting and overall GHG increase of 14%.<sup>222</sup>

Third, the climate change policies of all three entities focus on integrating regulatory policies, market based/incentive programs and voluntary agreements. The EU and the UK climate change strategies embody mandatory programs and obligations that serve as a regulatory backstop that are complimented by market-based programs and voluntary agreements. Conversely, the United States climate change strategy relies primarily—almost solely—on market-based programs and voluntary collaboration with the private sector without the supporting backbone of a strong regulatory program. That is, the United States program provides lots of carrots but without any sticks.

Fourth, the European Union and the United Kingdom actively support regional and local programs that compliment and extend the centralized climate change strategies. Meanwhile, in the United States, state and local policy-makers are adopting climate change legislation that, in many cases, is more progressive than existing national policies and puts pressure on the national government to adopt a more stringent climate change strategy.

Finally, one of the principle differences between the EU, UK and US programs lies in the monitoring, enforcement, and progressive development of climate change policies. Under the Kyoto Protocol, the European Union and the United Kingdom are obligated to monitor GHG emissions and, over time, to develop increasingly ambitious climate change policies. The EU and UK strategies reflect these short and long-term responsibilities, creating State and Regional monitoring and enforcement mechanisms and long-term strategies for future climate change policies. However, the United States’ strategy focuses on

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220. GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13, at 2.

221. The UK’s commitment under Kyoto is to reduce its GHG emissions by 12.5% below 1990 levels by 2008-2012 but the UK has established a national objective of reducing its emissions to 20% below 1990 levels by 2010.

222. GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13, at 5.

research, ensuring economic stability, and encouraging public-private cooperation. While the United States has developed the “Inventory of U.S. Greenhouse Gas Emissions and Sinks” to comply with its obligations under the UNFCCC, the US climate change strategy places very little emphasis on developing comprehensive GHG monitoring mechanisms, leaving much of the onus on individual states to monitor greenhouse gas emissions.<sup>223</sup> And, because the United States lacks a comprehensive regulatory regime, there is little scope for it to develop complimentary enforcement mechanisms. Similarly, because the United States’ current climate change strategy does not include binding goals, or even *any* goals, for absolute GHG emission reduction objectives or regulatory regimes for the short-term, it is obviously premature for the United States to elaborate comprehensive long-term goals and strategies.

In these various ways, the EU and UK climate change strategies differ substantially from the US approach. While this discussion highlights key ways that the policies differ, it is in no way comprehensive. The EU, UK and US policies are multi-faceted and evolving and differ in general scope and specific application. All of the policies demand long-term observation and analysis. As the policies are implemented, monitored, and modified, the differences and the effectiveness of the various policies will become increasingly apparent. Even at this relatively early stage, however, it is imperative to observe the central differences in regional approaches so that States may learn about and from other States’ policies as they develop and modify laws and policies to address global climate change.

#### *H. Why United States and European Union Climate Change Policies Differ: A Brief Discussion*

In analyzing the basic components of the US and the EU policy change regimes and the critical ways in which they differ, the key question is *why* do they differ? The United States and the European Union are both supreme allies and supreme competitors. These two powerful entities often support one another on the international front, e.g., on security issues, while simultaneously conflicting or competing ferociously, e.g., on trade and environmental issues. Accordingly, the diverging US and EU climate change regimes likely come as no surprise to most international relations and international law experts. The key questions to consider between now and 2012 are not only what are the different policy approaches the US and the EU are employing, but also,

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223. See, e.g., U.S. EPA, US INVENTORY OF GREENHOUSE GAS EMISSIONS AND SINKS (2005).



why are they choosing these particular policies and what are the social, legal and political, and economic reasons underlying their choices. The reasons underscoring the different policies are numerous and complex, but discerning the regional motivating forces is critical to understanding how to promote effective climate change policy-making. This section does not attempt to exhaustively analyze the numerous factors motivating the different approaches. Rather, it attempts to briefly suggest some of the key factors that shape the differences between US and EU climate change strategies.

### 1. Social Factors

The United States and the European Union are both Western, democratic, capitalist entities. In global terms, e.g., compared to Asian, African or South American countries, the social structures and cultures of the United States and the European Union are more similar than distinct. In absolute terms, however, the United States and the European Union have very distinct cultures and social structures that influence policy formulation.

One of the increasingly evident cultural distinctions is different levels of public awareness and pressure for national action on domestic and international environmental issues.<sup>224</sup> Within the countries of the European Union, there is a trend wherein the average citizen is increasingly more aware of and interested in global environmental issues, such as climate change and global biodiversity protection.<sup>225</sup> This increasing awareness and concern translates to average citizens exerting more political pressure on their democratic representatives to effectively respond to these problems,<sup>226</sup> e.g., through approval and/or ratification of the Kyoto Protocol, development of a progressive community wide climate change strategy, and ratification of the Convention on Biological Diversity. In contrast, the citizens of the United States—while undoubtedly possessing many pockets of highly active and aware individuals—taken as a whole appear to be less informed and less concerned about environmental issues, such as climate change<sup>227</sup>—

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224. See generally Robert Lempert, IAI Transatlantic Programme, *Finding Transatlantic Common Ground on Climate Change*, 36 THE INT'L SPECTATOR 2 (April-June 2001), available at <http://www.iai.it/pdf/articles/lempert.pdf>.

225. See, e.g., Press Release, Commission of the European Community, Europeans Want Policy Makers to Consider the Environment as Important as Economic and Social Policies (Apr. 29, 2005), available at <http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/05/513&format=HTML&aged=0&language=en&guiLanguage=en>.

226. See *id.*

227. SUSTAINABILITY INSTITUTE, SUPPORTING EFFECTIVE PARTICIPATION IN THE CLIMATE CHANGE DEBATE: THE ROLE OF SYSTEM DYNAMICS SIMULATION MODELING 1-3

problems that are posed to be more international and long-term in character. For example, while certain US states and localities are adopting progressive climate change policies, constituents appear to be exerting very little pressure on national level politicians to enact policies relating to issues of international environmental law.<sup>228</sup> The failure of the US to ratify the Kyoto Protocol or to develop a comprehensive and obligatory nation greenhouse gas reduction policy, or to ratify the Convention on Biological Diversity all demonstrate this lack of commitment to international environmental problems and regimes. More specifically, recent polls suggest that most US citizens do not think that the majority of available scientific evidence indicates that we need to directly and immediately address climate change.<sup>229</sup> For example, polls asking US citizens about their opinions on climate change show that:

- only 39 percent of polled US citizens agreed that “global warming is a serious and pressing problem [and] we should begin taking steps now even if this involves significant costs;”
- while 19 percent agreed that “until we are sure that global warming is really a problem, we should not take any steps that would have economic costs;”
- and another 39 percent agreed that “the problem of global warming should be addressed, but its effects will be gradual, so we can deal with the problem gradually by taking steps that are low in cost.”<sup>230</sup>

Of course, some of the most vocal individual and group environmental activists are in the United States.<sup>231</sup> But, as a citizenry as a whole, the US public appears to be less informed and less concerned about pressuring its federal government to respond to international environmental issues than does the EU public. This difference is aptly reflected in recent political elections. In the most recent US presidential race, global climate change barely featured in the campaigns, and while

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(2002).

228. *Id.*

229. *See id.*; see also Richard Morin, *Beliefs About Climate Change Hold Steady*, WASH. POST, Oct. 2, 2005, available at <http://www.washingtonpost.com/wp-dyn/content/article/2005/10/01/AR2005100101191.html>; Environment Polling Reports, Polling Report.Com, <http://www.pollingreport.com/enviro.htm> (last visited Apr. 15, 2005)

230. *Id.* (citing Center on Policy Attitudes poll from November 2000).

231. For example, the Natural Resources Defense Council and Environmental Defense are to environmental organizations with domestic and international members that aggressively campaign for and pressure the US government to be a more active and cooperative player on international environmental issues.

John Kerry was a professed supporter of upping the fight against climate change, aside from a few rare moments, climate change was treated as a hot potato best to be ignored.<sup>232</sup> In contrast, political commitments to tackle climate change are regularly used as popular campaign promises in the European Union.<sup>233</sup>

In addition to internal political pressure differences, differing understandings and acceptance of the “precautionary principle” and concepts of risk likely impact US and EU policy variations. The precautionary principle, a commonly applied principle of international environmental law, states that “[w]here there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”<sup>234</sup> Since the mid 1980s, the precautionary principle has been extensively referenced and relied on in international environmental agreements. Both the United States and the European Union have incorporated the concept of the precautionary approach into their domestic environmental legislation.<sup>235</sup> They have, however, often conflicted over the use and meaning of the precautionary principle in international forums. The European Union has been the biggest proponent of the precautionary principle, arguing for its inclusion in the Biosafety Protocol to the Convention on Biological Diversity and for its inclusion in WTO decision-making.<sup>236</sup> The United States, on the other hand, has often resisted the incorporation of the precautionary principle

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232. See, e.g., Emma Marris, *Candidates Keep Quiet on Climate Change*, NEWS@NATURE.COM, Sept. 21, 2004, [http://www.nature.com/news/2004/040913/pf/040913-13\\_pf.html](http://www.nature.com/news/2004/040913/pf/040913-13_pf.html); Alister Doyle, *Kerry Winds Fans Abroad with Global Warming Plan*, REUTERS, Oct. 27, 2004, <http://www.climatecrisiscoalition.org/newsinternational2.html>.

233. See, e.g., FOUND. FOR THE ECON. OF SUSTAINABILITY, UK EUROPEAN PARLIAMENT CANDIDATES' POSITIONS ON CLIMATE CHANGE (2004), <http://www.feasta.org/events/climatecampaign/EPcandidatesUK.htm>; FOUND. FOR THE ECON. OF SUSTAINABILITY, CLIMATE CHANGE AND THE EUROPEAN ELECTIONS (2004), <http://www.feasta.org/events/climatecampaign/climatecampaignletter.pdf>; EUROPEAN ENVIRONMENTAL BUREAU, EEB BRIEFINGS FOR THE EU ELECTION CAMPAIGN (2004), [http://www.eeb.org/activities/european\\_constitution/EEB-EP-Briefing-Climate-April04.pdf](http://www.eeb.org/activities/european_constitution/EEB-EP-Briefing-Climate-April04.pdf).

234. U.N. Conference on Env. & Dev., *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/5/Rev.1, 31 I.L.M. 874 (1992) [hereinafter *Rio Declaration*].

235. See, e.g., U.S. Clean Air Act, 42 U.S.C. §§ 1251-1376 (2000); U.S. Endangered Species Act, 16 U.S.C. §§ 1531-44 (2000). See also *Communication from the Commission on the Precautionary Principle*, Brussels, Feb. 2, 2000 (2000), available at [http://europa.eu.int/comm/dgs/health\\_consumer/library/pub/pub07\\_en.pdf](http://europa.eu.int/comm/dgs/health_consumer/library/pub/pub07_en.pdf) [hereinafter *Communication from the Commission on the Precautionary Principle*].

236. Appellate Body Report, *European Communities - Measures Concerning Meat and Meat Products*, WT/DS26/AB/R, at 41-42 (Jan. 16, 1998) (adopted Feb. 13, 1998) [hereinafter *EC--Beef Hormones*].

into international environmental agreements or international decision-making, e.g., the Biosafety Protocol and the WTO dispute settlement body.<sup>237</sup> In the context of global climate change, the European Union has promoted the precautionary principle as a key underlying factor for enacting the UNFCCC and the Kyoto Protocol and for aggressively addressing climate change.<sup>238</sup> The United States, in contrast, has relied on a perceived lack of scientific certainty as a reason for postponing Kyoto-style measures to prevent climate change,<sup>239</sup> in direct contradiction to the precautionary principle.

The differing levels of willingness of the United States and the European Union to accept the precautionary approach as a general principle of international law that informs international environmental agreements and international decision-making reflects different perceptions of risk. There is a growing body of literature discussing differing cultural perceptions of risk and the impact of risk perception on policy-making. Much of this literature suggests that, beginning in the 1990s, the European Union—as compared to the United States—has become a more risk adverse society, especially in relation to consumer and environmental issues.<sup>240</sup> This trend is reflecting in the European Union's environmental policies, including its climate change strategy. Differing perceptions of long-term and inter-generational risk are reflected in the United States and the European Union's climate change policies.

## 2. Political & Legal Factors

Political and legal differences play a significant part in shaping the United States' and the European Union's climate change policies. At a very basic level, the United States is a more reluctant player in international law than is the European Union, e.g., refusing to participate in the International Criminal Court; refusing to ratify the Kyoto Protocol, the Convention on Biological Diversity, the Biosafety Protocol; and

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237. See, e.g., *id.*; Anais Kedgley Laidlaw, *Is it Better to be Safe than Sorry? The Cartagena Protocol Versus the World Trade Organisation* 36 VICTORIA U. WELLINGTON L. REV. 427 (2005).

238. See, e.g., *Communication from the Commission on the Precautionary Principle*, *supra* note 235.

239. See, e.g., GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13, at 1.

240. Howard F. Chang, *Risk Regulation, Endogenous Public Concerns, and the Hormones Dispute: Nothing to Fear but Fear Itself?*, 77 S. CAL. L. REV. 743 (2004); Jonathan B. Wiener, *Whose Precaution after all? A Comment on the Comparison and Evolution of Risk Regulatory Systems*, 13 DUKE J. COMP. & INT'L L. 207 (2003); Jonathan B. Wiener & Michael D. Rogers, *Comparing Precaution in the United States and Europe*, 5 J. RISK RES. 317, 318 (2002); Joanne Scott, *European Regulation of GMOs and the WTO*, 9 COLUM. J. EUR. L. 213, 215 (2003).

treating the International Court of Justice with considerable skepticism. In the context of the Kyoto Protocol, the United States has openly expressed skepticism about participating in an international regime that binds the United States to specific commitments measurable by the international community while exempting whole sectors of the world's nations.<sup>241</sup> In an effort to avoid participating in an international agreement that would bind the United States to specific goals, the United States is instead negotiating with other like-minded nations to develop a multi-lateral climate change agreement based on non-binding commitments.<sup>242</sup>

In addition to its general skepticism about participating in binding international forums, another element affecting the United States climate change policy-making is the influence of interests groups on American politics. It is no secret that politics in Washington D.C. are heavily influenced by lobbyists for interests groups<sup>243</sup> and that the energy and oil and gas lobbies, among others, are very powerful in the United States and have close ties with the current administration.<sup>244</sup> Given that the big energy, oil and gas and other key industries are not keen to face new regulatory hurdles and costs, it is not surprising that they would pressure the Bush administration both to reject Kyoto and oppose the creation of binding domestic commitments to reducing greenhouse gas emissions.<sup>245</sup> As one whistleblower put it, "This administration is ignoring the evidence in order to placate a handful of large energy and oil companies."<sup>246</sup>

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241. Letter from President George Bush, to Senators Hagel, Helms, Craig, and Roberts (Mar. 13, 2001), *available at* <http://www.whitehouse.gov/news/releases/2001/03/20010314.html>.

242. Press Release, U.S. Dept. of State, President Bush and the Asia-Pacific Partnership on Clean Development (July 27, 2005), *available at* <http://www.state.gov/g/oes/rls/fs/50314.htm>.

243. For a good discussion of interest group politics in the United States, see ROBERT E. MCCORMICK & ROBERT D. TOLLISON, *POLITICIANS, LEGISLATION, AND THE ECONOMY* (1981).

244. See Richard B. Stewart, *Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy*, 86 *YALE L.J.* 1196, 1213-14 (1977). For a discussion of interest groups in the context of environmental policy, see Joshua D. Sarnoff, *The Continuing Imperative (but Only from a National Perspective) for Federal Environmental Protection*, 7 *DUKE ENVTL. L. & POL'Y F.* 225, 285-86 (1997).

245. For a discussion of the impact of interest groups on climate change politics in the United States, see Kristen H. Engel & Scott R. Saleska, *Subglobal Regulation of the Global Commons: The Case of Climate Change*, 32 *ECOLOGY L.Q.* 183, 214 (2005); Daniel C. Esty, *Toward Optimal Environmental Governance*, 74 *N.Y.U. L. REV.* 1495, 1547-48, 1555 (1999); Jonathan Baert Wiener, *On the Political Economy of Global Environmental Regulation*, 87 *GEO. L.J.* 749, 761 (1999).

246. *Now Pentagon Tells Bush: Climate Change Will Destroy Us*, *supra* note 120 (quoting Jeremy Symons, a former whistleblower at the Environmental Protection

Much of how the public perceives climate change and how climate change policies are made comes down to the language politicians use when they address the issue. For example, for years, whenever President Bush discussed climate change he repeatedly referred to “uncertainty”<sup>247</sup> and a “lack of scientific consensus” in relation to the reality of human induced global warming, despite the fact that most scientists contested his use of these terms.<sup>248</sup> By using this language, President Bush is able to embed the ideas of uncertainty and confusion into much of the public debate over climate change, making it easier for the administration to promote its current policies and communicate to domestic constituents and international observers that it was taking a cautious approach to climate change policy-making.

In contrast, in the European Union, politicians have been much more direct in discussing the certainty of climate change and the necessity of addressing it cooperatively, e.g., avoiding the focus on uncertainties and declaring that “climate change should be beyond party politics”<sup>249</sup> and that “[y]ou should be in no doubt here in America that the E.U. both regards climate change as one of the major priorities facing us and is very united on that issue.”<sup>250</sup> Thus, the politicians are using their favorite tool—language—to shape the debate, influence their constituents, and support their policy choices.

### 3. Economic and Technological Factors

Of course, we cannot ignore economics, which is always a crucial concern in any nation’s policy-making choices and is the apparent driving force behind the United States’ climate change policy choices thus far. While the European Union has ratified the Kyoto Protocol and accepted an approach to climate change based on the precautionary principle and the concept of common but differentiated responsibilities, the United States has consistently based its opposition to the Kyoto Protocol, in part, on the fact that it exempts developing nations from binding obligations. President Bush has stated this bluntly: “As you know, I oppose the Kyoto Protocol because it exempts 80 percent of the

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Agency).

247. For example, even in the GLOBAL CLIMATE CHANGE POLICY BOOK, *supra* note 13, at 1, the White House emphasizes that “scientific uncertainties remain.”

248. Luntz Memorandum on the Environment, [http://www.ewg.org/briefings/luntzmemo/pdf/LuntzResearch\\_environment.pdf](http://www.ewg.org/briefings/luntzmemo/pdf/LuntzResearch_environment.pdf) (last visited Apr. 15, 2006).

249. Ret. Hon Charles Kennedy MP, *The Politics of Climate Change in Britain* (2005), <http://www.libdems.org.uk/parliament/the-politics-of-climate-change.html>.

250. Lord Whitty, *Climate Change Policy: The View from Europe*, BROOKINGS BRIEFING (Apr. 18, 2005), available at <http://www.brookings.edu/comm/events/20050418.htm>.

world, including major population centers such as China and India, from compliance, and would cause serious harm to the U.S. economy."<sup>251</sup> Thus, economic concerns play an obvious part both in the United States opposition to Kyoto and its decision to shape a national climate change strategy based on cooperation with rather than binding obligations for key economic sectors.

Technologically, both the United States and the European Union are wealthy, industrialized entities that pursue sophisticated research and development agendas and possess advanced technological resources and knowledge. On the other hand, the European Union is increasingly pursuing an aggressive research and development agenda that puts a high priority on developing energy-efficient production processes, alternative sources of energy as well as promoting energy efficiency and conservation in the public and private sectors in new and innovative ways.<sup>252</sup> While the United States also focuses on such measures, the European Union's advances in renewable energy technologies and promotion and in other areas of greenhouse gas reduction will increasingly give it an edge that could be used in its economic favor.

#### 4. Factors for Promoting Future Changes in United States' Climate Change Policy Choices

This article has considered various factors that influence EU and US policy choices. Taking as a basic assumption that it would be a positive development for the United States to bring its climate change policies into line with those of the European Union, what are some factors that might prompt the United States to modify its climate change strategy? First, one of the key changes that could prompt the United States to ratify Kyoto and/or implement a more comprehensive and obligatory national climate change system would be an administrative change, i.e., the election of a political administration that is more supportive of progressive climate change policies. However, this alone would not suffice. President Clinton supported climate change policies, and even sent Kyoto to Congress for approval, but all to no avail. A shift in public awareness and support would also be necessary. Second, climate change could be re-cast as an issue of national security. With the release of the Pentagon's report and increasing fear of relying on foreign sources of fossil fuel, there is considerable potential to advance climate change policy-making as a way to improve national security and to reduce

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251. Letter from President George Bush, to Senators Hagel, Helms, Craig, and Roberts, *supra* note 241.

252. See, e.g., Brochure, *supra* note 144; *Second ECCP Progress Report: Executive Summary*, *supra* note 11.

reliance on fossil fuel from unstable parts of the world. Third, as the European Union seeks ways to improve energy efficiency at home and abroad, it will begin to corner new markets in energy efficient products and processes and renewable energy technologies. If the United States or US businesses perceive abstention from the Kyoto Protocol as depriving them of opportunities, the potential economic incentives could prompt policy changes. Finally, as witnessed at the most recent UN climate change talks in Montreal, the international community continues to pressure the United States to join the international community in its cooperative fight against climate change. For example, in a thinly veiled attack on current US climate change policy, Canadian Prime Minister, Paul Martin, stated:

There is such a thing as a global conscience. Now is the time to listen to it. Now's the time to join with others in our global community. Now is the time for resolve, for commitment and leadership and, above all, now is the time for action. Because only by coming together can we make real and lasting progress.<sup>253</sup>

Such steady international pressure might eventually persuade the United States to take a new approach to climate change policy-making.

### III. Conclusion

Climate change poses long-term social, environmental and economic challenges to the global community. International collaborations to address climate change are still in their infancy. Managing global climate change requires both short-term and long term efforts. Analysis of the US, regional US entities, the EU and UK climate change policies reveals significant variation among developed countries' climate change strategies. It also suggests that, the US strategy fails to meet both the standards and objectives of other developed countries and those established by the international community under the Kyoto Protocol.

As regional climate change policies evolve, are implemented, monitored and enforced, it is expected that future studies will show that effective climate change regimes require a combination of mandatory regulations and voluntary regimes and that the EU model which combines mandatory and voluntary strategies is significantly more effective than the US regime, which is based on voluntary programs, further research, and delay. Such a finding will be critical: it will place greater onus on States to implement structured and enforceable policies

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253. *Washington Furious over Martin's Climate Change Comments*, CBS NEWS, Dec. 9, 2005, <http://www.cbc.ca/story/canadavotes2006/national/2005/12/09/katrina-global-warming-bush-martin.html>.



that are measurably effective; and it will demonstrate to regional and international policy-makers the importance of establishing regulatory regimes and highlight the best way to create effective regimes for addressing global climate change.