**Washington and Lee Journal of Energy, Climate, and the Environment**

Volume 2 | Issue 1 Article 5

9-1-2010

# The Improbability of Meaningful Climate Change Regulation: A Constructivist Understanding of the Global Commons and the Need for U.S. Leadership

Stacey Valentine

Follow this and additional works at: http://scholarlycommons.law.wlu.edu/jece

Part of the Environmental Law Commons

Recommended Citation

Stacey Valentine, *The Improbability of Meaningful Climate Change Regulation: A Constructivist Understanding of the Global Commons and the Need for U.S. Leadership*, 2 Wash. & Lee J. Energy, Climate & Env't. 127 (2011), http://scholarlycommons.law.wlu.edu/jece/vol2/iss1/5

This Note is brought to you for free and open access by Washington & Lee University School of Law Scholarly Commons. It has been accepted for inclusion in Washington and Lee Journal of Energy, Climate, and the Environment by an authorized administrator of Washington & Lee University School of Law Scholarly Commons. For more information, please contact osbornecl@wlu.edu.

# The Improbability of Meaningful Climate Change Regulation: A Constructivist Understanding of the Global Commons and the Need for U.S. Leadership

By Stacey Valentine*

*Abstract*

*Climate change is a topic that permeates today's scientific, political, and social discourse. It is a term that is both widely known and hotly debated across the country and across the globe. While an ever-increasing majority of the scientific and political realms has come to the conclusion that meaningful climate change regulation is necessary to prevent negative repercussions across the globe, there is little consensus on what that regulation should look like or how to bring it about.*

*The nature of greenhouse gases, or GHGs, makes international cooperation a must if the world hopes to prevent and avoid the experts' predictions of widespread negative environmental effects. Because each state only incurs a fraction of the total cost of its own emissions, as GHGs act on a global rather than regional scale, the emission of GHGs has created a tragedy of the commons: each state has an incentive to overuse, even though the optimal solution is for each and every state to limit its emissions. States acting in their own best interests will therefore continue to emit GHGs unless they can be sure that all other states will agree to and adhere to meaningful regulation.*

*In the abstract, this solution seems simple enough: in order to prevent the negative effects associated with climate change, all states must agree to limit emissions and each state must be assured that all other states will not defect. However, on the international level where each state is sovereign, there is no enforcement mechanism to guarantee that states refrain from defecting. Therefore, in order for GHG regulation to succeed, there must*

---

* J.D. Candidate, Class of 2011 at Washington and Lee University School of Law.
This Note was prepared as part of Professor Hari Osofsky's seminar on climate change and environmental law. Thank you to Professor Osofsky for her comments and feedback and for all of the members of the class whose feedback was instrumental in the development of this Note. Thank you to all of the members of the *Journal of Energy, Climate, and the Environment* for their help and patience in preparing this essay for publication. Finally, thank you to Matthew Fielding for his assistance, guidance and patience, in this and all other endeavors.

*be some mechanism by which the incentive to defect is replaced by an incentive to cooperate.*

*In order to determine what type of mechanism is most appropriate for the regulation of climate change, one must examine the international system to understand how and why states act as they do. While it is generally assumed that states act in their own best interests, many theorists believe that these interests are shaped and informed by social and cultural norms. According to this understanding, it is possible to influence state behavior by changing the social and cultural norms of international society. As applied to the issue at hand, this means that the incentive to defect might be transformed into an incentive to cooperate if the social and cultural rules require states to cooperate when it comes to GHG emissions.*

*Scientists predict that time is running out for meaningful regulation, and that absent some drastic change GHG emissions will create a negative feedback loop in which the negative effects of climate change will become unstoppable. If the world hopes to change this outcome, one or more states must adopt meaningful climate change regulation and hope that in so doing they will be able to affect the social and cultural norms of international society, thereby incentivizing states to cooperate rather than defect on GHG emission regulation.*

*This Note suggests that the optimal state to take this leadership role is the United States. Still, even if the U.S. were to take this role beginning tomorrow, its chances of success remain dismal. Essentially, it must race against the clock to change the norms of international society, while incurring the costs of GHG regulation, and hope that such actions will lead to international cooperation. While the U.S. may determine that this slight chance of success is not worth the cost, absent the strong leadership of one or more countries actively advocating for all states to adopt GHG emissions regulation, meaningful climate change regulation is a hopeless endeavor.*

*Table of Contents*

I. Introduction ..... 129
II. Background on Global Climate Change ..... 131
III. National Sovereignty: The Building Block of International Law ..... 133
IV. Implications of Sovereignty on State Decision Making ..... 135
V. The Tragedy of the Commons and the Need for Agreement ..... 138
VI. The Need for the Adoption of a Theoretical Lens ..... 144
VII. The Rejection of Liberalism and Realism ..... 145
VIII. Constructivism Justified ..... 146
IX. A Constructivist Understanding: Where We Go from Here ..... 150
X. Conclusion ..... 152

## *I. Introduction*

The majority of today's scientific and political worlds generally agree that meaningful climate change regulation is not only beneficial, but necessary if the world hopes to avoid short and long term negative repercussions affecting the environment and in turn the way we live.[1] Due to the nature of greenhouse gases (GHGs) and the general causes of climate change, any regulation that is soon enough and drastic enough requires universal cooperation of the major emitters and widespread cooperation around the globe.[2] In other words, it requires that all states agree.

The agreement of the entire world is particularly difficult due to national sovereignty—the principle that each state gets to make its own decisions and cannot be bound internationally absent its own consent.[3] Assuming that states act rationally in making such decisions, one might conclude that a state will choose to cooperate with other nations only when it is within that state's own best interests, or at least perceived best interests.[4]

The emission of GHGs creates a tragedy of the commons problem.[5] Because each state only has to absorb a fraction of the total cost of its own emissions, due to the fact that emissions act on a global rather than regional scale, there is an incentive for states to emit greater rather than lesser amounts of GHGs.[6] In order to avoid this problem and reach the optimal international emissions levels, all states must agree.[7] However, since there are no enforcing mechanisms on the international level due to national sovereignty,[8] voluntary state consent is necessary. In the global commons, each nation has an incentive to defect, thereby capitalizing on the reduced emissions of other countries while avoiding the costs of capping their own emissions.[9] Absent some kind of outside influence, these incentives to defect will ensure that meaningful cooperation is never realized.

In order to identify ways in which to create information and motivations that will enable states to avoid the tragedy of the commons, one must first adopt a general lens through which to view state action.[10] For

1. *Infra* Part II.
2. *Infra* Part II.
3. *Infra* Part III.
4. *Infra* Part IV.
5. *Infra* Part V.
6. *Infra* Part V.
7. *Infra* Part V.
8. *Infra* Part III.
9. *Infra* Part V.
10. *Infra* Part VI.

reasons justified within this work, the international relations lens of constructivism is most conducive to our current purposes.[11] This theory says that while states do act in their own best interest, these preferences and choices are shaped and informed by social and cultural norms.[12] Several examples of international cooperation do exist, showing that where other motivations come into play, meaningful regulation is possible.[13]

Currently, states are not agreeing to high enough and specific enough emissions standards.[14] Based on the following analysis, if the world hopes to address this problem before it is too late, it must find a way to create social and cultural motivations to climate change that go beyond those already in place. There are three primary ways that this might happen. The first is naturally: however this slow paced option is less than optimal, particularly when scientific estimates predict that regulation is time sensitive. The second way nations will change their preferences is in reaction to some crisis—in this case the drastic changes in climate predicted as a result of continuing GHG emissions. The problem of course with this option is that once GHG emissions reach a certain level, they will create a "feedback loop "at which point any actions taken by states will have limited effectiveness because these past emissions will have committed the globe to some degree of warming.[15]

The third and final option is that one or more states adopt meaningful climate change regulation as an interest integral to their identity and hence lead the way in shaping the interactions of states at the international level, thereby encouraging regulation. The obvious candidate for this job is the United States, but the U.S. must decide whether it wants to absorb the costs and risks associated with being such a leader.[16]

What this analysis generally means is that climate change regulation at the international level is highly unlikely, even in the best scenario. While the use of a constructivist lens provides some hope, it is improbable that regulation will occur and absent strong leadership from a country like the United States, it becomes practically impossible.[17]

---

11. *Infra* Part VIII.
12. Infra Part VIII.
13. *Infra* Part IX.
14. *See* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: SYNTHESIS REPORT 66–67 (2007) [hereinafter IPCC] (estimating the emissions trajectories needed for stabilization).
15. *See infra* note 22 and accompanying text (supporting the possibility of a feedback loop).
16. *Infra* Part X.
17. *Infra* Part X.

## *II. Background on Global Climate Change*

Global climate change regulation is an increasingly important topic of international law.[18] Today, there is general agreement around the world that the earth's climate is changing, that these changes are a result of human activity and that they are occurring at faster rates and with greater impacts than first estimated; and as a result most scientists agree that immediate action is required to reduce greenhouse gas emissions.[19] However, agreement on what exactly that action should look like has yet to be meaningfully realized.

Scientists have noted a variety of effects resulting from climate change that are currently identifiable. Generally, these findings show that the earth's climate is warmer that it has ever been in the past 500 years, and many scientists argue that it is probable that these temperatures surpass averages from as far back as the last 1,000 years.[20] Over the past one hundred years, average temperatures have generally increased and the climate as a whole has become increasingly extreme.[21]

Scientists also predict that the effects of climate change, particularly absent meaningful regulation of emissions, will continue to affect the earth's climate in a variety of ways.[22] One of the most striking effects cited by scientists is the potential for steadily increasing temperatures.[23] At some

---

18. *See* CHRIS WOLD, DAVID HUNTER & MELISSA POWERS, CLIMATE CHANGE AND THE LAW 2 (LexisNexis 2009) ("Climate change refers to the response of the planet's climate system to altered concentrations of . . . 'greenhouse gases' in the atmosphere. If all else is held constant . . . increased concentrations of greenhouse gases lead to 'global warming'—an increase in global average temperatures—and associated changes in the earth's climate patterns.").

19. *See, e.g.*, WOLD ET AL., *supra* note 18, at 2 (arguing that these findings are no longer refuted except by a handful of "climate skeptics," and that the debate now centers not on whether humans are causing the observed changes in climate but what the effects of this impact will be and the most effective means of addressing it).

20. *See* IPCC, *supra* note 14, at 30 (laying out these observations); *see also* CLIFFORD RECHTSCHAFFEN, EILEEN GAUNA & CATHERINE A. O'NEILL, ENVIRONMENTAL JUSTICE: LAW POLICY & REGULATION 390 (Carolina Academic Press 2009) (summarizing the IPCC report).

21. *See* IPCC, *supra* note 14, at 31, Fig. 1 (depicting the upward trend in temperature); *see also* RECHTSCHAFFEN ET AL., *supra* note 20, at 390–91 (finding average temperatures increased 1.33 degrees Fahrenheit over the past 100 years, cold days and nights have decreased, level four or five hurricanes have increased by 75% since 1970, and eleven of the twelve years between 1995 and 2006 were among the 12 warmest in the past 150 years).

22. *See generally* IPCC, *supra* note 14, at 48–54 (laying out the impacts of climate change in the near and long term); *see also* PHILIP WEINBERG & KEVIN A. REILLY, UNDERSTANDING ENVIRONMENTAL LAW 426 (LexisNexis 2008) (citing effects including a rise in sea level, coastal flooding, a loss of forests, increased and more volatile storms, increased desertification, and melting polar ice cap).

23. *See, e.g.*, IPCC, *supra* note 14, at 46 (charting the predicted increases in temperature); *see also* WEINBERG & REILLY *supra* note 22, at 426–27 (predicting that the

point, absent meaningful reductions in GHG emissions, scientists anticipate an unstoppable "feedback loop" at which point our actions will be unable to have a great impact on the rate of global warming because our past emissions have already committed us to some degree of warming.[24] In fact, some scientists have argued that if the earth continues to emit at its current rate, at least some of the effects on global climate will be irreversible by 2030.[25] This increase in temperature is problematic, despite the fact that it seems to be only a few degrees, because even slight changes can cause many of the issues previously discussed.[26]

In order to address these problems, international cooperation and regulation is a must. This conclusion stems from the properties of greenhouse gases (GHGs), the increased concentrations of which have largely led to the increase in temperatures associated with climate change.[27] First, the effects of GHGs are global, meaning that carbon dioxide emitted in one location will have the same effect on global climate change around the world as would an emission from any other location.[28] Secondly, most GHGs remain in the atmosphere for decades or even longer and therefore emissions have a cumulative effect.[29] This effectively means that one

---

earth's average temperature will increase as much as three to eight degrees Fahrenheit in the next century, causing polar ice caps to melt, sea levels to rise, wetlands to be destroyed, and low-lying countries to be flooded); *see also* RECHTSCHAFFEN ET AL., *supra* note 20, at 391 (discussing the IPCC predictions that if we fail to reduce GHG emissions, temperatures will likely rise by 3.2 to 7.2 degrees Fahrenheit between 2000 and 2100).

24. IPCC, *supra* note 14, at 46–47; *see also* RECHTSCHAFFEN ET AL., *supra* note 20, at 391 (Estimating that an increase in 3.6 degrees Fahrenheit is the threshold beyond which the impacts of climate change are likely to be particularly grave due to the risks involved with such an unstoppable feedback loop).

25. IPCC, *supra* note 14, at 46–47; *see also* RECHTSCHAFFEN ET AL., *supra* note 20, at 391 (Estimating that an increase in 3.6 degrees Fahrenheit is the threshold beyond which the impacts of climate change are likely to be particularly grave due to the risks involved with such an unstoppable feedback loop).

26. *See generally* IPCC, *supra* note 14 (predicting the potential effects of even slight changes); *see also* WEINBERG & REILLY, *supra* note 22, at 427 (listing desertification, increased storm intensity, and decreased crop yields as some of the most drastic effects likely to result from even a few degrees increase in global temperature).

27. *See* IPCC, *supra* note 14, at 36–37 (detailing the ways in which GHGs cause the observed changes in climate); *see also* GLOBAL CLIMATE CHANGE AND U.S. LAW 5 (Michael G. Gerrard, ed., American Bar Association 2007) ("[T]he accumulation of certain gases in the atmosphere traps some of the infrared radiation and prevents it from escaping. Instead, the greenhouse gases absorb and re-radiate the heat. This warms the surface of the earth. The more greenhouse gases in the atmosphere, the more warming of the earth.").

28. *See* GERRARD, *supra* note 27, at 5 (finding that once emitted into the atmosphere, GHGs travel the globe and have the same effect irrespective of where they originated).

29. *See* IPCC, *supra* note 14, at 46–47 ("Anthropogenic warming and sea level rise would continue for centuries due to the time scales associated with climate processes and feedbacks, even if GHG concentrations were to be stabilized."); *see also* GERRARD, *supra* note 27, at 6 (stating that unlike many other air pollutants, GHGs do not have primarily local or regional effects that are gone within weeks or months).

nation alone, especially one of the larger emitters like the United States or China,[30] could emit enough GHGs to ensure massive global climate change and all the negative implications that result, even if all other countries were working together to mitigate these results.[31] In other words, international agreement and cooperation is essential to a meaningful solution. Thus far, most attempts at international cooperation regarding climate change regulation have been international conventions and treaties with limited success.[32]

## *III. National Sovereignty: The Building Block of International Law*

Consideration of national sovereignty and the ability of states to choose their own actions is central to an understanding of the tragedy of the commons. Absent national sovereignty, climate change could be effectively addressed by some kind of top-down authority. Since such a supranational regulatory authority might be successful in addressing climate change, it is necessary to have a general understanding of why such a system is not utilized.

A core component of international law provides that states are the principal actors in world politics.[33] In other words, states have national

---

30. *See* KEVIN A. BAUMERT, TIMOTHY HERZOG & JONATHAN PERSHING, NAVIGATING THE NUMBERS: GREENHOUSE GAS DATA AND INTERNATIONAL CLIMATE POLICY Fig. 3.1 (World Resources Institute 2005) (ranking the world's largest emitters, placing the United States in first and China in second with 20.6% and 14.7% of the world's emissions respectively).

31. *See* WOLD ET AL., *supra* note 18, at 127–28 (describing climate change as an "inherently global issue" in which international cooperation is required).

32. *See, e.g.*, United Nations Framework Convention on Climate Change, 31 INT'L LEGAL MATS 49 (1992), art. 2(a) (being the first such convention, signed by over one hundred and ninety countries, including the United States); *see also* WEINBERG & REILLY, *supra* note 22, at 427 (requiring that each signatory adopt national policies and take corresponding measures on the mitigation of climate change by limiting the emissions of greenhouse gases); RECHTSCHAFFEN ET AL., *supra* note 20, at 400 (reflecting the view of the signatories that developed countries have greater historical responsibility and a greater capacity to take action). In 1997, a second attempt known as the Kyoto Protocol where in the aggregate, developed countries aimed at a 5 percent reduction from 1990 levels by the first reporting period of 2008-2012. *See* WOLD ET AL., *supra* note 18, at 205 (discussing the core of the Kyoto Protocol which focused on targets and timetables for GHG emissions and the adoption of emissions trading, but also pointing to key implementation challenges). The last of these conventions, known as the Copenhagen accord, exemplifies the most recent international efforts to address global climate change. *See* FRAMEWORK CONVENTION ON CLIMATE CHANGE: COPENHAGEN ACCORD (2009) *available at* http://unfccc.int/resource/docs/2009/cop15/eng/l07.pdf. (last visited Oct. 31, 2010).

33. *See* SHIRLEY V. SCOTT, INTERNATIONAL LAW IN WORLD POLITICS: AN INTRODUCTION 21–22 (Lynne Rienner Publishers 2004) (describing how a state must be sovereign in order to belong to the international system of states).

sovereignty, and are not subject to international law absent their own consent to be bound.[34]

> The international legal order regulates the activities of an international community comprising states, international organisations, and non-governmental actors. States have the primary role in the international legal order, both international law-makers and holders of international rights and obligations . . . The doctrine of sovereignty and equality of states has three principal corollaries, namely that states have '(1) a jurisdiction, prima facie exclusive, over a territory and a permanent population there; (2) a duty of non-intervention in the area of exclusive jurisdiction of other states; and (3) the dependence of obligations arising from customary law and treaties on the consent of obligor.'[35]

In this way, statehood, or national sovereignty, is determined by constitutional independence rather than international law.[36]

There are certain sweeping powers and rights generally recognized as a result of national sovereignty including the following: the power to exert authority over individuals living within the state's territory, the power to use and dispose of territory under the state's jurisdiction and to perform those activities deemed "necessary or beneficial" to the state's people, the right that no other State intrude in the State's territory, the right to immunity from jurisdiction of foreign courts for official acts of the State and acts of the State's official representatives, and the right to respect for life and property of the States nationals and State officials abroad.[37]

For the purpose of determining the failure of international environmental law with regards to GHG emissions, national sovereignty

---

34. *See* WEINBERG & REILLY, *supra* note 22, at 424 (stating that absent enforceable treaty provisions binding their action, nation states are sovereign within their own jurisdiction, meaning that such states can only be bound if they themselves consent to such limitations).

35. *See* PHILIPPE SANDS, PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW: VOLUME 1 FRAMEWORKS, STANDARDS, AND IMPLEMENTATION 15 (Manchester University Press 1995) (detailing the international legal order according to the notion of sovereignty, which gives states the sole right to develop policies and laws regarding the natural resources within their territorial limits).

36. *See* SCOTT, *supra* note 33, at 22 ("'Sovereignty in the relations between States signifies independence. Independence in regard to a portion of the globe is the right to exercise therein, to the exclusion of any other State, the functions of a State.'" (citing a statement by Max Huber in the *Island of Palmas* case)).

37. *See* ANTONIO CASSESE, INTERNATIONAL LAW 49–52 (Oxford University Press 2005) (2001) (listing the six basic rights and powers afforded to states with national sovereignty).

can be understood as giving states the ability to enter into relationships with other states, which in effect also means that a state's choice in structuring these relationships is not subject to scrutiny by international law.[38] Historically, a claim to state sovereignty has been used by nations to exploit resources outside a state's borders on a "first come, first served" basis.[39] This state-centered understanding is problematic because compliance is voluntary and an incentive to comply is thwarted by any perception that noncompliance better serves a nation's interests.[40]

Ultimately, an international system centered on national sovereignty means that states cannot be required to act, and relevant to the current analysis, cannot be required by an overarching authority to regulate the emissions of GHGs produced and emitted within their borders. Instead, for meaningful climate change regulation to take effect, states must voluntarily choose to adopt policies limiting emissions. For this reason, when and why states enter into agreements becomes important to the determination of whether international cooperation is possible and/or probable for climate change regulation.

## *IV. Implications of Sovereignty on State Decision Making*

In spite of national sovereignty and the ability to make their own independent decisions, states do in fact enter into agreements with other states on a regular basis with the intent of binding the action of each.[41] When they do so, they have nearly complete control over the content and form of the deals they are striking.[42] This is particularly true for the most

---

38. *See* SCOTT, *supra* note 33, at 22 (citing James H. Wolfe's assertion that while international law can regulate between states it does not rise above them and therefore does not truly bind them).

39. *See* BRUCE YANDLE, COMMON SENSE AND COMMON LAW FOR THE ENVIRONMENT: CREATING WEALTH IN HUMMINGBIRD ECONOMIES 2 (Rowman & Littlefield Publishers, Inc. 1997) (discussing this phenomenon in terms of the "Commons Problem" and stating: "In the simplest possible terms, common access or the commons problem relates to the absence of exclusive rights. Nature's bounty is there for anyone whose presence on the commons provides temporary control."). *See also id.* ("Even for people, all environmental problems, indeed all problems of resources use, being with a commons and end with institutions that affect environmental use.").

40. *See* SCOTT, *supra* note 33, at 22 ("The sovereign independence of a state gives it the capacity to enter into relations with other states."); *but see id*. at 29 ("With the growth of environmental, human rights, and humanitarian law the principle of noninterference in the internal matters of a state is no longer absolute.")

41. *See* CASSESE, *supra* note 37, at 153–213 (laying out the various types of international legal standards, including the role of custom, the formation of treaties, other international law making processes, and the effect of *jus cogens* on the hierarchy of existing rules).

42. *See* ANDREW T. GUZMAN, HOW INTERNATIONAL LAW WORKS: A RATIONAL CHOICE THEORY 119 (Oxford University Press 2008) (emphasizing that due to state

powerful states, which also happen to be the greatest GHG emitters.[43] However, this alone does not explain why states are willing to cede autonomy in favor of international cooperation and regulation. Many principles of international law are customary in nature, stemming from centuries old practices, including the idea that international agreements shall be observed.[44] This is because each nation receives some benefits from international cooperation, law, and agreement.[45]

However, in order to reap these benefits, states must, to some extent, give up their freedom to act as they so choose, thereby binding themselves in ways they may not like in the future.[46] Assuming that states employ rational choice, this means that states will only enter into agreements when they are better off, or in other words, where the benefits outweigh the limitations.[47] This assumption is one central to the study of international relations. It is premised on the idea that absent an assumption of rational choice, there is really nothing to study because any predictive power of the discipline is gone. In this respect, the form, content, and extent of international law will depend upon the homogeneity of the political system and generally the degree of common interest held by nations worldwide, meaning that an agreement will only be reached where every state is better off with the agreement than with an alternative arrangement.[48]

---

sovereignty, international agreements range dramatically in terms of form, topic, and all other conceivable aspects).

43. *See* BAUMERT ET AL., *supra* note 30, at Fig. 3.1 (ranking the world's largest emitters, placing the United States in first and China in second with 20.6% and 14.7% of the world's emissions respectively).

44. *See* Louis Henkin, *The Politics of Law-Making*, *in* INTERNATIONAL LAW: CLASSIC AND CONTEMPORARY READINGS 17 (Charlotte Ku and Paul F. Diehl eds., 1998) ("On entering international society, new nations find these obligations (and corresponding rights) upon them, and few purport to reject them . . . . [T]here has not been a major challenge to the system of international law as a whole, to the bulk of its content, to its major norms.").

45. *See id.* at 18 (listing benefits of international law to individual states, including order, stability, enhanced independence and security, getting other nations to behave in a desired manner, avoiding the need to negotiate anew regularly, creating expectations, and giving confidence in how other states will behave).

46. *See* Henkin, *supra* note 44, at 18 (explaining how each benefit of international cooperation comes with a corresponding limitation on state action).

47. *See* GUZMAN, *supra* note 42, at 121 (justifying the assumption that rational choice be used when looking at whether a state will enter into an agreement and showing that this assumption implies that states will seek to maximize their own interests in any international cooperation).

48. *See* Henkin, *supra* note 44, at 18 ("Nations may have 'attitudes' in regard to the desirability of extending the domain of law. At different times they see greater or less interest in self-limitation and cooperation . . . . Nations differ in regard to how much 'freedom' they are prepared to sacrifice for some common enterprise or to some supranational institution."); *see also* GUZMAN, *supra* note 42, at 121 (arguing that where any subset of parties to an agreement has a better alternative, they will take it).

Often, as a result of the balance of interests required, states fail to reach meaningful agreement and international regulation does not occur. This is generally a result of the sovereign nature of states:

> An international political system of sovereign states is inherently 'laissez-faire,' resisting regulation by law. Surely, norms curtailing national autonomy in any important respect are not likely to be adopted unless the need for them is commonly seen as compelling and the result promises compensating advantage. Often, the absence of control by international law is purposeful, and many would say desirable . . . Even law commonly seen as desirable, however, is prevented or delayed by the diffuse law-making process.[49]

This general preference favoring less regulation is often simple to surpass in circumstances where cooperation is easy.[50] On the other hand, in situations where the parties' interests vary and goals conflict, an inability to agree is commonplace.[51]

Generally, this means that agreement and cooperation are not impossible goals. States can, and have, been able to reach agreement when their behavior is restricted by the effects of their actions on reputation, reciprocity, and retaliation.[52] In other words, the result may vary because of the need for a good reputation for compliance with international law, the

---

49. Henkin, *supra* note 44, at 22–23.

50. *See* GUZMAN, *supra* note 42, at 25–26 (distinguishing certain situations where state can both seek their own self-interest and reach meaningful agreement with other states because cooperation in those instances is both easy and valuable to each player).

51. This work chooses to use the tragedy of the commons as a means of understanding international cooperation on GHG emissions. However, a more extensive study might employ various game theories, including but not limited to the Prisoner's Dilemma. The Prisoner's Dilemma is a commonly used game theory in which mutual cooperation of both parties would yield the highest payout, but each party has an individual incentive to defect regardless of what action the other party takes. *See* GUZMAN, *supra* note 42, at 30–31 (describing the aspects of the prisoner's dilemma as "a game in which the parties can maximize their total joint payoff through mutual cooperation but each player does better by defecting."). In a one-shot game, this scenario ensures that both sides will defect and cooperation will fail. *Id.* at 32. While the typical prisoner's dilemma game involves only two players, the basic premise can be extended to collective action problems because even these interactions can often be reduced to a two-person game. *See* DOUGLAS G. BAIRD, ROBERT H. GERTNER & RANDAL C. PICKER, GAME THEORY AND THE LAW 32 (Harvard University Press 1994) (giving the examples of the choice to build or not build a levee in which even though the problem is one of collective action, each of the various individuals involved can be assigned to one of two positions). However, this analysis is beyond the scope of this article, but remains an area for further exploration.

52. *See* GUZMAN, *supra* note 42, at 33–48 (finding that where repeated interactions occurred between two states, they were often able to avoid the predicted outcome of the prisoner's dilemma due to the incentives created by these three characteristics).

possibility that a breach will result is a reciprocal breach by the other party, and the threat of retaliation from the offended state.[53] It is for these reasons that various international agreements do exist, but where these factors are lacking, it is unlikely that meaningful international cooperation will ever result. Therefore, the basis for significant political action is an international scientific consensus on the dimensions of the problem and the need for cooperative solutions.[54]

This understanding of how and why states are able to agree in some circumstances but fail to reach consensus in others is particularly important with regards to the regulation of GHG emissions. GHGs create a tragedy of the commons problem[55] where international cooperation is necessary to avoid overusing the global commons of the atmosphere and to prevent the negative predictions that accompany climate change.[56]

## *V. The Tragedy of the Commons and the Need for Agreement*

The widespread emission of greenhouse gases generally creates a tragedy of the commons problem.[57] A tragedy of the commons occurs when various actors share one common natural resource[58]—in this case the atmosphere, or more generally, the environment.[59] A commons generally has three defining characteristics: (1) it is a domain or collectivity of resources, such as the traditional English pasture or commons; (2) the resource domain is accessible to various actors, each of which uses it for individual benefit; and (3) the resources of the commons are both

---

53. *See id.* at 33–34 (describing the three Rs of Compliance).

54. *See* JOHN VOGLER, THE GLOBAL COMMONS: A REGIME ANALYSIS 139 (John Wiley & Sons Ltd. 1995) (giving the Montreal Protocol as an example where development was possible because political action was grounded in a common scientific understanding).

55. *Infra* Part V.

56. *Infra* note 88.

57. While the tragedy of the commons was originally conceptualized at the local level, the extreme differences of scale on the international global commons retain similarities to the local level. In fact, equivalent problems and institutional principles can be found at both levels. For this reason, the abundant evidence on the workings of small-scale commons can be significant and insightful at the global level as well. *See* VOGLER, *supra* note 54, at 3 (justifying interchangeable use of the tragedy of the commons and global commons analyses).

58. *See* BAIRD ET AL., *supra* note 51, at 34 (depicting the original tragedy of the commons scenario where shepherds that share a common pasture have an incentive to overgraze because no individual shepherd incurs all the costs of adding an additional sheep to the flock, but is able to realize all of the benefit).

59. The oldest recognized commons were the oceans. However, the recognized types of commons frequently change as technology develops, the most obvious example being the exploration of space. The atmosphere has become regarded as one of the most essential commons for the survival of mankind in the modern age. *See* VOGLER, *supra* note 54, at 7-9 (specifying the various types of commons and the development of global commons issues over time).

subtractive and finite, meaning that what is taken by one actor is not available to another and the total summation of resources is limited in quantity and hence depletable.[60] Due to the payouts associated with this situation,[61] the common resource will be depleted beyond the optimal point for all users.[62]

For environmental laws to succeed in averting the tragedy of the commons, they must be compatible with the laws of supply and demand that occur naturally in the world.[63]

> [A] fundamental cause of the environmental problem is that the majority of resources in their natural state, such as water and air, are 'free' goods with a price of zero. That is, they are resources that do not belong to any special individual but belong freely to the whole community. As a result no special individual or jurisdiction has any incentive to restrict the use or maintain the quality of these common resources because he or she does not have the right to realize a monetary return for doing so.[64]

This situation is often referred to as the global commons: the idea that certain resources must have global management and be held in common for the common use by all.[65] The global commons are territories and resources

---

60. *See* MARVIN S. SOROOS, THE ENDANGERED ATMOSPHERE: PRESERVING A GLOBAL COMMONS 210 (University of South Carolina Press 1997) (defining the key aspects of a commons).

61. *Id.* at 208–09 (summarizing the theory of the tragedy of the commons where individuals add cattle to a common pasture to increase personal profit, even to the point that their aggregate herd exceeds the capacity the pasture can sustain, causing the overall value of the pasture is decreased due to overcrowding); *see also infra* note 82 and accompanying text (discussing the tragedy of the commons); Christopher C. Joyner, *Global Commons: The Oceans, Antarctica, the Atmosphere, and Outer Space*, *in* MANAGING GLOBAL ISSUES: LESSONS LEARNED 354, 356–57 (P.J. Simmons & Chantal de Jonge Oudraat eds., 2001) (summarizing Hardin's traditional commons pasture).

62. *See* SOROOS, *supra* note 60, at 208 (quoting Aristotle to show the tendency for shared resources to be overused and misused for generations of human society: "'what is common to the greatest number has the least care bestowed upon it. Everybody thinks chiefly of his own, hardly at all of the common interest.'").

63. *See* MIGUEL A. SANTOS, J.D., PH.D., LIMITS AND SCOPE OF ENVIRONMENTAL LAW 47 (Charles Thomas Publisher 1995) ("Environmental laws that ignore natural laws, of course, are scientifically irrelevant and bound to fail. It is counterproductive for an environmental decision maker to enact laws that violate the laws of nature.")

64. *Id.* at 56.

65. *See* VED P. NANDA, INTERNATIONAL ENVIRONMENTAL LAW & POLICY 11 (Transnational Publishers 1995) (defining global commons as "areas 'beyond the jurisdiction and sovereignty of any state, but [which] exist for the common benefit of all' and usage of which 'physically affects human beings around the world.'"); *see also* VOGLER, *supra* note 54, at 2 ("A commons is 'a resource to which no single decision-making unit holds exclusive title.'").

outside the jurisdiction of any one state, such as Antarctica, the atmosphere, the oceans, or outer space.[66] A commons is a "free-access area" where individuals have unrestricted access and rights of use—in simplest terms, the commons problem relates to the lack of exclusive rights to nature's resources.[67]

The solution to the tragedy of the commons is and must be provided by the state.[68] When the problem is contained within a state's borders, such local issues are within the jurisdiction of the state and that state's government has the ability to control and regulate to advance the collective interest.[69] Because a global commons does not fall within the jurisdiction of any one state, these alternatives are not readily available.[70] However, with technological advances and political pressure on the limited pool of common resources, collective regulation becomes theoretically possible, although highly improbable and limited.[71]

It is common to describe the atmosphere as a global commons even though it differs from the high seas or outer space because it has at least

---

66. *See* NANDA, *supra* note 65, at 11 (listing various examples of resources historically denoted as "commons" including high mountain pastures in Switzerland, village common pastures in India, common grazing lands in colonial America and medieval England, Indian and Spanish irrigation systems, and so on); *see also* VOGLER, *supra* note 54, at 6 ("Global commons are areas beyond sovereign state jurisdiction. This may be because of the physical impossibility of extending such control or as a consequence of an international agreement . . . . The limits of the commons and even awareness of their existence has been defined by the current state of exploration and technology."); Joyner, *supra* note 61, at 354 ("Global common spaces are domains lying beyond the exclusive jurisdiction of any state that states or their nationals may use for resource extraction, waste disposal, scientific research, and so on.").

67. *See* YANDLE, *supra* note 39, at 2 (contending that the problem of the commons exist as a result of the absence of exclusive rights to scarcely available resources and evolutionary biology, which represents the struggle among peoples to access the important sources of food, water, and shelter).

68. *See* VOGLER, *supra* note 54, at 16 ("When 'commons' problems of pollution or land use are essentially local in scope they will be within the jurisdiction of a state . . . and there is, therefore, a government which at least has the potential to take control and regulate in the collective interest.").

69. *See id.* (examining possible means of regulation for local problems where states can limit user rights, define those rights, and enforce violations, taxes can be imposed on damaging activities and alternatively, a state can employ enclosure, such as the English pastoral commons).

70. *Id.* at 17.

71. *See id.* (giving an example where such pressures have created international agreement—the Law of the Seas—but admitting that such systems are unusual, in large part due to the essential difficulties that arise with regards to the use of common pool resources); *id.* at 147 ("It is difficult not to strike an apocalyptic note when discussing climate change, and present regime building efforts are meager indeed.")

some overlap with territorial sovereignty.[72] In this sense, it is often referred to as the "common concern of mankind," thereby expressing the idea that the preservation of the atmosphere is essential to our collective survival.[73] Another alternative description is to deem the issue a common sink—the use of the atmosphere as a sink for wastes.[74] Irrespective of the specific terminology employed, the atmosphere is accurately conceptualized as a global commons because it is a natural resource domain that is essential to human life and has been treated as an open-access resource, leaving individuals the right to use it at will.[75]

However the problem is described, attempts at regulation of GHGs are extremely difficult due to the sheer scale and difficulty of the greenhouse gas effect when compared to other environmental issues that have seen success at the international level in the past.[76] While the "tragedy" of overuse is not necessarily inevitable, the question becomes whether the communities utilizing the commons can develop a management scheme that restrains use to an acceptable level—a goal which has been most successful at relatively small, community levels in which social pressures serve to discourage destructive behavior.[77] Indeed, many theorists have pessimistically concluded that by the time global climate change regulation is an achievable goal, climate changes will already be irreversible.[78]

As discussed above, the tragedy of the commons generally is that common users have a tendency to overuse and exploit the resource domain

---

72. *See id.* at 124 (distinguishing between the high seas which are a common property beyond the jurisdiction of any one state and the atmosphere which is at least related to the air space above a state and therefore within the state's jurisdiction).

73. *Id.* at 124–25.

74. *See* Soroos, *supra* note 60, at 208 ("Humanity has long used the atmosphere as a sink for many of its wastes with little awareness and concern for the ways it is being altered or degraded.")

75. *See id.* at 213 (citing E.B. SOLNIKOFF, THE ELUSIVE TRANSFORMATION: SCIENCE, TECHNOLOGY AND THE EVOLUTION OF INTERNATIONAL POLITICS, 193 (Princeton University Press) (1993)) (enumerating several examples of the ways in which humans utilize the atmosphere for their survival).

76. *See* VOGLER, *supra* note 54, at 147 (differentiating ozone regulation from that of GHG emissions on the theory that ozone depletion is more simplistic and easier to analyze that GHGs—ozone depletion is easy to see and the causal link is more readily available).

77. *See* SOROOS, *supra* note 60, at 209 (limiting the ability of management schemes to have meaningful control at the international level).

78. *See* VOGLER, *supra* note 54, at 147 ("Judging by the ozone experience, effective public pressure on governments will probably only derive from clear and incontrovertible evidence that global warming is actually occurring. The pessimistic conclusion is that . . . by that time climate changes may already be irreversible."); *see also* PATRICIA BIRNIE, ALAN BOYLE & CATHERINE REDGWELL, INTERNATIONAL LAW & THE ENVIRONMENT 356 (Oxford University Press 2009) ("The range and complexity of issues involved in global warming and uncertainty regarding the nature, severity and timescale of possible climate effects make the task of phasing out production and consumption of ozone-depleting substances seem relatively simple by comparison.")

to the point of overcrowding, depletion or destruction, and this "tragedy" is already occurring for the atmosphere as the capacity of the global atmosphere to absorb and disperse pollutants is continually exceeded due to human activities.[79] This happens even where the users of the commons are aware of the harm and impending crisis they are causing.[80] Because GHG emissions have a global rather than just a regional effect, each individual country has an incentive to emit more, thereby sharing the cost of such emissions on the environment with all other nations but realizing all the benefits regionally. In other words, pollutants attain two benefits from releasing GHGs into the air even though they are aware of the negative consequences of doing so: first, they receive the proceeds of the activity that generates the GHGs and second, they retain savings from the easy disposal of wastes that would otherwise be difficult to dispose of.[81]

The only way to avoid this outcome is for all players, in this case nations that emit GHGs, to agree on the optimal point of usage at an international rather than individual level. Today, the world is populated by communities of people that have established rules for managing the commons, at least to some extent.[82] However, the past century has seen increased degradation of the environment and the global commons have been particularly threatened.[83] In the last few decades there has been an increased awareness among nation states that the global commons presents a problem, and yet still reluctance to act remains widespread.[84]

In the case of GHG emissions particularly, universal agreement is necessary because one large emitter has the capability of creating extensive and long-lasting climate change even if all other states were to agree to regulation.[85] An analysis of the global commons problem implies that climate change must be dealt with in a top-down manner because there are generally two ways in which to avoid the "tragedy" of overuse:

---

79. SOROOS, *supra* note 60, at 221.

80. *See id.* at 221 ("Such behavior is the outgrowth of a rational assessment of self-interested actors who calculate that all the proceeds from using the commons will go exclusively to themselves as individual actors, while the environmental costs associated with overgrazing will be shared with the entire community.").

81. *See id.* at 221–22 (finding that the share of the polluter's costs are much lower than the value of the benefits he or she receives from the polluting activity).

82. *See* YANDLE, *supra* note 39, at 3–4, 6 (theorizing that the commons problem has traditionally been solved in two ways: the process or systems approach—process refers to the rules people set out for each other and follow often as a matter of custom; the systems approach is more centralized and requires leaders to create and enforce rules).

83. *See* NANDA, *supra* note 65, at 25 (stating that the past century has seen massive pollution of air and water, destruction of the world's rainforests, stratospheric ozone depletion, and so on).

84. *See id.* at 25–26 (explaining this reluctance in large part as a result of sovereignty and arguing that any meaningful environmental standards for the use of the global commons must outrank sovereignty concerns for change to be effective).

85. IPCC, *supra* note 14, at 46–47.

"privatization or the imposition of resource protection by an external sovereign."[86] To date, various strategies have been employed at the international level to limit GHG emissions with varying degrees of success.

Generally, "[t]he effective management of the global commons is brought about by state compliance with internationally agreed-upon norms."[87] These norms have traditionally come in two forms: treaties and custom.[88] Custom is generally characterized as a general practice and the "conviction that such practice reflects, or amounts to, law . . . or is required by social, economic, or political exigencies . . . ."[89] Treaties on the other hand, are usually written and represent the consent of two or more nations to be bound by certain international rules.[90] While each has an equal rank and status, and the extent to which either creates a long-lasting, binding, meaningful agreement is often questionable.[91] The formation of instruments for managing the global commons, including the regulation of GHG emissions, has been significant, but the promulgation and implementation of these agreements has been drastically lacking.[92] In order for any method to be successful, implementation, government compliance, and consequences for noncompliance must be central to any regulatory scheme.[93]

What this analysis means for the international regulation of GHG emissions is twofold. First, to date, attempts at meaningful regulation have failed to prevent the tragedy of the commons that results from the widespread emission of GHGs.[94] Second, due to the sovereign nature of states, the ways in which states create agreements, and the inability of the international community to reach an accord on climate change regulation,

---

86. *See* Katherine Trisolini & Jonathan Zasloff, *Cities, Land Use, and the Global Commons:* Genesis *and the Urban Politics of Climate Change*, *in* ADJUDICATING CLIMATE CHANGE 72, 72–74 (William C.G. Burns & Hari M. Osofsky eds., 2009) (introducing the fundamental implications of the global commons issue for climate change regulation).

87. Joyner, *supra* note 61, at 365.

88. *See* CASSESE, *supra* note 37, at 153 (maintaining that states are generally bound by either treaties or custom; treaties binding only those parties that sign on and custom binding parties that do not object at the outset, thereby meaning that each type rests on consent).

89. *Id.* at 156.

90. *See id.* at 170 (including treaties, conventions, protocols, covenants, and acts as types of agreements falling within this category, but specifying that such agreements only serve to bind the signatories and hence have limited appeal where all nations fail to sign on).

91. *See id.* at 154 (arguing that States can elect to derivate from customary norms and new norms could outrank treaties, thereby enabling parties to dispose of prior obligations by mutual assent whenever their interests have changed).

92. *See* Joyner, *supra* note 61, at 365 ("The negotiation of instruments for managing global commons areas has been notable and significant. Still, promulgation and even entry into force of such agreements is not sufficient.").

93. *See id.* ("Implementation, government compliance, and reactions to noncompliance are critical if the global commons are to be successfully managed and conserved.").

94. *Id.*

the future for international cooperation and consensus looks bleak.[95] Whatever the world is doing is not working, and absent some change in circumstances, it seems unlikely that a different result will magically occur unless the methodology with which the problem is approached is reformulated. The question then becomes how can the interactions of states be altered or influenced in order to advance the goals of climate change regulation.

## *VI. The Need for the Adoption of a Theoretical Lens*

Attempting to shape the interactions and agreements of sovereign states, with an eye towards encouraging the development of climate change regulation, requires a predictive mechanism of some kind. Therefore, to anticipate the actions of states and the ways in which states will be affected, one must first have an understanding of the basic nature of nations—a concept that has been hotly debated and contested throughout history. Indeed, the underlying characteristics and tendencies of states within the international realm has been the center of scholarly research and debate known as international relations theory.

International relations and international law academia have identified and disseminated various understandings with regards to the basic nature and tendencies of states. This has been done with the objective of understanding why states act as they do within the confines of the international system, with the underlying assumption being that there must be some underlying theory or philosophy through which the relationships of states can be viewed, dissected, and understood.[96] Traditionally, legal scholars have identified three such lenses: realism, liberalism, and constructivism.[97] This means that in order to change the interaction of states with regards to climate change regulation, one must first adopt a lens through which to examine state action. Of these, this note adopts the constructivist lens for the reasons discussed below.[98] Only then can a prediction be made regarding what types of motivations, if any, will affect the ultimate viability of meaningful cooperation for climate change.

---

95. *Id.*

96. SCOTT, *supra* note 33, at 88.

97. *See* DAVID ARMSTRONG, THEO FARRELL & HELENE LAMBERT, INTERNATIONAL LAW AND INTERNATIONAL RELATIONS 69–71 (Cambridge University Press 2007) (providing an introduction to the three lenses of analyzing international relationships and international law: realism, liberalism, and constructivism).

98. *Infra* Part VII.

### *VII. The Rejection of Liberalism and Realism*

This section is meant to explain the general preference for a constructivist lens, whose independent justification is laid out more thoroughly in Part VIII. While the time and space limits of this note do not allow for it, ideally one would address the implications for state action under each of the three lenses. In this sense, this section is not meant to rule out liberalism and realism as potentially helpful and insightful lenses, but instead should be read as an explanation for the choice of one lens over the use of two others where such a choice was necessary.

Constructivism is the newest of the three lenses[99]—realism and idealism having longer roots in international relations scholarship. Realism, as presented by Hobbes, Machiavelli, and Thucydides, presents states as the only significant actors in world politics and argues that they are rational actors within a competitive and anarchic international system where each state will seek out its own best interests.[100] Liberalism, proposed in turn by Locke, Kant, and John Stuart Mill, focuses on norms, regimes, and institutions, arguing that harmony, not war, was the natural state of the international community.[101]

Both liberalism and realism have been rejected for the purposes of this note: namely examining the possibility of international cooperation regarding global climate change regulation. Liberalism has been generally discredited following the occurrence of the two world wars of 1914–1918 and 1939–1945.[102] Following the Cold War, liberalism returned to favor, particularly through the work of Fukuyama who argued that liberal democracy was the "'final form of human government.'"[103] However, within the last few decades, even Fukuyama has recognized the rise of Islamic militancy as counter to his argument,[104] and liberalist theories have

---

99. ARMSTRONG ET AL., *supra* note 97, at 69–70.

100. *See id.* at 72–74 (prioritizing the role of states and the material factors of international existence such as military resources, the balance of power and so on over the non-material factors such as social norms, institutions, and international law).

101. *See id.* at 69; *see also id.* at 83–87 (refuting realism by arguing that state are not rational actors, but instead are vehicles for the views of individuals and purporting that states can form interdependent ties); SCOTT BURCHILL, RICHARD DEVETAK, ANDREW LINKLATER, MATTHEW PATERSON, CHRISTIAN REUS-SMIT, & JACQUI TRUE, THEORIES OF INTERNATIONAL RELATIONS 55 (Palgrave Macmillan 2005) (1995) (describing liberalism as championing democratic government, science, political freedom, and constitutionally guaranteed rights).

102. *See* ARMSTRONG ET AL., *supra* note 97, at 84–85 (giving examples refuting the theory of liberalism, including the democratic election of Adolf Hitler and the failure of democracy to bring a lasting peace).

103. *See* BURCHILL ET AL., *supra* note 101, at 56 (citing the theories of Fukuyama and his belief that liberalism had proved itself the dominant international relations theory).

104. *See id.* at 57 ("The path of Western modernity in 2005 does not look as straight or inevitable as it did a decade ago.").

been largely disfavored with scholars turning instead to a constructivist understanding of international relations.

Realism has likewise been rejected, because it provides little, if any, hope for international cooperation with regards to climate change regulation. Realism is criticized on various grounds, most notably on its failure to recognize the importance of non-state actors such as multinational corporations, banks, terrorists, international organizations, and so on.[105] However, even if realism is the correct lens through which to view the international world, the realist view of the international system, the role of the state, and the balance of power politics, leaves almost no possibility for any fundamental transformation of international politics absent violence.[106] Therefore, any further analysis using this lens is less persuasive as it implies that meaningful climate change regulation will never result from mere discussion and compromise. For these reasons, the constructivist lens is the intuitive choice and has been adopted initially on this rationale and ultimately for the reasons discussed below.[107]

## *VIII. Constructivism Justified*

Constructivism, as discussed above,[108] is the most applicable lens, for the purposes and limitations of this work, available of the three leading international relations theories. Constructivism stresses both normative and ideational structures on the theory that both shape the social identities of political actors.[109] "For constructivists, the *material* world of states and rational action (the world of realists) only makes sense when located in the *social* world that gives meaning to states as actors and defines what is rational in given circumstances."[110]

Ultimately, what this means is that transnational actors and states have interests and preferences that are not fully formed or unchanging, but instead are "constructed" by and through interactions with each other.[111]

> State interests are defined in the context of internationally held norms and understandings about what is good and appropriate.

---

105. PAUL R. VIOTTI & MARK V. KAUPPI, INTERNATIONAL RELATIONS THEORY: REALISM, PLURALISM, GLOBALISM, AND BEYOND 84 (Allyn & Bacon 1999) (1987).

106. *See id.* at 86 (explaining that realist stability is a world where weapons are a necessity and changes are achieved through the use of violence and war—meaningful and peaceful change is all but impossible).

107. *Infra* Part VIII.

108. *Supra* Part VII.

109. BURCHILL ET AL., *supra* note 101, at 196.

110. ARMSTRONG ET AL., *supra* note 97, at 70 (emphasis in original).

111. *See* OONA A. HATHAWAY & HAROLD HONGJU KOH, FOUNDATIONS OF INTERNATIONAL LAW AND POLITICS 112 (Foundation Press 2005) (framing the various discussions of constructivism).

> That normative context influences the behavior of decisionmakers and of mass publics who may choose and constrain those decisionmakers. The normative context also changes over time, and as internationally held norms and values change, they create coordinated shifts in state interests and behavior across the system.[112]

Basically, constructivists believe, like realists, that state actors make rational decisions, but unlike realists, constructivists believe that these decisions are based on social construction.[113] In this way, constructivism is about the role of human consciousness in the international realm and implies that international reality is built with ideational as well as material blocks.[114]

Generally, the use of a constructivist lens is justifiable for a variety of reasons. First, as discussed above, it is intuitively the most optimistic match of the three primary international relations lenses.[115] Second, constructivism as a theory is well suited for the analysis of climate change. Third, political relations theory, including constructivist thought, works well with legal scholars and provides a theoretical basis upon which to build legal action. Fourth, this lens is able to distinguish between climate change regulation and the much more successful ozone agreements that have developed. And, finally, constructivism is able to explain why cities have adopted protective policies where other theories have failed to find an explanation.

If climate change regulation is necessary and normatively good, constructivism is an appropriate lens to adopt because it implies change is possible.[116] Just because a particular lens would tend to lead to the conclusion that climate change regulation is a hopeless endeavor does not mean that it is worthless—indeed an understanding of any such approach is crucial when trying to determine whether climate change regulation is

---

112. Martha Finnemore, *National Interests in International Society*, *in* FOUNDATIONS OF INTERNATIONAL LAW AND POLITICS 112, 113–14 (Oona A. Hathaway & Harold Hongju Koh eds., 2005).

113. *See* VIOTTI & KAUPPI, *supra* note 105, at 217 ("Norms are constitutive, meaning such concepts as ‘sovereignty’ and ‘equality’ are social constructions that help shape the identities and interests of international actors. Hence, social constructivists argue that the realist assumption of egoistic identities and treating state interests as givens is questionable; these factors… instead [are] dependent variables . . . .")

114. John Gerard Ruggie, *What Makes the World Hang Together? Neo-utilitarianism and the Social Constructivist Challenge*, *in* FOUNDATIONS OF INTERNATIONAL LAW AND POLITICS 120, 125–26 (Oona A. Hathaway & Harold Hongju Koh eds., 2005).

115. *Supra* Part VII.

116. *See* HATHAWAY & KOH, *supra* note 111, at 112 (arguing that transnational actors and their interests are not fully formed, but rather, are capable of being changed or "constructed" through interaction).

possible at all. However, for the purposes of this work, the goal is to determine whether even our best chance of meaningful climate change regulation leads one to conclude that such regulation is possible. In this way, the constructivist lens will provide an understanding of the world's best options it attempting to encourage international agreement.

The basic characteristics of constructivism as a theory are generally compatible with the analysis of climate change regulation. A lens that incorporates a sense of norms is particularly important with regards to international cooperation analysis because at the international level, norms are essentially the source of law.[117] Therefore, any attempt to show how actors' identities and interests, i.e. norms, are socially constructed is particularly pertinent at the international level.[118]

Constructivism, as an international relations theory, is well suited as a lens because of its general compatibility with legal scholarship. The law and political science scholarship have a close relationship because one of the functions of legal scholarship is to identify norms and rules at the international level—a process that relies heavily on the work of political scientists.[119] "A constructivist approach in political science opens up possibilities for conversation with international legal scholars that were foreclosed under realist domination of [the] discipline."[120] In this sense, an international analysis of climate change regulation is connected to constructivism in two primary ways. First, the nature of international legal scholarship and constructivism are analytically similar in the sense that each are looking for evidence that states share a common understanding that certain principles are law by looking at state behavior, discourse, and action.[121] Second, both are interested in articulating and codifying norms and laws that apply to states at the international level.[122] For these reasons, a political theory lens is applicable despite the fact that our analysis is one of legal scholarship.

Perhaps most importantly, the adoption of a constructivist lens is justified by its ability to explain the failures and successes of climate

---

117. *See* Finnemore, *supra* note 112, at 118 ("The notion that norms, understandings, and discourse shape state behavior is hardly news to many outside political science. International legal scholars have always known this: norms are their bread and butter. At the international level norms *are* the law.")

118. *See* Ruggie, *supra* note 114, at 126 (describing how the basic tenets of constructivism are well matched with the study of international relations, particularly by interpreting the meaning actors attribute to certain situations).

119. *See* Finnemore, *supra* note 112, at 119 (relating international legal scholarship to the constructivist study of norms, while acknowledging that scholarly writings have historically been used as authoritative sources in the determination of international law).

120. *Id.* at 118.

121. *See id.* (contending that the means of showing a principle of law are similar to that of establishing the existence of a norm).

122. *Id.* at 118–19.

change regulation. This explanatory power lends legitimacy to the constructivist lens and implies that an analysis from this viewpoint will have the most predictive power.

International systems have universally been unable to develop environment agreement and regulation with one exception: international efforts to protect the stratospheric ozone layer.[123] Part of this distinction comes from the fact that when compared to climate change, ozone depletion is a relatively simple problem, where scientific understanding and replacement technologies abound.[124] However, at least two legal scholars believe that the success of ozone regulation is due to a combination of various factors, including the impact of public pressure and the leadership role played by the United States and other international institutions.[125] This legitimizes the constructivist claim that norms can be shaped, particularly when outside parties exert pressure on a state, thereby influencing state action.

Finally, the constructivist lens is validated by its ability to explain the protective policies adopted by various U.S. cities, even where the tragedy of the commons theory would predict that such initiative would fail to occur because it is against the interests of the cities.[126] An analysis of the commons problem[127] would usually suggest that local governments will fail to address climate change, particularly where a federal mandate is lacking as is the case in the U.S.[128] However, when viewed through a constructivist lens, this discrepancy is explained.

---

123. *See* Detlef Sprinz & Tapani Vaahtoranta, *The Interest-based Explanation of International Environmental Policy*, *in* FOUNDATIONS OF INTERNATIONAL LAW AND POLITICS 251, 251 (Oona A. Hathaway & Harold Hongju Koh eds., 2005) (applying an interest-based framework to explain when international environmental regulations will be supported based on state preferences).

124. Daniel Bodansky, *The Legitimacy of International Governance: A Coming Challenge for International Environment Law?*, *in* FOUNDATIONS OF INTERNATIONAL LAW AND POLITICS 26 (Oona A. Hathaway & Harold Hongju Koh eds., 2005).

125. *See* Sprinz & Vaahtoranta, *supra* note 123, at 256 (listing six factors: a scientific understand and consensus on the nature of ozone depletion, public pressure on decision makers supporting such regulation, technological developments making regulation possible, the leadership role of the United States, the role of the epistemic community, and the role of international institutions).

126. *See* Trisolini, *supra* note 86, at 74 ("Yet, contrary to this tragic vision of resource users, we observe an apparent movement among U.S. cities to tackle climate change even when it appears to be against their immediate interest—at least as those interests have traditionally been understood.").

127. *Supra* Part V.

128. *See* Trisolini & Zasloff, *supra* note 86, at 80–83 (asserting that it is unexpected that cities in the U.S. would promote climate change regulations based on the expected payouts of such actions).

As described, constructivism posits that national interests can be altered by interactions with other states and actors.[129] In this sense, city actions should be influenced by other actors within the greater system.

> Thus, the politics of local climate change may be driven by powerful advocacy networks whose origins lie far from the cities in which they operate. Within this framework, national and international environmental organizations raise the issue's salience, propose specific actions, and command press attention, making it useful—and at times necessary—for local politicians to embrace the initiative.[130]

This analysis provides perhaps the best explanatory analysis of city action, particularly with regards to the predictions of the tragedy of the commons. For this reason and those listed above, a constructivist lens has been adopted in order to examine how the interactions of states be altered or influenced in order to advance the goals of climate change regulation.

## *IX. A Constructivist Understanding: Where We Go from Here*

In light of the preceding discussion, the interaction of state sovereignty and the global commons problem of GHG emissions must be understood by using a constructivist lens. In regards to climate change regulation, the lack of any meaningful international governance system leaves state consent as the only viable option for cooperation, and from our discussion, this method clearly has severe limitations.[131] However, a constructivist understanding shows that the interests of a state flow from that state's conceptions of its own identity.[132] Therefore, one must conclude that meaningful climate change regulation will only occur if states care about climate change at more than just its face value—they must identify cooperation, regulation, and the decrease of GHG emissions as an aspect of their own culture, society, and self-identity in order for international agreement to abound.

For whatever reason, all states do not currently see climate change regulation as an interest that they must pursue, as exemplified by the lack of significant action at an international level on climate change.[133] Constructivism argues that this preference is not rigid or unchanging, but

---

129. *See id.* at 93 ("Constructivist international relations theory suggests that, by producing a set of discursive practices that shape knowledge and ideas, international interaction creates the international system itself.").

130. *Id.* at 94.

131. Bodansky, *supra* note 124, at 268

132. *See* ARMSTRONG ET AL., *supra* note 97, at 96 (giving the example that if a state sees itself as a great world power, it will have an incentive to act like a great world power).

133. *See generally supra* Part II (discussing the lack of such action).

instead can be molded and shaped for the future.[134] The question then becomes how this change can be encouraged, thereby giving the world a chance at reaching meaningful agreement before it is too late.

There are three alternatives that intuitively leap to the forefront as means of change for state interests, preferences, and understandings of international norms. The first of these is to hope that change occurs naturally, in its own time. This type of change, as constructivism teaches, is possible, particularly as a result of state interactions with one another. However, this process is slow moving and there is no guarantee that states will head in a direction towards preferences that favor climate change regulation.

The second possible means of change at the international level is to wait until some crisis event creates a realignment of state interests. In our case, this crisis would be severe climate change affecting the daily lives of humans across the planet due to the continually increased GHG emissions and lack of meaningful agreement. While such a crisis would undoubtedly create state preferences in favor of regulation, it would be too little, too late. As already discussed, GHGs have a "feedback loop" where at some point the nature of the gases dictate that negative effects continue to abound for a certain amount of time, regardless of measures taken to reduce current emissions.[135] This means that waiting for a crisis event to change state preferences will fail to prevent the negative consequences predicted as a result of GHG emissions.

The third and final alternative is for one or more nations to step forward as a leader on climate change regulation in the hopes of shaping the preferences and actions of other states through interactions within the international realm. Constructivism points to such a conclusion and suggests that this ability to influence the actions of other states has the potential to create a top-down regulatory regime to deal with the global commons problem.

Of the world's nations, the United States is particularly poised to step forward as such a leader. If we as a nation are serious about protecting against the dangers of climate change through international regulation, we must begin to regulate GHG emissions within our own borders and call on other nations to do the same. We must lead by example and hope that in doing so, we are able to influence the behavior of other GHG emitting states.

While this last option is the best alternative available, it too has severe limitations. First, the process will be slow moving and faced with resistance—particularly from developing countries and probably from countries like China and India that are still rapidly expanding. Secondly,

---

134. *Supra* Part VIII.
135. *See* IPCC, *supra* note 14, at 46-47 (describing the feedback loop in detail).

the attempts by the U.S. in the past aimed at affecting international identity and state preferences have seen little success.[136] There is certainly significant doubt as to whether even this approach will be successful before time runs out.

## *X. Conclusion*

The prospect of meaningful climate change regulation in time to address the negative effects of GHG emissions is dismal at best. Of the alternatives suggested by the above analysis only one seems truly plausible, and even it implies a high likelihood of failure. The global commons problem is one that requires a top-down approach when it comes to GHG emissions, and the world is not in a place where such an agreement can be reached. If a change in state preferences is something the world wants to work towards, the best attempt at meaningful change is for one nation to step forward as a climate change leader.

Of course this leaves open the question of whether any nation should agree to take this action. In particular, the U.S. must look long and hard to determine whether the costs of such a risky endeavor are something that it should embrace. However, this cost-benefit analysis is a question for another day. According to this analysis, one can be sure that the global commons and national sovereignty make the regulation of GHG emissions particularly difficult. Top-down regulation is possible, using a constructivist lens, but even with this understanding there are clear limitations on the ability of change to occur within the necessary time frame. The outlook for meaningful climate change regulation is dim, and absent the strong leadership of one or more countries actively pushing states to adopt such policies is undoubtedly hopeless.

---

136. *See generally* FRANCES FUKUYAMA, THE END OF HISTORY AND THE LAST MAN (Free Press 1992) (suggesting that the advent of Western liberal democracy might be the final stage in humanity's sociocultural evolution: "What we may be witnessing is not just the end of the Cold War, or the passing of a particular period of post-war history, but the end of history as such: that is, the end point of mankind's ideological evolution and the universalization of Western liberal democracy as the final form of human government."); *but see generally* SAMUEL P. HUNTINGTON, THE CLASH OF CIVILIZATIONS (Simon & Schuster 1996) (responding to Fukuyama's theory, with the idea that was eventually accepted throughout the academic community, that democracy would not be the final say nationwide, but instead that people's cultural and religious identities instead would dominate). The United States' attempts at spreading democracy are an excellent example of why the United States may be unable to meaningfully affect international identity. Today's world is far from universally democratic and recent decades have seen a rise in other forms of government, particularly in the Middle East where fundamentalist Islam has risen to prominence.