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Introduction

Climate change is among the most serious and challenging problems facing the international community. Scientists say that if we do not reduce our greenhouse gas emissions[1], we can expect widespread and potentially dangerous global climate changes over the course of this century and beyond. To avoid dangerous climate change, there is general agreement that we must avoid warming the Earth by more than two degrees Celsius. And to achieve this we must not emit more than the global "carbon budget" of three trillion tonnes of carbon dioxide.[2] By 2011, nearly two-thirds of this carbon budget had already been used up.[3] According to the World Resources Institute, on current trends the carbon budget will be exceeded by 2033.[4] So, not only is climate change a problem that could have destructive consequences for humanity and other species on the planet, it also has a rapidly approaching and unavoidable deadline.

The international community's principal response to climate change is the climate change regime. The climate change regime consists of an international treaty called the United Nations Framework Convention on Climate Change (hereafter referred to as the Convention); a subsidiary treaty, the Kyoto Protocol; political agreements like the Copenhagen Accord; and various other agreements and rules. The primary objective of the climate change regime is embodied in the text of the Convention: "stabilisation of greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system."[5] In other words, the objective of the climate change regime is to ensure that the international community stays within the global carbon budget.

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[1] For conciseness, I will refer to greenhouse gas emissions as emissions for the rest of this thesis, unless I am referring to a specific type of greenhouse gas emission.
[2] 'Interactive: Carbon Emissions Past, Present and Future', *World Resources Institute*, accessed 30 April 2015, http://www.wri.org/resources/data-visualizations/carbon-emissions-past-present-and-future-interactive.
[3] Ibid.
[4] Ibid.
[5] 'First Steps to a Safer Future: Introducing The United Nations Framework Convention on Climate Change', *Unfccc.int*, accessed 26 February 2015, http://unfccc.int/essential_background/convention/items/6036.php.

But many people are unhappy with the climate change regime. Each year, scientists measure the atmospheric concentration of emissions and confirm it is continuing to increase. Each year, the international community agrees that something must be done and much activity appears to take place within states and within the climate change regime itself showing that something is indeed being done. And each year, the atmospheric concentration of emissions continues to increase. Along with an apparent failure to stem emissions, critics also point to the climate change regime's failure to achieve a global treaty with legally binding targets as evidence that the climate change regime has failed.[6] After 23 years of effort, a global legally binding treaty remains elusive. The spectacular failure to reach a new treaty at the Copenhagen climate conference in 2009 was the final straw for many environmentalists; after Copenhagen, many gave up on the climate change regime completely.

Is the climate change regime ineffective?

This summary suggests that the climate change regime is ineffective. But is it? The general consensus of scholars, cited in the chapters below, is that the popular perception is right: the climate change regime is indeed ineffective. But the deficiency with these evaluations is that they are all high-level. They do not evaluate the climate change regime's effectiveness within states. Without breaking open the "black box" of the state we are unable to determine what kind of influence the climate change regime has had on states' climate change policies. And we do not know whether other factors are the cause of the climate change regime's ineffectiveness. This is an important gap to fill because while it is easy to blame the climate change regime for being ineffective, the truth may be that it is doing the best it can be expected to do, but other forces are counteracting its influence. Only by evaluating the climate change regime's effectiveness within states are we able to find out.

Research question and sub-questions

To address this gap, I will answer the following research question: how effective has the climate change regime been in New Zealand and the United States between 1988

[6] The Kyoto Protocol imposed legally binding targets on industrialised states only.

and 2015? I define effectiveness as the extent to which the climate change regime influenced New Zealand and the United States to reduce total gross emissions (see chapter three, "Defining regime effectiveness").

In order to answer my research question, I seek answers to three sub-questions: did New Zealand and the United States take action to reduce emissions between 1988 and 2015? Is the climate change regime's influence observable in these actions? And did these actions reduce total New Zealand and US gross emissions?[7]

Answering the first sub-question enables me to gain a comprehensive understanding of each state's climate change policies since 1988, when the international community first recognised climate change as a serious problem. I want to know what actions each state took to reduce emissions. I use the word "action" because I want to capture a broad range of activity. That is, domestic policies (using existing policy instruments, or creating new ones) and international policies (using international organisations or creating new initiatives and organisations). Answering the second sub-question enables me to determine the climate change regime's influence on both states' actions. Obviously, if the climate change regime had no influence on New Zealand or US climate change policy that suggests it is ineffective. The third sub-question is perhaps the most important from an effectiveness perspective. If I find that the climate change regime influenced New Zealand and the United States to implement climate change policies, but total gross emissions still increased, then I will conclude that the climate change regime is ineffective because it is not achieving its objective of averting dangerous climate change.

Theoretical framework

To add structure to my research question, I will use regime theory as a theoretical framework. Regime theory provides a rich field of scholarly literature that I will draw on to define my key concepts. In chapter three, I use regime theory to define the climate change regime, regime influence, and regime effectiveness. Regime theory also includes empirical research on the effectiveness of the climate change regime, which I also review in chapter three. In my conclusion I will explore the implications of my findings for regime theory.

[7] For the purposes of this thesis, I use gross emissions rather than net emissions. I explain why in chapter three, "Defining regime effectiveness".

Thesis structure

This thesis is divided into seven chapters. The first chapter describes climate change, explains why it is a problem, and explains why it has been so difficult for the international community to address. The second chapter describes four key components of the climate change regime and the political context around the negotiation of each component. In the third chapter I use regime theory to define three concepts in my research question and sub-questions: "regime", "regime influence", and "regime effectiveness". I also review the previous evaluations of the climate change regime's effectiveness to highlight the gap in the literature that this thesis attempts to fill. The fourth chapter outlines the method I will use to evaluate the climate change regime's effectiveness. In this chapter, I specify the delimitations of my research and describe my research sources and their limitations. The fifth and sixth chapters are the core of my research, the New Zealand and US case studies. In each case study I answer the three sub-questions. At the end of each case study is a summary of my findings. The seventh and final chapter is the conclusion. In this chapter I pull together the findings from both case studies to answer the research question and sub-questions, and then explore the theoretical and policy implications of my findings.

1. The climate change problem

> *What has become clear from the science is that we cannot burn all of the fossil fuels without creating a very different planet.*
> James Hansen, NASA scientist

In this chapter I undertake four tasks. First, I describe what climate change is. Second, I describe what current changes can be observed. Third, I describe the future risks climate change poses to all of us. Fourth, I describe four characteristics of climate change that have made it a difficult, even "diabolical", problem for the international community to address.

What is climate change?

The Convention defines climate change as "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods."[8] Put plainly, then, climate change refers to the human-induced changes to the Earth's climate.

But how are we changing the Earth's climate? Economic and population growth is causing carbon dioxide and other greenhouse gas emissions to be released into the atmosphere. These greenhouse gas emissions are trapping heat in the atmosphere (hence the term "greenhouse" gas), and that is causing temperatures in the atmosphere and the ocean to rise. The higher temperatures are then causing the Earth's climate to change. These changes include hotter temperatures, less snow and ice, and more extreme weather.[9] This process has been ongoing since the beginning of the Industrial Revolution.[10] At the beginning of the Industrial Revolution, the concentration of

[8] 'United Nations Framework Convention on Climate Change', 9 May 1992, 3.
[9] 'The Science', *Unfccc.int*, accessed 11 March 2015, http://unfccc.int/essential_background/the_science/items/6064.php.
[10] 'Basic Facts & Figures', *Unfccc.int*, accessed 11 March 2015, http://unfccc.int/essential_background/basic_facts_figures/items/6246.php.

carbon dioxide in the atmosphere was about 280 parts per million.[11] Today it is about 398 parts per million: a 41 percent increase.

What current changes can be observed?

Today we are witnessing a changing climate: hotter temperatures, less snow and ice, rising sea levels, changes in precipitation patterns, more extreme weather, and ocean acidification.[12]

- **A hotter world**: Over the last 50 years, hot days and nights have become more frequent, while cold days and nights have become less common. Heat waves have increased in large parts of Europe, Asia, and Australia.
- **Less snow and ice**: The annual average Arctic sea ice has been shrinking since 1978, and the decreases in summer are becoming larger each decade. Mountain glaciers and snow cover have declined globally on average.
- **Rising sea levels**: Melting ice and higher temperatures are causing sea levels to rise. Between 1901 and 2010 the average sea level rose by 19 cm globally. Extreme sea levels (experienced as storm surges, for example) have increased since 1970.
- **Changes in precipitation patterns**: It now rains much more in eastern parts of North and South America, northern Europe, and northern and central Asia. But it rains much less in the Sahel, Mediterranean, southern Africa, and parts of southern Asia. Droughts are likely to have increased since the 1970s.
- **More extreme weather**: Tropical cyclones in the North Atlantic have increased since the 1970s. Cyclones and hurricanes are fuelled by warm air.
- **Ocean acidification**: The oceans have absorbed approximately one-third of the carbon dioxide emitted by humans since the Industrial Revolution. This is acidifying the ocean and is threatening the survival of coral reefs, shellfish, and the marine food web.

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[11] Ibid.
[12] 'The Science'. Cornelia Dean, 'Rising Acidity Is Threatening Food Web of Oceans, Science Panel Says', *The New York Times*, 31 January 2009, http://www.nytimes.com/2009/01/31/science/earth/31ocean.html.

If we continue to release emissions into the atmosphere at the current rate, temperatures are projected to increase by between 2.6 and 4.8 degrees Celsius from pre-industrial times by 2100. And as a result scientists expect changes in the climate to become more intense over this century and beyond. What risks will be created by these changes, both for us and for the other species on the planet? According to the latest report from the Intergovernmental Panel on Climate Change (IPCC), there are four key risks.

1. Risk of severe ill-health and disrupted livelihoods from storm surges, sea-level rise, and coastal flooding; inland flooding in some urban regions; and periods of extreme heat.
2. Systemic risks due to extreme weather events, such as storms and wildfires, leading to the breakdown of infrastructure networks and critical services.
3. Risk of food and water insecurity, and the loss of rural livelihoods and income, particularly for poorer people.
4. Risk of ecosystem loss, including large-scale species extinctions, and ecosystem goods, functions and services.[13]

In short, if nothing is done to address climate change, people, especially poor people, are likely to suffer great hardship as a result, and many species and ecosystems will probably be wiped out completely.

Tipping points

Scientists are also worried about the possibility of "tipping points". A tipping point is a point where global temperatures reach a level that "tips" the global climate system irreversibly from one state into another.[14] The IPCC's Fifth Assessment report notes

[13] 'Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change' (Geneva, Switzerland: Intergovernmental Panel on Climate Change, 2014), 69, http://www.ipcc.ch/report/ar5/syr/.

[14] 'Can We Estimate the Tipping Point into Irreversible Climate Change?', *Carbonbrief.org*, 4 October 2012, http://www.carbonbrief.org/blog/2012/10/can-we-define-the-tipping-point-into-reversible-climate-change.

that the risk of tipping points increases as the magnitude of warming increases.[15] At this stage this is exactly what is happening. Tony Barnosky, a scientist from the University of California, uses an egg metaphor to explain the concept. Imagine an egg being pushed towards the end of the table. At first nothing much happens, but then it goes off the edge and breaks. "That egg is now in a fundamentally different state, you can't get it back to what it was", Barnosky says.[16]

The risk of the Earth's global temperature passing a tipping point is unlikely today, but it remains a concern because of its dangerous potential. Specifically, passing a tipping point could cause massive and irreversible changes to the planet: an oft-cited example is the collapse of the Greenland ice sheet. The Greenland ice sheet contains enough ice to cause up to seven metres of global sea level rise: enough to put New York, London, and Shanghai underwater (see Figure 1 overleaf).

[15] 'Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change', 16.
[16] 'Quick-Change Planet: Do Global Climate Tipping Points Exist?', *Scientificamerican.com*, 25 March 2013, http://www.scientificamerican.com/article/do-global-tipping-points-exist/.

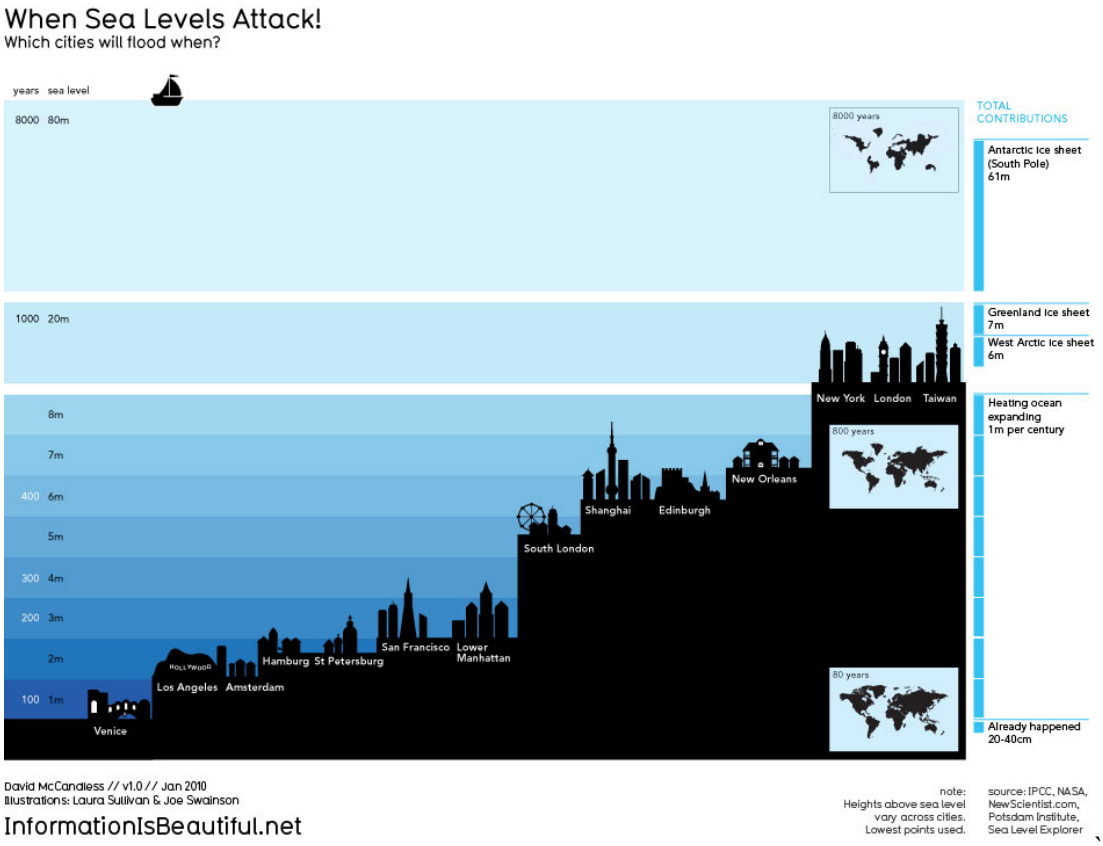

Figure 1: Predicted sea level rise from collapse of ice sheets.

Source: David McCandless, 'Information Is Beautiful: When Sea Levels Attack', *The Guardian*, 22 February 2010, http://www.theguardian.com/news/datablog/2010/feb/22/information-beautiful-sea-level-rise-climate-change.

The ice sheet would not collapse immediately – it would take many years. But it is the possibility that the collapse could not be stopped which is the concern. At that point the goal of averting dangerous climate change would become redundant: dangerous changes would now be locked in. Adaptation[17] to these changes would then become the focus. Whether civilisation would be *able* to adapt to these enormous changes is an open question.

A "diabolical" policy problem

Climate change thus casts a dark shadow over our future. To make matters worse, climate change has four particular characteristics that make it a very difficult problem for the international community to address. The difficulty climate change poses to

[17] Adaptation refers to states adapting to the changes climate change will bring.

policy-makers has led Ross Garnaut, a climate change policy expert, to call climate change a "diabolical" policy problem.[18]

First, because climate change is a "global commons problem" it requires a global solution,[19] but the more states involved in a negotiation, the more difficult it is to reach an agreement. This is why Melinda Kimble, a senior US climate change negotiator, has described the climate change negotiations as "the mother of all negotiations."[20] Figure 2, which displays the different coalitions in the climate negotiations in 2012, illustrates the complexity of the negotiations.

[18] 'Climate Crisis "Diabolical"', *Smh.com.au*, 4 July 2008, http://www.smh.com.au/news/environment/climate-crisis-diabolical/2008/07/04/1214951014040.html.
[19] Kate O'Neill, *The Environment and International Relations* (New York: Cambridge University Press, 2009), 31.
[20] Joanna Depledge, 'Against the Grain: The United States and the Global Climate Change Regime', *Global Change, Peace & Security* 17, no. 1 (2005): 20.

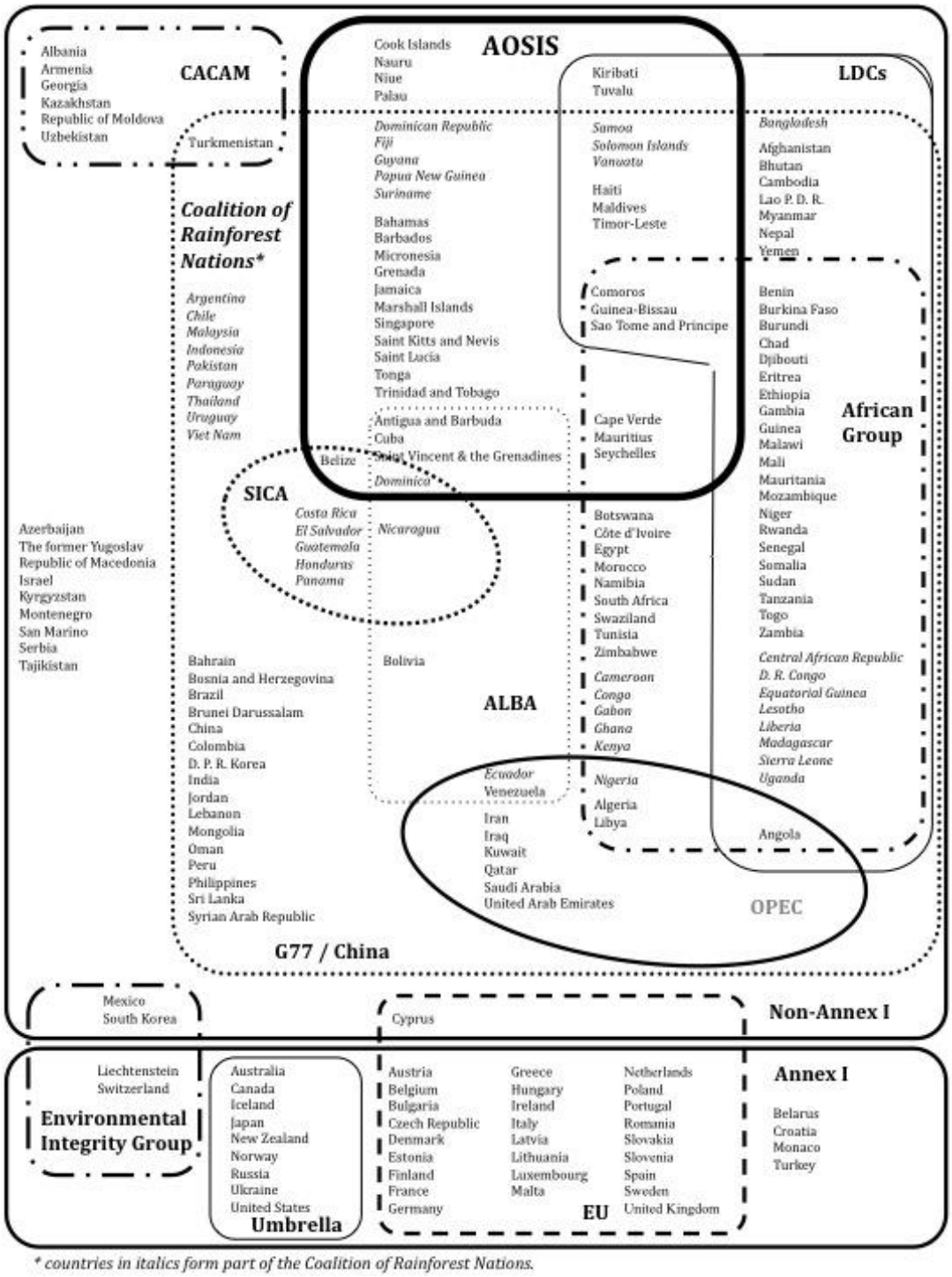

Figure 2: Coalitions within the climate change regime in 2012

Source: Carola Betzold, Paula Castro, and Florian Weiler, 'AOSIS in the UNFCCC Negotiations: From Unity to Fragmentation?', *Climate Policy* 12, no. 5 (2012): 3.

This characteristic alone has made it extraordinarily difficult for the international community to address climate change.

Second, addressing climate change requires that all states begin shifting from fossil fuel powered economies to clean energy powered economies. This is

comparable to the shift from hunter-gatherer economies to agrarian economies at the dawn of civilisation, or the shift from agrarian economies to industrial economies in the 19th century. Addressing climate change requires a massive transformation, in other words. This massive transformation requires surmounting a number of formidable obstacles. There are domestic obstacles: domestic actors that rely on cheap fossil fuels, or who do not wish to pay for carbon pollution, have fought tooth and nail against efforts to disincentivise fossil fuels. (I discuss this obstacle further in my case studies.) There are technological obstacles: although renewable energy is coming down in price, fossil fuels are still more convenient because wind and solar power fluctuates, while coal and gas can be switched on and off as needed. And there are structural obstacles: the United Kingdom's Green Party argues that massive state intervention is required to successfully shift to clean energy economies.[21] But in an age where the state is in retreat this is not a viable option.[22]

Third, climate change has an inherent inequity: the developing states least responsible for causing climate change are also the most vulnerable to its harmful consequences (see Figure 3 overleaf).

[21] Caroline Lucas, 'Caroline Lucas Calls for Britain to Be on "War-Footing" to Fight Climate Change', *The Telegraph*, 21 January 2011, http://www.telegraph.co.uk/news/earth/earthnews/8271765/Caroline-Lucas-calls-for-Britain-to-be-on-war-footing-to-fight-climate-change.html.

[22] Susan Strange wrote about the retreat of the state in 1996, persuasively arguing that the authority of states over their economies and societies has declined since the 1970s. Susan Strange, *The Retreat of the State: The Diffusion of Power in the World Economy* (United Kingdom: Cambridge University Press, 1996).

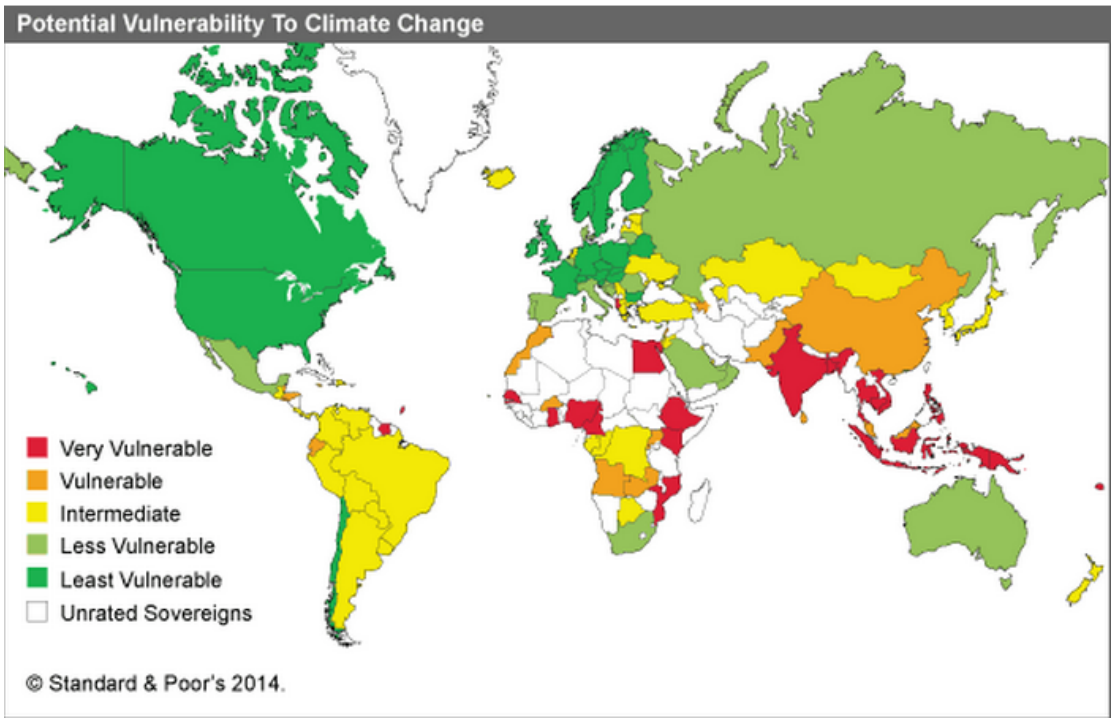

Figure 3: Standard & Poor's global assessment of states' potential vulnerability to climate change

Source: Moritz Kraemer and Liliana Negrila, 'Climate Change Is A Global Mega-Trend For Sovereign Risk' (Standard and Poor's Rating Services, 15 May 2014), 10.

Developing states tend to rely on agriculture, have weak infrastructure, and lack the resources for adaptation measures, such as building sea walls.[23] Furthermore, many of them, such as Bangladesh, are also located in vulnerable low-lying areas. Industrialised states, on the other hand, generally have more resources to adapt and have economies that are more resilient to variable weather.[24] This, then, is the cruel irony of climate change. It is therefore not surprising that developing states have something of a bitter attitude towards industrialised states when it comes to addressing climate change, an attitude that has contributed to the snail-pace progress of negotiations.

Fourth, the long-term nature of climate change makes it difficult for the public and policy-makers to prioritise. As noted above, many of the changes in the climate can be observed today. But if one is frank many of these changes do not have a great impact on the day-to-day life of many people. The dangerous risks dramatised so

[23] Joanna Depledge, *The Organization of Global Negotiations: Constructing the Climate Change Regime* (Routledge, 2005), 20.
[24] Ibid.

effectively in Al Gore's documentary, *An Inconvenient Truth,* such as a massive sea level rise if the Greenland ice sheet collapsed, are not certain to happen. And even if they did, according to the United Kingdom's government, they would probably take place over many years.[25] Because climate change does not pose an immediate threat, there is a tendency for people – the public and their leaders – to kick the climate change can down the road for just a little bit longer. A quote from US President Barack Obama sums up this tendency.

> We've gone through, obviously, in the last five years, a tough economic crisis. . . . I don't always lead with the climate change issue because if you right now are worried about whether you've got a job or if you can pay the bills, the first thing you want to hear is how do I meet the immediate problem? One of the hardest things in politics is getting a democracy to deal with something now where the payoff is long term or the price of inaction is decades away.[26]

Obama is not alone: all leaders attempting to address climate change face this problem.

Chapter summary

In this chapter I undertook four tasks. First, I defined climate change: human-induced changes to the Earth's climate. Second, I described what current changes can be observed today: a hotter world, rising sea levels, and more extreme weather. Third, I described the changes scientists expect in the future if we do not reduce our emissions. These changes could include the collapse of the Greenland ice sheet, which would submerge many of the world's major cities. Finally, I described four characteristics of climate change that make it a "diabolical" policy problem: it is a global commons problem that requires all states to be involved in the solution, which makes negotiations extraordinarily complex; it requires shifting the global economy away from fossil fuels, a shift comparable to the Industrial Revolution; it contains an

[25] 'Climate Change Explained - Detailed Guidance', *Gov.uk*, accessed 12 March 2015, https://www.gov.uk/climate-change-explained.
[26] Thomas L. Friedman, 'Obama on Obama on Climate', *The New York Times*, 7 June 2014, http://www.nytimes.com/2014/06/08/opinion/sunday/friedman-obama-on-obama-on-climate.html.

inherent inequity, which is that even though developing states did not cause the problem, they will be harmed most severely; and finally, the most painful consequences will only be felt in the medium to long-term, which creates a tendency for the public and policy-makers to put off immediate action.

So, what is the international community's response to climate change? That is the question I turn to in the next chapter.

2. The climate change regime

In the previous chapter I described the climate change problem. In this chapter, I describe the international community's principal response to climate change: the climate change regime. I describe four key components of the climate change regime and the political context around the negotiation of each component. Understanding the regime's background puts the case studies in chapters five and six into context.

The 1992 Convention

The climate change regime was initiated in December 1990 when the UN General Assembly started negotiations on a global treaty to address climate change. The negotiation process lasted nearly 18 months and culminated in the adoption of the Convention on 9 May 1992. The negotiation process was relatively fast by traditional standards, especially considering the far-reaching implications addressing climate change would have.[27] Joanna Depledge, a former climate change negotiator, notes six key elements of the Convention.[28]

- It defines an ultimate objective – prevent dangerous anthropogenic interference with the climate system – and principles.
- It divides states into three groups:
    - Annex I states (OECD states and economies in transition, i.e. Russia and the former Eastern Bloc states)
    - Annex II states (OECD states only)
    - Non-Annex I states (mostly developing states)
- It places general commitments on all states (for example all states agreed to begin reporting on their climate change policies).
- It commits Annex I states to aim to return emissions to 1990 levels.

[27] Bodansky notes that the Long-Range Transboundary Air Pollution Convention took more than two years to negotiate, the Vienna Ozone Convention almost four years, and the European Community's large-combustion plant directive five years. All these treaties dealt with issues that had fewer economic implications, and were less complex than climate change. Daniel Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary', *Yale Journal of International Law* 18 (1993): 477.

[28] Depledge, *The Organization of Global Negotiations: Constructing the Climate Change Regime*, 21.

- It commits Annex II states to providing financial assistance to developing states, and also to promote technology transfer to all other states.
- It includes provisions for regular review of the Convention.

The Convention also established the Conference of the Parties (hereafter referred to as the COP) and the UNFCCC secretariat,[29] which is the bureaucratic component of the climate change regime.[30]

The political atmosphere surrounding the Convention was one of optimism. Depledge says there was "considerable attention and optimism surrounding the commitment and ability of the international community to tackle global environmental problems."[31] This optimism was partly due to US triumphalism in the early 1990s, following the American victory in the Cold War against the Soviet Union, and the swift defeat of Iraq in 1991. The so-called Washington Consensus, shaky as I write in 2015, had just established itself in this period. In this political context it makes sense that the Convention took relatively little time to agree, sign, and ratify by the entire international community.

The 1997 Kyoto Protocol

The Kyoto Protocol was the second key component added to the climate change regime. It was initiated in 1995, when the international community realised that the emission reduction provisions in the Convention were inadequate.[32] At COP1 in March 1995, states made a decision, known as the "Berlin Mandate", to start a new round of negotiations that would aim to agree legally binding emission reduction targets for industrialised states. COP3 in 1997 was set as the deadline and two and a half years of negotiations followed. The final negotiations took place in December 1997 at COP3 in Kyoto, Japan. 12 hours after the scheduled end of the Conference, the Kyoto Protocol was adopted.[33]

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[29] I refer to the secretariat as the "UNFCCC secretariat" as opposed to the "Convention's secretariat", because this is the phrasing used by the Convention and in the literature.
[30] Depledge, *The Organization of Global Negotiations: Constructing the Climate Change Regime*, 22.
[31] Ibid., 23.
[32] 'Background on the UNFCCC: The International Response to Climate Change', *Unfccc.int*, accessed 10 March 2015, http://unfccc.int/essential_background/items/6031.php.
[33] Depledge, *The Organization of Global Negotiations: Constructing the Climate Change Regime*, 24.

The Kyoto Protocol has four key elements.[34]

- It places general commitments on all states to address climate change.
- It places legally binding emissions targets on Annex I states, which in the first "commitment period" (2008-2012) added up to a total cut of five percent compared to 1990 emission levels.
- Its emission targets cover all greenhouse gases, and in most cases use 1990 as a baseline.
- It includes flexibility mechanisms to help Annex I states meet targets in the most economically efficient way. There are three mechanisms:
    - Joint Implementation – Annex I states can invest in emission reductions projects in other Annex I states to meet their targets.
    - Clean Development Mechanism – Annex I states can invest in emission reductions projects in non-Annex I states to meet their targets.[35]
    - International Emissions Trading – states can trade emission "units" to meet their targets. For example, if a state emits less than its quota, it can sell the surplus units to other states that are in deficit.

A shadow was beginning to form over the 1997 climate change negotiations, in contrast to earlier years. Depledge notes that "the geopolitical context for the Kyoto Protocol negotiations continued to be positive" but "cracks were beginning to show."[36] One crack that was becoming evident was US commitment to action. There was a perception within the United States that Kyoto would harm US trade competitiveness against China and India. This concern became concrete in the Senate's Byrd-Hagel Resolution, which stated that the Senate would not ratify the Kyoto Protocol without legally binding commitments from the major developing states. But China and India held their ground, creating a chasm between developing and industrialised states.

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[34] Ibid.
[35] This proved to be more controversial than Joint Implementation because of the perception amongst developing states that industrialised states were trying to weasel out of their responsibilities.
[36] Depledge, *The Organization of Global Negotiations: Constructing the Climate Change Regime*, 23.

Despite this growing chasm, the international community managed to agree to Kyoto, and then set about developing the detailed rules for the implementation of the treaty. These took four more years to develop and were adopted at COP7 in Marrakesh, Morocco in 2001. Although the rules were complete at this point, the treaty had still not entered into force. Article 25 of the treaty required ratification by states covering at least 55 percent of global emissions in 1990 before it would enter into force.[37] The failure of the United States – which accounted for 36 percent of emissions in 1990[38] – to ratify Kyoto put the treaty's future into doubt. But after some indecision, Russia ratified it on 18 November 2004, and the Kyoto Protocol entered into force on 16 February 2005.[39]

The 2009 Copenhagen Accord

The Copenhagen Accord was the climate change regime's third key component. The Accord was initiated in December 2007 at COP13 in Bali, when states agreed to the "Bali Road Map". Amongst other things, the Bali Road Map called for a successor to the Kyoto Protocol, which was due to terminate in 2012. The deadline was set at December 2009 and COP15 in Copenhagen would be the venue for the final negotiations.[40]

Two years of increasingly intense negotiations followed. In the months leading up to Copenhagen, interest in the negotiations hit fever pitch. This was because of two factors. First, because of the election of Barack Obama as US president in November 2008, who, in contrast to his predecessor George W. Bush, had promised to make addressing climate change a top priority, calling it "one of the most urgent challenges

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[37] 'Kyoto Protocol to the United Nations Framework Convention on Climate Change', *Unfccc.int*, accessed 9 March 2015, http://unfccc.int/essential_background/kyoto_protocol/items/1678.php.

[38] Suraje Dessai, 'The Climate Regime from The Hague to Marrakech: Saving or Sinking the Kyoto Protocol?', Working Paper 12 (Tyndall Centre for Climate Change Research, December 2001), 3, http://www.tyndall.ac.uk/content/climate-regime-hague-marrakech-saving-or-sinking-kyoto-protocol.

[39] According to Deborah Davenport, the European Union was able to coax Russia into ratifying with a sweetener: support for Russian entry into the World Trade Organization. Hugh Compston and Ian Bailey, eds., *Turning Down the Heat* (Basingstoke: Palgrave Macmillan, 2008), 56.

[40] 'Report of the Conference of the Parties on Its Thirteenth Session, Held in Bali from 3 to 15 December 2007', *Unfccc.int*, 14 March 2008, http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf.

of our generation."[41] The second factor was the attendance of many state leaders – 119 to be precise – including all the leaders of the major states. According to Paul Harris, it was probably the largest gathering of world leaders in modern history.[42]

But although the Bali Road Map's goal been a successor to Kyoto, by the end of 2009 many leaders did not expect a new legally binding treaty. Expectations had been lowered to a political agreement that would lay the basis for a treaty in December 2010. Documents requested under the Official Information Act confirm the New Zealand government held this expectation. In February 2009, a briefing from the Ministry for the Environment to the Minister and Associate Minister for Climate Change Issues, Nick Smith and Tim Groser, respectively, noted that it was "extremely unlikely that a comprehensive result will be achieved by December 2009".[43] This evidence is backed up by international events at the time. In mid-November at the Asia Pacific Economic Community meeting, the Obama administration attempted to downplay expectations from Copenhagen. Michael Froman, Deputy National Security Advisor for Economic Affairs, said that "it was unrealistic to expect a full internationally legally binding agreement to be negotiated between now and when Copenhagen starts in 22 days."[44]

Efforts to downplay expectations came too late, however. By November, with confirmation that Obama would be attending, it was clear that the political capital expended at COP15 would be enormous, and the media expected a meaningful outcome (reasonably I would argue). The media therefore framed Copenhagen as a climate conference where the world would finally come together to act on climate change.

But Copenhagen turned out to be a fiasco. It was marred by poor chairing from Denmark; diplomatic snubs, both inadvertent and intentional (due to an administrative error, the Chinese foreign minister was refused entry to the conference for days and

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[41] David Kestenbaum, 'Candidates Call Climate Change An "Urgent" Priority', *NPR.org*, 13 August 2008, http://www.npr.org/templates/story/story.php?storyId=93562705.
[42] Paul G. Harris, *What's Wrong with Climate Politics and How to Fix It* (Malden, MA: Cambridge, 2013), 49.
[43] Documents requested under the Official Information Act. On file.
[44] Jonathan Watts, 'Copenhagen Climate Summit Hopes Fade as Obama Backs Postponement', *The Guardian*, 15 November 2009, http://www.theguardian.com/environment/2009/nov/15/obama-copenhagen-emissions-targets-climate-change.

Chinese Premier Wen Jiabao snubbed Obama at one point by sending a lower-level delegate to meet him); and general hostility between developing and industrialised states. On the final day talks were near collapse; the outcome of the conference hung in the balance. At that point Obama, who may have been desperate to salvage something to justify the political capital he had expended, decided to barge into a meeting with the leaders of China, Brazil, South Africa, and India (that he had not been invited to), and spent the next three hours negotiating a political agreement with them.[45] Thanks to Obama's forcefulness (or desperation for an agreement), and the BASIC[46] states flexibility (or fear of the United States), a political agreement – the Copenhagen Accord – was reached. As the Accord was reached outside the formal COP process many states refused to formally adopt it, but ultimately the COP did "take note" of it.[47]

The Accord has several key elements.[48]

- Reaffirmation that the increase in global temperature should be held below two degrees Celsius.
- An agreement that industrialised states shall provide financial resources, technology, and capacity building to support adaptation in developing states.
- A commitment by Annex I states to further reduce emissions by 2020.
- A commitment by non-Annex I states to implement mitigation actions.
- Recognition of the crucial role forests can play in addressing climate change.
- A commitment by industrialised states to mobilise USD$100 billion by 2020 to address the needs of developing states.
- A review of the Accord's implementation by 2015.

The political context surrounding the Copenhagen Accord was gloomy, as alluded to above. First, the international community was still recovering from the near collapse of the global financial system in 2008. Given that emission reductions could impose costs on states' economies, it is reasonable to assume that most, if not all, states would have been wary about a climate agreement at Copenhagen. Second, the

[45] David Corn and Kate Sheppard, 'Obama's Copenhagen Deal', *Mother Jones*, 18 December 2009, http://www.motherjones.com/environment/2009/12/obamas-copenhagen-deal.
[46] The BASIC countries are Brazil, South Africa, India and China.
[47] 'Copenhagen Accord', *Unfccc.int*, 4, accessed 10 March 2015, http://unfccc.int/meetings/copenhagen_dec_2009/items/5262.php.
[48] 'Copenhagen Accord'.

United States was becoming increasingly uneasy at the growing economic and military power of China, the emerging superpower that had also managed to avoid the worst effects of the global financial crisis.

America's anxiety over China's rise spilled over into the climate change negotiations. The Obama administration made it clear that it firmly concurred with opposition Republicans in Congress that the developing states – especially China – needed to play a meaningful role in a future climate change agreement. The US argument had grown stronger since Kyoto: China had overtaken the United States as the number one emitter in 2005,[49] and by 2009 China's carbon emissions exceeded the United States by an enormous margin: over two trillion tonnes, or 42 percent.[50] From a practical perspective, China's meaningful participation in a new treaty was now essential to avoiding dangerous climate change. But China refused to budge from its traditional position that the industrialised states must lead. China's stubbornness (not completely without reason given the industrialised states rather meagre efforts at reducing emissions, as we shall see in the case studies below) against US insistence, pitted the two superpowers against each other, darkened the atmosphere of the conference considerably, and dramatically reduced the chances of a new treaty. Against this rather gloomy political backdrop it is perhaps fortunate that the Copenhagen Accord was agreed at all.

The 2011 Durban Platform for Enhanced Action

Following the chaos at Copenhagen, the international community regrouped and consolidated for the next two years. In 2011, at COP17 in Durban, South Africa, the negotiations finally began moving again and the fourth key component of the climate change regime was established: the Durban Platform for Enhanced Action. The Durban Platform included the key decision to begin negotiating a new treaty in 2012, to be completed by 2015 at the Paris conference (COP21), and to come into effect by

[49] 'Interactive: Carbon Emissions Past, Present and Future'. Simon Rogers and Lisa Evans, 'World Carbon Dioxide Emissions Data by Country: China Speeds ahead of the Rest', *The Guardian*, 31 January 2011, http://www.theguardian.com/news/datablog/2011/jan/31/world-carbon-dioxide-emissions-country-data-co2.
[50] Rogers and Evans, 'World Carbon Dioxide Emissions Data by Country'.

2020.[51] In effect, this decision aimed at a retry of Copenhagen. And the long timelines involved (three years to develop the treaty plus another five years before it would enter into force) probably reflected a desire by the international community to avoid another disaster like Copenhagen.

There are five key elements of the Durban Platform.[52]

- A decision to begin new negotiations on a global agreement by 2015 for the period beyond 2020.
- Reaffirmation of the need to restrict global warming to no more than two degrees Celsius.
- Establishment of the Green Climate Fund, which is intended to distribute the US$100 billion referred to in the Copenhagen Accord.
- Establishment of a second commitment period of the Kyoto Protocol, which was to cover until 2020 when the new global treaty is expected to come into force.
- A decision to undertake a global review of climate change to ensure that collective action is adequate.

Although the global economy was starting to recover by 2011, the political context was still negative: the industrialised states continued to demand that developing states do more, while the developing states continued to demand that the industrialised states do at least what they said they would do. For example, the European Union attempted to trade its agreement to a second Kyoto commitment period for legally binding emissions commitments from the major developing states, namely China and India.[53] In response, China and India said that additional commitments on their part would be premature without more action from industrialised states.[54] This was a continuation of the theme that emerged during the Kyoto Protocol negotiations in 1997. The main difference was that the traditionally conciliatory European states were now siding with the more hardline industrialised states, like the United States, and castigating the lack of effort by the major

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[51] 'Durban: Towards Full Implementation of the UN Climate Change Convention', *Unfccc.int*, accessed 9 March 2015, http://unfccc.int/key_steps/durban_outcomes/items/6825.php.
[52] Ibid.
[53] Harris, *What's Wrong with Climate Politics and How to Fix It*, 51.
[54] Ibid.

developing states. In light of the growing chasm between industrialised and developing states, the agreement to negotiate a global treaty by 2015 was fortunate.

Chapter summary

In this chapter I described the four key components of the climate change regime: the 1992 Convention, the 1997 Kyoto Protocol, the 2009 Copenhagen Accord, and the 2012 Durban Platform For Enhanced Action. I also described the political context around the negotiation of each component. In sum, the optimism of the early 1990s gave way to pessimism in the 2000s and 2010s, but despite that pessimism, the climate change regime continued to evolve.

In the next chapter I move away from the ground war of climate change negotiations to the academic study of regime theory. There I use regime theory to define the key concepts in my research questions and sub-questions, and then review the literature to find out what it can tell us about the climate change regime's effectiveness.

3. Regime theory and the climate change regime

In this chapter I undertake two tasks. First, I review the regime theory literature in order to define the key concepts in my research question and sub-questions. These concepts are: regimes, regime influence, and regime effectiveness. Defining these concepts clearly provides a solid theoretical grounding for my case studies. Second, I review previous scholarly literature on the climate change regime's effectiveness. This will highlight the gap in the literature that this thesis aims to fill.

Defining the regime

What is the climate change regime exactly? This is an important question to answer because many people have different concepts in mind when they think of the phrase. Is it the bundle of treaties and agreements I described in chapter two? Or is it the building and staff of the UNFCCC secretariat in Bonn, Germany? Or is it something else? In order to get an academically rigorous definition, I turn to the regime theory literature, a subfield of International Relations theory.[55]

In 1983, Stephen Krasner, a leading regime scholar, coined what has become the most frequently cited definition of a regime. He defined a regime as:

> Implicit or explicit principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations. Principles are beliefs of fact, causation, and rectitude. Norms are standards of behaviour, defined in terms of rights and obligations. Rules are specific prescriptions or proscriptions for action. Decision-making procedures are prevailing practices for making and implementing collective choice.[56]

Krasner's definition is useful: it captures a variety of possible regime elements.

But Krasner's definition has two challenges. First, Oran Young argues that Krasner's definition is "really only a list of elements that are hard to differentiate

[55] In the literature regimes are also referred to as institutions. In this thesis I treat regimes as synonymous with institutions.
[56] Stephen D. Krasner, ed., *International Regimes* (USA: Cornell University Press, 1983), 2.

conceptually and that often overlap in real-world situations."[57] A regime might include a treaty with a clause that imposes obligations on states, for example, but this clause could be considered both a norm and a rule. Second, Krasner includes implicit principles, norms, rules and decision-making procedures in his definition. The implicit elements of regimes can be elusive since by definition they cannot be seen. Scholars may have different views over exactly what is implicit in a regime since there is no way to prove one's case. Therefore, operationalising the implicit elements of a regime is a significant methodological challenge for scholars.

Robert Jackson and Georg Sorenson have put forward a more straightforward definition of a regime: "[a regime] is an international organisation, such as NATO or the European Union; or it is a set of rules which govern state action in particular areas, such as aviation or shipping."[58] The first part of the definition is not useful for my research question because it is not intended to just evaluate the effectiveness of the UNFCCC secretariat. The second part, however, is more useful. It collapses Krasner's principles, norms, rules and procedures into one category: rules. This makes it much simpler. But Jackson and Sorenson's definition still does not specify whether the set of rules are explicit and implicit.

Robert Keohane, who is arguably the most well-known and well-respected regime scholar, has created a definition that rectifies this issue: "Regimes are institutions with explicit rules, agreed upon by governments, that pertain to particular sets of issues in international relations."[59] Keohane, like Jackson and Sorenson, simplifies Krasner's four elements into rules, but he goes further by excluding implicit rules. That makes Keohane's definition more practical to use for research: when defining the contours of a regime, one only includes explicit rules. This sharpens the conceptual boundary of the regime in question.

For the purposes of this thesis, I will proceed with Keohane's definition of a regime. That is, I define the climate change regime as the explicit rules agreed upon by the international community that pertain to climate change. Accordingly, my

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[57] Oran R. Young, 'International Regimes: Toward a New Theory of Institutions (Book Review)', *World Politics* 39, no. 1 (1986): 106.
[58] Robert Jackson and Georg Sorensen, *Introduction to International Relations* (New York: Oxford University Press, 2007), 108.
[59] Robert O. Keohane, *International Institutions and State Power: Essays in International Relations Theory* (Boulder: Westview Press, 1989), 4.

definition of the climate change regime includes the 1992 Convention, the 1997 Kyoto Protocol, the 2009 Copenhagen Accord, the 2011 Durban Platform for Enhanced Action, and all the rules that regime members have agreed to at the yearly COP meetings. I do not include treaties or agreements that have been agreed to by regional groupings of states since regional groupings do not constitute the "international community". My definition of the climate change regime is therefore global in perspective. I also do not include implicit rules because of the impracticality of operationalising them.

Defining regime influence

There are a number of theories about how regimes influence states in the regime theory literature. They can be divided into three schools of thought: realist, institutionalist, and constructivist.

Realists generally do not believe regimes have independent influence. They argue that state power is the actual source of regime influence and regimes are merely "arenas for acting out power relationships".[60] It is therefore a mistake to attribute influence to a regime, since the source of the influence is actually powerful states sitting behind the regime and pulling its strings.[61] John Mearsheimer has been the most forceful advocate of this position. He cites NATO as evidence. In his view NATO "was basically a manifestation of the bipolar distribution of power in Europe during the Cold War, and it was that balance of power, not NATO per se, that provided the key to maintaining stability on the continent. NATO was essentially an American tool for managing power in the face of the Soviet threat."[62]

Institutionalists disagree with realists. They argue that regimes do independently influence states, and highlight three mechanisms of regime influence. First, regimes provide information about rule compliance to participating states.[63] This information reassures states that are worried about other states cheating on the rules, and therefore encourages their compliance. Second, regimes "shape the reputations of their

[60] T. Evans and P. Wilson, 'Regime Theory and the English School of International Relations: A Comparison', *Millennium - Journal of International Studies* 21, no. 3 (1992): 330.
[61] John J. Mearsheimer, 'The False Promise of International Institutions', *International Security* 19, no. 3 (1994): 14.
[62] Ibid.
[63] Andreas Hasenclever, Peter Mayer, and Volker Rittberger, *Theories of International Regimes* (New York: Cambridge University Press, 1997), 34.

members".[64] States that fail to achieve their Kyoto targets, for example, may have their reputation harmed because other regime members perceive them as laggards. And third, regimes can enhance capacity within states, which can avert involuntary non-compliance.[65] Developing states that lack the technical knowledge to measure emissions can be assisted by the regime secretariat's expertise, for instance.

Constructivists disagree with realists even more strongly than institutionalists. Constructivists argue that regimes can have a strong influence on states, and suggest four additional mechanisms of regime influence. First, regimes socialise states as to what is acceptable behaviour and what is not.[66] A government agency within a state, for instance, may come to accept the climate change regime's emissions reporting rules on the basis of its legitimacy and authority, rather than on the basis of repeated cost-benefit analyses of complying. Second, regimes can facilitate learning by states, for example by spreading knowledge about climate science.[67] Third, regimes can modify the identity and interests of a state.[68] The European Union climate negotiators have taken on an identity of environmental leadership, for example, and that new identity may have encouraged them to commit to stronger climate change policies. Fourth, regimes can trigger realignments of the domestic actors within states.[69] If states agree to establish a global emissions trading system, for instance, forestry companies within a particular state who would profit from such a scheme might align with environmental NGOs to support it. Conversely, the regime could trigger alignments between domestic actors opposed to effective climate change action.

At this point it is worth pausing to highlight one of the tricky conceptual issues around defining regime influence, which may have become apparent by this point. The issue is that regimes do not have agency. That can make "regime influence" a rather elusive concept to grasp, especially when compared to the influence of an international organisation like the United Nations, which has buildings and staff that we can see, and which clearly does have agency. A regime's lack of agency is made

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[64] Ibid., 35.
[65] Marc A. Levy, Oran R. Young, and Michael Zürn, 'The Study of International Regimes', *European Journal of International Relations* 1, no. 3 (1 September 1995): 303, doi:10.1177/1354066195001003001.
[66] Ibid., 305.
[67] Ibid., 306.
[68] Ibid.
[69] Ibid., 307.

even more problematic because regimes are constantly evolving. The "set of rules", in other words, constantly changes (as we saw in chapter two). But these changes are caused by states and that potentially creates confusion: are the states the causal agents and the regime just a reflection of their actions? And if so, why not just study the states themselves, as realists like John Mearsheimer argue?

For the purposes of this thesis, I will leave that question aside and proceed on the assumption that regimes do have independent influence, as institutionalists and constructivists argue, while acknowledging they lack agency, which is fairly self-evident.[70] I therefore separate the climate change regime from the state conceptually. I show this separation, and also how states and regimes interact with each other to address climate change, in Figure 4 below.

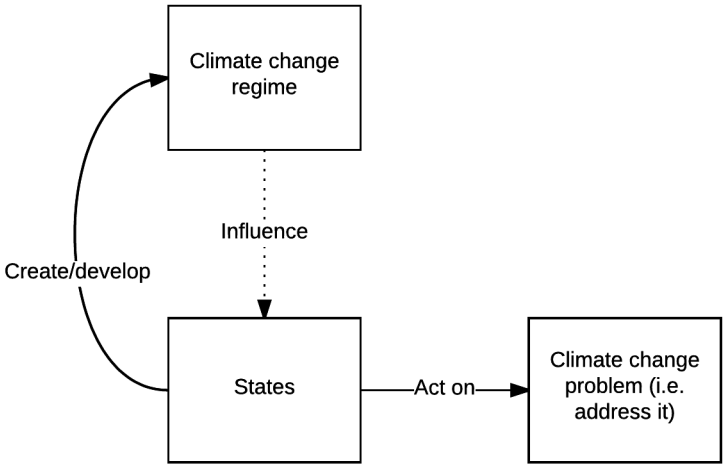

Figure 4: How the climate change regime and states interact to address climate change

Defining regime effectiveness

What constitutes an "effective" regime? Regime scholars interested in regime effectiveness have debated this question since at least the 1990s. In this section I review the work of Oran Young and Marc Levy, two respected regime scholars who have studied regime effectiveness extensively. Young and Levy have identified five

[70] The lack of agency of regimes is something not discussed much in the literature as far as I am aware, but it seems to be important in terms of resolving the debate between realists and institutionalists/constructivists.

definitions of regime effectiveness: problem-solving, legal, economic, normative, and political.[71] Much of the literature adopts one or more of these definitions.

Problem-solving is the intuitive definition of effectiveness: a regime that is solving (or has solved) the problem it was established to solve is an effective one. Conversely, it is reasonable to conclude that a regime that is failing to solve the problem it was established to solve is ineffective. Thomas Bernauer and Oran Young regard problem-solving as an important characteristic of an effective regime.[72]

But this definition poses at least two methodological challenges to scholars. First, there is a long causal chain between the regime's influence and any observable environmental improvement, and it is extremely difficult to show, let alone prove, that the regime caused any improvement (or damage, for that matter). Second, Young points out that, "most problems serious enough to justify the creation of an international regime motivate actors to pursue solutions through a variety of initiatives, including some that do not involve the regime directly."[73] But disentangling the regime's influence from other actors' influence is difficult to say the least. These two problems make a problem-solving definition of effectiveness an impractical one for scholars.

A legal definition of effectiveness is another possibility. It means "the degree to which contractual obligations are met – rules are complied with, policies changed, programs initiated, and so forth."[74] In other words, a legal definition of effectiveness would suggest that a regime is effective if states fully comply with the regime's rules. One benefit of this definition is that it is relatively easy to assess, since contractual obligations are written into treaties, and the monitoring of these obligations is usually built into the treaty as well.

There is one major problem with a legal definition of effectiveness though. Since states create regimes in the first place, there is always the possibility (some would

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[71] Oran R. Young, *The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms*, Global Environmental Accords (Cambridge, Mass: MIT Press, 1999), 4.
[72] Thomas Bernauer, 'The Effect of International Environmental Institutions: How We Might Learn More', *International Organization* 49, no. 2 (1995): 384; Oran R. Young, *International Governance: Protecting the Environment in a Stateless Society* (USA: Cornell University Press, 1994); Young, *The Effectiveness of International Environmental Regimes*, 1.
[73] Young, *The Effectiveness of International Environmental Regimes*, 4.
[74] Ibid.

argue probability) that states only agree to participate in regimes they are sure they can comply with. If that is true then there could be a large gap between compliance and other definitions of effectiveness, such as the problem-solving definition. And if there were a large gap, that means the regime could result in high levels of compliance, or even full compliance, without actually solving the problem it was intended to solve. This is clearly a considerable limitation given that some regimes (such as the climate change regime) are burdened with addressing very serious problems.

An economic definition of effectiveness is a third possibility. This definition is about efficiency: it asks: "is the regime generating the right outcome at the least cost?".[75] An effective regime under this definition would be an economically efficient one. Thomas Bernauer is one scholar who has advocated efficiency as a criterion.[76] Measuring the efficiency of a regime is difficult in practice, however. It is fairly straightforward to find out the administrative costs of the UNFCCC secretariat, but trying to determine the costs and benefits of each of the 192 states participating in the climate change regime would be incredibly complicated and time-consuming. Moreover, given the potentially devastating impacts of climate change, the cost of solving the problem is arguably far less important than actually *solving* the problem.

A normative definition of effectiveness is the fourth possibility in Young and Levy's list: how does the regime measure up in terms of fairness and participation? Several scholars have suggested normative principles as a measure of regime effectiveness.[77] One problem with a normative definition is that it is not an intuitive definition of effectiveness. Regimes are set up, ostensibly at least, to solve problems. Whether they are fair or not is another matter. That is not to say normative principles are not important: a regime that achieves its goal only by exploiting the weakest members is hardly a fair or admirable one. But when it comes to defining regime effectiveness, normative principles like fairness and participation only fit in awkwardly.

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[75] Ibid., 5.
[76] Bernauer, 'The Effect of International Environmental Institutions: How We Might Learn More', 388.
[77] Ibid.; Young, *International Governance*.

A political definition is the fifth possibility. According to this definition, effective regimes "cause changes in the behaviour of actors, in the interests of actors, or in the policies and performance of institutions in ways that contribute to positive management of the targeted problem."[78] So, if the problem is not yet solved, compliance is low, and normative goals are not met, but we can see that the regime is influencing states to change their behaviour to address the problem – then we can say the regime is effective.

A political definition sits most comfortably with political scientists, who are familiar with examining the behaviour of policy-makers, pressure groups, and other political actors. And that is probably why Young and his contributors used it to assess the case studies in their book, *The Effectiveness of International Environmental Regimes.*[79] The definition is also practical to use: to identify behaviour change one can use publicly available information such as speeches from policy-makers and policy documents from government agencies. And to identify whether this behaviour change is positively managing the problem of climate change, for example, one can measure a state's emissions.

As the above discussion makes clear, the effectiveness of a regime can be measured in a number of different ways. We may consider a regime effective if it ensures compliant behaviour among its member states, while at the same time consider it ineffective if it is failing to solve the problem it was set up to solve. There is no fixed meaning of effectiveness: it depends entirely on what we want to measure.

For the purposes of this thesis, however, I will use a political definition of effectiveness. I will define the climate change regime's effectiveness as the extent to which the climate change regime has influenced New Zealand and the United States to reduce total gross emissions.

My definition is graduated, simpler, more relaxed, and more precise than Young and Levy's political definition. It is graduated because effectiveness is placed on a continuum, rather than being binary. It is simpler because it limits the focus to states. It is more relaxed because "cause" is changed to "influence". I do not think it is possible to prove "cause" with regard to the climate change regime's influence on

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[78] Young, *The Effectiveness of International Environmental Regimes*, 5.
[79] Ibid., 6.

New Zealand and the United States because of the number of other variables in play, for example domestic forces, cognitive factors (i.e. leaders' personal beliefs about what should be done), and other international forces. Finally, it is more precise because "positive management" is defined as reducing total gross emissions. This is measurable by examining New Zealand and US greenhouse gas inventories. Accordingly, influence by itself is not enough to meet my definition of effectiveness: it must be influence that reduces total gross emissions.

The reader may wonder why I have used gross emissions rather than net emissions.[80] I have used gross emissions because ultimately all states will need to shift to low-carbon economies if we are to avert dangerous climate change. Gross emissions provide the most reliable indicator of whether this is happening. Net emissions add an intervening variable – forests – that can obscure whether or not this is happening. Additionally, I require that *total* gross emissions be reduced, as opposed to just a reduction in the *growth* of gross emissions. My reasoning here is similar. We will not avert dangerous climate change by reducing the growth of gross emissions. Total gross emissions must be reduced.

This definition undoubtedly presents a high bar for the climate change regime to reach. An alternative approach would be to drop the emissions reductions requirement and limit my definition of effectiveness to the regime's influence on New Zealand and the United States climate change policy. The reason I have decided not to take this approach is because of the climate change regime's high media profile, its prestige,[81] the resources it absorbs from states (not to mention green NGOs and other transnational actors), its 23 years of existence, and the importance of the problem it is intended to address. In my view, these factors place a considerable amount of responsibility on the climate change regime, and therefore it seems reasonable to me

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[80] Gross emissions indicate the actual amount of emissions released into the atmosphere, while net emissions factor in the mitigation potential of sinks, i.e. forests.

[81] During my research I interviewed a former official from the UN Convention on Biodiversity who made an interesting comment about her perception of the climate change regime. She said staffers working for the Biodiversity Convention secretariat saw the climate change regime as the more glamorous regime given the nature of the problem it was dealing with, and the attention it attracted from world leaders. In her view, however, biodiversity action has been very negatively affected by the increased attention to climate change.

to find out what actual impact the climate change regime has had on reducing total gross emissions in my case study states.[82]

Evaluations of the climate change regime's effectiveness

Having used the regime theory to define the key concepts in my research question and sub-questions, I now turn to the empirical literature that has evaluated the climate change regime's effectiveness. This literature can be divided into two categories: early evaluations of the climate change regime's design and future effectiveness, and more recent high-level evaluations of the regime's effectiveness.

Early evaluations

The first category of literature is the least relevant to my research question. It is relatively old now and consists of two articles (one from 1993 and one from 2000) from Daniel Bodansky, and a book by Joyetta Gupta written in 1997. Both scholars evaluated the design of the Convention (the core component of the climate change regime) and predicted its future effectiveness.[83] Bodansky's 1993 evaluation was fairly positive. He concluded that: "While immediate emissions stabilisation would be desirable, establishing a dynamic international process is more important for the long-term. The UN Framework Convention on Climate Change makes a definite, albeit tentative, start along that road".[84] His 2000 update reaffirmed his initial conclusion. He said the Convention has helped states establish and refine emissions reporting, develop emissions trading, and kept climate change in the spotlight.[85]

Gupta was also generally positive about the climate change regime's design. She noted that it addressed the conflict between developing states and industrialised states by adopting a "common but differentiated" responsibilities approach. But her evaluation of the climate change regime's *effectiveness* was far less positive. She stated that "On balance, the climate change regime, if it can be called one, is a

[82] For conciseness, I refer to gross emissions as emissions for the rest of this thesis.
[83] Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary'; Daniel Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary on a Commentary', *The Yale Journal of International Law* 25, no. 2 (2000): 315–17; Joyeeta Gupta, *The Climate Change Convention and Developing Countries: From Conflict to Consensus?* (Dordrecht, The Netherlands: Kluwer Academic, 1997).
[84] Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary', 558.
[85] Bodansky, 'The United Nations Framework Convention on Climate Change', 316.

symbolic front, a symbolic commitment to global interests, while defending current clear or unclear domestic interests."[86]

Bodansky and Gupta's contributions provide a useful starting point but are now 15 and 18 years old, respectively. Therefore one cannot draw any conclusion from them about the climate change regime's effectiveness in 2015. To get a more up-to-date evaluation of its effectiveness, we now turn to the second category of literature.

Recent evaluations

There are four recent evaluations of the climate change regime, and these can be split into two: a group of scholars who think the regime is ineffective, and one group, the IPCC, that does not come to a clear conclusion.

The first group of scholars are Cinnamon Carlarne, Deborah Davenport, and Alexandar Zahar. All three consider the climate change regime ineffective. Carlarne, for example, points out that the climate change regime has failed to facilitate a global treaty and that global emissions continue to rise.[87] In her view, "…while still offering an irreplaceable forum for global deliberation and a platform for norm creation – [the climate change regime] no longer offers the promise of a consolidated, comprehensive, collective-action based response to global climate change."[88] Put another way, the climate change regime has failed and the international community must find alternative solutions to addressing climate change. She stops short of suggesting we abandon it altogether, however. Adaptation offers a way to recreate it so that it can be effective.

Davenport also concludes the climate change regime is ineffective. She says the climate change regime "has shown itself to be almost entirely ineffective in mitigating the problem…".[89] In her view, the climate change regime's ineffectiveness can be pinned down to the lack of US leadership, which is caused by the perceived high costs of acting, along with perceived minimal benefits: "It is an American perception of

[86] Gupta, *The Climate Change Convention and Developing Countries: From Conflict to Consensus?*, 191.
[87] Cinnamon Carlarne, 'The Future of the UNFCCC: Adaptation and Institutional Rebirth for the International Climate Convention' (Moritz College of Law, Ohio State University, 2012), 57, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2148438.
[88] Ibid., 2.
[89] Deborah Saunders Davenport, *Global Environmental Negotiations and US Interests* (Basingstoke: Palgrave Macmillan, 2006), 172.

costs and benefits that determines the interest of the United States, and that, so far, determines the effectiveness of international environmental cooperation."[90]

Zahar is the third scholar who concludes that the climate change regime is ineffective. He points out that most states have failed to reduce their emissions to 1990 levels, which was the stabilisation target in the Convention. Out of the 23 Annex II states, only seven reduced their emissions to 1990 levels.[91] This does not sound like a complete disaster, given the challenges climate change poses, mentioned in chapter 1. But Zahar found that emissions from three of those seven states (Finland, Luxembourg, and Switzerland) began increasing again from 2000-2008.[92] Zahar concludes on a pessimistic note, saying that politicians and negotiators are "delighted to see a climate change regime still actually in place, hobbling along, making a difference to emissions, however slight."[93]

As we can see, Carlarne, Davenport and Zahar all came to negative conclusions about the climate change regime's effectiveness. A more mixed conclusion comes from Robert Stavins and his colleagues at the IPCC, who evaluated the climate change regime as part of their 2014 IPCC report. The relevant section of the report "critically examines and evaluates the ways in which agreements and instruments for international cooperation to address global climate change have been and can be organised and implemented…".[94] Stavins et al. undertake a very detailed analysis of the climate change regime, and climate change cooperation more broadly, but it is difficult to pin down any conclusion about the climate change regime's effectiveness. For example, they note that the Kyoto Protocol has helped reduce emissions, but also point out this was mainly due to economic recession in participating states.[95]

With this exception, one can conclude that amongst the scholars who have evaluated the climate change regime recently the general consensus is that it is

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[90] Ibid., 210.
[91] Alexander Zahar, 'The Climate Change Regime', in *Routledge Handbook of International Environmental Law* (Abingdon, UK: Routledge, 2012), 355.
[92] At that point the global financial crisis hit and reduced emissions across most of the world.
[93] Zahar, 'The Climate Change Regime', 370.
[94] Robert Stavins et al., 'International Cooperation: Agreements and Instruments', in *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge, United Kingdom; New York, NY, USA: Cambridge University Press, 2014), 1005.
[95] Ibid., 1043.

ineffective. But all of these evaluations have a deficiency: they are high-level, that is, they do not evaluate the climate change regime's effectiveness within states. Without opening the "black box" of the state, we are unable to determine what kind of influence the climate change regime has had on states' climate change policies. If it has little or no influence, then blaming it for states' inability to reduce emissions is a red herring. And if, on the other hand, the climate change regime does have influence, by examining its influence *within* states we can determine whether or not there are other factors that are the cause of the climate change regime's so-called ineffectiveness. This is an important gap in the literature to fill, because while it is easy to blame the climate change regime for being ineffective, the truth may be that it is doing the best it can be expected to do, but other forces are counteracting its influence. Only by examining the climate change regime's influence within states are we able to find out.

Chapter summary

In this chapter I undertook four tasks. First, I formulated a practical definition of the climate change regime using regime theory. Following Robert Keohane's definition, I defined the climate change regime as the explicit rules agreed upon by the international community that pertain to climate change. Second, I described three schools of thought about how regimes influence states. These included seven mechanisms of regime influence from the institutionalist and constructivist schools of thought: providing information; affecting states' reputations; enhancing capacity; socialising states, facilitating state learning; modifying the interests and identity of states; and causing domestic actors to realign. Third, I described five different definitions of regime effectiveness. I decided to use a modified political definition of regime effectiveness for this thesis, and I defined the climate change regime's effectiveness as the extent to which the climate change regime has influenced New Zealand and the United States to reduce total gross emissions. Finally, I reviewed the literature that has evaluated the climate change regime's effectiveness, which can be split into old evaluations and new evaluations. The older evaluations are now outdated and more recent evaluations have concluded that the climate change regime is ineffective overall. But all evaluations are high-level and do not examine the climate change regime's effectiveness in particular states. This highlights a gap in the literature that this thesis attempts to fill.

In the next chapter I describe the method I will use to answer my research question and sub-questions, before moving onto the core of the thesis: the New Zealand and US case studies.

4. Method

In this chapter I describe the method I will use to answer my research question: how effective has the climate change regime been in New Zealand and the United States between 1988 and 2015? And my three sub-questions: did the governments of New Zealand and the United States take action to reduce emissions? Is the climate change regime's influence observable in these actions? And did these actions reduce total New Zealand and US emissions?

There are three sections. First, I specify the delimitations of my research. Second, I describe my research sources. And third, I describe the limitations to my research sources.

Delimitations

The scope of my thesis has an important delimitation to make it feasible. I evaluate the climate change regime's effectiveness in New Zealand and the United States only. This delimitation enables me to evaluate each state in detail and develop comprehensive answers to my sub-questions, and in turn, my research question. The alternative would be to include more states, but the cost would be superficial answers to the three sub-questions and a less than robust answer to the research question.

Why have I chosen New Zealand and the United States? I chose New Zealand for pragmatic reasons: as a New Zealand citizen I had access to unpublished documents from government agencies through the Official Information Act, a service not available to non-New Zealand scholars. I was also able to interview New Zealand policy-makers, which helped confirm my other research sources and added interesting insights. I chose the United States because it is the most powerful player in the climate change regime, being the second largest source of emissions and the most powerful economic and military state in the international system. The climate change regime's effectiveness in the United States, then, has important ramifications for addressing climate change.

Research sources

My research sources include:

- New Zealand and US government documents. These documents describe national climate change policy and indicate how the climate change regime has affected both states' behaviour.
- New Zealand and US National Communications to the UNFCCC secretariat. Both states explain what policy changes they have made to comply with the climate change regime's objectives in these reports.
- The in-depth reviews of New Zealand and US National Communications by the UNFCCC secretariat's expert review team.[96] These reviews critically evaluate New Zealand and US actions to meet the climate change regime's objectives.
- Data from the UNFCCC secretariat website to calculate emissions in both states.
- Interviews with New Zealand policy-makers and climate change experts. These interviews triangulate the sources above, that is, confirm their accuracy, and provide rich anecdotal evidence from the highest echelons in the New Zealand government.

Limitations to research sources

Relying on New Zealand and US National Communications and government documents has potential limitations. States can misreport on what has been implemented, for example.[97] Or more subtly, states can pad their National Communications with policies and measures that sound good, but ultimately have very little effect on reducing emissions. Strategy documents are a prime example. The government tendency to present strategy documents as evidence the government is doing something, as opposed to concrete actions, is something I experienced while working as a policy analyst for the New Zealand government. If National Communications suffered from misreporting and padding, the information in them would be unreliable and misleading, which would undermine any conclusions I drew from them.

[96] The UNFCCC secretariat's staff coordinates the expert review teams but the members of the team are from a range of countries.
[97] O'Neill, *The Environment and International Relations*, 119.

This limitation is mitigated in two ways. First, I mitigate it with my definition of effectiveness. To meet my definition the climate change regime must be influencing states to reduce total emissions. Therefore if I find New Zealand and United States taking extensive action, but also find their total emissions increasing, then I will still consider the climate change regime ineffective. This approach obviously places the onus on the climate change regime to ensure that states' actions are credible.

It is convenient, then, that the second way this limitation is mitigated is by the UNFCCC secretariat. To ensure states' National Communications are credible, the secretariat deploys an expert review team to conduct in-depth critical reviews of these reports.[98] This team visits each state and interviews and collects more information from the agencies responsible for the reports. I expect this process improves the accuracy of the National Communications.

Moreover, and perhaps more importantly, a decision at COP17 in 2011 gave all states the ability to critically assess other states' National Communications. A "multilateral assessment" process allows any state to question, verbally and in writing, the state being assessed.[99] New Zealand went through this process in December 2014.[100] Given the potential embarrassment for a state if it is caught misreporting, I expect this would encourage states to be as honest as possible. The multilateral assessment further strengthens the credibility of the National Communications.

Chapter summary

This chapter outlined the method I will use to answer my research question and sub-questions. First, I specified the delimitations of my research, which is two case studies only, New Zealand and the United States. Second, I described my research sources. These included government documents, interviews with New Zealand policy-makers, and qualitative and quantitative data from the UNFCCC secretariat website. Third, I

[98] 'National Communications Annex I', *Unfccc.int*, accessed 22 June 2015, http://unfccc.int/national_reports/annex_i_natcom_/items/1095.php.
[99] 'Multilateral Assessment', *Unfccc.int*, 2014, http://unfccc.int/focus/mitigation/the_multilateral_assessment_process_under_the_iar/items/8451.php.
[100] 'Multilateral Assessment Process New Zealand', *Unfccc.int*, 2014, http://unfccc.int/focus/mitigation/the_multilateral_assessment_process_under_the_iar/items/8468.php.

described their limitations, noting that these limitations are mitigated to an extent by my definition of effectiveness and processes the UNFCCC secretariat has in place to review states' National Communications.

In the next chapter I begin the primary task of this thesis: investigating the climate change regime's effectiveness in my case study states, beginning with New Zealand.

5. Case study 1: New Zealand

In this chapter I evaluate the climate change regime's effectiveness in New Zealand between 1988 and 2015. The chapter is split into five sections. The first section is a brief prelude to the climate change regime from 1988-1990 under the Palmer government. The second, third, and fourth sections correspond to the 1990-1999 Bolger government, the 1999-2008 Clark government, and the 2008-2015 Key government, respectively. The fifth and final section summarises the case study findings.

Prelude to the climate change regime

New Zealand began taking action on climate change when the problem first emerged in the late 1980s, even before the climate change regime was in place. In 1988 – four years before the Convention was signed – New Zealand established the New Zealand Climate Change Programme, the main purpose of which was to advise the government on how to best respond to climate change. [101] In August 1990, Prime Minister Geoffrey Palmer announced New Zealand's first emissions reductions target: a 20 percent cut in carbon emissions from 1990 levels by the year 2005. New Zealand's target was in accordance with a "call to action" adopted at a 1988 international meeting on climate change in Toronto,[102] which was a precursor to the Convention negotiations. Palmer also said New Zealand would review whether carbon emissions could be cut further, potentially reducing them by 40 percent from 1988 levels.[103]

Palmer's announcement indicated the influence of the emerging international climate agenda on New Zealand's domestic policy. The government was paying close attention to what was considered acceptable internationally in terms of setting New Zealand's emissions reduction target.

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[101] 'New Zealand's First National Communication under the Framework Convention on Climate Change', National Communication (Geneva, Switzerland: United Nations Office, September 1994), 3, http://unfccc.int/resource/docs/natc/newnc1.pdf.
[102] Kirsty Hamilton, 'New Zealand Climate Policy Between 1990 and 1996: A Greenpeace Perspective', in *Climate Change in the South Pacific: Impacts and Responses in Australia, New Zealand, and Small Island States*, ed. Alexander Gillespie and William C.G. Burns (Dordrecht, The Netherlands: Kluwer Academic Publishers, 2000), 147.
[103] Ibid.

The opposition National Party's climate change policy appeared to lag behind the Palmer government's relatively ambitious effort, however. Don McKinnon, the Deputy Leader of the National Party, announced the Party's climate change policy two days before the October 1990 election. It retained the 20 percent cut target, but extended the target date to 2010.[104]

1990-1999: Jim Bolger's National government

The National Party, led by Jim Bolger, defeated the incumbent government by a landslide in the 1990 election.

Reluctant steps forward (1990-1994)

The Bolger government moved quickly to qualify the previous government's emissions reduction target. The Bolger government, "recognising the need for countries to make an early start in addressing climate change", committed to reducing carbon emissions to 20 percent below 1990 levels by 2000, but only if certain conditions were met.[105] These certain conditions included "cost effectiveness, not reducing our competitive advantage in international trade, and having a net benefit to New Zealand society."[106]

The conditional target did not remove all the anxiety within the Bolger government about the costs of meeting it, however. In November 1991, the Ministry of Commerce reported to the government that meeting the target would be "difficult and costly", and estimated the cost at NZ$6 billion.[107] According to Kirsty Hamilton, who investigated New Zealand climate change policy in the 1990s, the Ministry's report "both fuelled and reflected the increasing lack of commitment to deal with climate change."[108] Further evidence of a lack of commitment came in May 1992, when Environment Minister Rob Storey said New Zealand would have to essentially cut car use in half within eight years to achieve the target.[109]

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[104] Ibid.
[105] 'New Zealand's First National Communication under the Framework Convention on Climate Change', 32.
[106] Ibid., 3.
[107] Hamilton, 'New Zealand Climate Policy Between 1990 and 1996: A Greenpeace Perspective', 152.
[108] Ibid., 153.
[109] Ibid.

Despite these reservations, between 1991-1994 the Bolger government began taking action to address climate change. For example, in 1991, the Bolger government appointed a committee, with a very awkward acronym, the National Science Strategy Committee on Climate Change (NSSCCC) to provide advice and coordination on climate change science issues.[110] In June 1992, New Zealand signed the Convention, along with the rest of the international community. A month later the Bolger government announced its "CO2 Reduction Action Plan", which was specifically aimed at reducing carbon emissions.[111] The government also established the Energy Efficiency and Conservation Authority, and commissioned a study into the barriers to energy efficiency.[112]

In May 1993, the Bolger government, expecting to ratify the Convention in September, reaffirmed that it would meet its commitments to the Convention to reduce net carbon emissions to 1990 levels; that it would do so by 2000; and that it would maintain them at that level beyond the turn of the century.[113] The government's new target indicated the climate change regime's influence. Article 4(2)(b) of the Convention says "[developed states commit to] the aim of returning individually or jointly to their 1990 levels these anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol."[114] The government had therefore aligned its target with Article 4(2)(b) in the Convention.[115]

On 16 September 1993, New Zealand became the 34th state to ratify the Convention.[116] This made New Zealand's ratification one of the 50 ratifications necessary to bring the treaty into force.

New Zealand's decision to ratify the Convention provides persuasive circumstantial evidence of the climate change regime's influence. I expect it would

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[110] 'New Zealand's First National Communication under the Framework Convention on Climate Change', 7.
[111] Hamilton, 'New Zealand Climate Policy Between 1990 and 1996: A Greenpeace Perspective', 153.
[112] 'New Zealand's First National Communication under the Framework Convention on Climate Change', 35.
[113] Ibid., 33.
[114] 'United Nations Framework Convention on Climate Change', 6.
[115] The Bolger government's conditional target remained but as an "ultimate objective". Hamilton, 'New Zealand Climate Policy Between 1990 and 1996: A Greenpeace Perspective', 155.
[116] 'New Zealand's First National Communication under the Framework Convention on Climate Change'.

have been difficult for New Zealand to reject ratification given that it was fairly clear at that point that the entire international community would be ratifying it. The peer pressure would have been enormous, especially on a small state like New Zealand. Given the Bolger government was somewhat ambivalent about taking climate change action at this point, its decision to ratify may demonstrate the reputational effect of the climate change regime. That is, the Bolger government did not want New Zealand to be seen to be lagging behind other states on climate change policy, so decided to ratify so New Zealand would be seen as a good international citizen.

In July 1994, the Bolger government announced further policies to reduce carbon emissions and to meet its 2000 target.[117] Expanding "carbon sinks" (i.e. forests) was expected to meet 80 percent of the target, while reducing emissions would achieve the final 20 percent.[118] Emission reduction policies included energy sector reforms, energy efficiency policies, removing barriers to renewable energy, and voluntary agreements with industry to reduce emissions.[119] The government expected that in the absence of these policies carbon emissions would be 18-22 percent higher than 1990 levels by 2000.[120] With the policies in place, the government expected to reduce carbon emissions 20 percent below 1990 levels by 2000. As a fail safe measure, the government announced it would introduce a low-level carbon tax in 1997 if by mid-1997 emissions were not on track to meet New Zealand's commitment under the Convention.[121]

Was the climate change regime's influence evident in these policies? Some of the policies would very likely have occurred without the climate change regime, in particular the energy sector reforms, which the Bolger government was ideologically inclined to pursue. But other policies suggest the climate change regime was influencing the Bolger government. The voluntary agreements with industry to reduce

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[117] 'New Zealand's Second National Communication under the Framework Convention on Climate Change', National Communication (Geneva, Switzerland: United Nations Office, June 1997), 49, http://unfccc.int/resource/docs/natc/newnc2.pdf.
[118] 'Report on the in-Depth Review of the Second National Communication of New Zealand', National Communication (Geneva, Switzerland: United Nations Office, 21 September 1999), 3, http://unfccc.int/resource/docs/idr/nzl02.pdf.
[119] 'New Zealand's First National Communication under the Framework Convention on Climate Change'.
[120] Ibid.
[121] Ibid.

emissions were one example. I expect some industries, particularly those who had a sceptical view of climate change, would have found these agreements a nuisance.

During 1994 there was disagreement between the Bolger government, on the one hand, and its ministries and green NGOs, on the other, over what the right balance between sinks and direct emission reductions should be.[122] Internal documents show that the Ministry of Foreign Affairs and Trade and the Ministry for the Environment argued for a 60:40 ratio.[123] In other words, they thought the Bolger government should work harder to reduce emissions directly rather than relying on sinks. Greenpeace and the Royal Society were also publicly critical of an approach that relied to heavily on sinks, arguing that it was not consistent with the Convention, nor scientifically sound.[124] The Bolger government decided to overrule both ministries, ignore the NGOs, and go with the less challenging 80:20 ratio. This decision highlighted the Bolger government's reluctance to enact strong climate change policy.

Intervention (1995)

1995 represented the high-watermark of the climate change regime's influence over the Bolger government's climate change policy. In March, the Minister for the Environment Simon Upton imposed stringent conditions on an application from Electricity Corporation New Zealand (ECNZ) to build a new natural gas power station in Stratford, Taranaki. The power station was expected to discharge 1.5 million tonnes of CO2 a year at full capacity, or five percent of New Zealand's 1993 emissions.[125] Upton's conditions required ECNZ to "fully avoid, remedy or mitigate CO2 emissions from the power station…".[126] In practical terms this meant ECNZ would need to plant trees to fully offset the emissions.

There are two pieces of evidence that indicate the climate change regime's influence on the Bolger government's decision to impose these conditions. First, a Cabinet paper justified intervention on the basis of New Zealand's commitments under the climate change regime. The paper stated:

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[122] Hamilton, 'New Zealand Climate Policy Between 1990 and 1996: A Greenpeace Perspective', 159.
[123] Ibid.
[124] Ibid., 158.
[125] 'New Zealand's Second National Communication under the Framework Convention on Climate Change', 61.
[126] Ibid.

> We consider that the proposal would have significant implications for the Government's ability to meet its climate change policy objectives and is relevant to New Zealand's international obligations in relation to the global environment. … Doing nothing on the Stratford proposal could also affect New Zealand's credibility in seeking to have the international community accept our forestry actions as contributing to meeting our international obligations under the Framework Convention on Climate Change.[127]

Second, the climate change regime's influence appeared to override the Bolger government's inclination not to intervene. The Bolger government was ideologically to the right and therefore pro-free market, so one can reasonably assume it would be reluctant to interfere with the investment decisions of industry. Moreover, the Bolger government received advice from the Treasury and the Ministry of Commerce, who argued against intervention, claiming that the power station would not affect New Zealand's commitments under the climate change regime.[128] And yet the Bolger government intervened anyway. This suggests that the climate change regime's influence counteracted both the Bolger government's ideology and the ministries advice.

Equivocation over a carbon tax, and the Kyoto negotiations (1997-1999)

The Bolger government had demonstrated it was willing to intervene to meet its commitments under the Convention. But tougher measures, like the carbon tax it had indicated it would implement in 1997, were still off the table. In March 1997, Upton announced the government would defer any decision on a carbon tax until early 1998.[129]

The deferral, however, demonstrated how the climate change regime was influencing New Zealand's climate change policy. This is evident in Upton's statement that it made "no sense for New Zealand to act unilaterally when we are

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[127] Hamilton, 'New Zealand Climate Policy Between 1990 and 1996: A Greenpeace Perspective', 157.
[128] Ibid., 159.
[129] Simon Upton, 'Government Defers Decision On A Carbon Charge', *Beehive.govt.nz*, 11 March 1997, http://beehive.govt.nz/release/government-defers-decision-carbon-charge.

advocating at the global level more flexible and sophisticated international mechanisms which would allow greenhouse gas emissions to be reduced in a much less economically disruptive way."[130] Put another way, rather than imposing a potentially expensive carbon tax, the Kyoto Protocol could allow New Zealand to reduce emissions through cheaper means.[131] Thus the Bolger government perceived a direct link between the climate change regime and New Zealand's climate change policy.

With a carbon tax off the table for now the Bolger government needed to implement other policies to ensure it met its Convention commitments. In July 1997, the government announced the "Green Package". The Green Package included measures to reduce emissions worth NZ$28.7 million over three years.[132] Overall, the government expected that the measures introduced would "contribute significantly to the projected 20 percent reduction in growth of carbon emissions from 1990 to 2000."[133]

At the end of 1997 New Zealand attended COP3 in Kyoto to negotiate the Kyoto Protocol with the rest of the international community. According to Hamilton, New Zealand played an aggressive role by "spearheading efforts to extract commitments from developing nations" before industrialised states had finalised their own commitments.[134] She also notes that the European Union was strongly opposed to New Zealand's goal of including carbon sinks in Kyoto because they were difficult to measure and verify.[135] New Zealand's negotiating strategy provided further evidence that the Bolger government was reluctant to take meaningful action to directly reduce emissions, at least not until developing states did.

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[130] Ibid.
[131] From a political perspective this move made sense too. The Bolger government at the time, an uneasy coalition between the National Party and the populist New Zealand First party, was struggling to maintain a stable government. A tax increase would have only made matters worse.
[132] 'New Zealand's Second National Communication under the Framework Convention on Climate Change', 7.
[133] Ibid., 9.
[134] Hamilton, 'New Zealand Climate Policy Between 1990 and 1996: A Greenpeace Perspective', 143.
[135] Ibid.

In May 1998, New Zealand's Permanent Representative in New York signed the Kyoto Protocol.[136] But although the Bolger government had signed the Protocol, it remained unclear whether the Bolger government would ratify it. In May, Upton said "whether New Zealand ratifies the Protocol depends largely on a satisfactory international emissions trading regime being put in place", since in the Bolger government's view that would enable New Zealand to reduce its emissions at least cost.[137] In 1998, however, the rules for the trading component of the Protocol were far from finalised.

In March 1997, the Bolger government had said it would decide whether to introduce a domestic carbon tax after the Kyoto Protocol was finalised. But in early 1998 the government again deferred a decision on the matter.[138]

Instead, Upton began examining how the Bolger government could directly reduce emissions with other options. In February 1999 Upton launched a public consultation on the matter.[139] One option was an emissions trading scheme (ETS). In September, Upton announced that the Bolger government had decided not to adopt an ETS or any other option at that time, but that "[A] decision will be made on which interim measure is to be adopted after the Sixth Conference of the Parties to the UN Framework Convention on Climate Change (COP6) which is to be held sometime around the end of 2000."[140] His government did not get to make that decision; the Labour Party defeated the Bolger government in the November 1999 election.

The evidence suggests, however, that the Bolger government, although reluctant to implement a carbon tax, was serious about implementing some kind of policy to directly reduce emissions. Clearly the Bolger government was unenthusiastic about this though, and wanted to see what the detailed rules of the Kyoto Protocol would

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[136] Simon Upton, 'New Zealand Signs Kyoto Protocol On Climate Change', *Beehive.govt.nz*, 23 May 1998, http://beehive.govt.nz/release/new-zealand-signs-kyoto-protocol-climate-change.
[137] Ibid.
[138] 'Report on the in-Depth Review of the Second National Communication of New Zealand', 3. In mid-1997 Jenny Shipley replaced Jim Bolger as Prime Minister in a leadership coup but it is unclear whether this affected the government's decision to defer a carbon tax.
[139] Simon Upton, 'Government Seeks Public Input On Climate Change Policy Choices', *Beehive.govt.nz*, 2 February 1999, http://beehive.govt.nz/release/government-seeks-public-input-climate-change-policy-choices.
[140] Simon Upton, 'Climate Change Options', *Beehive.govt.nz*, 18 September 1999, http://beehive.govt.nz/release/climate-change-options.

look like before taking further action. I get the impression that New Zealand was closely watching the developments within the climate change regime and adjusting its climate change policy to match the direction it was heading.

Summary

We stop here to briefly summarise the case study so far with reference to my sub-questions. The first sub-question was: did New Zealand take action to reduce emissions between 1988 and 2015? The answer is yes; the Bolger government took some action to reduce emissions. The Bolger government ratified the Convention and implemented a CO2 reduction plan in 1994. Upton's decision in 1995 to impose stringent conditions on a new natural gas plant was very important, given that the new plant could have increased New Zealand's emissions substantially, as was the government's decision to sign the Kyoto Protocol. The government also increased funding in its budget to reduce emissions, for example with the Green Package in the 1997 budget. So overall, we can see that action was taken, although clearly there was the possibility it could have been stronger.

The second sub-question was: is the climate change regime's influence observable in these actions? Yes – there is moderate evidence of the climate change regime's influence on the Bolger government's actions. For example, the regime's influence is clear in Upton's 1995 decision, referred to above. Government documents highlighted the importance the government attached to its commitments under the climate change regime, and that is why it imposed stringent conditions on the new natural gas plant. This was despite the fact that the decision went against its ideological inclinations. The climate change regime's influence is not evident in all New Zealand's actions – some would probably have been taken anyway, for example the electricity sector reforms. But overall one gets the impression that New Zealand was closely watching developments within the climate change regime, and calibrating its climate change policy to match the direction the climate change regime was heading.

The third sub-question was: did these actions reduce total New Zealand emissions? The Bolger governments' actions did not reduce total emissions: data from the UNFCCC secretariat's website indicates that between 1990 and 1999 emissions

rose by 14 percent.[141] Emissions growth appeared to slow, however. In 2003, the UNFCCC secretariat's expert review team acknowledged that the Bolger government's actions had reduced the growth rate of emissions.[142]

1999-2008: Helen Clark's Labour government

We now continue on to the third section of the New Zealand case study. The Bolger government's nine year reign ended in the November 1999 election, when it was defeated by a left-wing Labour-Alliance coalition, led by Helen Clark. During the election campaign, the Labour-Alliance coalition had promised to take stronger action to reduce emissions than the previous government.

Ratifying Kyoto (2000-2002)

The Clark government's first action on climate change occurred in May 2000, when Prime Minister Clark announced New Zealand intended to ratify the Kyoto Protocol. The Clark government put forward three reasons for ratifying. First, Clark said New Zealand was perceived by the international community as a "laggard" on climate change because of a decade of inaction.[143] Ratifying Kyoto would help change this perception.

This reason indicated the reputational effect of the climate change regime. The climate change regime had imposed a reputational cost on New Zealand and now New Zealand was perceived as a laggard state, according to Clark. Clark therefore decided to ratify Kyoto to change this perception. Put another way, the climate change regime had influenced Clark to ratify Kyoto to repair New Zealand's reputation.

The second reason for ratifying Kyoto was that it was the right thing to do. David Parker, who was Climate Change Minister for the Clark government between 2005-2008, told me:

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[141] 'Greenhouse Gas Inventory Data - Detailed Data by Party', *Unfccc.int*, accessed 3 June 2015, http://unfccc.int/di/DetailedByParty.do.
[142] 'Report on the in-Depth Review of the Third National Communication of New Zealand', National Communication (Geneva, Switzerland: United Nations Office, 19 March 2003), 4.
[143] Helen Clark, 'NZ Aims to Ratify Kyoto Protocol on Climate Change by Mid-2002', *Beehive.govt.nz*, 8 May 2000, http://beehive.govt.nz/release/nz-aims-ratify-kyoto-protocol-climate-change-mid-2002.

> You should [ratify Kyoto] because it's the right thing to do. If you accept, as everyone involved in the UNFCCC process [i.e. the climate change regime] does, that climate change is a real and pressing problem and it's human-induced, then we should do something about it.[144]

The third reason for ratifying Kyoto is that it would strengthen the international system of rules. This was to New Zealand's benefit. Parker told me:

> As a small country we've got no weight to throw around. Therefore we're reliant on international agreements and people doing the right thing by us in order to get by in the world. So it's more important to us to have decent international rules around lots of things, including the environment, than it is for other [bigger and more powerful] countries.[145]

The second and third reasons are not persuasive evidence of the climate change regime's influence. What they do demonstrate is that the Clark government was taking action on climate change for reasons other than the climate change regime's influence.

The Clark government then strengthened the government's institutional framework for climate change. A month after her Kyoto ratification announcement, Clark established a ministerial group on climate change. The group was intended to oversee the development of a climate change action plan that would enable New Zealand to ratify the Kyoto Protocol. Pete Hodgson, the Energy Minister, was given responsibility for leading the group, and he would play point for the Clark government on climate change for the next five years. Hodgson said that the Clark government was "committed to reducing greenhouse gas emissions to meet its Kyoto Protocol obligations,"[146] which was further evidence of the climate change regime's influence on the Clark government's climate change policy. A Climate Change Project group was also established within the powerful Department of Prime Minister

[144] David Parker, interview by author, 13 May 2015.
[145] Ibid.
[146] Pete Hodgson, 'NZ Committed to Reducing Greenhouse Gas Emissions', *Beehive.govt.nz*, 16 June 2000, http://beehive.govt.nz/release/nz-committed-reducing-greenhouse-gas-emissions.

and Cabinet to support the ministerial group. The UNFCCC secretariat's expert review team approved of these changes, saying that "The strengthening of the institutional framework stemmed from the priority given to climate change in the national policy agenda, and, in particular, from the intention, clearly stated in the [Third National Communication], to ratify the Kyoto Protocol by September 2002."[147]

The decision by the Clark government to elevate the importance of the Kyoto Protocol had potential risks and benefits. On the risk side, Parker told me that this decision raised the political cost of the Clark government failing to meet its commitments under the Protocol.[148] On the other hand, it demonstrated to the public service that the Clark government was serious about making progress on climate change. Parker said this helped move the energy division within the Ministry of Economic Development towards renewables.[149]

In June, Hodgson announced the Clark government was taking additional steps to implement Kyoto by passing a domestic budget that provided an extra NZ$2.3 million for the development of climate change policies to meet New Zealand's Kyoto Protocol commitments.[150] There is circumstantial evidence of the climate change regime's influence in Hodgson's announcement. He said, "Funding this work is essential if New Zealand is to meet its international obligations."[151] International obligations were an indirect reference to the climate change regime.

In August, Hodgson announced domestic actions would focus initially on improving energy efficiency, with "work continuing on more complex economic and regulatory options", including the long-delayed carbon tax.[152] Hodgson also confirmed the government was developing a climate change action plan. His press release stated that, "development of the plan will enable New Zealand to ratify the

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[147] 'Report on the in-Depth Review of the Third National Communication of New Zealand'.
[148] Parker, interview.
[149] Ibid.
[150] Pete Hodgson, 'Meeting the Climate Change Challenge', *Beehive.govt.nz*, June 2000, http://beehive.govt.nz/release/meeting-climate-change-challenge.
[151] Ibid.
[152] Pete Hodgson, 'Climate Change Policy: Early Decisions and Directions', *Beehive.govt.nz*, 30 August 2000, http://beehive.govt.nz/release/climate-change-policy-early-decisions-and-directions.

1997 Kyoto Protocol to the United Nations Framework Convention on Climate Change by mid-2002,"[153] indicating the climate change regime's influence.

In November, Hodgson attempted to allay fears in the energy industry that the government was moving too fast on Kyoto. He gave a speech to the Greenhouse Policy Coalition, an energy industry pressure group, where he explained the government's decision to ratify it.[154] His first reason was a repeat of Clark's rationale in May – that New Zealand was perceived internationally as a laggard, and ratifying Kyoto would reverse that perception.[155] His exact words were "We are in fact acting out of a desire to drag New Zealand up from the laggard status we have acquired as a result of a decade or so of relative inaction".[156] Hodgson's other reasons were that the science was getting stronger; improving energy efficiency was a good idea in any case; New Zealand needed to show developing states that industrialised states were leading; and ratifying would increase the public's awareness of climate change.[157]

Hodgson's decision to lead with international reputation as the reason for ratifying Kyoto highlighted the climate change regime's reputational effect on him. There were many reasons he could have led with, for example energy efficiency, which arguably would have played better to his audience. But he chose international reputation. This suggests it was the main reason for ratification, and moreover that Hodgson was trying to impress upon his audience that not ratifying Kyoto would do further harm to New Zealand's reputation.

In March 2001, the G.W. Bush administration rejected Kyoto, sending a shockwave through the international community and delivering a potentially fatal blow to the treaty. The Clark government attempted to reverse the damage by bringing the United States back in. In April 2001, Minister of Foreign Affairs and Trade Phil Goff met senior members of the Bush administration involved with climate change policy to discuss his concerns with the US position.[158] He urged them to recommit to Kyoto. In the same month, Hodgson repeated the message at the World

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[153] Ibid.
[154] Pete Hodgson, 'Beehive.govt.nz - NZ's Climate Change Action Plan', *Beehive.govt.nz*, 7 November 2000, http://beehive.govt.nz/speech/nz039s-climate-change-action-plan.
[155] Ibid.
[156] Ibid.
[157] Ibid.
[158] Pete Hodgson, 'NZ Concerned at US Signals on Kyoto Protocol', *Beehive.govt.nz*, 29 March 2001, http://beehive.govt.nz/release/nz-concerned-us-signals-kyoto-protocol.

Conference on Climate Change in New York. He said, "The meeting confirmed the fact that the rest of the developed world is deeply unimpressed by the United States' unilateral refusal to support the Kyoto Protocol."[159] These were fairly brave words for a small state of four million people to say to the world's one remaining superpower.

The Clark government's rebuke of the Bush administration demonstrated the climate change regime's socialisation effect on New Zealand. That is, the Clark government viewed the Bush administration's decision as falling outside the acceptable standards of behaviour, and the Clark government was not afraid of pointing that out to the Bush administration.[160] The Clark government's confidence may have been bolstered by the knowledge that many other states, like the European Union and Japan, supported its position and were criticising the United States in a similar way. We can see, then, the peer pressure the climate change regime was able to bring to bear against those states that attempted to resist its influence. The peer pressure was not strong enough, however, and the Bush administration held its ground.

The Clark government pressed ahead in 2002 to meet its future Kyoto Protocol commitments. In April, Hodgson announced a renewable energy target of 30 petajoules of additional energy use per year.[161] He said this would reduce carbon emissions by five million tonnes over the first Kyoto Protocol commitment period. In October, Hodgson announced an updated climate change policy package.[162] The package included an emissions charge that would apply to fossil fuels and industrial process emissions; government incentives for projects that reduce emissions; negotiated agreements with industry that would allow industry to avoid the emissions charge in exchange for a commitment to reducing emissions; and an exemption from the agricultural sector from all policies, as long as the sector invested in research to

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[159] Pete Hodgson, 'US given Clear Message on Climate Change', *Beehive.govt.nz*, 26 April 2001, http://beehive.govt.nz/release/us-given-clear-message-climate-change.

[160] Parker told me that in his view the US rejection of Kyoto "blew the whole thing apart essentially." In his opinion, if laggard industrialised states like the US had signed up to the Protocol, there would have been a political and moral case to say to developing states, "Ok we've done our bit in the first commitment period, it's now time for you to do your bit as well." Parker, interview.

[161] Pete Hodgson, 'Renewable Energy Target for New Zealand', *Beehive.govt.nz*, 30 April 2002, http://beehive.govt.nz/release/renewable-energy-target-new-zealand.

[162] Pete Hodgson, 'Government Confirms Key Climate Change Policies', *Beehive.govt.nz*, 17 October 2002, http://www.beehive.govt.nz/?q=node/15222.

find ways of reducing agricultural emissions.[163] This latter policy would turn out to have politically painful consequences for the Clark government in mid-2003.

The climate change regime's influence is evident in the language of Hodgson's press release attached to the policy announcement. It says, "The policies announced today will enable New Zealand to meet its greenhouse gas emission targets under the Kyoto Protocol."[164] And an associated media release stated, "The New Zealand Government has confirmed a policy package to enable New Zealand to meet its obligations under the Kyoto Protocol."[165]

During 2002, Hodgson shepherded Kyoto ratification along by publicly defending the treaty from attacks by pressure groups. For example, in January 2002, Hodgson said New Zealand would "suffer serious damage to the 'clean and green' reputation we trade on internationally" if New Zealand walked away from the treaty.[166] This provided further evidence of the climate change regime's reputational effect. In February, Hodgson said farmers should fear climate change, not Kyoto.[167] In April, he rejected claims from Business NZ that there was an alternative approach to Kyoto. Hodgson said, "The Protocol, which is the fruit of a decade of United Nations negotiations, is simply the only concerted international action on offer."[168]

By the end of 2002 the government was ready to ratify the Kyoto Protocol. In November, the government passed the Climate Change Response Act. The Act established institutional arrangements in line with the Kyoto Protocol's requirements. The climate change regime's influence is evident in the text of the Act. Clause 3(1) says that the purpose of the Act is to "enable New Zealand to meet its international obligations under the Convention and the Protocol".[169] Then on 19 December 2002,

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[163] Helen Clark, 'PM Signs Kyoto Protocol Ratification Document', *Beehive.govt.nz*, 10 December 2002, http://beehive.govt.nz/release/pm-signs-kyoto-protocol-ratification-document.
[164] Hodgson, 'Government Confirms Key Climate Change Policies'.
[165] Ibid.
[166] Pete Hodgson, 'Big Risks If NZ Walks Away from Kyoto Protocol', *Beehive.govt.nz*, 29 January 2002, http://beehive.govt.nz/release/big-risks-if-nz-walks-away-kyoto-protocol.
[167] Pete Hodgson, 'Farmers Should Fear Climate Change, Not Kyoto', *Beehive.govt.nz*, 1 February 2002, http://beehive.govt.nz/release/farmers-should-fear-climate-change-not-kyoto.
[168] Pete Hodgson, 'No Credible Alternative to Kyoto Protocol on Climate Change', *Beehive.govt.nz*, 22 April 2002, http://beehive.govt.nz/release/no-credible-alternative-kyoto-protocol-climate-change.
[169] 'Climate Change Response Act 2002', *Legislation.govt.nz*, 18 November 2002, http://www.legislation.govt.nz/act/public/2002/0040/latest/whole.html?search=ts_act%40bill

Clark signed the Kyoto Protocol ratification document, making New Zealand the 101st state to ratify the treaty. She said, "We are now following up past commitments by ratifying the Protocol and implementing the domestic policy to achieve real reductions in greenhouse gas emissions."[170]

The Clark government's efforts to ratify Kyoto between 2000 and 2002 represented the high point of the climate change regime's influence on New Zealand, specifically the regime's reputational effect. The Clark government believed that New Zealand's reputation was suffering as a result of its laggard identity in the climate change regime. Ratifying Kyoto was intended to change that, and New Zealand's decision to do so indicated the regime's influence.

The agricultural emissions levy (2001-2003)

Early in 2001 the Clark government decided it would need to find some way of reducing agricultural emissions. These emissions accounted for 54 percent of New Zealand's emissions in 2001 and so had to be tackled at some point if the Clark government was serious about reducing emissions.[171] Unfortunately for the Clark government, agricultural emissions were more difficult to reduce than emissions from other sectors, such as energy, unless the government simply asked farmers to reduce the number of animals on their farms. For reasons that will become clear in the discussion below, asking farmers to do this was not a politically viable option.

Skirmishes between the Clark government and farmers over agricultural emissions began in 2001. Initially Hodgson offered an olive leaf to farmers. In May, he emphasised that there were no plans to introduce a tax on farm production, and that the way forward was research, which the government would help fund.[172] His attempt

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%40regulation%40deemedreg_climate+change+response+act_resel_25_a&p=1#DLM158584

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[170] Clark, 'PM Signs Kyoto Protocol Ratification Document'.

[171] 'National Communication 2001: New Zealand's Third National Communication under the Framework Convention on Climate Change', National Communication (Geneva, Switzerland: United Nations Office, January 2002), 28.

[172] Pete Hodgson, 'Research the Answer to Agricultural Greenhouse Gas Emissions', *Beehive.govt.nz*, 21 May 2001, http://beehive.govt.nz/release/research-answer-agricultural-greenhouse-gas-emissions-hodgson. Interestingly, Parker acknowledged that the rationale behind the government's support for agricultural emissions research was not completely altruistic. Parker told me, "the government wanted to show developing countries how hard it is to reduce agricultural emissions compared to energy emissions", and show "the limits of what could be done." In other words, New Zealand's spending on agricultural research, even

to reach out to farmers did not have the success he thought it would, as four months later Hodgson decided to give two speeches to the Federated Farmers, New Zealand's most vocal and powerful farmer pressure group, admonishing them for their obstructive approach, which he said focused solely on the costs of action, rather than the cost of inaction. In a speech that had undertones of frustration and annoyance he asked the Federation to contribute "serious" arguments and analysis to the climate change problem.[173]

By mid-2003 the skirmishing between the Clark government and farmers threatened to turn into a full-scale political battle. The first signs emerged on 18 June when the Clark government announced it would be seeking feedback from farmers on the best way for them to fund research into reducing emissions from agriculture. The Clark government proposed an agricultural emissions levy in the feedback document it released. The agricultural pressure groups responded to the idea with hostility: the chair of the Pastoral Greenhouse Gas Research Consortium called it a "kick in the teeth" while Meat New Zealand chairman Jeff Grant called it "overkill".[174] Federated Farmers President Tony Lambie said the levy was "another example of the government's desire to act in the public interest but expecting rural New Zealand to pay for its largesse".[175] It then launched a nationwide "FART" (Fight Against Ridiculous Taxes) tax campaign against the proposed levy.

At first the Clark government responded strongly to the obstinate reaction of the agricultural pressure groups. For example, on 18 July Hodgson said, "Federated Farmers seems to have become wilfully blind to the millions of taxpayer dollars spent on research benefitting agriculture."[176] There was some political logic to the government responding in this way: farmers were not typically Labour Party

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if it was unsuccessful, would help persuade other states that it was fair for New Zealand to have a lower emissions reduction target compared to other states with more typical emissions profiles. Parker, interview.

[173] Pete Hodgson, 'Fed Farmers Urged to Take Climate Change Seriously', *Beehive.govt.nz*, 20 November 2001, http://beehive.govt.nz/release/fed-farmers-urged-take-climate-change-seriously.

[174] Liam Dann, 'Livestock Burp Tax Sticks in Throats', *New Zealand Herald*, 20 June 2003, http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=3508451.

[175] 'NZ Flatulence Tax Outrages Farmers', *BBC*, 20 June 2003, http://news.bbc.co.uk/1/hi/world/asia-pacific/3005740.stm.

[176] Pete Hodgson, 'Farmers "Forgetting" Taxpayer Millions Spent on Research Benefiting Agriculture', *Beehive.govt.nz*, 18 July 2003, http://beehive.govt.nz/release/farmers-039forgetting039-taxpayer-millions-spent-research-benefiting-agriculture.

constituents so one could argue that the electoral costs of rejecting their demands were marginal.

But by September the Clark government's position began to look risky. The Federation had succeeded in framing the levy in the media as a ridiculous sounding "fart tax" and polling showed the majority of the public supported the farmers.[177] Then farmers descended on the capital to stage a noisy protest outside the Beehive, along with tractors and cows. At one point Shane Arden, a National Party Member of Parliament and a farmer himself, attempted to drive his tractor up Parliament's steps. Hodgson and Associate Energy Minister Damien O'Connor tried to defend the government's position but were drowned out by the angry protests of the farmers. The National Party sought political mileage from the protest: the Party said it would repeal any tax that was imposed on farmers.[178]

One month later the government capitulated.[179] Hodgson announced that the levy would be abandoned, and instead the industry would manage its own agricultural research through the Pastoral Greenhouse Gas Research Consortium.[180]

This episode demonstrated an important point. It showed that while the Clark government was able to successfully ratify Kyoto, actually implementing policies to reduce emissions in line with Kyoto's objectives was going to be far more difficult. The government found itself coming up against fierce opposition from pressure groups, especially the Federated Farmers, who were determined to resist any costs being imposed on them. The pressure groups' determination eventually broke the government's nerve. The limits of the climate change regime's influence on New Zealand's climate change policy were highlighted.

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[177] 'Hodgson Backs down on Fart Tax', *New Zealand Herald*, 17 October 2003, sec. National, http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=3529313.
[178] 'Farmers Invade Capital for "Fart Tax" Protest', *New Zealand Herald*, 4 September 2003, http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=3521713.
[179] 'Fart Tax Gone, Farmers Celebrate', *TVNZ*, 16 October 2003, http://tvnz.co.nz/content/229001/411361/article.html.
[180] Pete Hodgson, 'Progress in Discussions on Agricultural Greenhouse Gas Research', *Beehive.govt.nz*, 16 October 2003, http://beehive.govt.nz/release/progress-discussions-agricultural-greenhouse-gas-research; Pete Hodgson, 'Agreement Signed on Agricultural Greenhouse Gas Research', *Beehive.govt.nz*, 5 February 2004, http://beehive.govt.nz/release/agreement-signed-agricultural-greenhouse-gas-research.

Renewed efforts to implement a carbon tax (2005)

October 2003 to May 2005 was a period of relative quiet for major climate change policy in New Zealand. The Clark government may have been nursing its wounds after the embarrassing retreat on the agricultural emissions levy. The situation changed in June 2005. In that month the Ministry for the Environment reported that New Zealand was not on track to achieve its Kyoto target because of an increase in emissions from transport. In acknowledging the report Hodgson said, "The results released today demonstrate that much more needs to be done to combat climate change."[181]

One possibility to do "much more" was to introduce the long-deferred carbon tax. In May, Hodgson announced that the Clark government intended to proceed with a carbon tax, and it would come into effect in April 2007.[182] It was a testament to the Clark government's commitment to reducing emissions, as well as its commitment to the climate change regime, that it was willing to advocate for a new tax in an election year – especially after the "fart tax" debacle less than two years earlier.

The carbon tax emerged as a contentious issue in a tight national election in November 2005. Unsurprisingly, it was resolutely opposed by industry pressure groups like Business NZ and Federated Farmers.[183] The Clark government managed to win the election by a razor thin margin, but it did not have the support of its coalition partners – the populist New Zealand First and centrist United Future – for the tax.[184]

In December, the re-elected Clark government decided to ditch the tax.[185] Parker, who had taken over the climate change portfolio from the embattled Hodgson in

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[181] Pete Hodgson, 'Climate Change Challenge Increases in New Zealand', *Beehive.govt.nz*, 16 June 2005, http://beehive.govt.nz/release/climate-change-challenge-increases-new-zealand.
[182] Pete Hodgson, 'Carbon Tax Speech', *Beehive.govt.nz*, 4 May 2005, http://beehive.govt.nz/speech/carbon-tax-speech.
[183] 'Business NZ, Federated Farmers Warn Government about Spending up', *Nbr.co.nz*, 19 October 2005, http://www.nbr.co.nz/article/business-nz-federated-farmers-warn-government-about-spending.
[184] 'Carbon Tax Ditched', *New Zealand Herald*, 21 December 2005, http://www.nzherald.co.nz/politics/news/article.cfm?c_id=280&objectid=10360930.
[185] David Parker, 'Carbon Tax Will Not Go Ahead in 2007', *Beehive.govt.nz*, 21 December 2005, http://www.beehive.govt.nz/?q=node/24671; 'New Zealand's Fourth National Communication under the United Nations Framework Convention on Climate Change', National Communication (Geneva, Switzerland: United Nations Office, March 2006), 6.

October, said the Clark government would "consider other ways to ensure New Zealand meets its commitments to cut greenhouse gas emissions."[186] Federated Farmers was pleased. Hugh Ritchie, the Federation's climate change spokesman, said, "The tax would have sucked money out of rural communities, hurt the New Zealand economy, and done nothing to reduce carbon dioxide emissions."[187] The ditching of the carbon tax was the Clark government's second major defeat on climate change policy. It demonstrated the formidable obstacle domestic actors posed to effective climate change action.

The climate change regime's influence, or more precisely, the Kyoto Protocol, was less visible during the carbon tax battle. In Hodgson's speech on the carbon tax on 4 May 2005, he said the Clark government has made a start on addressing climate change "through ratifying the Kyoto Protocol," but did not mention it for the rest of the speech.[188] It appeared that as time went on, New Zealand's commitments under the climate change regime were being presented as a fait accompli to the public. That is, the question was now not about *whether* New Zealand would meet its commitments to the climate change regime, but how.

Consolidation (2006 to mid-2007)

With the failure of the carbon tax, the Clark government consolidated its climate change policy position once more, and began examining ways to reduce emissions through less controversial means. One option was the public sector. Parker told me that:

> Helen and Heather Simpson [Helen Clark's influential chief of staff] made the decision that when I was made Climate Change Minister I would be given a right of comment on any paper that went up to Cabinet that affected our emissions. So, no longer could other departments continue on and ignore the climate change objective. Because every one of their [Cabinet papers], by Cabinet edict, had to come past me. And I would refuse to sign them out or

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[186] Parker, 'Carbon Tax Will Not Go Ahead in 2007'.
[187] 'Farmers Welcome Axing of Carbon Tax', *TVNZ*, 21 December 2005, http://tvnz.co.nz/content/642332/411361/article.html.
[188] Hodgson, 'Carbon Tax Speech'.

> comment critically if they were wrong. It was a very, very important thing to do. What Helen and Heather did through that was marshal the collective forces of government.[189]

It is reasonable to expect that other ministers and their departments took this edict seriously, and that it raised the profile of climate change across the public service.[190] Moreover, the edict provides circumstantial evidence that the climate change regime was, through David Parker, socialising New Zealand's government agencies about what was acceptable policy and what was not, in terms of climate change.

The Clark government's approach to lead with the public sector led to the Carbon Neutral Public Service initiative, announced in February 2007. Parker said the initiative demonstrated to the international community "New Zealand's commitment to pulling its weight on climate change."[191] This statement indicated the climate change regime's reputational effect. The phrasing indicates that Parker was aware of an international standard that needed to be met, and that New Zealand was meeting it with the new initiative.

The government's second noteworthy policy in this consolidation period was the Permanent Forest Sinks Initiative, which was launched in February 2006. It was intended to encourage afforestation through government subsidies.[192] Aside from this rather modest initiative, however, it appeared that the Clark government had run out of steam on climate change policy.

The lack of action threatened to derail New Zealand's Kyoto commitments. In January 2007, the UNFCCC secretariat's expert review team noted that projections indicated that the Clark government would need additional policies to meet its Kyoto Protocol target.[193] The Green Party, unhappy with the government's unwillingness to

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[189] Interview with David Parker.
[190] While working for the New Zealand government I quickly learned that success depended on keeping Ministers who would be signing off papers in the loop.
[191] David Parker, 'Public Service Takes Carbon Neutral Lead', *Beehive.govt.nz*, 13 February 2007, http://beehive.govt.nz/release/public-service-takes-carbon-neutral-lead.
[192] David Parker, 'Our Commitment to Action on Climate Change', *Beehive.govt.nz*, 6 October 2006, http://beehive.govt.nz/release/our-commitment-action-climate-change.
[193] 'Report on the Centralized in-Depth Review of the Fourth National Communication of New Zealand', National Communication (Geneva, Switzerland: United Nations Office, 18 January 2007), 17.

fight harder to reduce emissions, had already come to the same conclusion. In August 2006, the Greens had attacked the government for not doing enough, an accusation that was promptly rejected by Parker.[194]

Third time lucky – the emissions trading scheme (2007-2008)

In May 2007, the Clark government launched its third effort to implement substantive climate change policy. On 8 May, Parker announced that the government had begun looking at an ETS. And in September, the Prime Minister outlined formal plans for such a scheme.[195] An ETS was a major policy, on par with a carbon tax, and had the potential to dramatically reduce New Zealand's emissions directly – not through sinks.

The ETS was evidently influenced by the climate change regime. The Cabinet paper released with the announcement noted the ETS would, "…support and encourage global efforts to reduce greenhouse gas emissions by: reducing New Zealand's net emissions below business-as-usual levels; and complying with our international obligations, including our Kyoto Protocol obligations."[196] New Zealand's Kyoto Protocol obligations were thus an important reason for the creation of the ETS. Adrian Macey, a former Climate Change Ambassador under the Clark government, agreed that the international negotiations were a key driver. He told me:

> If you look at the framing of the ETS there you can see the direct influence of the international negotiations. The initial rationale for the ETS was we have international negotiations going on and we have commitments and the best way to meet these commitments is through the ETS.[197]

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[194] David Parker, 'Government Active in Tackling Climate Change', *Beehive.govt.nz*, 29 August 2006, http://beehive.govt.nz/release/government-active-tackling-climate-change.
[195] David Parker, 'Emissions Trading Consideration Timeline', *Beehive.govt.nz*, May 2007, http://beehive.govt.nz/release/emissions-trading-consideration-timeline; Helen Clark, 'The next Steps to Fight Climate Change', *Beehive.govt.nz*, 20 September 2007, http://beehive.govt.nz/release/next-steps-fight-climate-change.
[196] 'Cabinet Policy Committee: A New Zealand Emissions Trading Scheme: Key Messages and Strategic Issues' (Cabinet Office Wellington, 21 August 2007), http://www.beehive.govt.nz/Documents/Files/Cab%20Paper_Emissions%20Trading.PDF.
[197] Adrian Macey, interview by author, 6 May 2015.

Parker also acknowledged that New Zealand's commitments under the climate change regime required proceeding with the ETS. In October, Parker rejected a recommendation from the New Zealand Institute that New Zealand should try to delay its Kyoto Commitment. Parker argued that the economic impact of the ETS would be minor, and he said that, "New Zealand will continue to honour its commitment to the Kyoto Protocol" and that New Zealand's "reputation is at stake."[198] He added "This New Zealand Institute report talks about the need to protect our brand image. New Zealand will have no brand image left to protect if we renege on the Kyoto Protocol."[199]

Parker's comments demonstrate the climate change regime's influence through its reputational effect. Now that the Clark government had ratified the Protocol it felt pressured to meet its commitments, and the ETS was crucial to that. Doing otherwise would harm New Zealand's reputation.

The attacks from anti-Kyoto groups were taking their toll on Parker, however. Parker told me that at the time he was a relatively junior minister, and the opponents of the ETS like the Greenhouse Policy Coalition and Federated Farmers, were organising orchestrated attacks to undermine him and the Clark Government, by painting him as a "zealot".[200] Parker said their purpose was to cause yet more delay in introducing a price on carbon. He told me that he went to Cabinet and told his colleagues he would "lose this battle" if he fought it alone.[201] His colleagues rallied behind him to defend the ETS. The tone of some suggested they had run out of patience with the most critical opponents within industry. For example, Agriculture and Forestry Minister Jim Anderton said, "…every time the Government has developed a response [to climate change], the usual suspects get wheeled out of the business community to cry wolf."[202] Parker told me that Anderton's support, and the support of his other colleagues, was very helpful.[203]

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[198] David Parker, 'Reneging on Kyoto Is Just Not Credible', *Beehive.govt.nz*, 24 October 2007, http://beehive.govt.nz/release/reneging-kyoto-just-not-credible.
[199] Ibid.
[200] Parker, interview.
[201] Ibid.
[202] Jim Anderton, 'Business Lobby Groups Just Don't Get It', *Beehive.govt.nz*, 24 October 2007, http://beehive.govt.nz/release/business-lobby-groups-just-don%E2%80%99t-get-it.
[203] Parker, interview.

The ETS' development continued through 2008, with the Clark government continuing to defend the scheme, and Kyoto, against attacks from pressure groups. This time the Clark government had more success. The ETS had three characteristics that made it easier to defend than the carbon tax and agricultural emissions levy. First, it was not a tax. Second, it would create a market, which took some of the steam out of right-wing critics who detested taxes but favoured markets. And third, and perhaps most importantly, the Clark government made the tactical decision to exclude farmers from the ETS until 2013. This largely placated the Federated Farmers – who welcomed the decision.[204] One wonders if the pressure group would have initiated another nation-wide protest if the government had not appeased them. In September 2008, the Clark government successfully passed the ETS into law,[205] a giant step forward for New Zealand climate change policy.

But the Clark government's hard fought for victory was to be short-lived. Two months later the waning popularity of the Clark government would result in its defeat by a resurgent National Party.

Summary

We pause once more to summarise the case study with reference to my sub-questions. The first sub-question was: did New Zealand take action to reduce emissions between 1988 and 2015? The answer is an emphatic yes: the Clark government took strong action to reduce emissions during its nine years in power. Less reluctant than the Bolger government to intervene in the economy, the Clark government attempted to pass major climate change policy, including a carbon tax and an ETS. The latter succeeded. Alongside this major policy the Clark government implemented many other more minor policies such as the Carbon Neutral Public Service initiative. The Clark government also attempted to internalise emission costs through the agricultural emissions levy but this was not successful because of the agricultural pressure groups' fierce resistance.

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[204] Owen Hembry, 'Farmers Welcome More Time to Reduce Emissions', *New Zealand Herald*, 21 September 2007, http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10464989.

[205] 'New Zealand's Fifth National Communication under the United Nations Framework Convention on Climate Change', National Communication (Geneva, Switzerland: United Nations Office, December 2009), v.

The second sub-question was: is the climate change regime's influence observable in these actions? Yes, there is strong evidence of the climate change regime's influence on the Clark government's actions. The most persuasive example was the Clark government's decision to ratify Kyoto. The Clark government believed New Zealand was seen by other states in the climate change regime as a laggard on climate change. This became a kind of negative cost for participating in the climate change regime. The Clark government therefore decided to take greater action on climate change to improve New Zealand's reputation. There were other reasons too: Parker told me he thought it was "the right thing to do", for example.[206] But the reputational effect of the climate change regime on New Zealand was an important driver.

The third sub-question was: did these actions reduce total New Zealand emissions? No: emissions grew by seven percent between 2000 and 2008.[207] On the other hand, the emissions growth rate had dropped from the 14 percent growth rate under the Bolger government between 1990 and 1999. It is reasonable to give the Clark government some credit for this reduction, and the climate change regime credit too, for pushing the Clark government in this direction.

2008-2015: John Key's National government

We now move to the fourth section of the case study: John Key's National government. The Key government took office in November 2008, after defeating the incumbent Clark government in an election campaign overshadowed by the global financial crisis.

Crippling the ETS (2008-2013)

The National Party had campaigned on amending the ETS to ease its burden on farmers, business, and industry. Soon after taking office, Nick Smith, the new Climate Change Minister, established a Climate Change Select Committee to review the ETS.[208] The purpose of the review was to ensure the "policy response to climate

[206] Parker, interview.
[207] 'Greenhouse Gas Inventory Data - Detailed Data by Party'.
[208] Nick Smith, 'Beehive.govt.nz - Climate Change Select Committee Established', *Beehive.govt.nz*, 9 December 2008, http://beehive.govt.nz/release/climate-change-select-committee-established.

change is appropriate, given New Zealand's national circumstances."[209] The review indicated that the Key government was preparing to weaken the ETS.

We can see evidence of the climate change regime's influence in the Committee's terms of reference. One of the terms was that the Committee should "consider the timing of introduction of any New Zealand measures, with particular reference to the outcome of the December 2009 Copenhagen meeting..."[210] The Committee's terms of reference showed the government was keeping a watchful eye on the COP negotiations within the climate change regime, and wanted to align its climate change policy with those developments.

The Committee submitted its report to the government in August 2009, which Smith undertook to review.[211] At the end of September he announced the government would be submitting an ETS amendment bill to Parliament. The bill would "make the emissions trading scheme workable and affordable and ensure the New Zealand economy and jobs are not put at risk."[212] One of the key changes in the bill was to push out the start date for bringing farmers into the scheme to 1 January 2015. This was a further reflection of the agricultural pressure groups' ability to push back against climate change policy.

The statement Smith released with the announcement also illustrated the climate change regime's influence on the bill. He said "It is important that these improvements are passed before the existing ETS comes into effect on 1 January 2010 and by the time of the Copenhagen climate change conference in December."[213] Thus the climate change regime's COP15 negotiations were driving the timeline of New Zealand's climate change policy.

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[209] 'New Zealand's Fifth National Communication under the United Nations Framework Convention on Climate Change', v.
[210] Smith, 'Beehive.govt.nz - Climate Change Select Committee Established'.
[211] Nick Smith, 'Govt Welcomes ETS Review Committee Report', *Beehive.govt.nz*, 31 August 2009, http://beehive.govt.nz/release/govt-welcomes-ets-review-committee-report.
[212] Nick Smith, 'Improved ETS Will Better Protect Jobs & Environment', *Beehive.govt.nz*, 24 September 2009, http://beehive.govt.nz/release/improved-ets-will-better-protect-jobs-amp-environment.
[213] Ibid.

Following the Key government's amendments the ETS was hobbled but still standing. The price of carbon was holding at around NZ$20 a tonne. At this price the ETS was incentivising afforestation and a gentle shift away from fossil fuels.[214]

But this situation would end by mid-2011. During the last six months of 2011 and continuing through 2012 the carbon price began collapsing (see Figure 5).

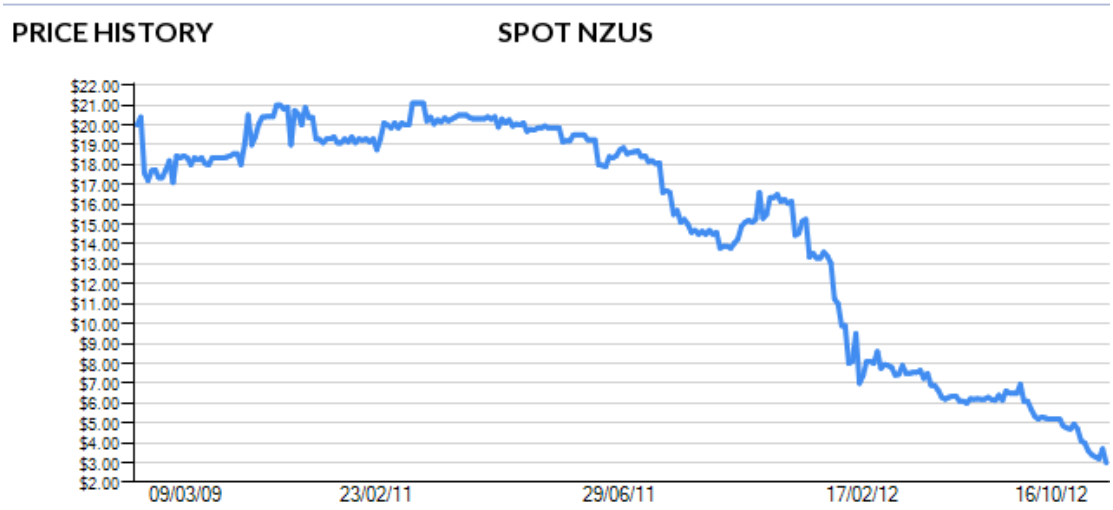

Figure 5: Price history of New Zealand carbon units between 2009 and 2012

Source: Simon Johnson, 'Brother, Can You Spare $3.10 for a Tonne of Carbon Dioxide?', *Hot Topic (blog)*, 18 October 2012, http://hot-topic.co.nz/brother-can-you-spare-3-10-for-a-tonne-of-carbon-dioxide/, data from CommTrade Carbon.

By January 2013 carbon units were so cheap (14 cents a tonne) that market sources speculated whether the cost to government of running the ETS was now greater than the cost it imposed on business and industry.[215] The price collapse of carbon units was caused by an earlier collapse in the price of carbon units in the European ETS, which had fallen from EU€20 a tonne at the beginning of 2011 to about EU€7.50 by the middle of 2011.[216] Big emitters in New Zealand had begun buying the cheap European carbon units, and this had put downward pressure on the price of New Zealand carbon units, eventually causing the price to collapse.

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[214] Brian Fallow, 'ETS Changes Will Depress Carbon Market', *New Zealand Herald*, 12 July 2012, http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10818922.
[215] Rob Stock, 'Carbon Credit Price Meltdown', *Stuff.co.nz*, 3 February 2013, http://www.stuff.co.nz/business/8252659/Carbon-credit-price-meltdown.
[216] 'ETS, RIP?', *The Economist*, 20 April 2013, http://www.economist.com/news/finance-and-economics/21576388-failure-reform-europes-carbon-market-will-reverberate-round-world-ets. The price collapse in the European ETS was due to a glut of carbon units in the market, combined with the ongoing European economic crisis.

The Key government made no effort to step in and protect the ETS from the collapsing price. In fact, it did the reverse. In July 2012, the Key government put forward further amendments to the ETS that would ensure its price signal remained weak. For example, the Key government proposed continuing to allow emitters to surrender one emissions unit for every two tonnes of emissions (instead of one emission unit for one tonne of emissions). This policy was originally supposed to be a transition measure but had lasted over three years. Another change was to completely remove the start date for the agricultural sector.[217] Farmers had another victory to add to their growing list. In short, the Key government had stood by while the ETS was pummelled by international forces and then kicked it while it was down.

The Key government's actions reflected the limits of the climate change regime's influence. While it was clear that the climate change regime had influenced the Clark government to put the ETS in place to meet New Zealand's commitments to the climate change regime, the effectiveness of the ETS depended on the government in power being willing to give it teeth. The evidence indicates the Key government was not interested in doing that.

Furthermore, the Key government's actions suggested it viewed the ETS as existing for appearances only. There is some truth to that claim according to officials I spoke to. One official said there was a sentiment within the government that "We need to do sufficient window-dressing so we look okay, because we're a trading nation."[218]

It is worth pointing out though, that the Key government did not ditch the ETS entirely; a decision that would have been welcomed by the Federated Farmers,[219] and probably many other industry pressure groups. One reason why the Key government did not scrap the ETS, alluded to in the official's comments, is that the Key government wanted to protect New Zealand's trade. The argument here was that doing nothing to reduce emissions (the ETS represents something, weakened as it

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[217] '2012 ETS Amendments – Overview of the Government's Changes to the ETS', *Climatechange.govt.nz*, 4 November 2014, https://www.climatechange.govt.nz/emissions-trading-scheme/ets-amendments/.
[218] Former official, interview by author, 13 April 2015.
[219] 'Fonterra Says Change Emissions Rules, Fed Farmers Says Scrap It', *New Zealand Herald*, 4 May 2009, http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10570313.

was) could harm New Zealand's reputation, which could in turn harm New Zealand's trade. After the first set of amendments in November 2009, Tim Groser, the Associate Minister for Climate Change and Minister for Trade, presented this argument to a potentially hostile audience, the Federated Farmers. He bluntly told the farmers that if New Zealand did not do its "fair share" on climate change there was a risk that:

> Our customers, or rather the retailers that make the crucial decisions on sourcing, may walk away from New Zealand … That is a real risk. Don't treat it lightly, would be my advice.[220]

Later on in the month Key gave a speech, also to the Federated Farmers, repeating this argument. Key said: "…as a trading nation, we simply cannot afford to get [climate change] wrong. Our international reputation with our overseas consumers is at stake."[221] International reputation was therefore an important rationale for action in the Key government, just like it was under the Clark government.

The Key government's argument that New Zealand needed to take climate change action to protect its reputation provides further evidence of the reputational effect of the climate change regime on New Zealand. The Key government considered that New Zealand needed to do its "fair share" on climate change, otherwise it would be at risk of looking like a laggard internationally, which could have costly trade repercussions. The climate change regime was vital here because it set the standard of what was considered acceptable climate change policy. In short, the climate change regime made it more difficult for the Key government to slide under the radar and not take any action at all, which some of its pressure groups (like the Federated Farmers) would have preferred.

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[220] Tim Groser, 'Climate Change, Trade and Agriculture: Address to Federated Farmers', *Beehive.govt.nz*, 4 November 2009, http://www.beehive.govt.nz/speech/climate-change-trade-and-agriculture-address-federated-farmers.
[221] John Key, 'Speech to Federated Farmers National Council', *Beehive.govt.nz*, 18 November 2009, http://www.beehive.govt.nz/speech/speech-federated-farmers-national-council.

An outsized international role (2009-2015)

The Key government's domestic climate change policy thus far had been lacklustre. The evidence suggests the Key government wanted to do just enough "window dressing" to keep up appearances at the climate change regime's COP negotiations.

The Key government's efforts internationally were more impressive. Led by the experienced diplomat Tim Groser, the Key government has played an outsized role internationally. There are two initiatives that support this claim: the Global Research Alliance on Agricultural Emission and the Friends of Fossil Fuel Subsidy Reform.

The Global Research Alliance on Agricultural Emissions is the Key government's principal achievement. In September 2009, Key, Groser and Agriculture Minister, David Carter, met with foreign climate change ministers and negotiators at a climate change summit in New York. Their purpose was to build support for the Alliance.[222] The idea was that the Alliance would bring together interested states to coordinate research on how to reduce emissions from agricultural production. The Key government's efforts at building support were successful, and the Alliance formally launched in December – well timed to take advantage of the enormous publicity surrounding the COP15 negotiations in Copenhagen.[223]

The Alliance is supported at the domestic level by the Agricultural Greenhouse Gas Research Centre, which the Key government launched in March 2010. The Centre's focus is on "practical ways to reduce methane and nitrous oxide emissions while improving productivity."[224] The Key government committed to investing NZ$5 million a year for the next ten years in the Centre. The Centre is important because it puts money and people behind what could potentially be empty rhetoric.

The Centre's link to the climate change regime was highlighted by Key's speech at the opening of the Centre. He said, "[the Centre] will play a major role in meeting

[222] John Key, David Carter, and Tim Groser, 'NZ Pushes for Global Alliance on Agricultural Emissions', *Beehive.govt.nz*, 23 September 2009, http://www.beehive.govt.nz/release/nz-pushes-global-alliance-agricultural-emissions. David Parker points out rightly that a global research group had already been established under the Clark government. Parker, interview.
[223] Since the Alliance was established, 40 countries have joined, including most of the world's major agricultural producers. 'New Zealand's Sixth National Communication under the United Nations Framework Convention on Climate Change', National Communication (Geneva, Switzerland: United Nations Office, December 2013), 85.
[224] Tim Groser, 'The Climate Change Debate Post Copenhagen: Some Reflections', *Beehive.govt.nz*, 9 May 2010, http://beehive.govt.nz/speech/climate-change-debate-post-copenhagen-some-reflections.

our international obligations and supporting Kiwi farmers and growers to reduce emissions through significant funding of research and innovation programmes."[225] International obligations refer to New Zealand's commitments under the climate change regime.

Following its successful efforts with the Alliance, the Key government then led the establishment of the "Friends of Fossil Fuel Subsidy Reform". The "Friends" are a group of non-G20 states established in June 2010 that supports phasing out fossil fuel subsidies.[226] The group was launched in the wake of G20 and APEC Leaders' communiqués in 2010 that signalled the major states were heading in this direction. The group was intended to add momentum to this shift.[227] The group's strategy is to place pressure on the international community to phase out fossil fuel subsidies.[228] It releases communiqués, holds meetings, and organises side-events at negotiations to this end. For example, the group held its first meeting at COP16 in Cancun, Mexico in 2010. The climate change regime's negotiations provided an ideal forum for the group to raise their concerns with other states and gain media exposure.

The Friends group has been less successful than the Alliance, however, and the Key government rarely mentioned it between 2014-2015. One reason for its lack of success is the lack of action on fossil fuel subsidy reform by G20 states. Unlike agricultural research, which New Zealand can lead on, fossil fuel subsidy reform is out of its hands. At best the Key government and other Friends' states can continue to raise the issue and keep it on the agenda.

The Alliance and the Friends group present a puzzle for my research in terms of the climate change regime's influence. On one hand, they do not appear to indicate the climate change regime's influence. It seems more accurate to say that New

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[225] John Key, 'PM Opens Agricultural Greenhouse Gas Research Centre', *Beehive.govt.nz*, 3 March 2010, http://www.beehive.govt.nz/release/pm-opens-agricultural-greenhouse-gas-research-centre.

[226] 'Who Are the Friends?', *Friends of Fossil Fuel Subsidy Reform*, accessed 25 March 2015, http://www.mfat.govt.nz/fffsr/tabs/friends.php. Current members of the group include Costa Rica, Denmark, Ethiopia, Finland, New Zealand, Norway, Sweden and Switzerland.

[227] Tim Groser, 'New Zealand Coordinates Action on Fossil Fuel Subsidy Reform', *Beehive.govt.nz*, 15 December 2010, http://www.beehive.govt.nz/release/new-zealand-coordinates-action-fossil-fuel-subsidy-reform.

[228] Research by the International Energy Agency and the OECD suggested that eliminating fossil fuel subsidies could reduce global greenhouse gas emissions by ten percent by 2050. 'Friends of Fossil Fuel Subsidy Reform', *Friends of Fossil Fuel Subsidy Reform*, accessed 25 March 2015, http://www.mfat.govt.nz/fffsr/index.php.

Zealand is using the regime as a convenient mechanism to facilitate its own emission reductions. On the other hand, it seems unlikely that these two initiatives would exist if it were not for the regime in the first place.

The puzzle can be solved if we take a cyclical view of the climate change regime's influence. The first step in the cycle is the regime influencing New Zealand to take action to reduce emissions through the Convention, and subsequently Kyoto. New Zealand then had to decide what kind of action it would take. The Clark government decided to reduce emissions domestically through major policy initiatives like the ETS. But the Key government has been unwilling to take the same bold approach. Instead, it has concentrated its efforts at the international level, and the Alliance and the Friends group represent the culmination of these efforts. The Key government has also, rather cleverly, used the climate change regime as a platform to promote these initiatives. The regime's initial influence on New Zealand to take action to reduce emissions has therefore ended up circling back on the regime, completing the cycle.

New Zealand distances itself from Kyoto (2012)

New Zealand's international achievements were diminished at the end of 2012, however, after the Key government decided to distance itself from Kyoto. In November 2012, Groser announced New Zealand would not sign up to a second commitment period under the Kyoto Protocol and would instead table a future pledge under the Convention:

> I want to emphasise that New Zealand stands 100 percent behinds its existing Kyoto Protocol commitment. . . . The issue was always different: where would we take our next commitment – under the Kyoto Protocol or under the Convention with the large majority of economies? We have decided that it is [sic] New Zealand's best interests to do the latter.[229]

[229] Tim Groser, 'New Zealand Commits to UN Framework Convention', *Beehive.govt.nz*, 9 November 2012, http://beehive.govt.nz/release/new-zealand-commits-un-framework-convention.

The Key government's announcement indicated that it no longer saw any future in the Kyoto Protocol and would instead concentrate on negotiating a replacement treaty through the Convention.

Why did the Key government do this? Part of the explanation is that domestic actors were resistant to a second Kyoto commitment period. Macey notes the influence of some of the lobby groups in the business community, namely Business NZ:

> It was domestically driven I think. My own view is that for some of the business community – Business NZ – the Kyoto Protocol was everything they hated about climate change: hard targets, costs on them. And the developing countries didn't pay anything because they weren't part of Kyoto. So the government thought they would get out of Kyoto and the business community would think that was great.[230]

The industry pressure groups had failed to stop the Clark government from ratifying Kyoto in 2002, but they were now having much more success counteracting the climate change regime's influence.

The Key government's decision turned out to have damaging repercussions for New Zealand at COP18 in Doha, Qatar, the following month, however. According to Macey, New Zealand went to Doha in a weak position.[231] First of all, New Zealand's decision had annoyed developing states. Many of them saw the Protocol as a kind of commitment test for wealthy industrialised states like New Zealand. Furthermore, although New Zealand had announced a conditional emissions reduction target,[232] it

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[230] Macey, interview.

[231] Adrian Macey, 'Climate Change: Towards Policy Coherence', *Policy Quarterly* 10, no. 2 (May 2014): 50. Macey told me that New Zealand's decision not to stay under Kyoto for its 2020 target was "a serious negotiating error." But rather ironically, New Zealand's inability to use the flexibility mechanisms of Kyoto in the future may end up strengthening the ETS, because New Zealand emitters will no longer be able to buy overseas units. It is unclear whether this will happen or not, however, because New Zealand emitters have "filled their boots" with cheap overseas units. Fallow, 'ETS Changes Will Depress Carbon Market'.

[232] In August 2009, the Key government had announced a reduction target of 10 to 20 per cent reduction in emissions below 1990 levels by 2020. Nick Smith and Tim Groser, '2020 Target Balances Economy & Environment', *Beehive.govt.nz*, 10 August 2009, http://www.beehive.govt.nz/release/2020-target-balances-economy-amp-environment.

was impossible to know how well New Zealand's conditions would be met at Doha. Therefore an unconditional target was required as well to put "chips on the table", so to speak, during the negotiations.[233] But New Zealand did not have one. With no 2020 commitment under Kyoto and no unconditional target New Zealand nevertheless sought access to Kyoto's flexible market mechanisms to meet its conditional target. Unsurprisingly this rather ambitious move was rebuffed by developing states. According to Macey, this was "punishment" for abandoning Kyoto.[234]

It was not just developing states that were annoyed at New Zealand either. Macey told me that the European Union was irritated too because New Zealand was walking away from Kyoto's painstakingly negotiated rules on land.[235] The European Union had made many concessions here to New Zealand's forestry interests.[236]

Yet despite the criticism it was receiving, the Key government did not reverse its decision. That suggests that the climate change regime's influence was rather weak. As noted, New Zealand is a small state with little power. It therefore relies on international rules to get by in the world, in Parker's words.[237] Accordingly, we should expect New Zealand to feel the climate change regime's influence more keenly than a larger state like the United States. Yet even after New Zealand was criticised by other regime members – including large groupings like the European Union that have traditionally had a significant influence on New Zealand – it did not reverse its decision.

The road to Paris (2013-2015)

Between 2013-2015 the Key government put forward no new domestic climate change policies that are worth noting. At the level of international climate change policy, however, New Zealand gained a diplomatic accolade by successfully shaping the future global climate change treaty. In March 2014, New Zealand submitted a proposal to the UNFCCC secretariat suggesting that a new treaty should require states to submit schedules to the secretariat that included emission reduction targets, and

[233] Macey, 'Climate Change: Towards Policy Coherence', 50.
[234] Ibid.
[235] Macey, interview.
[236] Macey, 'Climate Change: Towards Policy Coherence', 50.
[237] Parker, interview.

that would be subject to mandatory accounting, reporting, and review.[238] While the emission targets and other content in the schedule would not be legally binding, submitting a schedule, accounting, reporting, and review would be.

The United States strongly supported the idea. Todd Stern, the American climate envoy, called it "the most interesting proposal on the table" and indicated the approach could get the buy-in from the United States, which was wary of ratifying any treaty with legally binding mitigation commitments.[239] Given US support it appears very likely that New Zealand's "pledge and review" approach will be adopted in some form or another at Paris, assuming the negotiations are successful.[240]

It would be a mistake to make too much of this achievement though. It may be that New Zealand was used as a proxy by the United States. This may have occurred before, for example during the Kyoto Protocol negotiations in 1997 when New Zealand pushed hard for developing states to take on greater commitments, something which the United States also desperately wanted.[241] Depledge holds this view.[242] Nevertheless, even if this were true, it still says something about New Zealand that the United States considered it a reliable proxy to use: perhaps the United States wanted to take advantage of New Zealand's international reputation as a neutral and objective player.

New Zealand's diplomatic achievement did not demonstrate the climate change regime's influence. Instead, it highlighted New Zealand's influence on the climate change regime.

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[238] '"New Zealand Proposal" Wins Approval in the US', *New Zealand Herald*, 20 October 2014, http://www.nzherald.co.nz/element-magazine/news/article.cfm?c_id=1503340&objectid=11345326.

[239] Ibid.; Valerie Volcovici, 'Global Climate Deal Should Be Legally Binding in Parts: U.S.', *Reuters*, 14 October 2014, http://uk.reuters.com/article/2014/10/15/us-climatechange-summit-un-idUKKCN0I409X20141015.

[240] Interestingly, "pledge and review" is not a new approach. It was first put forward by Japan all the way back in 1991 when the Convention was first being negotiated Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary', 486..

[241] Macey told me that New Zealand's proposal, while logical, was politically inept, because as soon as New Zealand put forward its proposal, dozens of countries immediately took to the floor to criticise New Zealand. Macey, interview.

[242] Depledge, 'Against the Grain: The United States and the Global Climate Change Regime', 16.

Summary

We have reached the end of the New Zealand case study. So, what are the answers to the three sub-questions with regard to the Key government? The first sub-question was: did New Zealand take action to reduce emissions between 1988 and 2015? Yes, the Key government did. Two important actions by the government were the establishment of the Global Research Alliance on Agricultural Emissions, and the New Zealand Agricultural Greenhouse Gas Research Centre to support it. The Key government also launched the Friends of Fossil Fuel Subsidy Reform group. Overall, however, the Key government's efforts were lacklustre compared to the Clark government, and even the Bolger government.

The second sub-question was: is the climate change regime's influence observable in these actions? There is some evidence of the climate change regime's influence on the Key government's actions. For example, the regime's influence was evident in the Key government's efforts to complete its amendments to the ETS before it went to Copenhagen in December 2009, so it could show other regime members that New Zealand had done something to reduce emissions. The Key government was also aware that ignoring the climate change regime by doing nothing on climate change could have negative consequences for New Zealand's trade. The reputational effect of the climate change regime may have ensured the survival of the ETS.

But the weakness of the climate change regime's influence is evident in the Key government's decision to reject a second Kyoto commitment period, despite a barrage of criticism from other states at the climate change regime's COP18 in Doha in 2011. This suggests the climate change regime's influence on New Zealand was rather weak.

The third sub-question was: did these actions reduce total New Zealand emissions? The answer is no: between 2009 and 2012,[243] total emissions grew four

[243] The Ministry for the Environment has released New Zealand's emissions data for 2013 but it uses a new methodology. 'New Zealand's Greenhouse Gas Inventory 1990-2013 Snapshot', *Ministry for the Environment*, April 2015, 8, https://www.mfe.govt.nz/publications/climate-change/new-zealands-greenhouse-gas-inventory-1990-2013.. The emissions data on the UNFCCC secretariat's website (which I have used for all my emissions figures) currently uses the old methodology and therefore it is incompatible with the Ministry's 2013 figures. I have not included the Ministry's 2013 data in my analysis to ensure methodological consistency.

percent. On the positive side, this was a significantly lower growth rate than under the Clark government, where emissions grew seven percent, and the Bolger government, where emissions grew by 14 percent.[244]

It would be a mistake to give the Key government all the credit for this drop too, considering it passed legislation in 2009 and 2012 to weaken the ETS, and did not step in to keep the carbon price stable. The ETS is the only policy that could have made a noticeable dent in New Zealand's emissions. The Key government has focused its attention on agricultural research, and so far the research has not been applied on farms, and therefore cannot be credited for any emission reductions.

Chapter summary

In this chapter I evaluated the climate change regime's effectiveness in New Zealand between 1988 and 2015. I found that New Zealand took moderate action to reduce emissions between 1988 and 2015. Furthermore, I found evidence of the climate change regime's influence on many of New Zealand's actions, although this influence varied across governments. Finally, I found that New Zealand's actions appeared to slow the growth rate of emissions, while total emissions continued to increase. The case study findings are summarised in Table 1 (overleaf). It shows the extent of each government's action to reduce emissions, the climate change regime's influence over these actions, and whether or not actions resulted in total emission reductions.

[244] 'Greenhouse Gas Inventory Data - Detailed Data by Party'.

Table 1: New Zealand climate change policy between 1988 and 2015: extent of action, climate change regime influence, and reduction in total emissions[245]

New Zealand government	Extent of action to reduce emissions	Evidence of climate change regime influence	Total emission reductions?
Bolger government	Moderate	Moderate	No, total emissions grew 14 percent. But emissions growth reduced compared to business as usual.
Clark government	Strong	Strong	No, total emissions grew seven percent. But emissions growth reduced compared to Bolger government.
Key government	Weak	Weak	No, total emissions grew four percent. But emissions growth reduced compared to Clark government.

I will return to the New Zealand case study in the conclusion of this thesis to conclusively answer my research question, and also explore the case study's theoretical and policy implications.

But for now, I turn to the second case study, where I will evaluate the climate change regime's effectiveness in the United States.

[245] I have not included the Palmer government due to the lack of evidence available.

6. Case study 2: the United States

In this chapter I evaluate the climate change regime's effectiveness in the United States between 1988 and 2015. The chapter is split into five sections. The first section is a brief prelude to the regime from 1988-1992 under the George H.W. Bush administration. The second, third, and fourth section correspond to the 1993-2000 Clinton administration, the 2001-2008 George W. Bush administration, and the 2009-2015 Obama administration, respectively. The fifth and final section summarises the entire chapter.

Prelude to the climate change regime

The George H. W. Bush administration marked the beginning of US climate change policy. Bush made it clear during his successful presidential campaign in 1988 that he would address climate change. In June 1988, James Hansen, then a NASA climate modeller, had provided testimony to the Senate Energy Committee on the greenhouse effect, stating that it was 99 percent probable that global warming had begun.[246] His testimony came during a heat wave and drought in the United States, and attracted much attention from the American public, media, and politicians. Bush responded to Hansen's concerns by proclaiming, "Those who think we're powerless to do anything about the 'greenhouse effect' are forgetting about the 'White House effect.' As President I intend to do something about it."[247]

Bush's "White House effect" did not envisage establishing a strong climate change regime, however. That is, a regime that included a strong treaty with binding targets and timelines. In 1989, the United States participated in the Noordwijk Ministerial Conference on Atmospheric Pollution and Climate Change and made it clear that it would not agree to a specific date for stabilising emissions or an emissions stabilisation target.[248] The United States held firmly to this position during

[246] Dale Jamieson, *Reason in a Dark Time: Why the Struggle Against Climate Change Failed–and What It Means for Our Future* (New York, NY: Oxford University Press, 2014), 813.
[247] Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary', 461. The White House would later on attempt, unsuccessfully, to dilute James Hansen's congressional testimony, resulting in its public embarrassment. Ibid., 472.
[248] Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary', 468.

the negotiations on the Convention in the following years, even against the opposition of two of its closest allies: Britain and Japan.[249] But in April, near the end of the negotiations, Bush finally agreed to compromise on an emissions stabilisation target.[250] The compromise language is reflected in Article 4(2)(b) of the Convention, which says "[developed states commit to] the aim of returning individually or jointly to their 1990 levels these anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol".[251] With the Convention finally agreed, Bush signed it on 12 June and the Senate ratified it on 15 October 1992.

Although the Senate had ratified the Convention,[252] it was clear it held reservations about it. The Senate debated the costs of complying with the treaty, its impact on American trade competitiveness, and its comprehensiveness with regard to developing states.[253] These concerns were allayed for the time being because the goals in the Convention were not legally binding.

The Bush administration moved quickly to meet its obligations under the Convention – perhaps surprisingly, given its resistance to a strong treaty. In December 1992 the administration announced its *National Action Plan for Global Climate Change*. The Plan had two objectives: estimate US emissions and initiate policies to reduce them. It was designed as a "no-regrets" plan: actions had to be justifiable in their own right. An action to increase energy efficiency, for example, would reduce energy usage and therefore enhance American energy security, so it was acceptable. Although this may seem like an irresponsible approach now, at the time it was in line with the IPCC's recommendations to states in its 1991 report.[254]

The link between the climate change regime and the National Action Plan is clear in the Plan's text.

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[249] John Vidal and Pratap Chaterjee, 'All the Difference in the World', *The Guardian*, 10 April 1992, http://www.theguardian.com/environment/1992/apr/10/worldsummit2002.
[250] Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary', 491.
[251] 'United Nations Framework Convention on Climate Change', 6.
[252] To ratify a treaty in the United States the Senate must approve it by a two-thirds majority vote. The House is not involved.
[253] Larry Parker, John Blodgett, and Brent D. Yacobucci, 'U.S. Global Climate Change Policy: Evolving Views on Cost, Competitiveness, and Comprehensiveness' (Congressional Research Service, 24 February 2011), 3.
[254] Ibid., 5.

> This document represents the United States' first communication to the Secretariat. It is made in the spirit of moving forward with the complex task of beginning the implementation phase of the Convention. This Plan identifies the types of programs, policies, and measures the United States is taking to address the issue of global climate change.[255]

In other words, the United States was putting in place policies to implement the Convention.

The Bush administration also initiated the Country Studies Program in 1992. This program was put in place to help fulfil the Convention's requirement that Annex II states provide financial resources to developing states.[256] The link between the climate change regime and this program is also clear. The US Climate Action Report for 1997 says:

> The Framework Convention on Climate Change [the core component of the climate change regime] requires all signatory countries to provide to the Convention Parties a national inventory of greenhouse gas emissions by sources and removals by sinks, and to describe the steps they are taking to implement the Convention, including adaptation and mitigation measures. To help developing countries and countries with economies in transition (the New Independent States and Eastern Europe) meet this commitment, and to fulfil in part its own obligations under the Convention to provide additional financial resources to developing countries, the United States initiated the Country Studies Program in 1992.[257]

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[255] 'National Action Plan for Global Climate Change' (Department of State, Bureau of Oceans and International Environmental and Scientific Affairs, Office of Global Change, December 1992), 3, http://babel.hathitrust.org/cgi/pt?id=uc1.31822016462376;view=1up;seq=79.
[256] 'Climate Action Report: 1997 Submission of the United States of America under the UNFCCC', National Communication (Geneva, Switzerland: United Nations Office, July 1997), 199.
[257] Ibid.

This text also indicates the climate change regime's influence on US climate change policy.

But how important was it that these documents linked to the climate change regime, or more precisely the Convention? Does this really signify the climate change regime's influence? The United States could have simply filled the National Action Plan up with policies it was intending to implement anyway. There is some reason to believe this considering that the Plan was based on a "no regrets" policy where emission reductions are just a bonus. If that were true, then the climate change regime's influence at this point was simply a mirage: it was not "pushing" the United States to implement additional climate change policy.

On the other hand, one can argue that the documents provide evidence that the climate change regime was socialising the Bush administration about what was acceptable climate change policy and what was not. The climate change regime had framed carbon-intensive policies as unacceptable because they would undermine the Bush administration's climate change regime commitments. "No-regrets" policies, however, were acceptable. Yes, some, or even many, of these policies *may* have happened anyway, but the climate change regime's influence *ensured* they happened.

1993-2000: The Clinton administration

In November 1992, Democrat Bill Clinton defeated Bush in the Presidential election. There was good reason to believe that the new administration would take stronger action to reduce emissions. Clinton and his Vice Presidential nominee, Al Gore, had run on a far stronger environmental platform than Bush. Clinton did not equivocate when it came to the seriousness of climate change. During the campaign Clinton had given a speech on "Earth Day", April 22, saying, "Our addiction to fossil fuels…is wrapping the earth in a deadly shroud of greenhouse gases."[258] And in June 1992, Al Gore published *Earth in the Balance*, an ecologically-minded book in which he argued that the environment was in crisis and explained what needed to be done to save it. The book further reinforced the environmentalist credentials that Gore had established during his tenure as a Senator.

[258] Jamieson, *Reason in a Dark Time: Why the Struggle Against Climate Change Failed–and What It Means for Our Future*, 929.

The energy tax and Clinton's Climate Change Action Plan (1993-1997)

In February 1993, Clinton announced his first action to reduce emissions: an energy tax. Clinton claimed that, unlike other taxes, an energy tax "reduces pollution [i.e. emissions], increases energy efficiency, and eases our dependence on oil from unstable regions of the world."[259] Within the White House, Gore had pushed particularly hard for an energy tax. He saw it as a way to raise revenue and cut emissions.[260]

The question now was: would Congress pass it? The energy tax would test Congress's appetite for meaningful climate change policy. In May, House Democrats, supported by the Clinton administration, managed to pass the energy tax in the House by a narrow margin – 219 votes for versus 213 against.[261] Success here was partly due to the design of the energy tax, which minimised the burden on Democratic Party constituents and made it more politically palatable to the Democrat-led Congress.[262] But in June the Senate Finance Committee rejected the energy tax. David Boren, a conservative Democrat from oil-rich Oklahoma, wanted the energy tax out of the broader legislative package.[263] After some haggling the energy tax was eventually scaled back to a modest tax increase on gasoline that would have little impact on reducing carbon emissions.

The bad news was not over for House Democrats who had voted for the energy tax. In the 1994 mid-term elections many of them found themselves out of a job, and many blamed their defeat on their vote for the energy tax.[264] Democrats could now see that taking action to reduce emissions was likely to be politically costly.

There is little evidence of the climate change regime's influence on the energy tax. There is a weak indirect link at best, in that Clinton said the tax was designed to

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[259] '"A New Direction" Address to Joint Session of Congress by President William Clinton', *Clinton Presidential Materials Project White House Virtual Library*, 17 February 1993, http://clinton6.nara.gov/1993/02/1993-02-17-a-new-direction-address-to-joint-session-of-congress.html.
[260] Dawn Erlandson, 'Btu Tax Experience: What Happened and Why It Happened', *Pace Environmental Law Review* 12, no. 1 (1994): 2.
[261] Ibid., 180.
[262] Jamieson, *Reason in a Dark Time: Why the Struggle Against Climate Change Failed–and What It Means for Our Future*, 939.
[263] Erlandson, 'Btu Tax Experience: What Happened and Why It Happened', 181.
[264] Ted Nordhaus, 'Getting Real on Climate Change', *The American Prospect*, 21 November 2008, https://prospect.org/article/getting-real-climate-change.

reduce pollution. Additionally, Al Gore, the committed climate advocate was also strongly supporting it and was keenly aware it would reduce emissions. But other justifications were more important. For example, Clinton emphasised how the tax would generate revenue to cut the US budget deficit. He never specifically mentioned the climate change regime or the Convention from the evidence available.

With the energy tax stymied by Congress, the Clinton administration turned its attention to its second major policy to reduce emissions: an emissions reduction plan. Clinton had announced in April that he intended to develop such a plan, and his speech had highlighted the link between the Convention's 1990 target and the new plan.

> Today, I reaffirm my personal, and announce our nation's commitment, to reducing our emissions of greenhouse gases to their 1990 levels by the year 2000. I am instructing my administration to produce a cost-effective plan by August that can continue the trend of reduced emissions.[265]

In October, Clinton and Gore officially announced the *Climate Change Action Plan* (CCAP). It would "reduce US emissions of greenhouse gases, while guiding the US economy toward environmentally sound economic growth in the next century."[266] CCAP consisted of 50 actions to reduce emissions and was expected to cost the federal government US$1.9 billion over six years.[267] Clinton called it "the most aggressive and the most specific first step that any nation on this planet has taken in the face of perhaps the biggest environmental threat to this planet."[268]

The climate change regime's influence is explicit in Clinton's Plan. The text in the Plan says "The President's Climate Change Action Plan presented here returns US

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[265] 'Remarks by the President in Earth Day Speech - US Botanical Gardens, Washington DC', *Clinton Presidential Materials Project White House Virtual Library*, 21 April 1993, http://clinton6.nara.gov/1993/04/1993-04-21-presidents-remarks-in-earth-day-speech.html.
[266] 'Climate Action Report: 1997 Submission of the United States of America under the UNFCCC', 14.
[267] Ronald D. Brunner and Roberta Klein, 'Harvesting Experience: A Reappraisal of the U.S. Climate Change Action Plan', *Policy Sciences* 32 (1999): 133; 'Remarks by the President in at White House Conference on Climate Change', *Clinton Presidential Materials Project White House Virtual Library*, 19 October 1993, http://clinton6.nara.gov/1993/10/1993-10-19-climate-change-event.html.
[268] 'Remarks by the President in at White House Conference on Climate Change',

greenhouse gas emissions to 1990 levels by the year 2000 with cost-effective domestic actions."[269] That is a direct reference to the Convention's stabilisation target. And it says, "The President challenges the American people and other countries to meet the ambitious goals of the Framework Convention on Climate Change."[270] This is the only example I found of an American or New Zealand government document exhorting the public to get behind the climate change regime.

Not long after CCAP was launched, however, its future effectiveness came into doubt. In November 1994, Republicans took control of both chambers of Congress for the first time since the 1950s.[271] The Republicans' victory did not bode well for the future of CCAP. Although CCAP's design minimised the need for legislative or regulatory action, and therefore avoided the Congressional obstacle that had defeated the energy tax, it still required Congressional funding to function effectively. Since Congress controlled the purse strings of government it could withhold funding from the program.

So, how effective was CCAP? CCAP was reviewed two years after it had been implemented, first by the UNFCCC secretariat's expert review team, as part of its review of the US' first *Climate Action Report*, and then by the Clinton administration itself. The expert review team was quite positive about CCAP. For instance, the team said that the "innovative" measures in CCAP "warrant their consideration by other countries."[272] But the team also noted the CCAP was being hampered by insufficient funding by Congress and therefore future milestones were unlikely to be met.[273]

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[269] William J. Clinton and Albert J. Gore, 'The Climate Change Action Plan', October 1993, i, http://babel.hathitrust.org/cgi/pt?id=uc1.31822033838525;view=1up;seq=5.
[270] Ibid.
[271] Amy Royden, 'US Climate Change Policy Under President Clinton: A Look Back', *Golden Gate University Law Review* 32, no. 1–4 (2002): 421.
[272] 'Summary of the Report on the in-Depth Review of the National Communication of the USA' (Geneva, Switzerland: United Nations Office, 26 February 1996), 3.
[273] Ibid., 2–3. The United States took umbrage at some of the more negative comments by the expert review team. It commented that the review process "clearly serves a valuable purpose", but also "urged" the review team to remain within the scope of their mandate, and made the rather pointed comment that, "In our view, it would not be appropriate for the [expert review team] to make policy recommendations about the relative merits of one or another policy choice by individual countries" Ibid., 4. This comment reflected the difficult line the review team has to walk: praising member countries' progress and gently pushing them to go a bit further, but not overreaching. Future reports would not include these types of comments. It is not clear why, but I expect that the UNFCCC secretariat chose to be more

The Clinton administration's review came to two conclusions. First, the White House was adamant that the programs within CCAP were working, and were "expected to achieve a large proportion of the reductions projected in the CCAP."[274] Second, echoing the concerns of the expert review team, the White House believed CCAP's impact would be diminished by Congress's decision to cut funding for the program by 40 percent, high electricity demand, and low energy prices.[275] At a press briefing in October 1997, Kate McGinty, Chair of the White House's Council on Environment Quality, attacked Congress for the lack of funding and its "anti-environmental agenda."[276]

Therefore both reviews had identified Congress's lack of funding for CCAP as the principal reason for its less than stellar performance. As Table 2 makes clear, Congress had continually rebuffed Clinton's efforts to secure more funding for CCAP.

Table 2: Climate Change Action Plan Funding (millions US)

Agency	1995		1996		1997	
	Request	Appropriation	Request	Appropriation	Request	Appropriation
Department of Energy	$208	$37	$185	$69	$144	$69
Environmental Protection Agency	$123	$102	$138	$83	$142	$86
Others	$13	$9	$13	$6	$19	$8
Total	$344	$184	$336	$158	$305	$163

Source: 'Climate Action Report: 1997 Submission of the United States of America under the UNFCCC', 75.

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circumspect in future reports, and if they still received comments from regime states, decided to keep them private.

[274] 'Climate Action Report: 1997 Submission of the United States of America under the UNFCCC', 15.

[275] Ibid.

[276] 'Press Briefing by Chair of the National Economic Council, Gene Sperling; Assistant to the President for International Economic Policy, Dan Tarullo; Deputy National Security Advisor, Jim Steinberg; Staff Secretary, Todd Stern; Chair of Council on Environment Quality, Katie McGinty; and Deputy Secretary of Treasury, Larry Summers', *Clinton Presidential Materials Project White House Virtual Library*, 22 October 1997, http://clinton6.nara.gov/1997/10/1997-10-22-press-briefing-on-climate-change.html.

The United States and the Kyoto Protocol (1995-1997)

Further progress on domestic climate change policy was unlikely because of the hostile Republican-controlled Congress. So the Clinton administration shifted its focus to the climate change regime's COP negotiations.

This period presents a challenge to my second sub-question: it is concerned with the climate change regime's influence on the United States but during this period the Clinton administration appears to be heavily influencing the regime, specifically its future design. Another way of looking at it, however, is that the regime was influencing the Clinton administration by pulling it into the COP negotiation process. Recall that the COP negotiations are established in the Convention's rules. The Clinton administration could of course ignore these rules and tell the American negotiators to stay at home (there is nothing in the Convention that legally binds states to send representatives to COPs). But this did not happen. The COP negotiations on Kyoto therefore constituted a form of regime influence, even though at the same time the negotiations enabled the Clinton administration to use its own influence to weaken or strengthen the regime.[277]

In March 1995, the United States met with other states for the first COP in Berlin, Germany, to assess progress toward meeting the climate change regime's objective. The United States agreed with the consensus, which was that the commitments in the Convention for industrialised states were inadequate and should be strengthened. This agreement resulted in the "Berlin Mandate" – a mandate to draft a new legal instrument for industrialised states.

It is noteworthy that the United States agreed to the Mandate because it did not include any new commitments for developing states, and this was sure to be poorly received domestically. The Senate's rationale for including developing states in a future treaty – particularly China and India – was to protect US trade competitiveness.[278] So why did American negotiators agree to the Mandate? According to Rafe Pomerance, the Deputy Assistant Secretary of State for the

[277] This logic could also be applied to the New Zealand case study. The reason I have chosen to focus on the Kyoto negotiations in the United States case study is because of the interesting link between US domestic politics and the Clinton administration's foreign policy that became highly visible during the negotiations.
[278] Royden, 'US Climate Change Policy Under President Clinton: A Look Back', 425.

Environment at the time, American agreement was a tactical decision to keep the negotiations moving forward.[279] The negotiators realised that the Senate would ultimately challenge this position but at the time it was not paying attention to the negotiations. That allowed the negotiators to proceed, for now, without vocal opposition from the Senate.

This gap between the American negotiating position and the Senate's position did not last long, however. In July 1996, at COP2 in Geneva, Switzerland, Timothy Wirth, the Under Secretary for Global Affairs, announced the United States would support a legally binding agreement with emissions limitations. This was the first time the United States had publicly supported such an agreement.[280] But there were three conditions: "real and achievable" targets, "flexibility in implementation" (i.e. market-based solutions), and the clincher, the "participation of developing countries".[281] The third condition indicated the Clinton administration was trying to take into account the Senate's concerns. The United States was successful in getting all three principles, in one form or another, into the "Geneva Declaration on Climate Change", which was signed at the conclusion of COP2.[282] The Declaration was not formally adopted by the Convention, but it was "taken note of".[283]

After COP2, the Clinton administration attempted to generate support for Kyoto with the White House Initiative on Global Climate Change, with was launched in early 1997. The campaign peaked in October with a White House conference on climate change, which was attended by around 200 politicians and stakeholders and broadcast live over the Internet and via satellite to 32 locations around the country.[284] The Clinton administration probably believed that raising public support for Kyoto would counteract the fossil fuel industry's lobbying of the Senate and therefore soften the Senate's attitude towards a new treaty. This strategy is implicit in Clinton's

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[279] Ibid.
[280] Ibid., 428.
[281] 'Climate Action Report: 1997 Submission of the United States of America under the UNFCCC', 7.
[282] Ibid. Developing states may have signed the Declaration because the phrase "participation of developing countries" is fairly ambiguous.
[283] Sebastian Oberthür and Hermann E. Ott, *The Kyoto Protocol: International Climate Policy for the 21st Century* (Berlin, Heidelberg: Spring Berlin Heidelberg, 1999), 54. This procedural device would be used 13 years later to save the Copenhagen conference from collapse.
[284] Ibid., 69.

comments in June 1997. At a UN General Assembly session Clinton candidly admitted that his inability to lead internationally on climate change was because of domestic constraints, in particular from the Senate, while adding that he was committed to convincing "the American people and the Congress that the climate change problem is real and imminent."[285]

Although the idea was a good one, it had already become clear in July that the Senate would be hostile to a new treaty unless it included legally binding commitments by developing states. In July, the Senate passed the Byrd-Hagel resolution by a unanimous vote of 95-0, which made "specific scheduled commitments [i.e. legally binding] to limit or reduce greenhouse gas emissions" by developing states a precondition for US ratification of the Kyoto Protocol.[286] This was unambiguously at odds with the Berlin Mandate and was harsher than the more vague precondition of "meaningful participation" that the Clinton administration had put forward. It was also a condition that developing states were extremely unlikely to agree to. The Senate had just thrown another spanner into Clinton's climate change policy.

Meanwhile the Clinton administration began saying publicly that the current climate change regime was inadequate and was not reducing emissions. That is, the voluntary target in the Convention was not working, and a legally binding target, i.e. Kyoto, was needed. During a Senate hearing in July 1997, Wirth said:

> It is clear that the Framework Convention on Climate Change has not proven adequate to the task of reducing global emissions. We anticipate that only two countries will meet the Convention's nonbinding aim of lowering emissions to 1990 levels by the year 2000. We ourselves will miss the aim by about 10

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[285] Ibid., 61.

[286] Robert Byrd, 'S.Res.98 - 105th Congress (1997-1998): A Resolution Expressing the Sense of the Senate Regarding the Conditions for the United States Becoming a Signatory to Any International Agreement on Greenhouse Gas Emissions under the United Nations Framework Convention on Climate Change.', Congress.gov, (25 July 1997), https://www.congress.gov/bill/105th-congress/senate-resolution/98?q=%7B%22search%22%3A%5B%22byrd-hagel%22%5D%7D.

> percent. We believe a binding legal obligation to act will result in the passage of domestic laws in all countries that compel action.[287]

In a speech on climate change in October, Clinton repeated the message:

> The industrialised nations tried to reduce emissions to 1990 levels once before with a voluntary approach, but regrettably, most of us – including especially the United States – fell short. We must find new resolve to achieve these reductions, and to do that we simply must commit to binding limits.[288]

Both speeches highlighted the climate change regime's influence on US climate change policy, although in a counter-intuitive way. The Clinton administration was complaining the regime's influence was too weak and needed to be strengthened.

Clinton went on to say that he would take action to reduce emissions even without a new treaty. He said, "we cannot wait until the treaty is negotiated and ratified to act", and outlined a new US$5 billion plan of tax cuts and research and development spending for energy efficient purchases and renewable energy.[289] This statement illustrated that the climate change regime was only one of the factors driving US climate change policy. Clinton's implicit reason was that reducing emissions was simply the right thing to do because of the seriousness of the problem.

In the same speech Clinton also restated the American negotiating position on Kyoto. He proposed returning US emissions to 1990 levels between 2008-2012, and said the United States would seek to include "flexible mechanisms", such as emissions trading, in the treaty.[290] And he said, "The United States will not assume binding obligations unless key developing nations meaningfully participate in this

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[287] 'Conditions Regarding U.N. Framework Convention on Climate Change', Senate Report (Foreign Relations Committee, 25 July 1997), https://www.congress.gov/congressional-report/105th-congress/senate-report/54/1?q=%7B%22search%22%3A%5B%22byrd-hagel%22%5D%7D.
[288] 'Remarks by the President on Global Climate Change, National Geographic Society, Washington D.C.', *Clinton Presidential Materials Project White House Virtual Library*, 22 October 1997, http://clinton6.nara.gov/1997/10/1997-10-22-remarks-on-global-climate-change.html.
[289] Ibid.
[290] Ibid.

effort."[291] "Meaningful participation" was later elaborated by Stuart Eizenstat, who led the US negotiation team at Kyoto, as meaning, "…the biggest emitters [i.e. China and India] assume, over a reasonable period of time, binding commitments. They do not necessarily have to be the same commitments as the developed world is taking."[292]

It appears that the Clinton administration knew the meaningful participation precondition was untenable to China and India, and held to it with discomfort. Depledge notes that American negotiators

> took great pains to alert others to the domestic pressure they were under; at a small meeting of senior negotiators in August 1997, the US delegation circulated a newspaper advertisement taken out by a business lobby group vociferously criticising the exemption of developing countries from emission targets as unfair.[293]

This could of course be seen as a negotiating tactic. Robert Putnam notes that US negotiators have often used the threat of an obstinate Congress to extract concessions in international negotiations.[294] But it was also the truth. And the transparency of the American political system is such that it was obvious to any impartial observer (which may or may not have included Chinese and Indian negotiators) that the hands of the Clinton administration were tied when it came to Congress.

Despite the formidable obstacle "meaningful participation" posed to US negotiators, it was clear that the administration wanted a successful outcome at COP3 in Kyoto, namely a legally binding treaty that the Senate would ratify. Aside from an awareness that the voluntary approach had failed, another reason the administration sought success was the recent American diplomatic failure in the land mine treaty negotiations, which had taken place in November 1997 in Oslo, Denmark. The United

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[291] Brunner and Klein, 'Harvesting Experience: A Reappraisal of the U.S. Climate Change Action Plan', 134.
[292] Royden, 'US Climate Change Policy Under President Clinton: A Look Back', 437.
[293] Depledge, 'Against the Grain: The United States and the Global Climate Change Regime', 16.
[294] Robert D. Putnam, 'Diplomacy and Domestic Politics: The Logic of Two-Level Games', *International Organization* 42, no. 3 (1988): 440.

States participated in the negotiations, but did not sign the final treaty and was left isolated as a result. Before leaving for Kyoto, American negotiators were told, "Please don't let this be another Oslo."[295]

So Clinton, Gore, and the rest of the American negotiators worked hard to ensure the Kyoto negotiations were successful. When negotiations reached a standstill Gore broke the logjam by offering a carefully crafted and subtle statement of compromise. He said the United States would "show increased negotiating flexibility if a comprehensive plan can be put into place."[296] This olive branch was reportedly against the recommendations of his advisors but with Clinton's approval.[297] At the end of the negotiations Clinton was among the most active world leaders, personally reaching out to the leaders of the rich industrialised states, the former states of the Soviet Union, Russia, and developing states, to keep the negotiations moving forward.[298]

The American goal was to get "meaningful participation" from developing states, but the United States also wanted flexible mechanisms, like emissions trading, to ensure it could meet its own commitments cost-effectively. China, India, and other developing states vehemently opposed both US objectives. They perceived the "meaningful participation" objective as against the principle of "Common But Differentiated Responsibility" enshrined in the Convention.[299] And they viewed flexible mechanisms as a way for the United States to avoid domestic emission reductions. By the end of the negotiations, the developing states had yielded on emissions trading, but having swallowed that bitter pill, it became clear that they would not accept additional commitments in any form.[300]

Without that, the Clinton administration had little hope of the Senate ratifying the Kyoto Protocol. Shortly after the Kyoto Protocol was announced the leaders of the

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[295] Royden, 'US Climate Change Policy Under President Clinton: A Look Back', 440.
[296] Oberthür and Ott, *The Kyoto Protocol: International Climate Policy for the 21st Century*, 86.
[297] Ibid.
[298] Ibid., 88.
[299] In essence, "Common But Differentiated Responsibility" means that industrialised states should take action to reduce emissions first, while developing states should take action as their circumstances permit.
[300] Oberthür and Ott, *The Kyoto Protocol: International Climate Policy for the 21st Century*, 89–90.

Republican majority in the Senate declared it "dead on arrival".[301] Republican Senator Larry Craig said Kyoto was "designed to give some nations a free ride, it is designed to raise energy prices in the United States," and, in a direct slight against the climate change regime, said "it is designed to perpetuate a new UN bureaucracy to manage global resource allocation."[302]

The failure to secure additional commitments from developing states at Kyoto had a negative effect on climate change policy for the rest of the Clinton administration's tenure. One negative effect was that without a ratifiable treaty, further American actions to reduce emissions would be decoupled from the climate change regime. Despite its lack of success, CCAP had at least been bound to an internationally agreed target under the Convention that had legitimacy. That had provided impetus to reducing emissions. But in the wake of Kyoto, American efforts to reduce emissions would need to be justified on a basis other than international commitments.

After Kyoto (1998-2000)

The Clinton administration decided to press on with new climate change policy even though it was clear that the Senate would not ratify Kyoto. In his State of the Union speech, Clinton reaffirmed his commitment to tax cuts and research and development funding to encourage the development of energy efficiency, renewable energy, and carbon reduction technologies, which he had announced earlier in October 1997.[303] Moreover, he asked for even more funding – US$6 billion. Clinton's initiative was dubbed the Climate Change Technology Initiative (CCTI) and replaced CCAP, which was no longer mentioned in the President's climate change-related speeches. In March, Clinton sought approval for CCTI in his budget proposal to Congress, and increased his funding request to US$6.3 billion. Congress would ultimately approve

[301] Helen Dewar and Kevin Sullivan, 'Senate Republicans Call Kyoto Pact Dead', Washington Post, (11 December 1997), http://www.washingtonpost.com/wp-srv/inatl/longterm/climate/stories/clim121197b.htm.
[302] Ibid.
[303] 'State of the Union Address by the President, Hall of the House, United States Capitol', *Clinton Presidential Materials Project White House Virtual Library*, 27 January 1998, http://clinton6.nara.gov/1998/01/1998-01-27-state-of-the-union-address-by-the-president.html.

US$1 billion, far short of the request, but still 25 percent higher than the funding allocated to climate change initiatives in the previous year.[304]

The fading influence of the climate change regime was evident in Clinton's speech. Although Clinton referred to the Kyoto Protocol in his speech, saying "This past December, America led the world to reach a historic agreement committing our nation to reduce greenhouse gas emissions…",[305] in the context of the Congressional opposition to the treaty, Clinton's words sounded hollow. The political landscape had changed greatly from 1993 when Clinton had made bold exhortations to the Convention in his CCAP. The truth was that Kyoto had made the climate change regime extremely unpopular in Congress.

The Clinton administration made one last attempt to salvage Kyoto ratification through eleventh-hour efforts to extract additional commitments from developing states. In November 1998, at COP4 in Buenos Aires, Argentina and Kazhakstan announced they would take on legally binding targets, bringing praise from the Clinton administration.[306] Observers speculated that the reason Argentina may have agreed to take on a target was the close relationship between Argentinian President Carlos Menem and Clinton, and Argentina's candidacy to join the OECD.[307] If those speculations were accurate Clinton was using every trick up his sleeve to make the Kyoto Protocol more ratifiable to the Senate.

Unfortunately his efforts were too little and too late. Although Clinton decided to sign the Kyoto Protocol at COP4, Gore announced the administration would not submit it to the Senate for ratification without the meaningful participation of "key developing countries", i.e. China and India.[308] Despite Gore's caveat and what was clearly a rather symbolic gesture by Clinton, the administration's decision to sign the treaty was attacked by Republicans who had attended the COP. Republican Senator Chuck Hagel said the signing, "blatantly contradicts the will of the US Senate."[309]

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[304] 'Statement by Vice President Gore on the United States' Signing of the Kyoto Protocol', *Clinton Presidential Materials Project White House Virtual Library*, 12 November 1998, http://clinton6.nara.gov/1998/11/1998-11-12-vp-statement-on-us-signing-of-the-kyoto-protocol.html.
[305] 'State of the Union Address by the President, Hall of the House, United States Capitol'.
[306] Royden, 'US Climate Change Policy Under President Clinton: A Look Back', 457.
[307] Ibid.
[308] 'Statement by Vice President Gore on the United States' Signing of the Kyoto Protocol'.
[309] Royden, 'US Climate Change Policy Under President Clinton: A Look Back', 459.

By now it was clear that Kyoto was going nowhere in the United States. Nonetheless, between 1999-2000, the last two years of the Clinton administration, Clinton continued to use his presidential pedestal and the federal budget to try to reduce US emissions. In his State of the Union address in January 1999, Clinton called climate change "our most fateful new challenge."[310] His budget proposed US$5 billion of tax cuts and investment for energy efficient products and renewable energy.[311] Congress would eventually authorise US$1 billion of his request.[312] In his final State of the Union address in January 2000, Clinton devoted three paragraphs to global warming calling it "the greatest environmental challenge of the new century."[313] His budget proposed US$6.4 billion of tax cuts and increased research and development investment for renewable energy.[314] Congress would ultimately authorise US$1.2 billion, a 13 percent increase from the previous year.[315] In his final years in power Clinton increasingly mentioned climate change and often at great length.[316]

In the last two years of his administration, Clinton's efforts to reduce emissions were driven more by the threat climate change posed, rather than any influence from the climate change regime. With no Kyoto ratification the United States had no legally binding obligations under the climate change regime. The voluntary 1990 target under the Convention was nearly redundant and quickly becoming a historical footnote.

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[310] 'President William Jefferson Clinton State of the Union Address', *Clinton Presidential Materials Project White House Virtual Library*, 19 January 1999, http://clinton6.nara.gov/1999/01/1999-01-19-state-of-the-union-address-as-given.html.
[311] 'Meeting the Challenge of Global Climate Change', *State.gov*, 26 May 1999, http://www.state.gov/1997-2001-NOPDFS/global/global_issues/climate/fs-wh9904_climate_990526.html.
[312] 'President Clinton, Vice President Gore, and Congressional Democrats Win a Landmark Budget', *Clinton Presidential Materials Project White House Virtual Library*, 15 December 2000, http://clinton5.nara.gov/textonly/WH/new/html/Mon_Dec_18_162231_2000.html.
[313] 'President William J. Clinton State of the Union Address', *Clinton Presidential Materials Project White House Virtual Library*, 27 January 2000, http://clinton6.nara.gov/2000/01/2000-01-27-state-of-the-union-address.html.
[314] 'President Clinton's FY2001 Climate Change Budget', *Clinton Presidential Materials Project White House Virtual Library*, 3 February 2000, http://clinton4.nara.gov/WH/EOP/OSTP/html/0029_4.html.
[315] 'President Clinton, Vice President Gore, and Congressional Democrats Win a Landmark Budget'.
[316] Royden, 'US Climate Change Policy Under President Clinton: A Look Back', 459.

Summary

We stop at the end of the Clinton administration's tenure to review the case study with reference to my sub-questions. The first sub-question was: did the United States take action to reduce emissions between 1988 and 2015? Yes: the Clinton administration took strong action to reduce emissions. The energy tax, CCAP (with its 50 actions), and CCTI were the Clinton administration's principal actions. Although the energy tax failed, the CCAP was implemented and received some funding from Congress, as did CCTI.

The second sub-question was: is the climate change regime's influence observable in these actions? Yes: there is moderate evidence of the climate change regime's influence on the Clinton administration's actions. The most robust evidence is CCAP. CCAP was specifically designed to meet the Convention's stabilisation target, which was to reduce emissions to 1990 levels. In the CCAP document Clinton even challenges the American public to meet the Convention's target. The regime's influence is also highlighted by the US participation in the COP3 negotiations. By attending the COP (one of the Convention's rules) and signing Kyoto, the Clinton administration demonstrated the climate change regime's influence on American foreign policy.

The third sub-question was: did these actions reduce total US emissions? Given the sustained effort by the Clinton administration to reduce emissions, one would expect at least the growth rate of US emissions to have reduced. Indeed, this is what the UNFCCC secretariat's expert review team concluded in 2003: the team acknowledged that US climate change policy had "delivered notable reductions" in non-CO2 emissions.[317] Total emissions, however, did not reduce, increasing 14 percent between 1993 and 2000.[318]

2001-2008: The George W. Bush administration

The Clinton administration's tenure came to an end in November 2000, when Republican challenger George W. Bush defeated Democratic nominee Al Gore in the Presidential election.

[317] 'Report on the in-Depth Review of the Third National Communication of the USA', In-depth review (Geneva, Switzerland: United Nations Office, 21 September 2004), 30.
[318] 'Greenhouse Gas Inventory Data - Detailed Data by Party'.

"Kyoto is dead" (2001)

The first indication of the approach George W. Bush would take towards reducing emissions came on 13 March 2001, three months into the Bush administration's first term, when he wrote a letter to four Senators outlining the administration's position on climate change, and in particular the Kyoto Protocol.[319] Bush said he opposed the Kyoto Protocol because of the absence of commitments from developing states and excessively strong targets.[320] Later in the month, Condoleezza Rice, the new National Security Advisor, told ambassadors from the European Union that "Kyoto is dead."[321]

The international community, including close US allies like the European Union and Japan, received the news with shock and disappointment. Italian Environment Minister Willer Bordon called it "extremely grave", while Japan said it would urge the United States to rethink its position.[322] The decision was a shock to the international community because on 4 March at a G8 environment summit Christine Whitman, the Environmental Protection Agency (EPA) administrator, had assured the European Union and other G8 states that the United States would continue with Kyoto and had even signed a joint statement to that end.[323] According to Depledge, the international surprise and disappointment may have even surprised the Bush administration. She suggests members of the Bush administration assumed the announcement would be welcomed by states that were looking for an excuse to leave a treaty they had only reluctantly agreed to in 1997.[324] If she is right, the Bush

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[319] George W. Bush, 'Text of a Letter From The President', *The White House: President George W. Bush*, 13 March 2001, http://georgewbush-whitehouse.archives.gov/news/releases/2001/03/20010314.html.
[320] The G.W. Bush administration also announced the government would not regulate carbon emissions, reversing his campaign promise in September 2000, which a White House spokesperson called a "mistake". Julian Borger and Ian Black, 'US U-Turn on Emissions Fuels Anger', *The Guardian*, 15 March 2001, http://www.theguardian.com/environment/2001/mar/15/usnews.globalwarming.
[321] Jeffrey Kluger, 'A Climate Of Despair', *Time.com*, 1 April 2001, http://content.time.com/time/magazine/article/0,9171,104596,00.html.
[322] 'Bush Firm over Kyoto Stance', *CNN.com*, 29 March 2001, http://edition.cnn.com/2001/US/03/29/schroeder.bush/.
[323] Julian Borger, 'Bush Kills Global Warming Treaty', *The Guardian*, 29 March 2001, http://www.theguardian.com/environment/2001/mar/29/globalwarming.usnews.
[324] Depledge, 'Against the Grain: The United States and the Global Climate Change Regime', 19–20.

administration had clearly underestimated the climate change regime's influence on other states.

The climate change regime's influence is also evident in the views of Whitman and also Paul O'Neill, Bush's treasury secretary, regarding Kyoto. O'Neill had written a memo to Bush on 27 February saying emissions presented "a very big problem" and that Kyoto did not go far enough.[325] This is circumstantial evidence that the regime had facilitated learning: O'Neill had become aware of the seriousness of climate change through the climate science (which is spread through the climate change regime) and wanted to do something about it. A few days later on 6 March Whitman also wrote to Bush, saying:

> Mr President, this is a credibility issue [climate change] for the United States in the international community. It is also an issue that is resonating here, at home. We need to appear engaged. The Kyoto Protocol is the only game in town in their [European] eyes. There is a real fear in the international community that if the United States is not willing to discuss the issue within the framework of Kyoto the whole thing will fall apart.[326]

Whitman's statements demonstrate the reputational effect of the climate change regime: she considered that rejecting Kyoto would harm US credibility internationally, and the reputation of the Bush administration itself, domestically.

Although the Bush administration had rejected the Kyoto Protocol, Bush continued to support the core component of the climate change regime: the Convention. On 11 June 2001, the President gave a major speech on climate change. He reaffirmed his view that the Kyoto Protocol was "fatally flawed".[327] But he also said that the international process to bring states together, i.e. the Convention, "is an

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[325] Borger, 'Bush Kills Global Warming Treaty'.
[326] 'Bush Undermines EPA Administrator', *The Morning Call*, 29 March 2001, http://articles.mcall.com/2001-03-29/news/3339492_1_environmental-ministers-warming-greenhouse-gases; Dick Thompson, 'Why U.S. Environmentalists Pin Hopes on Europe', *Time*, 26 March 2001, http://content.time.com/time/world/article/0,8599,103985,00.html.
[327] 'President Bush Discusses Global Climate Change', *The White House: President George W. Bush*, 11 June 2001, http://georgewbush-whitehouse.archives.gov/news/releases/2001/06/20010611-2.html.

important one".[328] As a result he would commit the United States to "work within the United Nations framework and elsewhere to develop with our friends and allies and nations throughout the world an effective and science-based response to the issue of global warming."[329]

Bush's statements demonstrate an interesting nuance of his administration's climate change policy that was missed in his rejection of Kyoto. The Bush administration was pathologically averse to legally binding agreements, especially if developing states like China and India were able to "free ride" (in the Bush administration's view). But since the Convention was voluntary it was not attacked by the Bush administration. That allowed the climate change regime to continue exerting a modicum of influence on the Bush administration.[330]

The Bush approach: technology yes, regulation no (2001-2008)

The Bush administration's rejection of Kyoto did not indicate it intended to do nothing to reduce emissions. In June 2001, Bush announced two initiatives to reduce emissions: the Climate Change Research Initiative and the National Climate Change Technology Initiative.[331] The initiatives indicated that the administration's efforts to reduce emissions would focus on research and technology. In February 2002, the administration added to these initiatives with the release of its climate change strategy: *US Climate Change Strategy: A New Approach*. It stated that the United States would reduce emissions intensity per unit of economic activity by 18 percent by 2012.[332] To achieve this target the administration took three actions:

1. Created a cabinet-level "Committee on Climate Change Science and Technology Integration" to coordinate and prioritise federal funding on climate science and advanced energy technologies;
2. Increased the budget for climate change policies to US$4.5 billion; and

[328] Ibid.
[329] Ibid.
[330] It also indicated that the decision to launch the climate change regime with a voluntary treaty was a wise one.
[331] 'Report on the in-Depth Review of the Third National Communication of the USA', 4.
[332] 'President Announces Clear Skies & Global Climate Change Initiatives', *The White House: President George W. Bush*, 14 February 2002, http://georgewbush-whitehouse.archives.gov/news/releases/2002/02/20020214-5.html.

3. Proposed tax incentives of US$4.6 billion over five years for renewable energy and more energy-efficient technologies.[333]

In a speech announcing the plan on 14 February, Bush noted that the budget commitment of US$4.5 billion for climate change policies was "more than any other nation's commitment in the entire world", and a US$700 million increase from last year's budget.[334] The plan had similarities to the Clinton approach at the tail end of his presidency: tax cuts for low-carbon cars, and research and development of low-carbon technologies. Even the levels of funding were similar.

But the intensity-based target indicated a further shift away from the climate change regime: the targets in the Convention and the Kyoto Protocol were based on absolute levels of emissions. This was for good reason: reducing the intensity of emissions per economic unit of activity would not necessarily prevent dangerous climate change because total emissions could still be increasing. Moreover, the 18 percent target was only expected to be a four percent improvement compared to business-as-usual,[335] so was far from ambitious.

Bush did reaffirm his support for the climate change regime in his speech, however, providing further evidence of its influence on US climate change policy.

> I reaffirm America's commitment to the United Nations Framework Convention and its central goal, to stabilise atmospheric greenhouse gas concentrations at a level that will prevent dangerous human interference with the climate.[336]

Bush saw his plan as contributing to the achievement of the climate change regime's objective, even if it was not under the auspices of the Kyoto Protocol.

Further evidence of the climate change regime's influence on the Bush administration's climate change policy is evident in an obscure 2004 article in the journal *Science* by Spencer Abraham, the-then Secretary of Energy.

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[333] 'US Climate Action Report - 2006: Fourth National Communication of the USA under the UNFCCC', National Communication (Geneva, Switzerland: United Nations Office, 2006), 37; 'President Announces Clear Skies & Global Climate Change Initiatives'.
[334] 'President Announces Clear Skies & Global Climate Change Initiatives'.
[335] 'Report on the in-Depth Review of the Third National Communication of the USA', 5.
[336] 'President Announces Clear Skies & Global Climate Change Initiatives'.

> As a signatory to the UNFCCC, the United States shares with many countries its ultimate objective: stabilisation of greenhouse gas concentrations in the atmosphere at a level that prevents dangerous interference with the climate system. … The Bush administration has developed a comprehensive strategy on climate change that is informed by science, emphasises innovation and technological solutions, and promotes international collaboration to support the UNFCCC's objective.[337]

Abraham's statements indicate that the Bush administration remained committed to the climate change regime's objective.

Leaving aside the question of the climate change regime's influence on the Bush administration's climate change policy, between 2001-2008 there is little to mention in terms of new climate change policy. This is because the Bush administration's climate change policy did not deviate from tax cuts for low-carbon products and investment in low-carbon technologies. The administration had no appetite for legislation or regulatory intervention. Moreover, it made efforts to close off any possibilities that existed. In August 2003, under direction from the Bush administration, the EPA declared it had no authority to regulate carbon emissions under the Clean Air Act, reversing the 1998 decision by the Clinton administration.[338]

The decision angered some of America's constituent states that were frustrated with the Bush administration's non-regulatory approach to climate change policy. Ten of them, including populous California and New York, and supported by green NGOs, launched a legal challenge against the administration's decision. Over the next four years the case wound its way through the American legal system and ended up in the Supreme Court. In April 2007, the Supreme Court announced in a 5-4 decision that the EPA did in fact have the authority to regulate carbon emissions under the

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[337] Spencer Abraham, 'The Bush Administration's Approach to Climate Change', *Science* 305 (30 July 2004): 616–17.
[338] Danny Hakim, 'States Plan Suit to Prod U.S. on Global Warming', *The New York Times*, 4 October 2003, http://www.nytimes.com/2003/10/04/business/states-plan-suit-to-prod-us-on-global-warming.html.

Clean Air Act.[339] The Supreme Court then directed the EPA to review the decision it had made in 2003. The Supreme Court's decision was a punch in the gut for the Bush administration's non-regulatory approach to climate change policy. Much to the chagrin of the litigant states and the green NGOs supporting them, however, the Bush administration managed to avoid taking any action on the matter for the rest of its tenure.

From the perspective of the climate change regime, this episode demonstrates that its influence may have penetrated deep into the US political system. States like California and New York may have been watching other countries in the climate change regime implementing climate change policy, and were embarrassed by the laggard approach of the Bush administration. (If true, this would indicate the reputational effect of the climate change regime.) They then attempted to alter the Bush administration's climate change policy from the bottom-up. From the perspective of the Bush administration, it was now being influenced both internationally and domestically to take action. Ultimately, however, the Bush administration was able to resist this influence.

A renewed international effort (2005-2008)

While the Bush administration made little effort to implement climate change legislation between 2001-2008, it did make more of an effort internationally through two initiatives. Both were launched in Bush's second term as President. The first was the Asia-Pacific Partnership on Clean Development and Climate (APP) launched in July 2005. The APP included the United States, China, India, Australia, Canada and Japan: large and medium-sized states that accounted for over 50 percent of the world's emissions. Its objective was to facilitate cooperation on the development and transfer of low-carbon technology. The focus on development and deployment of low-carbon technology mirrored the Bush administration's domestic approach.

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[339] Linda Greenhouse, 'Justices Say E.P.A. Has Power to Act on Harmful Gases', *The New York Times*, 3 April 2007, http://www.nytimes.com/2007/04/03/washington/03scotus.html; Chief Justice Roberts, Massachusetts v. Epa (Roberts, C. J., dissenting), U.S. (U.S. Supreme Court 2007). Even here the Court managed to take a swipe at China and India and their growing emissions. The judges dissenting pointed out both states are "poised to increase greenhouse gas emissions substantially over the next century" and that American "domestic emission reductions may become an increasingly marginal portion of global emissions."

The climate change regime's influence is discernible in the APP. For instance, the APP's "vision statement" notes:

> To this end, we will work together, in accordance with our respective national circumstances, to create a new partnership to develop, deploy and transfer cleaner, more efficient technologies and to meet national pollution reduction, energy security and climate change concerns, consistent with the principles of the UNFCCC. . . . The partnership will be consistent with and contribute to our efforts under the UNFCCC and will complement, but not replace, the Kyoto Protocol.[340]

The Bush administration was trying to avoid creating a perception that the APP was intended to undermine or replace the Convention. The logical reason for this strategy was that the Convention held international credibility and prestige, and the Bush administration did not want to come under attack for undermining it. That an unashamedly unilateral administration would go to such lengths to avoid undermining the core component of the climate change regime demonstrates the regime's influence on the Bush administration's foreign policy.

The Bush administration's other international initiative on climate change was the Major Economies Meeting on Energy Security and Climate Change, which was launched in September 2007. Its purpose was to "develop and contribute to a post-Kyoto framework on energy security and climate change."[341] Like the APP it brought together the largest emitting states: the United States, China, India, and the European Union, amongst others. Three meetings were held between 2007 and 2008.

The Major Economies Meeting also indicates the climate change regime's influence. The Chairman's summary of the first meeting notes:

> All [participants] underlined the central role of the UNFCCC as the global forum for addressing climate change. Speakers underlined their commitment

[340] 'Vision Statement of Australia, China, India, Japan, the Republic of Korea, and the United States of America for a New Asia-Pacific Partnership on Clean Development and Climate', accessed 10 June 2015, http://www.asiapacificpartnership.org/pdf/resources/vision.pdf.
[341] 'Major Economies Process on Energy Security and Climate Change', *State.gov*, 13 September 2007, http://2001-2009.state.gov/g/oes/climate/mem/.

> to contribute to global efforts under the UNFCCC, reflecting their national circumstances and in line with their common but differentiated responsibilities and respective capabilities. Speakers welcomed the US initiative as a contribution to these efforts.[342]

Like the APP, the Convention was clearly considered important, at least publicly, and the participants in the Forum were keen to emphasise their support for it, and avoid undermining it.

Summary

We are now two-thirds of the way through the US case study. We pause here to summarise the findings so far with regard to the sub-questions. The first sub-question was: did the United States take action to reduce emissions between 1988 and 2015? Contrary to popular perception, the G.W. Bush administration did in fact take action to reduce emissions. Its actions focused on tax cuts for low-carbon products and increased investment in low-carbon technology, rather than regulatory intervention. This approach was inline with the Bush administration's free market ideology and its faith in technology.

Was the climate change regime's influence observable in these actions? This was the second sub-question. I found some evidence of the climate change regime's influence on the Bush administration's actions. For example, Bush justified his climate change strategy and associated policies with reference to the Convention. And on several occasions he publicly expressed his support for the Convention. Moreover, international initiatives like the APP were carefully designed and communicated so they did not contradict the Convention.

Other evidence suggests that the climate change regime had little influence on the Bush administration. This is most clearly reflected by the administration's decision to walk away from the Kyoto Protocol. With the Convention's 1990 target irrelevant by the early 2000s, the Kyoto Protocol was the climate change regime's key instrument to influence member states. The climate change regime could not have had a strong

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[342] 'Final Chairman's Summary: First Major Economies Meeting On Energy Security and Climate Change', *State.gov*, 30 September 2007, http://2001-2009.state.gov/g/oes/climate/mem/93021.htm.

influence over the United States if the Bush administration was able to simply walk away from the regime's key achievement.

Lastly, what about the third sub-question? Did these actions reduce total US emissions? The answer is no: between 2001 and 2008 emissions grew by two percent.[343] On the positive side, this was much lower than the 1990s rate of 12 percent.

The large reduction in emissions growth is a surprising finding given the hostility that was directed at the Bush administration's climate change policy in the 2000s. The UNFCCC's expert review team acknowledged that the administration's policies, notably those that promoted energy efficiency and renewable energy were partly responsible for the reduction in emissions growth.[344] Renewable energy in particular began to increase from 2005, increasing 14 percent between 2005-2008 after decades of stagnation.[345] It appears that the administration's investment in renewable energy was starting to have an impact.[346]

We should be aware, however, that the two principal causes of the reduced growth in emissions between 2001 and 2008 were the shale gas boom that took off in 2005,[347] and the global financial crisis that began at the end of 2007. These factors were far more important than the Bush administration's climate change policy. The shale gas boom increased natural gas production: it increased by 11 percent between 2005-2008, while oil production decreased, and coal and nuclear stagnated.[348] Then in 2008 the global financial crisis caused the American economy to seize up: total emissions reduced by a dramatic three percent in 2008.[349] So while the Bush administration's

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[343] 'Greenhouse Gas Inventory Data - Detailed Data by Party'.
[344] 'Report on the in-Depth Review of the Fifth National Communication of the USA', National Communication (Geneva, Switzerland: United Nations Office, 14 September 2012), 42.
[345] Data obtained from Google Data Explorer (http://www.google.co.nz/publicdata/directory?hl=en). Source data from US Energy Information Administration.
[346] Of course it should not be forgotten that this investment began under Clinton.
[347] 'The United States 2014 Review - Executive Summary', Energy Policies of IEA Countries (International Energy Agency, 2014), 2, http://www.iea.org/Textbase/npsum/US2014sum.pdf.
[348] Data obtained from Google Data Explorer (http://www.google.co.nz/publicdata/directory?hl=en). Source data from Energy Information Administration.
[349] 'Greenhouse Gas Inventory Data - Detailed Data by Party'.

climate change policy may have helped reduce emissions growth, the primary causes were external.

2009-2015: The Obama administration

We have now reached the fourth section of the US case study: the Obama administration. Democrat Barack Obama had replaced Bush as President after defeating the Republican nominee John McCain in the November 2008 Presidential election. Obama promised to make addressing climate change a top priority, calling it "one of the most urgent challenges of our generation."[350] Obama's victory marked the end of Bush's non-regulatory approach to US climate change policy.

The stimulus, cap-and-trade, and Copenhagen (2009-2010)

Obama's first major policy to reduce emissions was the American Recovery and Reinvestment Act, or the "stimulus package". It was passed in February 2009 by a Congress once again controlled by the Democrats. The Act was an enormous US$831 billion package designed to pull the US economy out of its free-fall. It included over US$90 billion of investment in low-carbon technologies, and part of the rationale for this funding was "to help combat climate change".[351] This was an enormous amount of money for the nascent renewable energy industry in the United States, especially when compared to the equivalent funding appropriated by the Clinton and G.W. Bush administrations, which was usually around US$5-6 billion.

There is no discernible evidence of the climate change regime's influence in the stimulus package, however. A 2011 review of the stimulus package by Joseph Aldy, one of the authors of the climate and energy component, says the investment in clean energy was the administration's "first major step in implementing President Obama's approach to advancing energy and climate policy."[352] But he does not mention the Convention, or Kyoto, and he only mentions climate change itself three times. This is not surprising: having rejected Kyoto, the United States had no legal obligation to

[350] Kestenbaum, 'Candidates Call Climate Change An "Urgent" Priority'.
[351] 'US Climate Action Report - 2010: Fifth National Communication of the USA under the UNFCCC', National Communication (Geneva, Switzerland: United Nations Office, 2010), 3.
[352] Joseph E. Aldy, 'A Preliminary Review of the American Recovery and Reinvestment Act's Clean Energy Package', Faculty Research Working Paper Series (Harvard Kennedy School, December 2011), https://research.hks.harvard.edu/publications/getFile.aspx?Id=842.

reduce emissions and the Convention's voluntary target was by now a distant memory.

An alternative way to look at the clean energy component of the stimulus package was that the climate change regime had successfully socialised US climate change policy by 2009. Climate change policy no longer needed to be justified with reference to the climate change regime: it was simply something that had to be done. Although this is a logical explanation, the problem with it is that there is no evidence to support it.

The Obama administration's next major initiative to reduce emissions was a mandatory economy-wide cap on emissions, that is, an ETS (or as Americans call it, "cap-and-trade"). In February, Obama announced he would work with Congress to establish such a scheme. By June the House had developed legislation, formally called the Waxman-Markey Bill. As Figure 6 indicates, the Obama administration expected cap-and-trade to make a large dent in emissions over time.

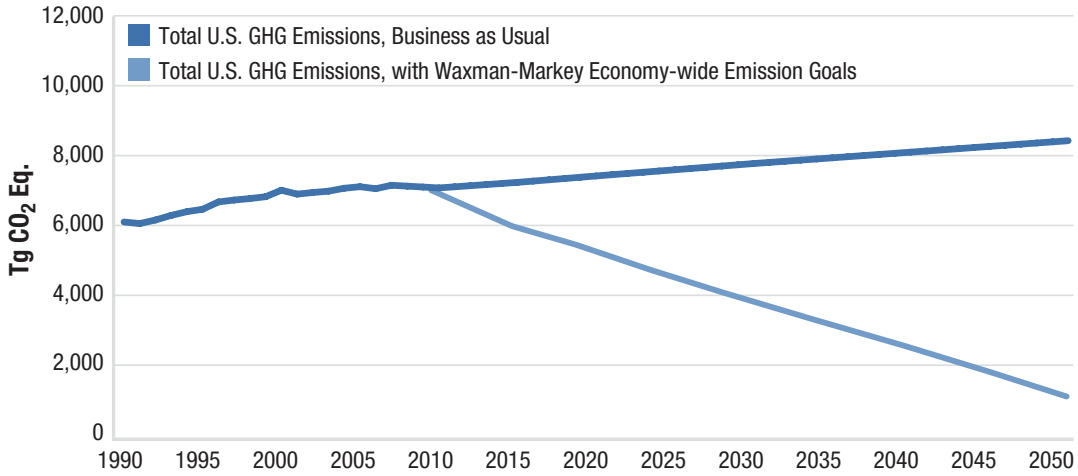

Figure 6: US emissions with and without the Waxman-Markey Bill

Source: 'US Climate Action Report - 2010: Fifth National Communication of the USA under the UNFCCC', 77.

In June, the House passed the Bill by a narrow vote of 219 for and 212 against.[353]

The climate change regime's influence is evident in the House Committee's report on the scheme. It states:

[353] Coincidentally, these numbers were almost identical to the House vote on the 1993 carbon tax, which passed by 219 votes for and 213 against.

> Because a global effort will be required to protect the planet from the looming climate crisis, the Committee crafted this legislation with an international treaty in mind. A meeting in Bali, Indonesia in December 2007 established a "roadmap" for future negotiations, which calls for the completion of such an agreement to govern international global warming pollution reduction efforts at the Fifteenth Conference of the Parties to the United Nations Framework Convention on Climate Change at Copenhagen in December 2009.[354]

In other words, the Committee was mindful of the climate change regime and the ongoing negotiations taking place. Section 762 in the cap-and-trade legislation also refers to the climate change regime:

> Section 762, International Negotiations: Finds that the purposes of this subtitle can be most effectively achieved through international agreements and states that it is the policy of the United States to work proactively under the UNFCCC and in other forums to establish binding agreements committing all major-emitting countries to contribute equitably to the reduction of global greenhouse gas emissions.[355]

Here we can see the legislators establishing a link between US climate change policy and the climate change regime. The text also reaffirmed the US' desire to impose a legally binding agreement on China and India.

December was the fateful month of COP15 in Copenhagen. As noted in chapter two, Copenhagen was a fiasco and has come to symbolise the failures of the climate change regime. But the climate change regime may have suffered a greater catastrophe if the Obama administration had not been in power: the administration's climate change policies in 2009 were partly aimed at improving the chance of a successful negotiation. First, cap-and-trade was intended to show the international

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[354] 'American Clean Energy and Security Act of 2009', House Report (Energy and Commerce Committee, 5 June 2009), 316, https://www.congress.gov/congressional-report/111th-congress/house-report/137/1?q=%7B%22search%22%3A%5B%22american+clean+energy+and+security+act%22%5D%7D.

[355] Ibid., 421.

community that the United States was now serious about reducing emissions. In June, Obama said, "[cap-and-trade] really points to the fact that the United States is very serious on climate. And this has – it should not be underestimated what sort of opportunity this brings to us to come to a good, a sustainable result during the Copenhagen conference."[356] Second, a month before Copenhagen, Obama proposed a new target to reduce emissions 17 percent below 2005 levels by 2020 (four percent below 1990 levels), and 83 percent below 2005 levels by 2050.[357] This was a step forward from the G.W. Bush administration's less ambitious emission intensity target. It indicated to other states that the United States wanted to take stronger action to reduce emissions. And third, a few days prior to the Copenhagen negotiations, the EPA announced carbon emissions were a public health issue, opening the way for regulation. Lisa Jackson, the EPA administrator, said in the announcement that the decision "means we arrive at the climate talks in Copenhagen with a clear demonstration of our commitment to facing this global challenge."[358] The Obama administration's actions in 2009 gave it credibility going into Copenhagen. And it is reasonable to believe that greater American credibility helped encouraged the leaders from the BASIC states to agree to the last-minute Copenhagen Accord initiated by Obama.

Do any of these actions demonstrate the climate change regime's influence? In a sense yes: the Obama administration clearly was trying to improve the reputation of the United States on climate change during 2009, after eight years of being perceived as a laggard state under the Bush administration. The reputational effect of the climate change regime, in other words, helped facilitate the Obama administration's flurry of climate change policy in 2009. No doubt the deadline of Copenhagen at the end of 2009 played a role too, and that also can be attributed to the climate change regime.

Copenhagen's ultimately bleak outcome was a prelude to further negative news in 2010. Cap-and-trade, much like the energy tax 17 years earlier, had hit the brick wall

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[356] 'Remarks by President Obama and Chancellor Merkel of Germany', *Whitehouse.gov*, 26 June 2009, https://www.whitehouse.gov/the_press_office/Remarks-By-President-Obama-And-Chancellor-Merkel-Of-Germany-In-Joint-Press-Availability.
[357] John M. Broder, 'Obama to Go to Copenhagen With Emissions Target', *The New York Times*, 26 November 2009, http://www.nytimes.com/2009/11/26/us/politics/26climate.html.
[358] 'EPA Moves to Regulate US Greenhouse Gas Emissions', *Recharge News*, 8 December 2009, http://www.rechargenews.com/news/americas/article1283013.ece.

of the Senate in early 2010. In July, Senate Democrats John Kerry, Joe Lieberman, and Republican Senator Lindsey Graham, made a last-ditch effort to cobble together enough votes to get cap-and-trade through the Senate, but failed. The Senate had again defeated major climate legislation.

The failure to get cap-and-trade through the Senate was a major blow to Democrats and green NGOs. There were two reasons that made the defeat especially painful for them. First, the Waxman-Markey Bill had already been eviscerated to make it through the House.[359] It included numerous handouts to the coal and gas industries and relatively weak emission reduction targets. The compromises had made the more hardline NGOs such as Greenpeace walk away in disappointment. But even in this watered-down form the Senate had rejected it. Second, Democrats controlled both chambers, which had not happened since 1995, but they were still unable to pass climate legislation.[360]

International initiatives outside the climate change regime: the Major Economies Forum and the G20 (2009)

Meanwhile, outside the climate change regime in the Major Economies Forum (MEF) and the G20, the Obama administration's climate change policy was having more success. Obama's first success was at the MEF's inaugural meeting in July 2009 where he announced a new "Global Partnership on clean energy technologies".[361] The Global Partnership bore fruit in December when the United States and other MEF members announced a five-year US$350 million Climate Renewables and Efficiency Deployment Initiative.[362] The Initiative consisted of ten action plans that "provide a menu of specific actions that countries can take individually and collectively to

[359] 'Waiting for the Other Shoe to Drop; The Cap-and-Trade Bill', *The Economist*, 12 September 2009.
[360] This is one reason why most Democrats (not to mention the rest of the world) have become extremely pessimistic about the possibility of American climate change legislation. The Senate is just too big an obstacle. Even when the odds are stacked in the favour of the Democrats, the Senate still blocks action.
[361] 'Fact Sheet: Clean Energy Technology Announcements', *Energy.gov*, 14 December 2009, http://energy.gov/articles/fact-sheet-clean-energy-technology-announcements.
[362] Ibid.

accelerate development and deployment of low-carbon solutions."[363] Its objective was to help move the world to a low-carbon economy more quickly.

There is some evidence of the climate change regime's influence on the MEF. First, like Bush's incarnation, Obama's MEF[364] reaffirmed "the objective, provisions and principles of the UN Framework Convention on Climate Change."[365] Furthermore, its purpose is to "help support the multilateral negotiating process [i.e. the climate change regime] and devise new ways to advance the development and deployment of clean energy technologies."[366] These statements indicated that the Obama administration wanted to position the MEF as a complement to the climate change regime, rather than a replacement. Second, since May 2014, the Convention's Executive Secretary has been invited to attend.[367] This again reinforced the link between the climate change regime and the MEF, and enabled the climate change regime (through the Executive Secretary) to influence the MEF directly.

Obama's second success was at the G20 summit in September 2009 when he and other G20 leaders committed to eliminating fossil fuel subsidies in the "medium term".[368] Potentially this was a very important announcement. As I mentioned earlier, research from the International Energy Agency and the OECD suggested that eliminating fossil fuel subsidies could reduce global emissions by 10 percent by 2050.[369]

The climate change regime's influence here is barely detectable, however. Obama mentioned that the reform will "help us combat the threat posed by climate change" – an indirect reference to the climate change regime's primary objective, but he also

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[363] Ibid.
[364] In April 2009, Obama had rebranded Bush's Major Economies Forum as the "Major Economies Forum on Energy and Climate".
[365] 'The First Leaders Meeting', *Major Economies Forum on Energy and Climate*, 9 July 2009, http://www.majoreconomiesforum.org/past-meetings/the-first-leaders-meeting.html.
[366] 'US Climate Action Report - 2010: Fifth National Communication of the USA under the UNFCCC', 3.
[367] 'Eighteenth Meeting of the Leaders' Representatives', *Major Economies Forum on Energy and Climate*, May 2014, http://www.majoreconomiesforum.org/past-meetings/eighteenth-meeting-of-the-leaders-representatives.html.
[368] Jeff Mason and Darren Ennis, 'G20 Agrees on Phase-out of Fossil Fuel Subsidies', *Reuters*, 25 September 2009, http://www.reuters.com/article/2009/09/26/us-g20-energy-idUSTRE58O18U20090926.
[369] 'Friends of Fossil Fuel Subsidy Reform'.

said it would increase "our energy security".[370] The announcement was fairly typical. As will become clear, action during the Obama years was often taken for reasons other than the climate change regime. Part of the reason for this was that the United States had rejected Kyoto and therefore had no legally binding target to meet under the regime.

Consolidation (2010-2013)

In terms of US climate change policy, the period between the rejection of cap-and-trade by the Senate in July 2010 and June 2013 is best described as a consolidation phase. Navigating around the apparently immovable obstacle of Congress, the Obama administration took a range of executive actions to reduce emissions, principally by improving energy efficiency and encouraging renewable energy. In February 2011, for example, Obama announced the Better Buildings Initiative. The initiative aimed to help commercial and industrial buildings become at least 20 percent more energy efficient.[371] Then in December Obama signed a memorandum challenging federal agencies to enter into US$2 billion worth of performance contracts for energy efficient buildings within two years.[372] In early 2012, Obama set a goal for the Department of the Interior to issue permits for 10 gigawatts of renewable energy on public lands by the end of 2012. That goal was achieved ahead of schedule in October.[373] In April, Obama announced the Department of Defense would set a goal to deploy three gigawatts of renewable energy by 2025, increasing its renewable energy use from 11 percent to 25 percent by 2025.[374] And finally in August, building

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[370] Mason and Ennis, 'G20 Agrees on Phase-out of Fossil Fuel Subsidies'.
[371] 'President Obama's Plan to Win the Future by Making American Businesses More Energy Efficient through the "Better Buildings Initiative"', *Whitehouse.gov*, 3 February 2011, https://www.whitehouse.gov/the-press-office/2011/02/03/president-obama-s-plan-win-future-making-american-businesses-more-energy.
[372] 'Presidential Memorandum -- Implementation of Energy Savings Projects and Performance-Based Contracting for Energy Savings', *Whitehouse.gov*, 2 December 2011, https://www.whitehouse.gov/the-press-office/2011/12/02/presidential-memorandum-implementation-energy-savings-projects-and-perfo.
[373] 'Salazar Authorizes Landmark Wyoming Wind Project Site, Reaches Presidental Goal of Authorizing 10,000 Megawatts of Renewable Energy', *Blm.gov*, 5 February 2013, http://www.blm.gov/wo/st/en/info/newsroom/2012/october/NR_10_09_2012.html.
[374] 'Fact Sheet: Obama Administration Announces Additional Steps to Increase Energy Security', *Whitehouse.gov*, 11 April 2012, https://www.whitehouse.gov/the-press-office/2012/04/11/fact-sheet-obama-administration-announces-additional-steps-increase-ener.

on an earlier increase in 2009,[375] the Obama administration raised fuel efficiency standards for cars, requiring that all cars average 54.5 miles per gallon by 2025 (see Figure 7).

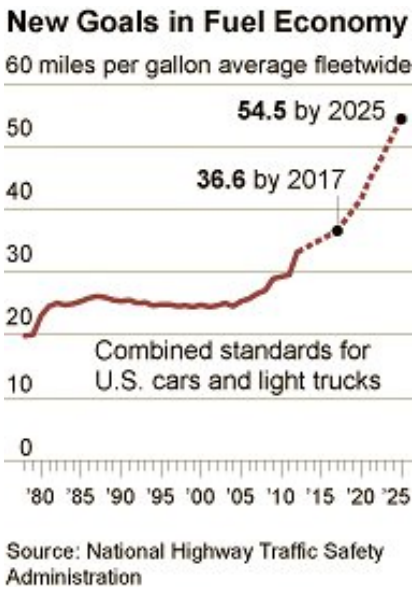

Figure 7: The Obama administration's new fuel efficiency standards

Source: Bill Vlasic, 'U.S. Sets Much Higher Fuel Efficiency Standards', *The New York Times*, 28 August 2012, http://www.nytimes.com/2012/08/29/business/energy-environment/obama-unveils-tighter-fuel-efficiency-standards.html.

The new standards were projected to cut emissions from cars and light trucks in half by 2025. These were all minor actions compared to major climate change legislation, but at this stage they were all that was possible given Congressional opposition.[376]

There is no evidence, however, that the climate change regime influenced any of these actions. Scanning the text of the announcements I find no mention of the climate change regime or its subsidiary treaties. In fact, even emissions reductions are downplayed. Other benefits are emphasised such as more clean energy jobs, or improved energy security. An example is the Obama administration's press release on

[375] 'Obama Administration National Fuel Efficiency Policy: Good for Consumers, Good for the Economy and Good for the Country', *Whitehouse.gov*, 19 May 2009, https://www.whitehouse.gov/embeds/footer.

[376] Obama's approach was similar to the Clark government's approach after its carbon tax was defeated in 2007, when it focused on reducing emissions in the public sector since it did not need to pass legislation to do that.

the new fuel efficiency standards.[377] Almost the entire press release is focused on energy security, saving consumers money, and improving vehicle performance. There is a brief mention of emissions but it is not the primary focus.

Obama's Climate Action Plan (2013)

The period of consolidation ended in June 2013. On 25 June, Obama announced his new *Climate Action Plan* (CAP) in a speech on climate change at Georgetown University. CAP had three objectives: reduce emissions through the introduction of new policies, including establishing new low-carbon standards for new and existing power plants; preparing for the impacts of climate change; and leading international efforts to combat climate change and prepare for its impacts.[378] CAP was expected to reduce emissions substantially, although there was a large amount of variability built into projections (see Figure 8).

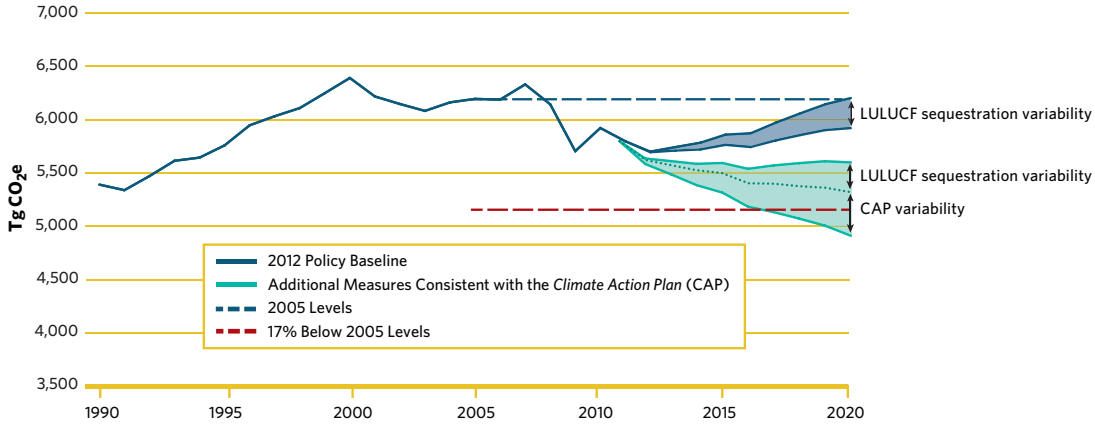

Figure 8: US emission projections: 2012 baseline compared with potential reductions from policies in CAP

Source: 'US Climate Action Report - 2014: Sixth National Communication of the USA under the UNFCCC', National Communication (Geneva, Switzerland: United Nations Office, 2014), 17.

CAP's effectiveness depended on executive action as opposed to Congressional action. This was a necessity for progress. At the end of 2012, Democrats had suffered a heavy defeat by Republicans in the Congressional elections, allowing Republicans

[377] 'Obama Administration Finalizes Historic 54.5 MPG Fuel Efficiency Standards | The White House', *Whitehouse.gov*, 28 August 2012, https://www.whitehouse.gov/the-press-office/2012/08/28/obama-administration-finalizes-historic-545-mpg-fuel-efficiency-standard.
[378] 'US Climate Action Report - 2014: Sixth National Communication of the USA under the UNFCCC', National Communication (Geneva, Switzerland: United Nations Office, 2014), 7.

to regain the House. While Democrats managed to retain control of the Senate, the possibility of passing climate change legislation was now extremely unlikely.

CAP highlighted how much the climate change regime's influence had reduced since the Clinton years. In Clinton's CCAP, for example, the Convention's importance was emphasised from the outset and referred to frequently throughout. As noted, Clinton even challenged Americans to meet the Convention's objective. In contrast, Obama's plan hardly refers to the climate change regime or its treaties at all. The Convention is mentioned twice on the last page of the document, and Kyoto once. Other initiatives that lie outside the climate change regime, such as the MEF, are more strongly emphasised.

The only evidence of the climate change regime's influence on CAP is its reference to the Obama administration's 2020 target. The CAP states:

> In 2009, President Obama made a commitment to reduce US greenhouse gas emissions in the range of 17 percent below 2005 levels by 2020. . . . While there is more work to do, the Obama Administration has already made significant progress by doubling generation of electricity from wind, solar, and geothermal, and by establishing historic new fuel economy standards. Building on these achievements, this document outlines additional steps the Administration will take . . . to continue on a path to meeting the President's 2020 goal.[379]

The 2020 target is aligned with the climate change regime's timetable because the new treaty is intended to take effect from 2020. The target showed that the administration was aware of the climate change regime's objective and was coordinating its domestic climate change policy in line with the climate change regime. Obviously this is not strong evidence of the climate change regime's influence, however.

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[379] 'The President's Climate Action Plan', *Whitehouse.gov*, June 2013, 6, https://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf.

The return of the EPA (2013-2015)

CAP's success depended heavily on the EPA regulating carbon emissions. Between 2013 and 2015, the Obama administration took three steps to make EPA regulation a reality. The administration's first step was announced in September 2013 when it proposed new carbon emissions standards for new power plants. [380] The proposed standard required new power plants to emit no more than 1,100 pounds of CO2 per megawatt hour of electricity produced. Coal power plants emit an average of 1,768 pounds, so were effectively banned under the proposal.[381] The second step came in June 2014 when the administration announced its "Clean Power Plan".[382] The plan proposed reducing carbon emissions from existing power plants by 30 percent from 2005 levels.[383] This proposal would have a far greater impact than the 2013 proposal because existing power plants accounted for approximately one-third of emissions.[384] Therefore, any policy aimed at reducing those emissions would have an enormous impact. The administration's third step was to expand EPA regulations to other parts of the economy. On 10 June 2015, the Obama administration announced it would establish rules for airplane emissions.[385]

Obama's strategy to use the EPA to reduce emissions faced opposition from Congress, however. Following the November 2014 elections, the Republicans again took ground from the Democrats, gaining the Senate, which gave them control of both chambers of Congress. Soon afterwards Senator Jim Inhofe, the incoming chair of the

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[380] 'EPA Proposes Carbon Pollution Standards for New Power Plants', *EPA.gov*, 20 September 2013, http://yosemite.epa.gov/opa/admpress.nsf/0/da9640577ceacd9f85257beb006cb2b6%21OpenDocument.

[381] Juliet Eilperin, 'EPA to Impose First Greenhouse Gas Limits on Power Plants', *The Washington Post*, 26 March 2012, http://www.washingtonpost.com/national/health-science/epa-to-impose-first-greenhouse-gas-limits-on-power-plants/2012/03/26/gIQAiJTscS_story.html.

[382] 'EPA Proposes First Guidelines to Cut Carbon Pollution from Existing Power Plants', *EPA.gov*, 2 June 2014, http://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceeac8525735900400c27/5bb6d20668b9a18485257ceb00490c98!OpenDocument.

[383] Ibid.

[384] Ibid.

[385] Jad Mouawad and Coral Davenport, 'E.P.A. Says It Will Set Rules for Airplane Emissions', *The New York Times*, 10 June 2015, http://www.nytimes.com/2015/06/11/business/energy-environment/epa-says-it-will-set-rules-for-airplane-emissions.html.

Senate committee on the environment and public works, and notorious for his denial of climate change, said that he would do everything in his power "to rein in and shed light on the EPA's unchecked regulations."[386] And House Congressman Tom Cole said, "You [Obama] can issue all the executive orders you want. If you don't have any money to enforce them, they don't go very far."[387] Cole was threatening to withhold money to prevent Obama's executive actions from having any effect. After successfully defeating Democratic efforts in 2010 to pass climate change legislation, Congressional Republicans were now determined to blunt the executive powers of the President.

Did the climate change regime influence the Obama administration's EPA strategy? There is little evidence to think so. In the 2012 proposal, for example, Jackson acknowledged it was designed to reduce emissions, but she does not mention the climate change regime, or the need to comply with the Convention, or the international negotiations. The press release accompanying the EPA's 2014 announcement also mentioned climate change: the regulation is designed to "cut harmful carbon pollution" and "fight climate change".[388] But it also did not mention the climate change regime.

Breaking the logjam: the US-China climate change deal (2014)

The Obama administration's EPA strategy demonstrated it was willing to sidestep difficult obstacles (namely Congress) to reduce emissions. Internationally it took the opposite approach. The administration understood that the divide between developing states and industrialised states had become one of the biggest obstacles to a global legally binding agreement. But instead of navigating around the divide, the Obama administration tried to build a bridge across it. The US-China climate change deal

[386] Tom McCarthy, 'Meet the Republicans in Congress Who Don't Believe Climate Change Is Real', *The Guardian*, 17 November 2014, http://www.theguardian.com/environment/2014/nov/17/climate-change-denial-scepticism-republicans-congress.
[387] Ed O'Keefe David Nakamura and Steven Mufson, 'GOP Congressional Leaders Denounce U.S.-China Deal on Climate Change', *The Washington Post*, 12 November 2014, http://www.washingtonpost.com/politics/gop-congressional-leaders-denounce-us-china-deal-on-climate-change/2014/11/12/ff2b84e0-6a8d-11e4-a31c-77759fc1eacc_story.html.
[388] 'EPA Proposes First Guidelines to Cut Carbon Pollution from Existing Power Plants'.

announced in November 2014 was evidence of this effort.[389] In the deal the United States agreed to reduce emissions to 26-28 percent below 2005 levels by 2025. China agreed to peak carbon emissions around 2030 (and make best efforts to peak earlier), and increase the share of non-fossil fuels in primary energy consumption to around 20 percent by 2030. In announcing the deal, Obama and President Xi of China made it clear that they expected their respective blocs to reach out across the divide to agree a new treaty at Paris in December 2015. Obama said, "by making this announcement today, together, we hope to encourage all major economies to be ambitious -- all countries, developing and developed -- to work across some of the old divides so we can conclude a strong global climate agreement next year."[390] And President Xi said, "We agreed to make sure international climate change negotiations will reach agreement as scheduled at the Paris conference in 2015…"[391]

My interviewees also thought that the US-China climate change deal build a bridge across the developing-industrialised state divide, and encourage other states to reach an agreement in Paris. Macey told me:

> What [the US-China climate change deal] does is tell the negotiators that there is going to be a Paris deal and these are going to be the parameters. Neither the United States nor China is going to accept a legally binding target. … The European Union and NGOs may continue to ask for it but it won't happen. It is complete anathema to the United States and China. But the United States and China will commit to a reasonable number and both countries will expect there to be a Paris deal.[392]

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[389] 'Fact Sheet: U.S.-China Joint Announcement on Climate Change and Clean Energy Cooperation', *Whitehouse.gov*, 14 November 2014, https://www.whitehouse.gov/the-press-office/2014/11/11/fact-sheet-us-china-joint-announcement-climate-change-and-clean-energy-c.

[390] 'Remarks by President Obama and President Xi Jinping in Joint Press Conference', *Whitehouse.gov*, 12 November 2014, https://www.whitehouse.gov/the-press-office/2014/11/12/remarks-president-obama-and-president-xi-jinping-joint-press-conference.

[391] Suzanne Goldenberg, Lenore Taylor, and Tania Branigan, 'US-China Climate Deal Boosts Global Talks but Republicans Vow to Resist', *The Guardian*, 12 November 2014, http://www.theguardian.com/environment/2014/nov/12/us-china-climate-deal-boosts-global-talks-but-republicans-vow-to-resist.

[392] Macey, interview.

And Parker told me:

> I've always thought the world would not get on top of the climate change problem until the two biggest economies did a deal. That was evident to me when I was part of those negotiations. Once those two [United States and China] get to a binding agreement that works, one way or another the rest of the world will find a way to work with it.[393]

It is reasonable to believe that other negotiators and policy-makers around the world share their sentiment.

Congressional Republicans were one group that did not share the positive sentiment. On the same day the US-China climate change deal was announced Republican Congressional leaders were denouncing it. Mitch McConnell, the Senate Majority Leader, said the deal, "requires the Chinese to do nothing at all for 16 years while these carbon emissions regulations are creating havoc in my state and around the country".[394] Inhofe said, "It's hollow and not believable for China to claim it will shift 20 percent of its energy to non-fossil fuels by 2030 and a promise to peak its carbon emissions only allows the world's largest economy to buy time."[395] Two senior Republicans said that, "America's pain is truly China's gain … The Chinese are promising to double their emissions while the administration is going around Congress to impose drastic new regulations inhibiting our own growth and competiveness".[396] The speed with which the Republicans denounced the deal – a deal it is reasonable to assume they knew nothing about since it was negotiated secretly – reflected their hostility towards the Obama administration, China, and climate change policy in general.

Shifting back to the climate change regime, is its influence evident in the deal? If we take a narrow perspective the answer is no; the deal demonstrates the United

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[393] Parker, interview.
[394] 'New Zealand's Greenhouse Gas Inventory 1990–2013', *Ministry for the Environment*, April 2015, 3, https://www.mfe.govt.nz/publications/climate-change/new-zealands-greenhouse-gas-inventory-1990-2013.
[395] Ibid.
[396] Russell Berman, 'The Angry GOP Backlash to Obama's Historic Climate Accord', *The Atlantic*, 12 November 2014, http://www.theatlantic.com/politics/archive/2014/11/the-angry-gop-backlash-to-obamas-historic-climate-accord/382676/.

States acting to support the climate change regime. But if we take a broader perspective and go back to the climate change regime's 2011 Durban Platform For Enhanced Action, we can detect the regime's influence. The main objective of the Platform was to reach a new treaty at Paris, and this created an expectation that states would take steps to achieve this objective. With the US-China climate change deal, the United States had moved the international community an enormous step towards that objective. It is reasonable to assume then that the Durban Platform and its 2015 deadline helped push the United States to initiate, negotiate, and then agree to the US-China climate change deal.

The road to Paris (2015)

Since the US-China climate change deal there have been two major developments in US climate change policy. First, in January 2015, Congress pressed its attack on the Obama administration by submitting legislation to authorise construction of the controversial Keystone XL pipeline.[397] The proposed pipeline is intended to transport oil from the oil sands in Alberta, Canada, to American refineries in Nebraska. The pipeline has become a key political battleground, with Democrats and green NGOs on one side arguing it will increase emissions, and on the other side, Republicans, some conservative Democrats, and the oil industry's pressure groups claiming it will create jobs. Obama vetoed Congress's legislation in February. The Senate then attempted to override Obama's veto with a two-thirds majority, but failed (although it came fairly close with 62 votes).[398] Obama's veto demonstrated he was willing to block policies that would reverse the progress made by CAP and his other climate change policies.

The other major development in 2015 was on 31 March when the Obama administration submitted its post-2020 target to the UNFCCC secretariat.[399] All member states of the climate change regime are required to submit post-2020 targets: they are intended to form the basis of the new Paris treaty that will take effect from

[397] Michael D. Shear and Coral Davenport, 'Obama Vetoes Bill Pushing Pipeline Approval', *The New York Times*, 24 February 2015, http://www.nytimes.com/2015/02/25/us/politics/as-expected-obama-vetoes-keystone-xl-pipeline-bill.html.
[398] Coral Davenport, 'Senate Fails to Override Obama's Keystone Pipeline Veto', *The New York Times*, 4 March 2015, http://www.nytimes.com/2015/03/05/us/senate-fails-to-override-obamas-keystone-pipeline-veto.html.
[399] 'Fact Sheet: US Reports Its 2025 Emissions Target to the UNFCCC', *Whitehouse.gov*, 31 March 2015, https://www.whitehouse.gov/embeds/footer.

2020. The US target was the same target announced in the US-China climate change deal: a reduction in emissions by 26-28 percent below 2005 levels by 2025. This action was an important step for US climate change policy because it formally embedded the US target in the climate change regime's negotiations. If a treaty is agreed in Paris, it will once again establish a clear link between the regime and American climate change policy, like the original Convention did in 1992, and like the Kyoto Protocol would have done if the Senate and the Bush administration had not rejected it.

Summary

We have reached the end of the US case study. I now answer the sub-questions with reference to the Obama administration. The first sub-question was: did the United States take action to reduce emissions between 1988 and 2015? It is clear that the Obama administration took very strong action to reduce emissions. Highlights were the US$90 billion stimulus for renewable energy; the attempt to pass cap-and-trade legislation; the announcement that the EPA will regulate carbon emissions; sustained efforts to fund low-carbon products and investment in low-carbon technology in the federal budget; and Obama's CAP, a plan to tie all these policies and more minor policies together in a coherent fashion.

The second sub-question was: is the climate change regime's influence observable in these actions? There is only weak evidence of the climate change regime's influence on the Obama administration's actions. One example was that the cap-and-trade legislation referred to the Convention. Another example is that the MEF announcements indicated that the Obama administration wanted to position the MEF as a compliment to the climate change regime rather than a replacement. But overall it is clear that the climate change regime's influence waned during the Obama years. The clean energy component of the stimulus bill, for example, showed little evidence of the climate change regime's influence. And Obama's CAP barely mentioned the climate change regime at all. The EPA – an agency that will play a key role in future US climate change policy – never mentioned the climate change regime in any of its carbon regulation announcements.

Finally, what about the third sub-question: did these actions reduce total US emissions? Yes, the Obama administration's actions helped reduce total emissions. Between 2009 and 2012 (the last year UNFCCC data is available) total emissions

reduced by two percent.[400] Emissions in 2012 were only four percent above 1990 levels.[401]

There were four main causes for this decrease: the global financial crisis, the shale gas boom, the renewable energy boom, and the Obama administration's climate change policies. Obviously the Obama administration cannot take credit for the first. But in the latter three it is fair to give it some credit. First, the Obama administration decided to not intervene and restrain the shale gas boom, despite much pressure from Democrat constituents, namely green NGOs, to regulate against it.[402] Second, it is reasonable to believe that the Obama administration's massive US$90 billion injection in 2009 was partly responsible for renewables doubling their share of electricity generation since 2005.[403] And third, the Obama administration can fairly take credit for emissions reductions from its policies, although I would argue these are far less insignificant than the other three factors.

Chapter summary

In this chapter I evaluated the climate change regime's effectiveness in the United States between 1988 and 2015. I found that overall the United States took moderate action to reduce emissions. Moreover, there was some evidence of the climate change regime's influence on these actions, although it varied with each administration. I also found that while emissions have begun reducing since 2008, this was because of the global financial crisis and the shale gas boom rather than the climate change regime's influence on the Obama administration's actions. The case study findings for each administration are summarised in Table 3 (overleaf). It shows the extent of US action to reduce emissions, the climate change regime's influence over these actions, and whether or not these actions resulted in total emission reductions.

[400] 'Greenhouse Gas Inventory Data - Detailed Data by Party'.
[401] Ibid.
[402] Some green NGOs argue that the environmental damage caused by fracking outweighs the relatively lower emissions from natural gas. The administration, however, has apparently decided that the emissions benefits outweigh the local environmental risks.
[403] 'Report on the Technical Review of the Sixth National Communication of the USA', National Communication (Geneva, Switzerland: United Nations Office, 29 August 2014), 13.

Table 3: US climate change policy between 1988 and 2015: extent of action, climate change regime influence, and total emission reductions

US administration	Extent of action	Climate change regime influence	Total emission reductions?
George H. W. Bush administration	Weak	Weak	N/A
Clinton administration	Strong	Moderate	No, total emissions grew by 12 percent. But emissions growth was reduced from business as usual.
G.W. Bush administration	Weak	Weak	No, total emissions grew by two percent. But emissions growth reduced compared to Clinton administration.
Obama administration	Strong	Weak	Yes, total emissions reduced by two percent.

I now turn to my concluding chapter, where I answer the three sub-questions and research question. I then explore the theoretical and policy implications of my findings.

7. Conclusion

> *You've got a bunch of international leaders sitting 85 stories up on the edge of a building saying to each other, you jump first and I'll follow. And there is understandably a reluctance to be the first one to jump.*
> Yvo de Boer, former chair of the UNFCCC secretariat[404]

In the final chapter of this thesis I undertake two tasks. First, I pull together the findings from both case studies to answer my research question: how effective has the climate change regime been in New Zealand and the United States between 1988 and 2015? Second, I explore the theoretical and policy implications of the finding.

Answering the research question

To answer my research question, I sought answers to three sub-questions in my case studies. I first summarise the answers to these three sub-questions before returning to the research question.

The extent of action

The first sub-question was: did New Zealand and the United States take action to reduce emissions between 1988 and 2015? The answer is yes. Overall, New Zealand and the United States took moderate action to reduce emissions between 1988 and 2015. The intensity of action depended on the government in power, as summarised below.

New Zealand

Overall, New Zealand took moderate action to reduce emissions between 1988 and 2015. A noteworthy action under the Bolger government, for example, was Environment Minister Simon Upton's decision in 1995 to impose stringent conditions on a new natural gas plant. Another was the Bolger government's decision to sign the

[404] Arthur Max, 'Ex-UN Climate Chief to AP: Talks Are Rudderless', *Boston.com*, 4 December 2011, http://www.boston.com/news/world/africa/articles/2011/12/04/ex_un_climate_chief_to_ap_talks_are_rudderless/.

Kyoto Protocol. The Bolger government also increased funding in its budget to reduce emissions, for example with the Green Package in the 1997 budget. The Clark government took stronger action to reduce emissions during its nine years in power. The Clark government attempted to pass major climate change policy, including a carbon tax and an ETS, and eventually succeeded in implementing an ETS in 2008. Alongside this major policy, the Clark government implemented other more minor policies such as the Carbon Neutral Public Service. The Key government was less active on climate change policy than the Clark or Bolger governments, but it did take action on agricultural research. The Key government led the establishment of the Global Research Alliance on Agricultural Emissions, for instance, and to support the Alliance, the Key government established the New Zealand Agricultural Greenhouse Gas Research Centre and committed a substantial amount of funding to it.

United States

Like New Zealand, the United States took moderate action to reduce emissions between 1988 and 2015. The George H. W. Bush administration began implementing policies to reduce emissions even before the climate change regime had been formally established. Its principal effort was the *National Action Plan for Global Climate Change*, which included "no-regrets" policies and initiatives to reduce emissions. The Clinton administration took even stronger action. The energy tax, CCAP, and CCTI were the Clinton administration's key efforts. Although the Senate rejected the energy tax, CCAP was implemented and received funding from Congress, as did CCTI. Contrary to popular perception, the G.W. Bush administration also took action to reduce emissions. Its actions focused on tax cuts for low-carbon products and increased investment in low-carbon technology, rather than regulatory intervention. This approach was in accordance with the administration's free market ideology and faith in technology. The Obama administration took the strongest action to reduce emissions. Its actions were the US$90 billion stimulus for renewable energy; the attempt to pass cap-and-trade legislation; the announcement that the EPA will regulate carbon emissions; sustained efforts to fund low-carbon products and investment in low-carbon technology in the federal budget; and CAP, a plan to tie all these policies together in a coherent fashion.

The climate change regime's influence

The second sub-question was: is the climate change regime's influence observable in New Zealand and US actions? Overall, I found moderate evidence that the climate change regime influenced New Zealand's actions, and weak evidence that the climate change regime influenced US actions. Again, the level of influence varied depending on the government.

New Zealand

Overall, I found moderate evidence of the climate change regime influencing New Zealand's actions. One example of the regime's influence on the Bolger government was Upton's 1995 decision to impose stringent conditions on a new natural gas plant that required emissions to be offset by planting forests. Government documents highlighted the importance the Bolger government attached to its commitments under the climate change regime, and that is why it imposed these conditions – even though the conditions went against its free market ideology. One gets the impression that the Bolger government was closely watching developments within the climate change regime, and calibrating its climate change policy to match the direction the regime was heading.

There was stronger evidence of the climate change regime influencing the Clark government's actions. An example was the Clark government's decision to ratify Kyoto. An important reason the Clark government decided to ratify Kyoto was to improve New Zealand's reputation. The Clark government said that New Zealand was perceived by other states in the climate change regime as a laggard on climate change, and that was thought to have a negative impact on New Zealand's international reputation. The climate change regime was important here because it amplified this negative reputational cost to New Zealand. The explicit rule in the regime that enabled this "cost" to be imposed was the Convention's requirement of yearly COPs, which focused the attention of states on laggard states like New Zealand. And this in turn increased the pressure on New Zealand to act. In short, the climate change regime acted as a kind of international peer pressure mechanism.

The climate change regime's influence on the Key government's actions was also evident, although weaker than the Bolger and Clark governments. For example, the Key government acknowledged that it wanted to complete its amendments to the ETS before it went to COP15 in Copenhagen. It is reasonable to believe that this was so it

could show to other regime members that New Zealand had implemented a substantial policy to reduce emissions. The Key government was obviously pleased with the ETS and believed it offered a way for the government to gain some international prestige for New Zealand. This was a good example of the climate change regime, namely the Convention's yearly COP requirement, influencing New Zealand's climate change policy.

United States

Overall, the climate change regime exerted weak influence on US actions, but again this influence varied depending on the administration in question. Under the George H.W. Bush administration, I found moderate evidence of the climate change regime's influence on the administration's actions. For example, the administration's *National Action Plan for Global Climate Change* acknowledges the Convention in its text, and the administration's Country Studies Program was designed to meet US obligations under the Convention. There is stronger evidence of the climate change regime's influence on the Clinton administration's actions. The central example is CCAP. CCAP was specifically designed to meet the Convention's stabilisation target, which was to reduce emissions to 1990 levels. Moreover, in the document Clinton challenges the American public to meet the Convention's target.

There is, perhaps surprisingly, also some evidence of the climate change regime's influence on the Bush administration's actions. Bush's climate change strategy and associated policies were justified with reference to the Convention, for example. And on several occasions Bush publicly expressed his support for the Convention. Moreover, the Bush administration's international initiatives like the APP were carefully designed and communicated so they did not contradict the climate change regime.

Finally, there is also some evidence, although weak, of the climate change regime's influence on the Obama administration's actions. One example was the cap-and-trade legislation, which referred to the Convention's COP15 negotiations. Another example were MEF announcements, which indicated that the United States wanted the MEF to be seen by other states as a compliment to the climate change regime rather than a replacement. Compared to the Clinton administration, however, the climate change regime's influence on the Obama administration was weak.

Emission reductions

The third and final sub-question was: did these actions reduce total New Zealand and US emissions? In New Zealand, the government's actions did not reduce total emissions but appeared to reduce the growth of emissions. In the United States, the Clinton and Bush administration's actions did not reduce total emissions, but contributed to a reduction in the growth of emissions. The Obama administration's actions, on the other hand, did contribute to a reduction in total US emissions.

New Zealand

New Zealand's actions reduced the growth rate of emissions, but did not reduce total emissions, except in the years 2007-2009 (see Figure 9). Total emissions did not reduce under the Bolger government, increasing by 14 percent between 1990 and 1999.[405] The UNFCCC secretariat's expert review team did acknowledge, however, that the Bolger government's actions reduced the growth rate of emissions.[406] Total emissions did not reduce under the Clark government either, increasing by seven percent between 2000 and 2008.[407] On the positive side, seven percent emissions growth was a reduction from the Bolger government's 14 percent emissions growth. Finally, total emissions did not reduce under the Key government, increasing by four percent between 2009 and 2012.[408] On the other hand, this again indicated a reduction in emissions growth.

Figure 9 shows the trajectory of New Zealand's emissions. It shows that the state's total emissions increased steadily since 1990 aside from a dip in the late 2000s.

[405] 'Greenhouse Gas Inventory Data - Detailed Data by Party'.
[406] 'Report on the in-Depth Review of the Third National Communication of New Zealand', 4.
[407] 'Greenhouse Gas Inventory Data - Detailed Data by Party'.
[408] Ibid.

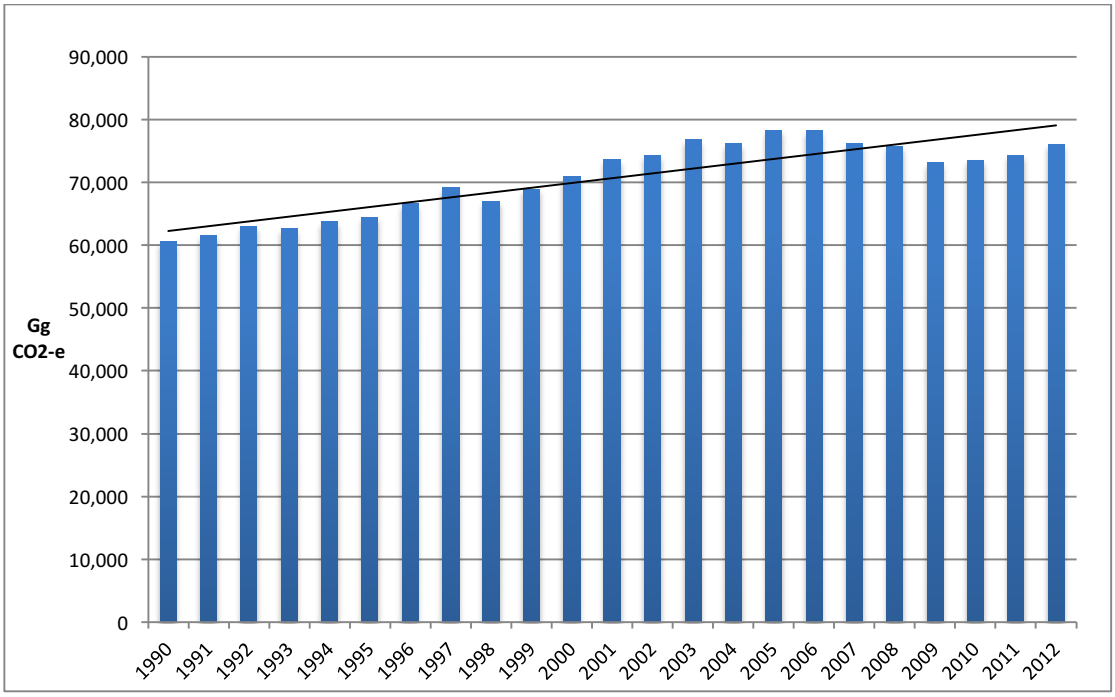

Figure 9: Total New Zealand emissions 1990-2012

Source: 'Greenhouse Gas Inventory Data - Detailed Data by Party', *Unfccc.int*, accessed 3 June 2015, http://unfccc.int/di/DetailedByParty.do.

United States

How did each administration perform in the United States? Total emissions did not reduce under the Clinton administration, increasing by 14 percent between 1993 and 2000.[409] However, according to the UNFCCC secretariat's expert review team, the emissions growth rate did reduce under the Clinton administration.[410] Total emissions did not reduce under the Bush administration's technology-focused approach either, increasing by two percent between 2000 and 2008.[411] On the positive side, this was a much lower growth rate than under the Clinton administration. Total emissions did finally reduce under the Obama administration, reducing by two per cent between 2009 and 2012.[412]

It is worth noting that the Obama administration's actions were not the primary cause of this reduction though. The four causes were the global financial crisis, the shale gas boom, the renewable energy boom, and the administration's climate change

[409] Ibid.
[410] 'Report on the in-Depth Review of the Third National Communication of the USA', 30.
[411] 'Greenhouse Gas Inventory Data - Detailed Data by Party'.
[412] Ibid.

policies. The global financial crisis was the primary reason for the initial reduction in emissions, and obviously one cannot give the Obama administration "credit" for that. But the Obama administration should get some credit for the latter three factors for three reasons. First, the Obama administration decided to not intervene and restrain the shale gas boom, despite pressure from Democratic constituents to regulate against it. The shale gas boom is primarily why total US emissions are now decreasing.[413] Second, it is reasonable to believe that the Obama administration's massive US$90 billion injection in 2009 was partly responsible for renewables doubling their share of electricity generation since 2005.[414] And third, the Obama administration can obviously take credit for emissions reductions from its climate change policies.

Figure 10 indicates the trajectory of total US emissions. It shows that total US emissions steadily increased from 1990 and began reducing in 2008.

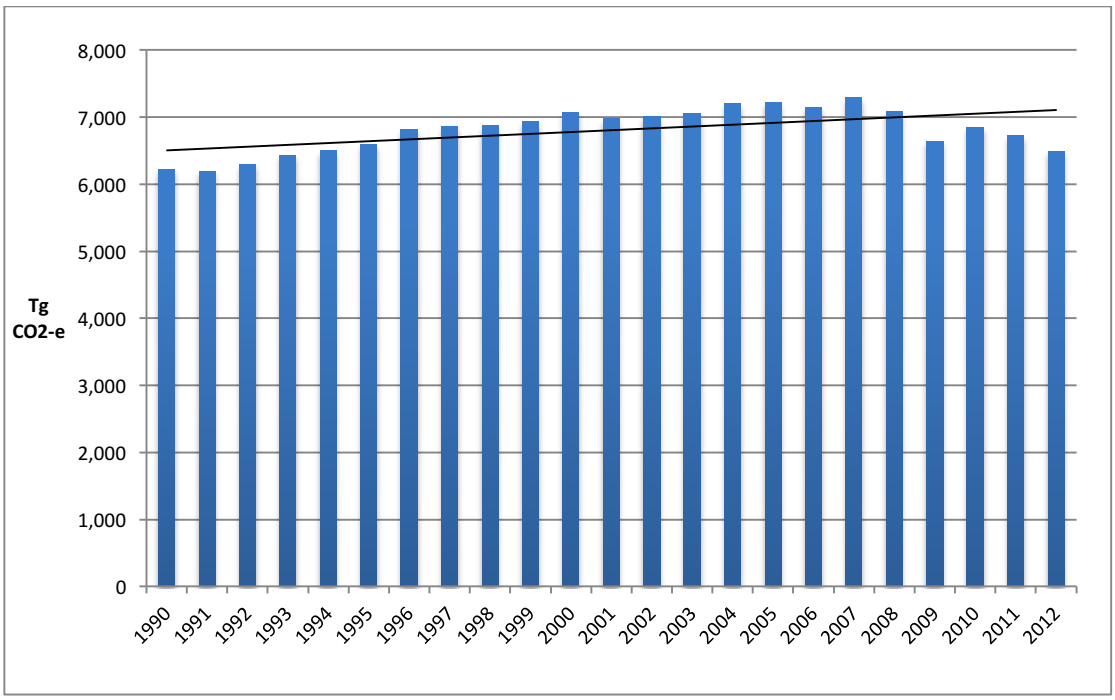

Figure 10: Total US emissions 1990-2012

Source: 'Greenhouse Gas Inventory Data - Detailed Data by Party', *Unfccc.int*, accessed 3 June 2015, http://unfccc.int/di/DetailedByParty.do.

[413] 'What's Behind the Good News Declines in U.S. CO2 Emissions?', *Yale Climate Connections*, accessed 10 July 2015, http://www.yaleclimateconnections.org/2013/05/whats-behind-the-good-news-declines-in-u-s-co2-emissions/.
[414] 'Report on the Technical Review of the Sixth National Communication of the USA', 13.

Research question: what is the answer?

Now that I have answered the three sub-questions I can confidently answer the research question: how effective has the climate change regime been in New Zealand and the United States between 1988 and 2015? Recall that I defined the climate change regime's effectiveness as *the extent to which the climate change regime has influenced New Zealand and the United States to reduce total gross emissions*. After reviewing the answers to the sub-questions, I conclude that the climate change regime was ineffective in New Zealand between 1988 and 2015, because its influence was not sufficient to induce New Zealand to reduce total gross emissions. Similarly, I find that the climate change regime was ineffective in the United States between 1988 and 2015, because although total gross emissions began reducing in 2008 that was principally because of the global financial crisis and the shale gas boom, not the climate change regime's influence on US actions.

My conclusion is therefore in line with the findings of Carlarne, Zahar, and Davenport, who concluded that the climate change regime was ineffective, but supported with detailed evidence from a comprehensive evaluation of two states.

Even though the climate change regime did not meet my definition of effectiveness, it is important to emphasise that emissions growth in New Zealand reduced significantly between 1988 and 2015 and the climate change regime can fairly claim credit for part of that reduction. Similarly, in the United States, emissions growth began reducing before the shale gas boom began and before the global financial crisis, and it is also reasonable to attribute some of that reduction to the climate change regime's influence. In short, although the climate change regime did not meet the high bar set by my definition of effectiveness, which required reduction in *total gross emissions*, it did at least help reduce emissions growth.

Theoretical implications

I now assess the implications of my findings for regime theory. Out of the seven mechanisms of regime influence identified by institutionalists and constructivists, two stand out in my case studies:

1. the reputational effects of the climate change regime and
2. the realignment of domestic actors to block the climate change regime's influence.

Reputational effects of the climate change regime

As explained in chapter three, "international regimes help to assess others' reputations by providing standards of behaviour against which performance can be measured."[415] The implication is that a state that does not meet the standard of expected behaviour will suffer reputational damage. The reputational effect of a regime can therefore create an incentive for states to comply with the regime's rules.

The reputational effect of the climate change regime was clearly evident in both case studies. For example in the New Zealand case, we could see that the Clark government was embarrassed by the laggard reputation New Zealand had gained during the 1990s while the Bolger government was in charge. A desire to improve New Zealand's reputation was an important reason why the Clark government decided to ratify Kyoto. Two further examples are evident under the Key government. First, there is evidence that the Key government wanted to complete its alterations to New Zealand's ETS before it went to Copenhagen so it could showcase the ETS to the rest of the world (New Zealand's ETS was one of only a handful in the world at the time), and therefore enhance New Zealand's reputation. Later on the Key government justified climate change action to hostile farmers saying to them that if New Zealand did not act, New Zealand's reputation could be damaged. Finally, several of my interviewees mentioned that a concern about New Zealand being labelled a laggard helped push climate change policy forward.[416]

The US case study also demonstrated the reputational effect of the climate change regime. For example, much of the climate change policy during the first year of the Obama administration appeared to be in part aimed at repairing the US reputation on climate change, which the Obama administration considered the Bush administration had ruined between 2001-2008. The massive US$90 billion investment in low-carbon energy, cap-and-trade, and EPA regulations were all partly aimed at demonstrating to

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[415] Robert O. Keohane, *After Hegemony : Cooperation and Discord in the World Political Economy*, Princeton Paperbacks (Princeton, NJ: Princeton University Press, 1984), 94.

[416] For example, one former senior MPI official told me: "The fact that we were part of an international club of countries was very important as well because [climate change] was also seen as a reputational issue for New Zealand. As a major trading nation New Zealand's reputation is quite important. So that was quite an influence on how we operated." Former official, interview.

other states that the United States was now a willing participant in the climate change regime.

Regime theorists suggest that the reputational effect of a regime will activate when a state decides to renege on its commitments.[417] But in my case studies the climate change regime's reputational effect appeared to be active even in the absence of commitments. With regard to the New Zealand case, for example, the Bolger government had not reneged on Kyoto, it had simply deferred ratifying it until the rules were clearer. But, at least according to Helen Clark, this delay still resulted in New Zealand being labelled a laggard by other states. And that reputational harm was enough to convince Clark to ratify the treaty.

One could argue that the reputational effect of the climate change regime on New Zealand and the United States was really the reputational effect of other states' criticisms. But as Keohane points out, regimes provide "standards of behaviour against which performance can be measured".[418] In the case of the example above, the *expected* standard was that all states should ratify Kyoto. States that did not ratify Kyoto were deemed to be below the acceptable standard of behaviour, as the United States found out after rejecting the treaty. Without a climate change regime, there would be no agreed standard of behaviour with which to judge other states, and therefore the negative reputational consequences of being a laggard state on climate change would probably be far less severe.

Domestic actors blocked the climate change regime's influence

As explained in chapter three, constructivists argue that regimes can trigger realignments of domestic actors, which can facilitate regime effectiveness. For example, the forestry industry and green NGOs – domestic actors with typically conflicting interests – could realign to support an ETS.

In my case studies, however, I found that domestic actors realigned themselves in a way to block the climate change regime's influence, and in turn, effective climate change action. In New Zealand, during the 2000s, the Clark government attempted to take stronger action to reverse New Zealand's laggard reputation, but ran into a wall of opposition from industry pressure groups – particularly the Federated Farmers –

[417] Hasenclever, Mayer, and Rittberger, *Theories of International Regimes*, 36.
[418] Ibid., 35.

who were supported by opposition political parties. An agricultural emissions levy and a carbon tax were both abandoned for this reason. The Clark government eventually managed to pass an ETS but was then defeated by the Key government a few months later. The Key government then weakened the ETS twice, once in 2009 and again in 2012, ensuring the ETS was crippled as an effective policy instrument. These changes were made at least partly to accommodate the interests of industry pressure groups.

In the United States, the Clinton and Obama administrations tried to implement strong climate change policy but ran into the formidable obstacle of Congress. Clinton tried to pass an energy tax early in his tenure as President but the Senate rejected it. He then established the CCAP but Congress refused to supply full funding for it, diminishing its effectiveness. The Clinton administration then negotiated an agreement on Kyoto, which would have increased the regime's effectiveness in the United States, but the Senate made it clear with the Byrd-Hagel resolution that it would refuse to ratify Kyoto unless it included legally binding commitments from developing states. This was an impossible requirement in 1997. Moreover, the "realignment" here was so strong that not a single Senator voted against the resolution. The Obama administration also tried to take strong action to reduce emissions and also ran into the obstacle of Congress. The Democrats put forward cap-and-trade legislation in 2009, supported by the Obama administration, but the Senate rejected it in 2010. Obama then sidestepped Congress by announcing he would use the EPA to regulate emissions from power plants. But Congress threatened to reduce funding to the EPA so it would not be able to carry out this task. It is not an exaggeration to say that for the last 25 years Congress has blocked any effective climate change policy in the United States.

The ability of domestic actors to block regime influence is well known to regime scholars. In their study of the European air pollution regime, Levy et al. note that domestic actors negatively affected by action imposed an "overwhelming constraint" on the ability of the regime to bring about behavioural changes.[419] Liliana Andonova, in her study of the climate change regime's impact on Russian domestic politics, notes the potential blocking force domestic politics posed as a result of the regime's

[419] Levy, Young, and Zürn, 'The Study of International Regimes', 296.

requirement that resources be redistributed away from fossil fuel interests.[420] It is perhaps unsurprising then that scholars have also concluded that the ability of regimes to overcome domestic political barriers is a key to regime effectiveness. Young, at the end of his seminal work on regime effectiveness, concludes, "Our research suggests that an ability to design regimes in such a way as to maximise their force in a number of different domestic political settings is an important determinant of regime effectiveness."[421]

This raises an important question: can a potentially reformed climate change regime overcome domestic actors within states who are resisting effective climate change action? In the next section I examine whether the anticipated Paris agreement will do so.

COP21 and the future of the climate change regime

We might accept that the climate change regime has been ineffective at reducing emissions in New Zealand and the United States between 1988 and 2015, while still holding the view that a stronger regime will improve its effectiveness in both states, and in other states where domestic actors are blocking effective climate change action. This argument rests on the premise that it is premature to evaluate the effectiveness of the climate change regime because it is actually incomplete in 2015. It is incomplete because there is not yet a global legally binding agreement. The Convention was global, but not legally binding. The Kyoto Protocol was legally binding, but not global. But once there is a global legally binding agreement the climate change regime will have matured and will therefore be more effective. COP21 in Paris could fulfil this objective. Let us examine this argument briefly.

First, is there reason to believe that states will be able to overcome the problems that plagued Copenhagen and agree to a deal at COP21? Yes. The United States and China, the two most powerful states in the world, made it clear in November 2014 that they expect an agreement to be reached at Paris. I expect that their influence will encourage all other states to sign a global legally binding treaty. Many experts also

[420] Liliana B. Andonova, 'The Climate Regime and Domestic Politics: The Case of Russia', *Cambridge Review of International Affairs* 21, no. 4 (December 2008): 486, doi:10.1080/09557570802452789.
[421] Young, *The Effectiveness of International Environmental Regimes*, 277.

agree that a Paris agreement is more likely now, including Macey and an official I interviewed.[422]

So what is the Paris agreement expected to look like? It is likely to use a "pledge and review" approach. Robyn Eckersley has labelled this approach "DIY (do it yourself) climate change policy".[423] Under this approach states will be legally bound to submit targets to the UNFCCC secretariat. But, importantly, states get to decide what their targets are. The reasoning is that trying to negotiate targets internationally has been an abject failure, so negotiators have concluded that it is more effective and sustainable to encourage states to decide what they want to do. The hope is that over time the climate change regime will pressure states to increase their commitments, ultimately resulting in emissions trending downwards. All states are expected to submit their targets to the UNFCCC secretariat by the end of 2015 and these targets will form the basis of the anticipated Paris agreement.

Although the "pledge and review" approach is probably the best one to use if a global legally binding treaty is the objective, it is unlikely to enable the climate change regime to overcome the domestic actors within states who are resisting effective climate change action. That is because states get to decide what action they will take and that in turn is determined to a significant extent by domestic politics, as I have shown in my New Zealand and US case studies. The end result will be that what is possible domestically will be transferred to the international level. The anticipated Paris agreement will therefore reflect, rather than overcome, the domestic resistance to effective climate change action that exists within states.

Realist regime theory and a way forward for effective climate change action

If we accept that the Paris agreement is unlikely to enable the climate change regime to overcome the resistance of domestic actors within states, we are implicitly acknowledging that the climate change regime will not avert dangerous climate change. What then is the path forward for the public, scholars, and policy-makers who

[422] 'Will a Paris Climate Change Pact Have Any Teeth?', *RTCC*, 12 May 2015, http://www.rtcc.org/2015/05/12/will-a-paris-climate-change-pact-have-any-teeth/; Peter Gorman, interview by author, 8 April 2015; Macey, interview.
[423] Robyn Eckersley, *International Cooperation and Climate Change*, Philosophy@LSE and LSE Grantham Institute Public Discussion (Sheikh Zayed Theatre, New Academic Building, 2015), http://www.lse.ac.uk/publicEvents/events/2015/06/20150623t1830vSZT.aspx.

are concerned about dangerous climate change but who agree that the climate change regime is unlikely to avert it?

I propose realist regime theory as a path forward for effective climate change action. Ironically, realist regime theory is from the more pessimistic side of the international relations theory field: it is realists who constantly argue that relative gains concerns pose a formidable obstacle to cooperation between states, much to the frustration of their more optimistic colleagues. But relative gains concerns highlight how effective climate change action can be achieved.

What are relative gains concerns and why are they an obstacle to cooperation? Realists argue that states constantly worry about the relative distribution of power. A state's relative power position affects its survival, security, ability to achieve its national interests, and its sense of status and pride. States' concerns about their relative power carry over into their participation in regimes: realists expect states to be very concerned about whether a particular regime will redistribute power.[424] If a regime does threaten to redistribute power, realists expect that states that will lose out will not cooperate. Frank Grundig has investigated this claim empirically with regard to the climate change regime and concluded that relative gains concerns are indeed a key impediment to cooperation.[425] The quote at the beginning of this chapter from Yvo de Boer also suggests that states are reluctant to take the first action on climate change because of the risk they would bear the first costs. But this logic flows both ways: it suggests that regimes that do take account of relative gains concerns will be effective.

This conception relates well to the domestic resistance to climate change policy in New Zealand and the United States: the evidence suggests that relative gains concerns lie at the heart of this resistance. Congress, for example, has argued for years that taking action on climate change would damage US trade competitiveness with China. This concern was most clearly illustrated by the Byrd-Hagel resolution in 1997 that required legally binding commitments from China (and other major developing states) before the Senate would ratify the Kyoto Protocol. Moreover, as China's power has

[424] Hasenclever, Mayer, and Rittberger, *Theories of International Regimes*, 115.
[425] Frank Grundig, 'Patterns of International Cooperation and the Explanatory Power of Relative Gains: An Analysis of Cooperation on Global Climate Change, Ozone Depletion, and International Trade', *International Studies Quarterly* 50, no. 4 (2006): 781–801, doi:10.1111/j.1468-2478.2006.00425.x.

grown since 1997, this concern has only become more intense. As I highlighted in my case study, Republican Senators were hostile toward the 2014 US-China climate change deal, which they thought did not require China to do enough. Their comments reflect a general Republican concern (though not limited to Republicans) that if the United States hobbled its economy with emission control regulations, China would race ahead.

Similarly, New Zealand's domestic actors, specifically industry pressure groups, have also argued that taking action earlier than other states would harm New Zealand's trade competitiveness. For example, the Federated Farmers submission regarding the 2009 amendments to New Zealand's ETS stated:

> Federated Farmers is deeply concerned that before any climate change policy can proceed, it must firstly demonstrate that it is practical, cost effective and ensure New Zealand farming can remain economically viable and internationally competitive ...[426]

Trade competitiveness is a concern also of other pressure groups that have helped block effective climate change action like Fonterra, Business NZ and the Business Roundtable.

The evidence therefore suggests that relative gains concerns are at the heart of domestic resistance to effective climate change action in the United States and New Zealand. But have these concerns translated to the state level? My case studies demonstrate that they have. In the US case, we can see that during the Kyoto Protocol negotiations, the Clinton administration eventually altered its negotiation position to take into account the Senate's concerns. In the New Zealand case, although the Clark government managed to eventually implement an ETS, the subsequent Key government rendered it toothless, and this was in part because of the concerns of domestic pressure groups like the Federated Farmers. In short, domestic actors' concerns about relative gains were translated into state concerns about relative gains.

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[426] 'Federated Farmers Submission on Climate Change Response (Moderated Emissions Trading) Amendment Bill', 13 October 2009, 5, http://www.parliament.nz/resource/en-nz/49SCFE_EVI_00DBHOH_BILL9597_1_A14798/42f30eb8992c6af4b3bb5700868c037c2eaf7e14.

How then, might we overcome relative gains concerns? Realists would suggest that states are more likely to agree to a deal that ensures the costs of reducing emissions are equally distributed across all states. In other words, a deal that does not put the United States at a disadvantage to China economically is far more likely to be acceptable domestically in the United States. Indeed, Sevasti-Eleni Vezirgiannidou argues persuasively that Kyoto's failure to do this is precisely why the Senate rejected it.[427] According to realists, assuring equal losses is a precursor to an effective climate change regime, and effective climate change action.

Unfortunately, the climate change regime is unlikely to develop into a regime that can provide such assurances to states. As I have explained, the Paris agreement is expected to transfer what is possible domestically to the international level. An agreement like this would not enable the climate change regime to overcome domestic resistance within states that is preventing effective climate change action.

The climate change regime, then, probably will not address relative gains concerns, at least not in the near term. The question remains: how *do* we best address these concerns? In my view, the relative gains issue is best addressed in the Major Economies Forum (MEF). As Grasso and Roberts point out, the MEF streamlines negotiations.[428] It is therefore more likely to be able to penetrate through other climate change issues to ameliorate relative gains concerns. Moreover, the MEF includes all the major emitting states, and the United States has raised the profile of the MEF by sending high-level representatives to it (Secretary of State John Kerry attended the April 2015 meeting, for example).

At the moment, however, it seems that addressing relative gains concerns has not been at the forefront of discussion in the MEF. The topics covered in the most recent meeting notes of the MEF were: accountability aspects of the Paris agreement; how to reflect differentiated commitments in the Paris agreement; adaptation; and the need for heightened ambition.[429] Relative gains concerns are conspicuous by their absence.

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[427] Sevasti-Eleni Vezirgiannidou, 'The Kyoto Agreement and the Pursuit of Relative Gains', *Environmental Politics* 17, no. 1 (1 February 2008): 40–57, doi:10.1080/09644010701811483.
[428] Marco Grasso and Timmons Roberts, 'A Compromise to Break the Climate Impasse', *Nature Climate Change* 4, no. 7 (July 2014): 543–49, doi:10.1038/nclimate2259.
[429] 'Twenty-First Meeting of the Leaders' Representatives | Past Meetings | Major Economies Forum', *Major Economies Forum on Energy and Climate*, 19 April 2015,

And yet they are not simply a matter of academic debate. These concerns are clearly held by Congressional Republicans, and the Republican-controlled Congress is the principal obstacle to effective climate change action in the United States at present.

Why are relative gains concerns absent from the MEF's agenda? One reason could be the enormous complexity of climate change. Each of the three pillars of climate change policy: mitigation, adaptation, and finance have become more and more complex over the last 23 years as negotiators and policy-makers have invented new policy instruments and mechanisms to try to break the deadlocked negotiations. Emissions trading schemes, which have generated a whole industry of specialists devoted to explaining them, are just one example. The increasing complexity of climate change may be obscuring the basic truth argued by realists: the lack of progress is not because the climate change regime is broken; it is because relative gains concerns have not been addressed.

Another reason could be that the "common but differentiated responsibility" (CBDR) principle,[430] which is an inextricable part of the climate change regime's foundations, prevents relative gains concerns from being addressed. For a very long time, China, India, and other developing states have brandished CBDR as a justification for little action on their part. There is no doubt that CBDR has a strong moral justification. But as my case studies show, CBDR has failed to prevail in the face of domestic politics in both New Zealand and the United States. Relative gains concerns expressed through domestic politics trump moral arguments, it appears.

How to address relative gains concerns through the climate change regime, or other international mechanisms, appears to be a neglected area of scholarly research. Although several scholars have highlighted the importance of relative gains concerns in relation to the climate change regime,[431] there is a lack of literature on how it can be overcome, either within the regime or outside of it. It is therefore an area ripe for future research.

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http://www.majoreconomiesforum.org/past-meetings/twenty-first-meeting-of-the-leaders-representatives.html.

[430] In essence, CBDR means that industrialised states should take action to reduce emissions first, while developing states should take action as their circumstances permit.

[431] For example, Grundig, 'Patterns of International Cooperation and the Explanatory Power of Relative Gains: An Analysis of Cooperation on Global Climate Change, Ozone Depletion, and International Trade'; Vezirgiannidou, 'The Kyoto Agreement and the Pursuit of Relative Gains'.

Final thoughts

Given that the climate change regime has not addressed relative gains concerns, it is perhaps unsurprising that I found it ineffective in New Zealand and the United States between 1988 and 2015. In a way, this makes what the climate change regime has achieved during these years all the more impressive. Its reporting and information functions are well regarded, and, perhaps more importantly, it has kept climate change on the international agenda for 23 years since its inception. Furthermore, as I have shown in my case studies, the climate change regime has influenced both New Zealand and the United States to adopt new concepts, aims, and emissions reduction policies. Domestic actors in both states, however, have blocked more effective climate change action. Ultimately the climate change regime's future effectiveness, and whether or not the international community averts dangerous climate change, will depend on whether domestic resistance within states can be overcome. I propose that addressing relative gains concerns may be the key to doing so.

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