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Global Warming: A Second Coming for International Law?

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GLOBAL WARMING: A SECOND COMING FOR INTERNATIONAL LAW?

Deepa Badrinarayana*

“It makes out that both sides have the Greater Good of the Nation in mind—but merely disagree about the means by which to achieve it.”

“Go on, Government, quibble. Bargain. Beat it down.
Say *something*.”

—Arundhati Roy¹

Abstract: Currently, there are no adequate mechanisms under international law to balance the competing tensions climate change presents to state sovereignty. On one hand, climate change threatens state sovereignty because the catastrophic loss of life and property of millions of people would deprive states of control over their domestic territories. Yet, other states rely on claims of their sovereignty to reject international legal obligations to mitigate climate change. This Article attributes the inadequacy of international law in the climate context to the evolution of the international community into an economic union that has historically privileged material interests over legal rights. It argues that given the high improbability of supplanting this economic union with a legal union that protects sovereign rights while also checking sovereign powers, an entirely innovative approach is necessary to redress climate change-related rights violations. It further argues that the focus of law and policy makers should shift away from inadequate explanations of the relevance of international law provided by current international legal theories toward normative-based solutions to address violations of both sovereignty and human rights.

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1. ARUNDHATI ROY, THE GREATER COMMON GOOD 4, 10 (1999), *available at* <http://www.narmada.org/gcg/gcg.html>.

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INTRODUCTION

Of the 190-plus nations in the international community, only about twenty core nations effectively control climate-change action²—even though climate change threatens the lives and property of millions of people. Current legal scholarship focuses on why, how, and to what extent these twenty countries must share the burdens of mitigation and

2. See, e.g., Daniel Bodansky, *The Copenhagen Climate Change Conference: A Post-Mortem*, 104 AM. J. INT'L L. (forthcoming 2010) (manuscript at 1), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1553167 (noting that about twenty-five countries, including all the major world economies, negotiated the Copenhagen Accord).

adaptation, based on their historical levels of carbon emissions and their proportionately higher economic wealth.³ Most of these analyses emphasize international legal and policy responses that would maintain the economic status quo of core countries while simultaneously reducing carbon emissions. Indeed, the thrust of international climate change negotiations has been on allocating varying costs to core nations.⁴

This Article examines a different issue: why international law does not provide adequate redress to about eighty percent of the world's population whose lives and property are threatened by climate change, and whose governments may thus effectively be denied sovereign control over their domestic affairs. It argues that state behavior in the context of climate change is currently consistent with historic international legal responses to rights violations generally, and thus, mitigating violations of sovereignty will require new approaches in international law.

This Article proceeds in four parts. Part I presents a case for treating climate change as a threat to sovereignty because it compromises a state's ability to protect its citizens' rights to life and property. This Part also contends that an absence of judicial mechanisms, notwithstanding the principle of the sovereign equality of nations, leads to differences in the abilities of nations to fully exercise and safeguard their sovereign interests. Part II argues that international law is limited in addressing threats to rights associated with climate change because the community of nations is an economic/trade/material union whose material needs take precedence over other rights. In making this argument, this Part provides a brief historical review of trade relations and international law, emphasizing the role and influence of empires. This Part also argues that this economic union permeates international law's response to climate change and concludes that the insufficiency of international institutional

3. See generally, Cass R. Sunstein & Eric A. Posner, *Should Greenhouse Gas Permits be Allocated on a Per Capita Basis?*, 97 CAL. L. REV. 51 (2009) (discussing the limits of a per capita based emissions-reduction calculation and advocating the need for a different approach that would fully reflect the total emissions of nations).

4. See, e.g., Christopher E. Angell, *Assessment Climate Agreement Principles: The Tension Between Early Equivalent Actions and Variable Costs*, 35 COLUM. J. ENVTL. L. 213, 214–15, 240 (2010) (noting that the thrust of climate negotiations, including the recent negotiations at Copenhagen, has been on dividing responsibilities, and concluding that the Kyoto Protocol failed because it was a poor burden-sharing arrangement). Even among signatories, notably the European Union, burden sharing is an important component of climate action. See David B. Hunter & Nuno Lacasta, *Lessons Learned from the European Union's Climate Policy*, 27 WIS. INT'L L.J. 575, 582 (2009) (noting that nations joining the European Union were bound by the targets they independently accepted under the Kyoto Protocol in 1997).

responses to climate change is an expected outgrowth of the prominence given to economic interests.

Part III demonstrates that establishing a legal union of sovereign states can overcome the limitations posed by the current economic union of sovereign states. This Part references the United States's federalism as a potential model. Despite disagreements between sovereign U.S. states and the federal government, the former can seek protection for their citizens through judicial mechanisms, a recourse unavailable in the international context. This protection is attributed to a union based on law—the U.S. Constitution—which grants rights and places checks on powers that affect sovereign rights. International law, on the other hand, lacks effective legal mechanisms to protect sovereign interests.

Part IV summarizes the challenges that climate change presents to international law and proposes several ways to rethink international climate action. Law- and policy-makers should shift their focus away from current legal theories and instead focus on finding solutions that provide consequences for noncompliance and protect threatened states' sovereign authority.

I. GLOBAL WARMING: OF SOVEREIGN RIGHTS AND WRONGS

Climate change threatens the sovereignty of nations in several geographic regions. However, sovereignty loss has not received due attention within current scholarship, which is still rooted in the notion that sovereignty gives states the right to reject international legal obligations.

A. *Climate Change and the Dark Side of Sovereignty*

The reach of international law depends on state consent.⁵ Discussions about the principle of sovereignty usually center on the extent to which a state may be subject to international law absent its consent.⁶ These contentions come to the fore in the context of climate change as well, not only in terms of state consent to mitigation treaties, but also because

5. State sovereignty defines the scope of international law in that a sovereign state's national affairs are subject to supranational legal intervention only to the extent that the state voluntarily divests its sovereign control and rights. 1 OPPENHEIM'S INTERNATIONAL LAW 125–26 (Robert Jennings & Arthur Watts eds., 9th ed. 1996).

6. See generally Stephen D. Krasner, *Problematic Sovereignty*, in PROBLEMATIC SOVEREIGNTY 21 (Stephen D. Krasner ed., 2001) (noting that without state consent, be it through voluntary agreement or coercion, sovereignty limits international options and requires innovative solutions).

climate change can threaten traditional sovereign rights over domestic affairs.

Although there are several types of sovereignty,⁷ the concept of sovereignty as the right of nations to manage their domestic affairs without external interference is most relevant here.⁸ Sovereignty in this sense implies the co-equality of states, which have equal rights to choose when and to what extent they will cede their exclusive authority over domestic affairs to an external authority.⁹ Coequal sovereignty ensures that all nations can protect their citizens' rights to life and property.¹⁰

Climate change is a threat to the land and life of people in several nations, particularly in vulnerable regions such as Asia, parts of Africa, and low-lying island nations.¹¹ Climate-change-related sea-level rise is projected to destroy property, endanger life, threaten livelihood, spread diseases, and displace massive numbers of people.¹² Its impact has already been observed in Tuvalu, Bangladesh, and Maldives.¹³ These nations are effectively forced to relinquish their territories to the extent

7. See STEPHEN D. KRASNER, *SOVEREIGNTY: ORGANIZED HYPOCRISY* 11–22 (1999). Krasner identifies four types of sovereignty: (1) domestic sovereignty (referring to internal organization of state authority and the effectiveness of the authority); (2) interdependence sovereignty (referring to control over transborder issues or, more precisely, the loss of sovereignty when states cannot control transboundary movements of goods and ideas); (3) international legal sovereignty (referring to the equal status of states in the international legal community and the recognition of states “with territory and formal jurisdiction,” and “juridical equality”); and (4) Westphalian sovereignty (referring to principles of “territoriality and exclusion of external actors from domestic authority structures”). *Id.*

8. See generally OPPENHEIM'S INTERNATIONAL LAW, *supra* note 5, at 125–26 (noting that sovereignty gives states “exclusive competence” within their borders and that states are therefore not subject to another state's sovereign authority).

9. *Id.*; see also Krasner, *supra* note 6, at 25–28 (noting that states can cede their Westphalian or international legal sovereignty by contract, convention, coercion, or imposition; the latter two occur mostly when powerful nations impose their wills on weaker states).

10. OPPENHEIM'S INTERNATIONAL LAW, *supra* note 5, at 125 (“Although states are often referred to as ‘sovereign’ states, that is descriptive of their internal constitutional position rather than their legal status on the international plane.”).

11. For an overview of potential impacts from climate change, see INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY. CONTRIBUTION OF WORKING GROUP II TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE* 7–22 (M.L. Parry et al. eds., 2007), available at http://www.ipcc.ch/publications_and_data/ar4/wg2/en/contents.html [hereinafter REPORT ON CLIMATE CHANGE]; see also Andrew C. Revkin, *Poor Nations to Bear the Brunt as World Warms*, N.Y. TIMES, Apr. 1, 2007, at A1.

12. REPORT ON CLIMATE CHANGE, *supra* note 11, at 317–18.

13. See, e.g., Adam Hadhazy, *The Maldives, Threatened by Drowning Due to Climate Change, Set to Go Carbon-Neutral*, SCI. AM., Mar. 16, 2009, <http://www.scientificamerican.com/blog/post.cfm?id=maldives-drowning-carbon-neutral-by-2009-03-16>.

the rise in sea level sinks their land.¹⁴ People in these countries stand to lose not only their political and economic personalities, but also their cultures.¹⁵

Furthermore, the threatened nations (affected states) cannot circumvent these threats because other nations (controlling states) control the anthropogenic emissions of greenhouse gases that accelerate climate change.¹⁶ Affected states have little ability within the existing international structure to pressure controlling states to act expeditiously.¹⁷ Thus, controlling states' greenhouse-gas emissions diminish the ability of affected states to safeguard their citizens' rights.¹⁸ These nations are effectively precluded from managing their domestic affairs without external interference,¹⁹ and they are forced to pursue expensive domestic policies that are dictated by external pressures.²⁰ This loss of sovereign control should not be dismissed as an inevitable consequence of transboundary pollution that occurs in an interdependent

14. HANS KELSEN, *PRINCIPLES OF INTERNATIONAL LAW* 217 (2003) ("International law confers upon each state the right to dispose of its territory.").

15. See Krasner, *supra* note 6, at 22 (noting that threats to state personality or culture would rise to the level of an external intervention into the affairs of a state under the Charter of the Organization of American States).

16. The major emitters of greenhouse gases that have not committed to legal obligations to reduce emissions include China, India, and the United States. See DEV. DATA GROUP, WORLD BANK, *THE LITTLE GREEN DATA BOOK 7* (2007). While at the recent meeting of the Conference of Parties at the U.N. Framework Convention on Climate Change (UNFCCC) in Copenhagen all three countries made some commitments that they "noted": China and India only agreed to reduce their carbon intensity, and not their absolute emissions, and it is uncertain whether their engagement will prove effective in capping global temperature increases at two degrees. See Bodansky, *supra* note 2, at 2, 10–11.

17. The efforts to frame climate change as a security concern and influence an aggressive pace of emissions reductions have failed because of objections by some controlling states with veto power. For instance, although climate change has been brought up before the U.N. Security Council as a major problem, no resolution has emerged, particularly because of objections from China. See Press Release, Security Council, Security Council Holds First-Ever Debate on Impact of Climate on Peace, Security, Hearing over 50 Speakers, U.N. Doc. SC/9000 (Apr. 17, 2007), available at <http://www.un.org/News/Press/docs/2007/sc9000.doc.htm>; see also Francesco Sindico, *Climate Change: A Security (Council) Issue?*, 1 *CARBON & CLIMATE L. REV.* 26, 32–34 (2007) (explaining the difficulty in framing the issue within the Security Council arises from deep divisions).

18. Maldives is an example of a country unable to protect the property rights of its citizenry due to global climate change. See *From Underwater, Maldives Sends Warning on Climate Change*, CNN.COM, Oct. 17, 2009, <http://www.cnn.com/2009/WORLD/asiapcf/10/17/maldives.underwater.meeting>.

19. See OPPENHEIM'S *INTERNATIONAL LAW*, *supra* note 5, at 125.

20. For instance, Bangladesh is raising funds to support research towards developing a new variety of rice that can withstand flooding that would usually destroy crops. Interview with Imtiaz Ahmed, Bangladeshi Ambassador to Denmark, in Copenhagen, Den. (Dec. 14, 2009).

world.²¹ Instead, it is a loss of sovereignty in a Westphalian sense because the external actions of other states have compromised the authority of affected states over their physical territories and people.²²

International legal mechanisms to redress the loss of domestic sovereignty are largely absent. While affected states may consider approaching the International Court of Justice (ICJ), they may not compel controlling states, such as the United States or China, to accept the court's jurisdiction.²³ Further, even if all states accept the ICJ's jurisdiction, it may take a long time to reach a suitable decision, as recent regional efforts prove.²⁴ Finally, there is no redress mechanism within the United Nations Framework Convention on Climate Change (UNFCCC)²⁵ or the Kyoto Protocol (the Protocol)²⁶ against the loss of domestic sovereign rights.²⁷ The absence of international legal mechanisms to compel action against threats to sovereign equality of nations heightens the rights violations threatened states face. However, this legal concern is by and large unaddressed in current legal scholarship.

21. Krasner, *supra* note 6, at 12 (noting that sovereignty understood as the recognition of state and domestic authority may remain unaffected by the concept of interdependent sovereignty).

22. Krasner refers to these forms of traditional sovereignty as international legal sovereignty and Westphalian sovereignty. KRASNER, *supra* note 7, at 8–9.

23. See generally Gary L. Scott & Craig L. Carr, *The ICJ and Compulsory Jurisdiction: The Case for Closing the Clause*, 81 AM. J. INT'L L. 57 (1987) (providing a comprehensive overview of ICJ jurisdiction, the United States's rejection of that jurisdiction, and arguing for compulsory jurisdiction).

24. For example, a December 2005 case brought before the Inter-American Commission on Human Rights following an Arctic Climate Impact Assessment by Sheila Watt-Cloutier, an Inuit woman chairing the Inuit Circumpolar Conference, is yet to be decided. See BRADFORD C. MANK, *GLOBAL CLIMATE CHANGE AND U.S. LAW* 221–23 (Michael Gerrard ed., 2007); see also Hari M. Osofsky, *The Inuit Petition as a Bridge? Beyond Dialectics of Climate Change and Indigenous People's Rights*, 31 AM. INDIAN L. REV. 675 (2007).

25. United Nations Conference on Environment and Development: Framework Convention on Climate Change (UNFCCC), *opened for signature* June 4, 1992, 1771 U.N.T.S. 107 (*entered into force* Mar. 21, 1994).

26. Kyoto Protocol to the United Nations Framework Convention on Climate Change, *opened for signature* Mar. 16, 1998, 2303 U.N.T.S. 148 (*entered into force* Feb. 16, 2005) [hereinafter *Kyoto Protocol*].

27. See *infra* Part III (discussing the approach taken under the U.S. Constitution to address this concern).

B. *Sovereignty in the Climate Change Context: A Domestic, Rational, and Moral Concept*

In academic discourse the issue of climate-change-related sovereignty is framed mostly in terms of the sovereign rights and interests of controlling states. Within this framework, arguments for and against action are driven by a sense of moral obligation, rational self-interest, or domestic obligations of controlling states such as the United States. However, the topic of providing legal redress to states whose domestic sovereign rights are threatened is largely absent from these discussions. For instance, legal scholars Eric Posner and Cass Sunstein have argued that distributive and corrective justice claims cannot catalyze climate action because costs of meeting these claims would punish present and future Americans for actions of past Americans and would reward or compensate future wealthy nations and their citizens.²⁸ Sunstein also posits that the United States and China would have to bear high mitigation costs, even though they would suffer least from climate change, and notes that China might even benefit from climate change.²⁹ Climate “winners” such as China have little incentive to act, unless they are compensated for mitigating the climate change that may otherwise be in their self-interest.³⁰ These arguments implicitly ignore the sovereign rights of threatened states.

Legal scholars such as Andrew Guzman and Jody Freeman have responded with arguments premised on the self-interest of the United States, based on an absolute cost-benefit analysis. According to this view, certain “spill-over” costs such as international trade shocks, impacts on financial markets, costs to national security, migration costs, and increases in diseases, would render the United States a “climate loser.”³¹ Thus, these costs present a case for climate action. This nuanced response to Posner and Sunstein nevertheless fails to consider climate-change-related rights of threatened states.

28. Eric A. Posner & Cass R. Sunstein, *Climate Change Justice*, 96 GEO. L.J. 1565, 1585 (2008).

29. See Cass R. Sunstein, *The World vs. The United States and China? The Complex Climate Change Incentives of the Leading Greenhouse Gas Emitters*, 55 UCLA L. REV. 1675, 1682–87 (2008) (noting that China’s agricultural productivity might benefit from climate change).

30. *Id.* at 1697.

31. See generally Jody Freeman & Andrew Guzman, *Seawalls Are Not Enough: Climate Change and U.S. Interests* (UC Berkeley Public Law Research Paper No. 1357690, 2009), available at <http://ssrn.com/abstract=1357690> (noting that it would be in the United States’s self-interest to take action to mitigate climate change and that the costs of inaction would be greater than the costs of action).

Some scholars argue that states like the United States have moral or domestic legal obligations to mitigate climate change and compensate climate-change victims, but these scholars also fail to address the sovereign rights violations facing threatened states. For instance, legal scholar Daniel Farber maintains that the United States should compensate victims for several reasons: (1) some older Americans have contributed to the carbon stock and can afford to compensate victims; (2) present Americans continue to contribute to the carbon stock; (3) present Americans continue to enjoy ongoing benefits such as low fuel prices and efficiency standards; and (4) there may be a causal link “between emissions controls in the United States [under the Clean Air Act] and the foreseeable harm of sea level rise,”³² as noted in the United States Supreme Court decision *Massachusetts v. EPA*.³³

In light of current legal scholarship, climate-change action apparently depends on the willingness of American (or Chinese) citizens to bear high costs for the benefit of others.³⁴ Climate-change action will therefore require controlling states to change their value systems³⁵ and ideological or political positions.³⁶ It appears unlikely that concerns regarding the loss of threatened states’ sovereign rights will motivate controlling states to take measures to mitigate climate change. This state of affairs raises the more fundamental question of whether international law is simply state voluntarism disguised as sovereign rights, or whether international law can compel adherence to sovereign equality and authority, specifically in the context of climate change. In other words, is

32. Daniel A. Farber, *The Case for Climate Compensation: Justice for Climate Change Victims in a Complex World*, 2008 UTAH L. REV. 377, 396–99, 402–03 [hereinafter Farber, *The Case for Climate Compensation*]. See also Daniel A. Farber, *Adapting to Climate Change: Who Should Pay*, 23 J. LAND USE & ENVTL. L. 1, 26–35 (2007) (arguing that beneficiaries, the public, polluters, or climate change winners should pay victims of climate change). However, Farber also makes a case for imposing strict, joint and several liability on the United States, but not for loss of territorial sovereignty. *Id.* at 410–13; Farber, *The Case for Climate Compensation, supra*, at 402–03.

33. 549 U.S. 497 (2007).

34. Sunstein attributes this problem to what he calls bounded rationality, according to which “ordinary people show a ‘richer’ rationality than that of experts, who focus on quantities alone.” Cass R. Sunstein, *On the Divergent American Reactions to Terrorism and Climate Change*, 107 COLUM. L. REV. 503, 521 (2007).

35. Such shifts can occur when there is an outrage regarding a problem and its consequences. According to Dan Kahan and Donald Braman, neither “self-interest” nor scientific evidence may persuade Americans to support any legislation that “threatens practices they revere or bolsters ones they despise.” Dan M. Kahan & Donald Braman, *Cultural Cognition and Public Policy*, 24 YALE L. & POL’Y REV. 149, 165 (2006). They argue that such cultural limits can only be overcome when policy-makers present a balanced regulation that satisfies a broad spectrum of people’s views. *Id.* at 168.

36. *Id.* at 163.

international law relevant for rights violations associated with climate change?

II. THE INTERNATIONAL ECONOMIC UNION LIMITS INTERNATIONAL CLIMATE ACTION

International law is limited in the climate-change context because the international community is primarily a product of trade and economic relations based on the pursuit of material interests, as opposed to the pursuit of common, legally enshrined rights and power-sharing mechanisms. This economic unity has historically provided only limited protection of rights because it privileges economic interests over protection against threats to sovereign powers. Therefore, the international legal response to climate change privileges the economic interests of states, as opposed to preserving the rights of any individual state or its people.

A. *The International Community is a Product of Trade and Economic Relations*

This Section focuses on one significant part of world history: the international movement and integration of people in pursuit of economic or material interests. As discussed in this Article, such interests include resources, natural and artificial, with economic value. The terms economic, material, and trade interests are used interchangeably.

Whereas narratives of modern international law generally concentrate on wars in Europe and on colonial developments, the history of interactions among world communities through trade dates back to as early as 430 B.C.,³⁷ and continues up to the modern GATT-WTO³⁸

37. See WILLIAM J. BERNSTEIN, *A SPLENDID EXCHANGE* 21 (2008) (noting that historians have traced “silent trade” in the Sumerian region during this period).

38. The General Agreement on Tariffs and Trade, which was initially negotiated in 1947, was renegotiated successfully in 1994 and comprised a set of comprehensive agreements to liberalize trade. General Agreement on Tariffs and Trade 1994 (GATT 1994), Apr. 15, 1994, 2303 U.N.T.S. 148 (entered into force Jan. 1, 2005), available at http://www.wto.org/english/docs_e/legal_e/06-gatt.pdf.

During the 1994 trade negotiations, an umbrella organization—the World Trade Organization (WTO)—was established to administer all agreements within the GATT framework. Agreement Establishing the World Trade Organization (Marrakesh Agreement), Apr. 15, 1994, 1867 U.N.T.S. 154 (entered into force Jan. 1, 2005), available at http://www.wto.org/english/docs_e/legal_e/04-wto.pdf. Both the agreement and the WTO are here referred together as GATT-WTO. For an overview of the negotiations leading to the establishment of the GATT-WTO system, trade liberalization, and dispute settlement under GATT, see Curtis Reitz, *Enforcement of the General Agreement on Tariffs and Trade*, 17 U. PA. J. INT’L ECON. L. 555 (1996). Reitz refers to the GATT-

system. Indeed, throughout this period of trade, nations emerged, converged, and disappeared.³⁹ Nations have also become empires—the Mongols, the Chinese, the Romans, and the Muslims—that have dominated trade, and transformed the culture, and legal systems of other nations.⁴⁰ These empires were not always established by aggressive conquest alone, but also by expansion of trading interests (though not without tension and aggression); the empires expanded as they sought a range of resources, including pepper corn, barley, camels, silk, gold, and silver.⁴¹

The most ambitious of these imperial expansions began in the late fifteenth century with the incursion of Portuguese and Spanish traders into territories Muslim traders had previously monopolized.⁴² Through the Treaty of Tordesillas, the Spanish and the Portuguese effectively demarcated the world into two portions and divided it between themselves.⁴³ The two nations established trading routes that covered parts of Asia, Africa, and South America, and included trade in several goods, including spices, silver, and silk.⁴⁴ This trade, in turn, led to intense movement of goods and introduced nations to new goods, some of which became staples such as sugar⁴⁵ and oil.⁴⁶ There was also increased immigration of slaves, particularly to sugar plantations.⁴⁷

WTO system as the “centerpiece of the international economic law system.” *Id.* at 555. Presently, 153 nations are members of the GATT-WTO system. World Trade Organization, Understanding the WTO, Members and Observers (July 23, 2008), http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm.

39. BERNSTEIN, *supra* note 37, at 8–9 (discussing how some nations outshone others during periods of prosperous trade).

40. The Muslim empire, although it did not encompass the western nations, ruled much of the East and the Middle East by the end of the eleventh century. Bernstein describes this period as the Pax Islamica. *Id.* at 76. See also NIALL FERGUSON, COLOSSUS: THE PRICE OF AMERICA’S EMPIRE 171 (2004) (noting that non-Western empires included the Russian empire in Eastern Europe, the Ottoman Empire in the Middle East, and the Chinese and Japanese empires in the Far East). The Muslims achieved partial integration of their laws within some territories in Asia. *Id.* at 108.

41. BERNSTEIN, *supra* note 37, at 20–76.

42. *Id.* at 108.

43. Treaty at Tordesillas, Port.-Spain, June 7, 1494, EUROPEAN TREATIES BEARING ON THE HISTORY OF THE UNITED STATES AND ITS DEPENDENCIES TO 1648, at 84–100 (Frances G. Davenport ed. 1917).

44. BERNSTEIN, *supra* note 37, at 168–206.

45. *Id.* at 206–07.

46. The Dutch East Indies Company facilitated access to oil resources for the Royal Dutch Company in Indonesia. See DANIEL YERGIN, THE PRIZE: THE EPIC QUEST FOR OIL, MONEY AND POWER 74–77 (1991).

47. BERNSTEIN, *supra* note 37, at 206.

Facilitated in part by Spain's and Portugal's own internal struggles and wealth mismanagement,⁴⁸ Dutch traders challenged Spanish and Portuguese dominance during the seventeenth century.⁴⁹ Later, British interference with Dutch trade led to conflict over territories and resources that Dutch and the English traders⁵⁰ resolved by negotiating arrangements through their governments⁵¹ to divide what became colonial territories between them.⁵² The establishment of peace treaties among European nations and the emergence of international law were also likely instrumental in enabling peaceable division of resources and territories, notably through the Treaty of Westphalia.⁵³

During this peak trade period, which lasted until World War I and is referred to as the first period of globalization,⁵⁴ there was increased movement of goods and people.⁵⁵ This integration of the world deepened with industrialization due to heightened demand for raw materials, like cotton for the textile industry, and markets for finished products.⁵⁶ Traders became administrators and governors, whose loyalties were divided between their mother countries and their colonies.⁵⁷ By the late

48. The weakening of the Spanish stronghold is attributed to loss of Spanish control over Dutch territories, the alliance between the Dutch and the English, and the cost of war. *See* NIALL FERGUSON, *THE ASCENT OF MONEY* 74–76 (2009).

49. BERNSTEIN, *supra* note 37, at 210–11.

50. The traders were the Dutch East Indies Company and the British East Indies Company. *Id.* at 229.

51. The Dutch were represented by Hugo Grotius, a proponent of the freedom of the seas and international transaction. *Id.*

52. *See generally id.* at 229–40, 241–42 (providing a comprehensive overview of the spread of European trade relations from the Americas to Australia, through Asia, the Middle East, and Africa, and noting that most of these territories remained under colonial control until the twentieth century).

53. Treaty of Westphalia, Peace Treaty Between the Holy Roman Emperor and the King of France and Their Respective Allies, Oct. 24, 1648, 1 Parry 271, *translation available at* http://avalon.law.yale.edu/17th_century/westphal.asp.

54. JEFFREY D. SACHS, *THE END OF POVERTY: ECONOMIC POSSIBILITIES OF OUR TIME* 43 (2005); *see* FERGUSON, *supra* note 40, at 185.

55. *See* BERNSTEIN, *supra* note 37, at 277 tbl.10.1 (showing the movement of slaves between 1550 and 1800 and the population of their descendants by 1950); *see also* FERGUSON, *supra* note 40, at 188 (discussing the mass migration of laborers between Canada, Australia, New Zealand, India, and China to work in British plantations and mines); Rebecca Durrer, *Propagating the New Zealand Ideal*, 43 *SOC. SCI. J.* 173, 181–82 (2006) (discussing the increased migration of Britons into New Zealand during the 1840s).

56. BERNSTEIN, *supra* note 37, at 262–64 (discussing the increase in global cotton trade during the late eighteenth and early nineteenth centuries).

57. FERGUSON, *supra* note 40, at 193. For instance, Keynes criticized the movement of investment and capital to colonies on the ground that it was not in the economic interest of Britain. *Id.* at 193.

1880s, European traders had established a new age of empires.⁵⁸

The European empires introduced new legal systems and forms of government in their colonies;⁵⁹ in effect, Europeans began a transnational process of integrating the law, as well as free movement of goods, people, and capital.⁶⁰ Thus, the laws and administrative mechanisms of the colonizers replaced the legal systems and philosophies in the colonies, arguably for the economic benefit of the colonized.⁶¹ By systematically introducing notions of contract, property, and financial mechanisms that liberalized trade, the empires became pivotal in shaping world unity.⁶²

International law's role during this period pales in comparison to the growing global economic cohesion, particularly with respect to rights violations. For example, the benefits of state sovereignty established under the Treaty of Westphalia were not extended to the territories and people of lands that became European colonies.⁶³ Arguments against inviting "uncivilized" nations into the legal community stymied efforts

58. *Id.* at 171–73. Ferguson notes that between 1880 and 1980, which he refers to as the “zenith” of the age of empires, “[a]ll of Australia, 90 percent of Africa and 56 percent of Asia were under some form of European rule, as were nearly all the islands of the Caribbean, the Indian Ocean and the Pacific.” *Id.* at 171. Even “the polities of the American republics were fundamentally shaped by the colonial past.” *Id.*

59. *Id.* at 184 (“[G]lobalization applies to politics as well as economics.”).

60. *Id.* at 185, 188.

61. *Id.* at 192–93 (noting that laws such as the Colonial Loans Act (1889) and the Colonial Stocks Act (1900) encouraged investments into colonies, perhaps even at the cost of Britain).

62. *Id.* at 184. Ferguson also observes: “Nor is it by any means a given that the benefits of empire should flow simply to the metropolitan society. It may only be the elite of that society that reaps the benefits of empire” *Id.* at 12. For additional background on the effects of economic history on the British Empire, see Niall Ferguson, *British Imperialism Revised: The Costs and Benefits of ‘Anglobalization,’* HISTORICALLY SPEAKING, Apr. 2003, at 21–27.

63. As Richard Falk notes regarding the Treaty of Westphalia:

This transition has been generally treated as of global scope, but it was in reality an exclusively European phenomenon at the outset that underpinned a Eurocentric phase of world order that has still not been entirely displaced, although much weakened by the collapse of the colonial empires in the last half of the twentieth century, and by the growing appreciation and significance of Asia/Pacific countries, and especially China, for the global economic and strategic balance.

Richard Falk, *The Grotian Moment: Unfulfilled Promise, Harmless Fantasy, Missed Opportunity?*, 13 INT’L INSIGHTS 3, 4 (1997); see also ANTONY ANGHIE, IMPERIALISM, SOVEREIGNTY, AND THE MAKING OF INTERNATIONAL LAW 82 (2005). According to Anghie, colonization resolved an anomaly in the application of international law with regard to the legal personality of non-European states. He notes, “Once colonization took place, the colonizing power assumed sovereignty over the non-European territory, and any European state having business with respect to the territory would deal with the colonial power; in this way, legal relations would take place, once more, between two European powers.” ANGHIE, *supra*, at 82.

within Europe to extend international legal rights to colonial territories.⁶⁴ As Antony Anghie notes, “European states interacted with non-European states on the basis of ‘discretion, and not International Law.’”⁶⁵ The British, for instance, justified colonization that collided with their views on state sovereignty on the grounds that they were rescuing these regions from “barbarism,” administering justice, and ushering in prosperity.⁶⁶ In effect, by the late nineteenth century efforts to create a world unified under international law deteriorated into a Euro-centric justification for subjugating other regions.

This power dynamic began to shift during the twentieth century for several reasons, none of which can fully be attributed to a triumph of international law. First, the treatment of foreign populations disillusioned even staunch supporters of free trade and colonization in mother countries, and led some European lawyers to argue that human rights should be extended to the colonized.⁶⁷ Second, the growth of nationalism grounded on a demand for rights for local populations by local elites educated in the West gained traction.⁶⁸ Third, European nations failed to sustain peace under international law, resulting in two world wars that coincided with increased nationalist movements and deterioration in trade and economic growth.⁶⁹ All of these developments led to decolonization. Thus, while there had been sixty-nine sovereign states in 1920, there were nearly one hundred sovereign states by the mid-1950s.⁷⁰

Despite decolonization, however, the basic structure of international relations and power remained largely unaltered. The United Nations was

64. See MARTTI KOSKENNIEMI, *THE GENTLE CIVILIZER OF NATIONS* 73 (2008) (noting a range of opinions berating the absence of common ties that precluded non-European nations from participating in international law); see also FERGUSON, *supra* note 40, at 23 (noting Winston Churchill’s view that barbarians in other regions had to be educated in commerce and learning).

65. ANGHIE, *supra* note 63, at 81 (quoting LASSA OPPENHEIM, *INTERNATIONAL LAW: A TREATISE* (1912)).

66. FERGUSON, *supra* note 40, at 23 (quoting Churchill on the goals of imperialism).

67. For example, John Stuart Mill, who initially supported the colonization project of the British government later became disillusioned with the treatment of the colonized and the protectionist trade practices in the colonies. Duncan Bell, *John Stuart Mill on Colonies*, 38 *POL. THEORY* 34, 50–54 (2010); see KOSKENNIEMI, *supra* note 64, at 105, 113, 121 (citing lawyers who argued that it was unjust not to extend certain rights to nations colonized by Europeans).

68. See Prasenjit Duara, *Introduction, The Decolonization of Asia and Africa in the Twentieth Century*, in *DECOLONIZATION* 7 (Prasenjit Duara ed., 2004).

69. *Id.*

70. See FERGUSON, *supra* note 40, at 172–73 (noting that between 1960 and 1964, twenty-five new states were formed in Africa and that by the 1950s the community of nations grew to eighty-nine states).

established in 1945, the Universal Declaration on Human Rights adopted in 1948,⁷¹ and several other organizations emerged that provided membership to an unprecedented number of states.⁷² Nevertheless, international law did not metamorphize into a universal system that governed actions of states and catalyzed the evolution of a universal ethic of rights.⁷³ Eventually, the Cold War subsumed trade relations between the two remaining “empires,” the United States and the Soviet Union.⁷⁴ Trade liberalization was replaced by protectionism, and liberal investment was replaced by selective swaps among rich industrialized nations.⁷⁵ Indeed, many found the post-colonial regimes were reportedly “worse for the people living under them than the old colonial structures of government: more corrupt, more lawless, more violent,”⁷⁶ and democratic ideologies in some instances triggered the pursuit of “economically detrimental fiscal and monetary policy,” because of “popular demand.”⁷⁷

In effect, the colonies were barely compensated by their colonizers for unfair contractual agreements, conquest of territories, and reorganization of territories and identities.⁷⁸ The only compensation they received was inclusion into the community of sovereign nations through

71. Universal Declaration of Human Rights, G.A. Res. 217A (III), at 71, U.N. GAOR, 3d Sess., 1st plen. mtg., U.N. Doc. A/810 (Dec. 12, 1948).

72. JOSE ALVAREZ, INTERNATIONAL ORGANIZATIONS AS LAWMAKERS 586, 590 (2005) (noting that several organizations that were established after the Second World War became instrumental in increasing international cooperation and standard setting).

73. For example, rights violations continue to persist in former colonies and demonstrate that self-determination efforts did not manifest into a sustained implementation of universal rights. See ANTONIO CASSESE, SELF-DETERMINATION OF PEOPLES: A LEGAL REAPPRAISAL 5–6 (1995) (“[S]elf-determination is attractive so long as it has not been attained; alternatively, it is attractive so long as it is applied to others. Once realized, enthusiasm dies fast, since henceforth it can only be used to undermine perceived internal and external stability.”).

74. FERGUSON, *supra* note 40, at 173.

75. *Id.* at 188–89.

76. *Id.* at 173. Contrary to established arguments, Ferguson notes that some British colonies performed better under colonial rule. *Id.* at 188–89, 196–97. As examples, he cites the case of British investment in global endeavors that led to integration of capital markets and investments in developing regions in Asia, the United States, and Africa for construction of infrastructure and expansion of extractive industries. *Id.* He further notes that British investment increased trade and migration opportunities in India, but the post-colonial government dismantled much of this investment to the country’s disadvantage. *Id.*

77. *Id.* at 173.

78. For a discussion of unfair treatment of colonies, see KOSKENNIEMI, *supra* note 64, at 136–39, which discusses the legal gray area within which European colonizers acquired territories from colonies. Additionally, political leaders of the decolonized nations siphoned off the majority of post-colonial compensation, provided to most countries as financial aid, stowing the money in private Swiss Bank accounts. See FERGUSON, *supra* note 40, at 173.

the United Nations—but not necessarily as co-equal partners in its creation.⁷⁹ The relations of the now independent states with other nations continued to be governed primarily by their economic ties.⁸⁰ After all, the world had become interdependent. Trade and quasi-integration of colonies had made resources and markets available in different parts of the world.⁸¹ Thus, protectionist policies did not end trade relations.

Ongoing efforts to adjust and continue trade links with the decolonized world order are evidenced in the case of petroleum. Trade in petroleum⁸² continued despite the replacement of private cartels with government cartels,⁸³ and despite international tensions over oil in the 1970s.⁸⁴ Trade continued in other goods and services as well, albeit with more restraint than witnessed prior to 1945.⁸⁵

Ongoing economic relations and trade transformed once again with the collapse of the former Soviet Union and the emergence of several

79. The composition of the U.N. Security Council is a case in point. For a discussion regarding the various issues surrounding power relations within the Security Council and potential for Security Council reform, see Olara A. Otunnu, *Conclusion: The Peace-and-Security Agenda of the United Nations: From a Crossroads into the New Century*, in PEACEMAKING AND PEACEKEEPING FOR THE NEW CENTURY 297, 311–16 (Olara A. Otunnu & Michael W. Doyle eds., 1998) and Kenneth Anderson, *United Nations Collective Security and the United States Security Guarantee in an Age of Rising Multipolarity: The Security Council as the Talking Shop of the Nations*, 10 CHI. J. INT'L L. 55, 84–86 (2009).

80. Nations continued their economic relations through international organizations and arrangements. For example the World Bank and the International Monetary Fund (IMF) facilitated economic ties between nations through aid and loans. The GATT 1947, the United Nations Conference on Trade and Development (UNCTAD), and the United Nations Industrial Development Organization (UNIDO) provided the framework for continuing trade. Jose E. Alvarez, *Contemporary Foreign Investment in Law: An "Empire of Law" or the "Law of Empire?"*, 60 ALA. L. REV. 943, 948 (2009).

81. Ferguson notes:

[T]he history of the integration of international commodity markets in the seventeenth and eighteenth centuries is inseparable from the process of imperial competition from Portugal, Spain, Holland, France, and Britain. The creation of global markets for spices, textiles, coffee, tea, and sugar were the work of monopoly companies like the Dutch and English East Indian companies, simultaneously engaged in a commercial and a naval contest for market shares.

FERGUSON, *supra* note 40, at 185.

82. During the early twentieth century, the British had established a constitutional monarchy in Iraq and acted as a protectorate of Arab nations through the League of Nations. The British negotiated contracts on behalf of their petroleum companies to gain access to explore and produce oil in exchange for tax payments. See YERGIN, *supra* note 46, at 200–02; see also PETER TERTZAKIAN, *A THOUSAND BARRELS A SECOND* 40–42 (2006).

83. The establishment of the Organization of Petroleum Exporting Countries (OPEC) spurred the change from private to government cartels. See JAMES MCGOVERN, *THE OIL GAME* 12–13 (1981).

84. Several Middle East nations imposed an oil embargo during the 1973 October War. See YERGIN, *supra* note 46, at 606–12.

85. FERGUSON, *supra* note 40, at 184–85 (arguing that international capital movements were tightly regulated after World War II).

new nations in 1992.⁸⁶ At that time, the cradle of modern international law, Europe, expanded into a more encompassing union grounded in several common objectives.⁸⁷ The economic transformation on the international scale mirrored the expansive liberalization undertaken by empires past, but was grounded in international law and the formal recognition of sovereign equality. Most notably, trade relations originally established through physical aggression were now reinforced and strengthened through international regulations and the provision of an international dispute resolution mechanism.⁸⁸ International trade liberalization facilitated the expansion of bilateral investment treaties (BITs) that have fostered the movement of capital and foreign direct investments (FDIs), in, from, and between former colonies and poorer nations.⁸⁹ Legal scholar, Jose Alvarez, characterizes this governance of capital by rules, international organizations, and private enforcement as an “empire of law.”⁹⁰

If indeed the empire of law is the new empire, it has defined its purpose narrowly from the outset—uniting nations for economic reasons. The current empire, like its European predecessors, appears to have its own civilizing argument that fails to embrace sovereign rights⁹¹—that economic liberalization and trade are preconditions for rights to take root.⁹² This empire, too, may lead to indirect integration of

86. *Id.*

87. *See, e.g.*, Hans Christian Krüger, *Reflections Concerning Accession of the European Communities to the European Convention on Human Rights*, 21 PENN ST. INT’L L. REV. 89, 89–90 (2002) (explaining the emergence of human rights provisions within the European Union); *see also* John F. Casalino, *Shaping Environmental Law and Policy of Central and Eastern Europe: The European Union’s Critical Role*, 14 TEMP. ENVTL. L. & TECH. J. 227, 247–50 (1995) (examining European Community environmental law and institutions and the manner in which Hungary, the Czech Republic, Poland, and Slovakia reshaped their laws to reflect EU environmental law).

88. The World Trade Organization was established in 1994 and became the international organization for conduct of trade. Marrakesh Agreement, *supra* note 38; *see* General Agreement on Tariffs and Trade 1994, *supra* note 38; Understanding on Rules and Procedure Governing the Settlement of Disputes, Annex 2 to Establishing the World Trade Organization (Marrakesh Agreement), April 15, 1994, 1867 U.N.T.S. 154, *available at* http://www.wto.org/english/tratop_e/dispu_e/dsu_e.htm; *see generally* DAVID N. PALMETER & PETROS C. MAVROIDIS, DISPUTE SETTLEMENT IN THE WORLD TRADE ORGANIZATION (2004) (discussing the structure of WTO dispute settlement and analyzing several panel and Appellate Body decisions).

89. *See* Alvarez, *supra* note 80, at 943.

90. *Id.* at 973.

91. *See, e.g.*, JOSEPH E. STIGLITZ, GLOBALIZATION AND ITS DISCONTENTS, at xv (2002) (“[W]e are a global community, and like all communities have to follow some rules so that we can live together. These rules must be—must be seen to be—fair and just, must pay due attention to the poor as well as the powerful, must reflect a basic sense of decency and social justice.”).

92. This argument is reflected in claims by noted economists that economic growth will deliver rights. *See, e.g.*, JAGDISH BHAGAWATI, IN DEFENSE OF GLOBALIZATION 10–11 (2003); *see also*

laws regarding human rights and the environment outside of formal, centralized international law.⁹³ However, above all, this empire places economic interests above the sovereign interest of any state, a preference which has led to nationalist resistance to trade and investment rules within trading nations.⁹⁴

In sum, empires have shaped the world and its legal systems, but only as incidental outgrowths of trade and material exchange and expansion. Thus, in the event of conflict between economic and other interests, economic interests are generally privileged. Climate change and related rights violations, as discussed below, are no exceptions to this pattern.

B. *Climate Change and International Law: Tethered to an Economic Unity*

This Section demonstrates that, in fact, primacy of economic interests governs climate change policies, evidenced by the history of climate action and by the structure of current treaty regimes. It shows that international legal regimes have failed to fully consider the legal implications of climate-change-related threats to the loss of sovereign rights discussed in Part I.

Scientific evidence showing that anthropogenic emissions of greenhouse gases raise global mean temperatures dates back to the early nineteenth century.⁹⁵ During the 1950s and 1960s, this research expanded, and computer models demonstrated the relationship between fossil fuel consumption,⁹⁶ increased atmospheric carbon dioxide

SACHS, *supra* note 54, at 35–39.

93. See *infra* Part IV.B.1 (discussing transnational networks).

94. See generally Joseph Nye, Jr., *Globalization's Democratic Deficit: How to Make International Institutions More Accountable*, 80 FOREIGN AFF., Jul.–Aug. 2001, at 2, 4 (noting the increasing resistance to globalization and trade both in poorer agriculturally-based states and in developed nations).

95. The study of Swedish Nobel Prize winner Svante Arrhenius is considered the most critical study on global warming during this period. William Kellogg quotes Arrhenius's conclusion: "[I]f the quantity of carbonic acid [carbon dioxide] increases in geometric progression, the augmentation of the temperature will increase nearly in arithmetic progression." William W. Kellogg, *Theory of Climate: Transition from Academic Challenge to Global Imperative*, in GREENHOUSE GLASNOST: THE CRISIS OF GLOBAL WARMING 93, 96–97 (Terrell J. Minger ed., 1990). Also important were studies that established the relationship between glacial periods and atmospheric temperatures, and between oceans and climate. *Id.* at 95–97.

96. In 1967, S. Manabe and R.T. Wetherald published the first research based on computer models that *confirmed* Arrhenius's prediction that a doubling of carbon dioxide concentration would result in an increase in average temperatures of about three degrees Celsius. *Id.* at 99–100 (citing S. Manabe & R. T. Wetherald, *Thermal Equilibrium of the Atmosphere with a Given Distribution of Relative Humidity*, 2 J. ATMOSPHERIC SCI. 241 (1967)). Others, notably Mikhail Budyko and

concentrations, and temperature rise.⁹⁷ Studies that could support appropriate policy decisions began to emerge in the 1970s, when several national research organizations developed climate models to explain the interaction between greenhouse gases and the climate, identifying variables that could alter predicted outcomes.⁹⁸ An array of scientific experts began collecting data and establishing expensive and complex computer models for different regions of the world.⁹⁹ All factors intricately connected to the climate—including soil, rain patterns, and temperature shifts—were included in the data.¹⁰⁰ Despite variations in data,¹⁰¹ the “scientific method” applied to data overwhelmingly pointed to a correlation between increased concentrations of carbon dioxide and the climate.¹⁰²

William Sellers, independently prepared climate models that demonstrated the effects of certain variables on the climate. *Id.* at 101. For example, Budyko demonstrated that even a slight reduction in heating from the sun could move the snow line to the equator. *Id.* Computers, however, did not reduce the time required for this complex research. Kellogg notes that modeling on a Cray supercomputer at National Center for Atmospheric Research (NCAR) took ten hours to integrate the NCAR model for one year. *Id.* at 99–101.

97. G.S. Callender in 1958 made several recordings of carbon dioxide concentrations in the atmosphere. *Id.* at 98. Similarly, other scientists including John Van Neumann, Roger Revelle, and Hans Suess argued that fossil fuels contributed to high carbon concentrations and that “human beings [were] carrying out a large-scale geo-physical experiment.” *Id.*

98. Kellogg in his work notes that the following organizations developed these models: NCAR, National Oceanographic and Atmospheric Administration’s Geophysical Fluid Dynamics Laboratory, NASA’s Goddard Institute for Space Science, Oregon State University, and the United Kingdom Meteorological Office. *Id.* at 102.

99. *Id.* at 103–08.

100. *Id.*

101. One variation resulted from a study by Thomas R. Karl and P.D. Jones that showed a 0.5 degree Celsius unexplained “real” warming for a period of 100 years up to the Second World War. Instead of attributing this to global warming, some scientists began to further study other factors that could influence the greenhouse gas concentration—including global consumption of fossil fuels due to population growth, rates of deforestation, and the impact of other more heat-absorbent greenhouse gases, such as methane and chlorofluoro carbons. See Stephen H. Schneider, *The Changing Climate: A Risky Planetwide Experiment*, in GREENHOUSE GLASNOST: THE CRISIS OF GLOBAL WARMING, *supra* note 95, at 117, 121.

102. In explaining why policy makers can rely on scientific predictions on climate change, Carl Sagan refers to the scientific method as follows:

[I]n the methods of science, there is an error-correcting procedure, a set of rules that have repeatedly worked well, sometimes called the scientific method. There are a number of tenets: arguments from authority carry little weight (“Because I said so” isn’t good enough); quantitative prediction is an extremely good way to sift useful ideas from nonsense; the methods of analysis must yield other results fully consistent with what else we know about the universe; vigorous debate is a healthy sign; the same conclusions have to be drawn independently by competing scientific groups for an idea to be taken seriously; and so on.

Carl Sagan, *Croesus and Cassandra: Policy Response to Global Warming*, in GREENHOUSE GLASNOST, THE CRISIS OF GLOBAL WARMING, *supra* note 95, at 8.

Towards the latter half of the twentieth century, scientists overwhelmingly concluded that climate change was the “*supertanker of environmental issues*.”¹⁰³ This conclusion was based on “circumstantial evidence”¹⁰⁴ that atmospheric greenhouse gases contributed to a thirty-two-degree differential in the average temperature of Earth.¹⁰⁵ One conclusion of climate-related research was that climate was a “product of complicated interactions involving the atmosphere, the oceans, the land surface, vegetation, and polar ice.”¹⁰⁶ Researchers generally agreed that of the identified greenhouse gases—methane, carbon dioxide, water vapor, nitrogen oxide, and chlorofluoro carbons—carbon dioxide emissions produced by consumption of energy from fossil fuels were most directly linked to climate change.¹⁰⁷ However, the research also cautioned that climate change would trigger feedback mechanisms, which would increase uncertainties and undermine efforts to make accurate predictions.¹⁰⁸

103. See Thomas G. Lambrix, *Global Climate Change: A Retrospective View from Business*, in GREENHOUSE GLASNOST, THE CRISIS OF GLOBAL WARMING, *supra* note 95, at 51 (emphasis added).

104. Schneider, *supra* note 101, at 119 (noting that 3.5–4 billion years ago, the concentration of carbon dioxide in the Earth’s atmosphere was 1000 times greater and compensated for the nearly thirty percent less intensity of a young sun and that higher temperatures during the Mesozoic era can only be explained by carbon dioxide concentrations).

105. George S. Golitsyn, *The Climate and Economic Priorities*, in GREENHOUSE GLASNOST, THE CRISIS OF GLOBAL WARMING, *supra* note 95, at 37.

106. Schneider, *supra* note 101, at 123.

107. Kellogg, *supra* note 95, at 98.

108. Positive feedback mechanisms could hasten climate change. The following are two examples of positive feedback:

The temperature increases a little bit because of the increasing greenhouse effect and some polar ice melts. . . . [T]he Earth is now a little darker; because the Earth is darker, it now absorbs more sunlight; it heats up more, it melts more polar ice, and so on A little more CO₂ in the air heats the surface of the Earth, including the oceans, a little bit. The now warmer oceans vaporize a little more water vapor into the atmosphere. Water vapor is also a greenhouse gas, so it holds in more heat and the temperature goes higher—a positive feedback, the dangerous kind.

Sagan, *supra* note 102, at 17. Negative feedback mechanisms, on the other hand, would neutralize or delay global warming. The following are examples of negative feedback:

Heat up the Earth a little by putting a little more CO₂, say, into the atmosphere. . . . [T]his injects more water vapor into the atmosphere, but this generates more clouds. Clouds are bright, they reflect more sunlight into space, and therefore less sunlight is available to heat the Earth. The increase in temperature produces a decrease in temperature. Or put a little more carbon dioxide into the atmosphere. Plants generally like more carbon dioxide, so they grow faster, and in growing faster they take more carbon dioxide from the air—which in turn reduces the greenhouse effect.

Id.

In light of the uncertainties, serious international efforts emerged around 1988,¹⁰⁹ a period when the United States faced severe climate catastrophes, and spurred the adoption of energy efficiency policies.¹¹⁰ However, it became evident early on that policy makers in developed nations would not compromise their economic interests when major economies—the United States, the former Soviet Union, the United Kingdom, and Japan—rejected a proposal to cap emissions to 1988 levels by 2005.¹¹¹ Businesses also opposed the proposal, arguing that efforts to combat climate change presented economic concerns that warranted careful consideration before taking regulatory measures.¹¹² Indeed, economic interest has become central to the climate change debate even for developing nations. For instance, India, whose people's rights may be impaired by climate change, is more focused on claiming its right to develop¹¹³ than on pursuing international solutions to prevent catastrophic harm to its citizens.¹¹⁴

109. Major emitters of carbon dioxide during that period—the United States and U.S.S.R., along with the United Kingdom, Japan, and a few Western European countries—started a concerted international dialogue about global warming. In December 1987, General Secretary Mikhail Gorbachev and U.S. President Ronald Reagan reportedly signed a joint declaration during the former's visit to Washington D.C. identifying climate change as an important challenge facing humankind. Golitsyn, *supra* note 105, at 41.

110. Claudine Schneider, *Changing Climates, Changing Habits: Energy Efficiency and the Global Warming Prevention Act*, in GREENHOUSE GLASNOST: THE CRISIS OF GLOBAL WARMING, *supra* note 95, at 65–67.

111. This took place at the Ministerial Conference on Atmospheric Pollution and Climate Change in 1989 in the Netherlands. The conference was attended by delegations from seventy nations. Kellogg, *supra* note 95, at 110–11.

112. As the chairman of the Global Climate Coalition, a business association on climate change, noted: “By necessity business will look at responses to global climate change from the perspective of economic reality.” Lambrix, *supra* note 103, at 61. Lambrix also commended President George H.W. Bush's free market approach and noted that the coalition would undertake a study to “advance an understanding of economic ramifications to be considered by our policy makers.” *Id.* at 60. Incidentally through a lawsuit, the Global Climate Coalition, which disbanded, has recently come under scrutiny for ignoring its scientists' advice on the scientific evidence of climate change and instead causing confusion about the reality of climate change. See Andrew C. Revkin, *On Climate Issue, Industry Ignored Its Scientists*, N.Y. TIMES, Apr. 24, 2009, at A1.

113. Developing countries have traditionally claimed a right to develop, a right that has proven hard to reconcile with environmental protection objectives. See, e.g., Ranee Khooshie Lal Panjabi, *From Stockholm to Rio: A Comparison of the Declaratory Principles of International Environmental Law*, 21 DENV. J. INT'L L. & POL'Y 215, 237–43 (discussing efforts to reconcile the rights to development with environmental sustainability through international environmental declarations).

114. In a recent visit by U.S. Secretary of State Hillary Clinton, the Indian government reiterated its stance on reducing emissions. See Glenn Kessler, *Clinton, Indian Minister Clash Over Emissions Reduction Pact*, WASH. POST, July 20, 2009, at A11.

The treaty response to climate change also mirrors the primacy of economics in international law above rights of people and state sovereignty. For instance, while the Preamble to the UNFCCC reaffirms the sovereign rights of states in international cooperation,¹¹⁵ the treaty is devoid of language articulating the relationship between climate-change-related catastrophes and the threat they pose to certain states' sovereign rights to protect their citizens. The UNFCCC only acknowledges that low-lying regions are vulnerable to sea-level rises and requires that Parties take into account the special needs of these countries.¹¹⁶ However, the treaty explicitly states that parties have the right to develop,¹¹⁷ that climate policy should be incorporated into national development programs; that "economic development is *essential* for adopting measures to address climate change;"¹¹⁸ and that, therefore, parties "should cooperate to promote a supportive and open international economic system,"¹¹⁹ as well as abstain from taking unilateral measures that would constitute "a disguised restriction on international trade."¹²⁰

Like the UNFCCC, the Kyoto Protocol's implementing treaty is also silent about climate-change-related threats to state sovereignty. In fact, it implicitly recognizes the right of nations to emit greenhouse gases; it also monetizes carbon, which is now traded in the commodities market by certain Parties to the Protocol.¹²¹ The Protocol establishes schemes that at once promote investment in alternative energy and investment in projects that neutralize carbon emissions.¹²² Absent, however, are satisfactory adaptation and compensation mechanisms for potential victims of sea-level rise¹²³ or adjudicative processes for ensuring

115. UNFCCC Preamble, *supra* note 25.

116. The UNFCCC Preamble and Article 8 refer to issues of funding, insurance, and technology transfer. *Id.*

117. *Id.* art. 3, § 4.

118. *Id.* (emphasis added).

119. *Id.* art. 3, § 5.

120. *Id.*

121. Kyoto Protocol, *supra* note 26.

122. The Clean Development Mechanism (CDM) is an example of such a scheme. *Id.*; see also Charlotte Streck & Jolene Lin, *Making Markets Work: A Review of CDM Performance and the Need for Reform*, 19 EUR. J. INT'L L. 409, 413–14 (2008) (explaining the context and reasons for establishing CDM). For a detailed analysis on CDM and its structure, see Michael Wara, *Measuring the Clean Development Mechanism's Performance and Potential*, 55 UCLA L. REV. 1759, 1762–65 (2009).

123. The absence of sufficient adaptation measures is evident in the type of adaptation documents that are in place. See U.N. Framework Convention on Climate Change, Ad Hoc Working Group on the Long-Term Cooperative Action Under the Convention, *Non-paper No. 53: Contact Group on Enhanced Action on Adaptation and Its Means of Implementation* (June 11, 2009),

emissions reduction.¹²⁴ Thus, the international legal response necessarily reflects the primacy of economic and material interests, rather than the primacy of legal rights of states or peoples that are threatened by climate change.

Further, refusal by countries such as the United States to sign the Protocol was likely motivated by the absence of sufficient safeguards for their economic interests vis-à-vis China—a move catalyzed by business interests.¹²⁵ Academic response to the United States rejection of the Kyoto Protocol has also centered on establishing the relationship between climate change and economic interests.¹²⁶ Breaking the stalemate between the two largest emitters, the United States and China, has required a fine balancing of economic interests,¹²⁷ while claims of rights violations are only somewhat persuasive. Even India, whose emissions are comparatively much lower and whose population is at higher risk of loss to life and property continues to emphasize its emissions rights, which are apparently a corollary to its economic development goals.¹²⁸

http://unfccc.int/files/meetings/ad_hoc_working_groups/lca/application/pdf/awglcaadaptnp53061109.pdf. Also of interest are several adaptation proposals which are not legally binding. See United Nations Framework Convention on Climate Change, Adaptation, <http://unfccc.int/adaptation/items/4159.php> (last visited Mar. 19, 2010) (listing several proposals).

124. No remedial action has been taken against countries whose compliance efforts have fallen short of accepted normative goals, at least in Greece and Canada. See United Nations Framework Convention on Climate Change, Informal Information Note by the Secretariat, http://unfccc.int/files/kyoto_protocol/compliance/application/pdf/informal_info_note_by_the_sec_on_the_compliance_procedure_with_respect_to_greece-rev-2.pdf (note on Greece's compliance); United Nations Framework Convention on Climate Change, Informal Information Note by the Secretariat, http://unfccc.int/files/kyoto_protocol/compliance/application/pdf/informal_information_note_by_the_secretariat_on_the_comp_proc_wrt_canada.pdf (note on Canada's compliance). In any event, monitoring compliance with a climate accord may be an arduous, if not impossible, task. See Susan Subak, *Verifying Compliance with an Unmonitorable Climate Convention*, 9 INT'L ENVTL. AFF. 148 (1997).

125. Letter from Robert N. Burt, Environmental Task Force Chairman, Business Round Table, to President William J. Clinton (May 12, 1998) (on file with author); Letter from John J. Castellini, President, Business Round Table, to Senator Chuck Hagel, Chairman, Senate Foreign Relations Committee (June 21, 2005), available at http://businessroundtable.org/sites/default/files/congressional_communications/energy_security/20050621002Hagel62105A.pdf.

126. See *supra* Part II.B.

127. Despite earlier meetings between the United States and China, the meeting at Copenhagen avoided potential failure only when China, India, and Brazil agreed to make basic commitments that would be negotiated at the parties' next conference. See Bodansky, *supra* note 2, at 9 (noting that the states meeting at Copenhagen achieved a breakthrough in political negotiations).

128. See Deepa Badrinarayana, *The Emerging Constitutional Challenge of Climate Change: India in Perspective*, 19 FORDHAM ENVTL. L. REV. 1, 9–15, 18 (2009).

In sum, international law has a place in addressing climate change only insofar as it does not threaten the economic unity of nations. International law as a system of rights and responsibilities between sovereign states and their peoples occupies a secondary position now, as it did during the period of international trade and economic relations in the late nineteenth and early twentieth centuries. Thus, climate change presents similar challenges to international law as the rise of empires presented to the sovereign equality of states in the 1880s and early 1900s. These challenges could be mitigated by establishing a legal union that would provide basic redress mechanisms against rights violations.

III. A LEGAL UNION OF SOVEREIGN STATES: AN IMPROBABLE SOLUTION?

Sovereignty, as explained in Part I, provides states the ability to manage their domestic affairs and safeguard the rights of their people. Even states in the United States, for example, retain certain sovereign rights within the federal structure over some state affairs. They also have the sovereign responsibility to safeguard the rights of their citizens. However, unlike in the international climate context, the United States legal system enables states to seek redress against threats to their sovereignty,¹²⁹ as evidenced in the U.S. Supreme Court's decision in *Massachusetts v. EPA*.¹³⁰

The U.S. experience with climate change in some respects resembles the international situation, i.e., there is a lack of consensus on action, and to some extent, disparate climate change effects in different regions.¹³¹ Thus, when the federal Environmental Protection Agency (EPA) initially opposed national regulation of greenhouse gas emissions, only a few states supported EPA's position, while others favored climate action. The resulting tension between the positions of some states and the federal government escalated into a lawsuit that eventually came before the Supreme Court in *Massachusetts v. EPA*. Of several questions

129. It should be noted that this evaluation of the U.S. sovereign system is limited to the climate change context and not the broader sovereign arrangements between the federal and state governments.

130. 549 U.S. 497 (2007).

131. See Thomas D. Peterson et al., *Developing a Comprehensive Approach to Climate Change Policy in the United States That Fully Integrates Levels of Government and Economic Sectors*, 26 VA. ENVTL. L. REV. 227 (2008) (noting that multiple government and state-level climate initiatives necessitates a single federal measure, preferably under the Clean Air Act). For an overview of different U.S. federal and state-level climate initiatives, see Pew Center for Global Climate Change, U.S. States & Regions, <http://www.pewclimate.org/states-regions> (last visited Mar. 19, 2010).

addressed by the Supreme Court, the threshold issue was whether a state had standing to sue the EPA for failing to implement federal regulations to control climate change.¹³²

The Court held that Massachusetts had standing to bring the action because it had shown a particularized injury, causation, and redressability.¹³³ The Supreme Court opined that Massachusetts suffered injury because of rise in global sea levels that would affect Massachusetts as a landowner through the loss of coastal property and cost it billions of dollars in remediation.¹³⁴ The Court rejected the EPA's argument that carbon emissions outside the United States made it impossible to prove a strong causal relationship between a failure to regulate carbon emissions within the United States and climate-change-related rise in sea levels in Massachusetts.¹³⁵ Similarly, the Court found that measures taken by the EPA would incrementally remedy climate change.¹³⁶ In effect, the Supreme Court made a determination based on the applicable rule of law and the legal rights of the state of Massachusetts, rather than considering whether climate action would be in the economic interest of the federal government.

The Supreme Court specifically emphasized the "special position and interest of Massachusetts"¹³⁷ as a "sovereign state."¹³⁸ Citing *Georgia v. Tennessee Copper Co.*,¹³⁹ the Court noted that a state has "an interest independent of and behind the titles of its citizens, in all the earth and air within its domain. It has the last word as to whether its mountains shall be stripped of their forests and its inhabitants shall breathe pure air."¹⁴⁰ The Court then held that since Massachusetts owned "a great deal of the 'territory alleged to be affected,' . . . its stake in the outcome of [the] case [was] sufficiently concrete to warrant the exercise of federal judicial power."¹⁴¹

More importantly, the Court found that although Massachusetts had transferred its sovereign treaty-making prerogatives to the federal

132. *Massachusetts*, 549 U.S. at 516–27.

133. *Id.* at 521–26.

134. *Id.* at 522–23.

135. *Id.* at 523–24.

136. *Id.* at 525–26.

137. *Id.* at 518.

138. *Id.*

139. 206 U.S. 230 (1907).

140. *Massachusetts*, 549 U.S. at 518–19 (quoting *Tennessee Copper Co.*, 206 U.S. at 237).

141. *Id.* at 519.

government,¹⁴² the state, as a quasi-sovereign, could nevertheless pursue judicial relief. The “EPA’s steadfast refusal to regulate greenhouse gas emissions present[ed] a risk of harm to Massachusetts that [was] both ‘actual’ and ‘imminent,’ and there was a ‘substantial likelihood that the judicial relief requested’ [would] prompt EPA to take steps to reduce that risk.”¹⁴³

Indeed, not only did the Court uphold the notion of injury to quasi-sovereign rights, but it also held that the federal executive agency, the EPA, was required under the Clean Air Act to decide whether climate change presented a threat to public health.¹⁴⁴ In effect, the Court checked the power of an agency within the executive branch of the federal government, the supreme sovereign. Yet, at the international level, there is no agency vested with the power to regulate behavior potentially detrimental to human health, let alone one subject to judicial inquiry for failing to perform its non-discretionary functions.

In sum, the Supreme Court decision is in stark contrast to the international situation in several respects and demonstrates the potential power of legal redress mechanisms. First, in this case, sovereign authority and tensions between different sovereigns were subject to legal authority. The imposition of power by one sovereign over, and to the detriment of, another is therefore subject to checks. Indeed, to the extent that the Court ordered the EPA to make an endangerment finding, it checked the power of a federal executive agency, whose inaction—according to Massachusetts—affected Massachusetts’s sovereign rights.¹⁴⁵ A similar mechanism for safeguarding sovereign interests and placing a check on the exercise of de facto state power is absent at the international level. Sovereignty at the international level essentially translates only into the power to refuse to accept legal obligations. Second, the territorial interest of Massachusetts as a quasi-sovereign state received formal legal recognition. There is no formal recognition of the territorial interests at the international level to protect threatened states;¹⁴⁶ the international system hinges on voluntary state consent to

142. *See id.*

143. *Id.* at 521 (citations omitted).

144. *Id.* at 534–35.

145. *Id.* Following the Supreme Court decision, the EPA published an endangerment finding and proposed regulations that could serve as the basis for regulating carbon dioxide under the Clean Air Act in almost all sectors. For a detailed analysis of the EPA’s proposal and their implications for greenhouse gas emissions regulations in the United States, see Patricia McCubbin, *EPA’s Endangerment Finding for Greenhouse Gases and the Potential Duty to Adopt National Ambient Air Quality Standards to Address Global Climate Change*, 33 S. ILL. U. L.J. 437 (2009).

146. *See* OPPENHEIM’S INTERNATIONAL LAW, *supra* note 8, at 125–26.

take action to control climate change. Finally, the Court formally recognized Massachusetts's legal standing to compel the federal EPA to take action to mitigate the danger to Massachusetts's rights. Massachusetts had the right to sue despite the fact that it had transferred some of its sovereign prerogatives to the federal government. The logic of the Supreme Court would clearly apply to states such as Bangladesh, Maldives, and Tuvalu, if an analogous court existed at the international level to examine the implications of climate change on the territories of these states.

One possible reason for the differences between the United States and the international legal system is that the former is not only an economic union, but also a union bound by a common set of rights enshrined in the Constitution—a legal union—with guarantees against rights violations and checks on the exercise of power.¹⁴⁷ A comparable legal union does not exist at the international level. Although the United Nations Charter articulates common aspirations, it does not carry the binding force of a legal, constitutional document.¹⁴⁸ Most importantly, the U.N. Charter does not provide for the level of supranational scrutiny against threats to territorial sovereignty that the U.S. Constitution provides.¹⁴⁹

A natural conclusion from the above analysis is that meaningful exercise and preservation of territorial sovereignty requires a legal union, preferably under a constitutional document that explicitly articulates and provides safeguards against violations of rights within a sovereign territory and places checks on the exercise of power. This idea, however, is not novel.¹⁵⁰ Indeed, the continuing absence of a successful international constitutional project compels the unfortunate conclusion that perhaps it is impossible to form the requisite community for such an endeavor—that is, a community that feels united by a common set of rights and checks on power.

147. See generally FRANK P. GRAD, *STATE CONSTITUTIONAL LAW* (2006) (providing a detailed analysis of the relationship between federal and state constitutions and the powers retained by states).

148. For example, the U.N. Charter calls for universal respect for human rights, but does not provide any specific enforcement mechanism. U.N. Charter art. 55, para. 1.

149. The U.N. Charter recognizes the International Court of Justice as its principal judicial organ. U.N. Charter art. 92. But no member state can be forced to accept the court's jurisdiction. See *supra* note 23 and accompanying text.

150. See Richard A. Falk, *The Pathways of Global Constitutionalism*, in *THE CONSTITUTIONAL FOUNDATIONS OF WORLD PEACE* 13 (Richard Falk et al. eds., 1993); see also Richard Falk & Andrew Strauss, *Toward Global Parliament*, 80 *FOREIGN AFF.*, Jan.–Feb. 2001, at 212 (presenting a case for establishing an assembly that would move forward a constitution project and that would eventually ensure global democratic legitimacy).

IV. CLIMATE CHANGE: THE UNMITIGATED CHALLENGE TO INTERNATIONAL LAW

A. *Climate Change Demands a Different Approach*

Climate change evokes complex legal problems both nationally and internationally. This Article has identified that climate change presents a risk of loss of sovereign control over domestic affairs, including the ability to protect citizens' lives and property. The threat to state sovereignty of a few states is in effect a threat to the foundational principle of international law: sovereign equality of states. As demonstrated in Part II, the international legal remedy against threats to violations of sovereign rights is tepid; countries are effectively precluded from pursuing action under general international law or under climate treaties to claim sovereign equality and seek protection against threats to their right to control domestic affairs.

International law is fundamentally limited by the absence of mechanisms to safeguard its foundational principle—sovereignty. While states enjoy the negative right to abstain from participation, they do not have legal protection against possible infringement of their sovereign rights and authority. As the reasoning in *Massachusetts v. EPA* indicates, sovereignty not only gives states or their agents the right to refuse to take legal action, but it also empowers states to seek redress when the exercise of a sovereign right by one endangers the sovereignty of another. Thus, the problem at the international level is the absence of a cohesive legal system that provides remedies against threats to sovereignty.

However, a cohesive legal system requires a union or community that is united under a system of rights, and the international community is not such a union, the United Nations Charter notwithstanding. Rather, the international community has historically been united by economic and trade interests. The history of international law is replete with records of failed international efforts to give primacy to legal rights over powerful trade and economic interests, and of empires, including the current empire of law, that have used international law as an apology for state power.¹⁵¹ The case of climate change is no different. Both the UNFCCC and the Kyoto Protocol clearly acknowledge the primacy of economic and trade interests while largely ignoring a key issue fundamental to any constitutional legal system—protection for legal rights and sovereignty.

151. *Alvarez, supra* note 80, at 952.

The challenge is whether the economic unity can be perfected into a true and meaningful legal or constitutional union. Indeed, calls have been made to establish an international constitutional order,¹⁵² or even a global parliament,¹⁵³ and to rectify fragmentation of international law.¹⁵⁴ However, such an effort essentially requires states to take a step beyond nationalism. In the climate context, a first step beyond nationalism would translate into the need for recognizing that emissions are not country specific, but are instead specific to the activities of people all over the world. It would also mean that climate action cannot be bounded by national self-interest, but should stem from a fundamental commitment to the promise of law and protection of rights promised there under. Finally, a decisive leap would require a disaggregation of power from state leaders to supranational institutions. It appears inconceivable at present that any nation of the world would take such a leap.

Therefore, a less ambitious alternative should be considered, one that the civilizers did not achieve: the incremental and unplanned integration of legal rights and norms. From the Roman Empire to the Muslim Empire to the British Empire, integration of norms into the legal system occurred by the gradual granting of rights and the introduction of positive law. In the climate context, incremental rights through adaptation measures, including migration rights, may signify a move towards such integration. However, there is no historic evidence that any empire has ever achieved full integration of the world based on the foundation of law. After all, when the policies of the empire benefited the periphery over the metropolis, the empire disintegrated. The metropolis in an empire of law, the traditional beneficiary of a legal system, could well intervene to protect its interests and lead to the disintegration of the empire by reducing flow of goods and services to and from the periphery. When an empire disintegrates because of such intervention, an incomplete legal union ends without recompense for loss of rights.

152. Falk, *supra* note 150, at 219–20; *see also* Jan Klabbers, *Setting the Scene, in THE CONSTITUTIONALIZATION OF INTERNATIONAL LAW* 31 (Jan Klabbers et al. eds., 2009) (noting that federalism could serve as a model for power sharing as parts of efforts to provide a constitutional structure for international law).

153. *See generally* Falk & Strauss, *supra* note 150.

154. *See* Int'l Law Comm'n, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, U.N. Doc. A/CN.4/L.682, Apr. 13, 2006, available at http://untreaty.un.org/ilc/texts/instruments/english/draft%20articles/1_9_2006.pdf (finalized by Martti Koskenniemi) [hereinafter Int'l Law Comm'n].

One could, nevertheless, maintain hope that integration of legal rights and norms is possible because climate change is unlike any other problem. Climate threats pervade boundaries, cultural differences, and religious differences, among other interests. Therefore, climate change has the potential of moving the international community away from a history of failed efforts to establish an international community governed by law. However, for that to happen, scholars, law-makers and policy-makers must acknowledge the constraints of the traditional approaches to analyzing international issues and use different approaches to spur international climate action.

B. Law- and Policy-Makers Should Focus on Normative Solutions and Consequences for Noncompliance

States threatened by climate change present an urgent need for rethinking international law. While it is uncertain whether states will take a constitutional approach, without new ways of thinking about the role of international law in addressing climate change, the rights of millions of people may be lost. Rethinking international law first requires recognizing the limits of current approaches. This Section briefly considers some of those approaches to demonstrate that attention should shift away from descriptive analyses and toward the normative core of international law. It also presents several approaches states might consider in addressing climate change and its consequences in a normatively acceptable manner.

1. Re-thinking International Law

A prevalent view of international law among noted international law scholars is that international law remains relevant in governing state relations because states obey international rules¹⁵⁵— either because states view rules as having legitimacy¹⁵⁶ or because they think following

155. See LOUIS HENKIN, *HOW NATIONS BEHAVE: LAW AND FOREIGN POLICY* 47 (2d ed. 1979) (“[A]lmost all nations observe almost all principles of international law and almost all of their obligations almost all of the time.”).

156. Thomas M. Franck, *Legitimacy in the International System*, 82 AM. J. INT’L L. 705, 712 (1988) (arguing that legitimate rules “appear to exert a strong pull on states to comply with their commands”). Franck posits four attributes of legitimate international rules—determinacy, coherence, normative hierarchy, and symbolic validation—which can arguably be applied to the rule of sovereign rights of states. *Id.* at 712. Franck discusses determinacy, which refers to textual determinacy, meaning that “those addressed will know precisely what is expected of them, which is a necessary first step towards compliance.” *Id.* at 713–14. Additionally, Franck discusses coherence, which requires:

them helps their reputation.¹⁵⁷ This is not the case with climate change, however, because controlling states disregard threats to the sovereign rights of affected states to the extent that controlling states' decisions focus on preserving their own economic interests instead of addressing threats to sovereign equality.¹⁵⁸ Indeed, to the extent that states cannot be subjected to the jurisdiction of any superior legal authority, the fact that states frequently do obey international rules is no consolation to those states facing a loss of rights over their territory and property.

Legitimacy fails as a predictor of compliance with international law in the context of climate change, and controlling states appear impervious to the reputational costs associated with their apparent disregard for the loss of sovereign rights of affected states. First, unless states are willing to admit that sovereign rights lack legitimacy, controlling states have not demonstrated their sufficient willingness to comply with their obligations to respect the sovereign rights of other states.¹⁵⁹ Second, the political stance of some controlling states indicates that they are not concerned that their reputations will suffer because they fail to protect

[R]ules to be applied so as to preclude capricious checker boarding. They preclude caprice when they are applied consistently or, if inconsistently applied, when they make distinctions based on underlying general principles that connect with an ascertainable purpose of the rules and with similar distinctions made throughout the rule system."

Id. at 756. Franck maintains that rules become incoherent "when they are applied to some but not to others equally entitled, or when the standards cease to be connected to principles of general applicability." *Id.* In discussing normative hierarchy, he notes:

Notably, states never claim [that a rule or treaty only indicates a State's temporary state of mind]. They act, instead, as if they were bound. They believe themselves to be bound—which can only be understood as evidence of their acquiescence in something demonstrable only circumstantially: an ultimate rule of recognition. In the international community "sovereignty"—however fragile—resides in the rule, and not in the individual states of the community. States seem to be aware of this rule's autochthony. They act in professed compliance with, and reliance on, the notion that when a state signs and ratifies an accord with one or more other states, then it has an obligation, superior to its sovereign will. The obligation derives not from consent to the treaty, or its text, but from membership in a community that endows the parties to the agreement with status, including the capacity to enter into treaties.

Id. at 756. According to Franck, "the symbolic validation of a rule, or of a rule-making process or institution, occurs when a signal is used as a cue to elicit compliance with a command." *Id.* at 725. Franck notes: "[o]ne of the newest examples of symbolic international legitimacy is the creation of supranational agencies." *Id.* at 730.

157. Both Guzman and Simmons argue that reputation costs may motivate compliance in the absence of enforcement or compliance mechanisms. Andrew T. Guzman, *A Compliance-Based Theory of International Law*, 90 CAL. L. REV. 1823, 1827 (2002); Beth A. Simmons, *The Legalization of International Monetary Affairs*, 54 INT'L ORG. 573, 574 (2000).

158. See, e.g., Sunstein, *supra* note 29, at 1688–89 (noting that although a global climate agreement would be in the interest of the world, China and the United States have resisted action because it would not be in their economic self-interest).

159. As Sunstein points out, states are concerned with their self-interest rather than in the fact that millions of people in other nations will suffer the consequences of climate change. *Id.* at 1682–85.

the sovereign rights of affected states. For example, core nations like the United States appear unaffected by the reputation cost of not signing the Kyoto Protocol, even though without its participation, international efforts to reduce emissions—and consequently—alleviate the threat to sovereign rights of Tuvalu and Maldives will prove ineffective.¹⁶⁰ Thus, it cannot be assumed that states will comply with international rules because they are recognized as legitimate or if doing so will help a state's reputation.

As such, compliance is an inadequate tool for assessing the relevance of international law to climate change.¹⁶¹ Therefore, law and policy makers must turn to the consequences of non-compliance as a parameter for measuring the relevance of international law. In other words, in the context of climate change, the relevance of international law turns on remedies for violations of basic norms such as sovereign rights.

The question of loss of sovereign rights associated with climate change also warrants a shift away from a second common focus of international legal analysis—the theory of transnational networks. During the past decade of globalization, prominent international legal scholars have argued that sovereignty, which generally impedes deeper international cooperation by allowing states to reject treaties, was disaggregating.¹⁶² Proponents of transnational network theories argued that international law emerged from the constant, decentralized vertical and horizontal interaction between state and non-state actors across the

160. Sunstein notes that “[a] partial agreement, even one that includes all of the nations of Europe, will make only an exceedingly modest dent in anticipated warming.” *Id.* at 1676. Thus, compliance becomes an inadequate tool to measure the utility of international law, because one cannot really measure whether sufficient reductions were achieved so as to reduce overall emissions.

161. Some general criticisms of compliance are illustrative. One scholar notes: “[E]ven if we knew how far state behavior conformed to international norms, we would not necessarily have an account of the causal relations of law and behavior.” Benedict Kingsbury, *The Concept of Compliance as a Function of Competing Conceptions of International Law*, 19 MICH. J. INT’L L. 345, 348 (1998). Another criticism notes: “A successful theory of international law must show why states comply with international law rather than assuming that they have a preference for doing so.” JACK L. GOLDSMITH & ERIC A. POSNER, *THE LIMITS OF INTERNATIONAL LAW* 9–10 (2005). Goldsmith and Posner also note that compliance theories do not explain when and why states comply and “provide no basis for understanding variations in, and violation of, international law,” but simply assume that states prefer to comply with international law without showing why. *Id.* at 10. More importantly, they note that compliance depends on individual citizens and political leaders, who may be unwilling to sacrifice other goods such as wealth or security in the interest of compliance. *Id.* at 9. *But see* Andrew T. Guzman, *Reputation and International Law*, 34 GA. J. INT’L & COMP. L. 379 (2006) (arguing that reputation can provide an explanation about compliance and its effect on state behavior).

162. *See generally* ANNE-MARIE SLAUGHTER, *A NEW WORLD ORDER* (2004).

world.¹⁶³ Thus, according to this view, international law does not emerge from negotiations between sovereign states, but from diffused interaction among a range of global actors.

According to the transnational view of international law, institutional networks of “individuals—regulators, legislators, and judges could implement decisions on the ground rather than relying on the state,”¹⁶⁴ and effectively lead to the disaggregation of state sovereignty through institutional networks. Scholars have expanded on these theories to argue not only that private and public network participants shape international law,¹⁶⁵ but that they also increase its legitimacy and state obedience to it¹⁶⁶ and transform international rules into an “internal value” set.¹⁶⁷

The threats faced by states such as Tuvalu and Maldives, however, beg a different conclusion than that provided by transnational theorists. Transnational networks have failed to shape appropriate rules to address

163. *Id.* at 15–16 (describing the phenomenon of increased transgovernmental networks as “a disaggregated world order . . . latticed by countless government networks . . . for collecting and sharing information of all kinds, for policy coordination, for enforcement cooperation, for technical assistance and training, perhaps ultimately for rule making. They would be bilateral, plurilateral, regional, and global”). For instance, Raustiala argues that disaggregated interaction through public participation can strengthen, rather than weaken, states sovereignty because the procedural guarantees provided catalyze hard laws, which reinforce state power. See Kal Raustiala, *The “Participatory Revolution” in International Environmental Law*, 21 HARV. ENVTL. L. REV. 537, 541 (1997); see also Robert Keohane & Joseph Nye, *Transgovernmental Relations and International Organizations*, 27 WORLD POL. 39 (1974).

164. SLAUGHTER, *supra* note 162, at 15–16.

165. See MARGARET E. KECK & KATHRYN SIKKINK, *ACTIVISTS BEYOND BORDERS* 8–10 fig.1 (1998) (discussing a framework for understanding how non-governmental organization (NGO) activists can pressure states through other states and international organizations, what the authors refer to as Boomerang Pattern); Janet Koven Levit, *Bottom-up Law-Making: The Private Origins of Transnational Law*, 15 IND. J. GLOBAL LEGAL STUD. 49 (2008) (discussing the role of the International Chamber of Commerce in the international rule-making process).

166. Raustiala, *supra* note 163, at 541 (arguing that the increased public participation of “relevant stakeholders” in environmental decision-making “legitimizes the joint and coordinated arrogation of new state powers through the creation of new public international law.”). Levit argues that private sector actors under the Berne Union are instrumental in transnational law-making related to export credit and insurance. Levit, *supra* note 165, at 67, 72. In response to concerns about the legitimacy of these private “clubs,” she counters that the constant interaction between different organizations and actors may automatically increase transparency and instill democracy in the process. *Id.* at 70 (arguing that concerns regarding the legitimacy of such normative processes could be enhanced if institutions interacted with official law makers).

167. See Harold Hongju Koh, *Bringing International Law Home*, 35 HOUS. L. REV. 623, 644 (1998); Harold Hongju Koh, *Transnational Legal Process*, 75 NEB. L. REV. 181, 183–84 (1996) (arguing that external norms of conduct emerge from interactions among transnational actors who then internalize the norms).

threatened states' loss of sovereign rights,¹⁶⁸ let alone rules that have become part of the internal value set of core nations.¹⁶⁹ For example, some private networks' preference for voluntary emissions reduction has impeded the development of international rules¹⁷⁰ that could have accelerated mitigation efforts and alleviated the threats faced by states such as Tuvalu and Maldives.

Another shortcoming of transnational network theory is state consent, which remains, and is likely to remain, central to international climate change treaties. Both the UNFCCC and the Kyoto Protocol are state-driven efforts and compliance depends on state regulation. Additionally, the exclusion of some non-governmental groups from the climate change conference in Copenhagen in December 2009¹⁷¹ demonstrates the centrality of states in negotiating and determining the scope of international rules.¹⁷²

The notion that state consent is not central to international law-making may be attractive for several reasons, especially when states refuse to act on issues such as climate change. However, in the specific context of threatened states, the question of sovereignty is extremely

168. See, e.g., Lars H. Gulbrandsen & Steinar Andresen, *NGO Influence in the Implementation of the Kyoto Protocol: Compliance, Flexibility Mechanisms, and Sinks*, 4 GLOBAL ENVTL. POL. 54, 60 tbl.2 (2004) (demonstrating the participation of NGOs in the climate change context and arguing that intervention was particularly low in the case of legally-binding response to non-compliance).

169. See Sunstein, *supra* note 34, at 530–31, 546 (arguing that Americans' cognition of climate change shapes their response to climate action and that presently Americans reject regulation because of their self-interested view that climate change action will benefit foreign nations).

170. Businesses have participated in voluntary emissions reduction projects established by the EPA as part of a climate leaders program. See Press Release, U.S. Environmental Protection Agency, *Leading Corporations Cutting Greenhouse Gases* (Dec. 4, 2007), available at <http://yosemite.epa.gov/opa/admpress.nsf/7c02ca8c86062a0f85257018004118a6/55fa73a406b24ef1852573a700581017!OpenDocument>. Business organizations, such as the Business Roundtable, have been influential in preventing the United States's participation in the Kyoto Protocol. For instance, during the Kyoto Protocol negotiations, the Business Roundtable wrote a letter to President Bill Clinton and Senator Chuck Hagel, highlighting the devastating impact that U.S. involvement in the Kyoto Protocol would have on business competition. See *supra* note 125 (citing letters).

The Byrd-Hagel Resolution passed thereafter by the U.S. Senate unanimously, 95–0, expressly advised the Clinton Administration not to accept binding obligations under the Kyoto Protocol unless developing countries did so as well. Byrd-Hagel Resolution, S. Res. 98, 105th Cong., 143 CONG. REC. 15,782 (1997); see The Business Roundtable, *The Kyoto Protocol: A Gap Analysis* (June 1998), http://www.businessroundtable.org/sites/default/files/publications/climate_change/161.pdf.

171. See Int'l Inst. for Sustainable Dev., *A Brief Analysis of the Copenhagen Climate Change Conference 3–5* (Dec. 2009), http://www.iisd.org/pdf/2009/enb_copenhagen_commentary.pdf (discussing the exclusion of a large number of NGOs from the negotiations for security reasons).

172. *Id.* at 3, 5 (noting the role of states in stalling negotiations and their role in putting together the Copenhagen Accord).

important because a state's rights to property and people are attached to it. Notably, in the context of a climate treaty, providing for effective enforcement of the traditional norm of state sovereignty would better address threats to states and their citizens than would disaggregation of sovereignty.¹⁷³

In sum, it is not enough to rely on theories of compliance and transnational networks to explain international law's role in addressing climate change. The focus of scholars, law-makers, and policy-makers needs to shift away from descriptive legal theories toward finding normative solutions. The equal sovereign rights of states such as Tuvalu, Maldives, and Bangladesh are at risk. The focus needs to be on making international law relevant when core states remain interested in preserving their material interests, as opposed to preserving and promoting a just and fair normative structure that recognizes the right of sovereign equality.

2. *Steps to Re-thinking International Law for Climate Action*

The question confronting international lawyers is how to reconcile the threats to sovereignty, and its associated rights, faced by states, such as Tuvalu, with the sovereign rights and interests of core states, which center on their economic interests. Whether states can change their behavior to meet these challenges is uncertain, because doing so requires an essential redefinition of the foundations of international law and a shift away from prioritizing economic interests. As matters now stand, it is unlikely that states will establish a balanced approach to reconcile these competing interests, or treat threats to the sovereign rights of affected states as the starting point in negotiating future treaty obligations.

In light of this problem, meaningful international legal intervention will require states to acknowledge the potential normative challenges that will undoubtedly accompany catastrophic events attributable to climate change. Threatened states will most certainly face continuing problems and rights violations associated with climate change. However, by seriously discussing the international policy framework, states still have an opportunity to at least preserve the sanctity of the normative core of the rule of sovereign rights. Such efforts will have to overcome the difficult challenges created by centuries of an economic-driven expansion of international law. A few options in this direction are considered below.

173. *See supra* Part I.A.

i. Acknowledging the Tough Questions in Treaty Negotiations

Presently, the emissions reduction commitments of China, India, and the United States are paramount, especially because failure to curb emissions from these three countries may nullify all efforts to reduce carbon emissions.¹⁷⁴ While this is truly an important international issue, another important matter has received less attention—the question of adaptation. The present rate of climate mitigation leaves little room for optimism, and climate change may well be the reality of our times. In the event of a climate catastrophe, the citizens of many nations will find themselves stranded—probably without food, basic amenities, or even territory,¹⁷⁵ in the case of some threatened states—through no fault of their own. Given the current limitations on migration, such an outcome would mean that people may have nowhere to go, especially since the United Nations High Commissioner on Refugees (UNHCR)¹⁷⁶ mandate does not adequately address climate-change-related displacement.¹⁷⁷

Thus, a meaningful international climate change law must acknowledge the possibility of massive displacement of people and consider adequate responses. It is conceivable that an international framework would connect emissions-reduction obligations with core nations' corresponding commitments to accommodate displaced people or fund their resettlement. This approach would implicitly recognize that adaptation is not charity, but fair compensation for the violation of sovereign rights.

174. Sunstein, *supra* note 29, at 1676 (noting that broad participation, especially of United States and China, is required to achieve the “benefits of [reduced] greenhouse gas emissions”).

175. See *supra* note 11 and accompanying text; Jon Barnett & W. Neil Adger, *Climate Change, Human Security and Violent Conflict*, POL. GEOGRAPHY 26 (2007) 639–55, 651 (noting the need for assessing institutional capacity to respond to climate change-related adaptation problems in order to avoid human security problems). Neither the adaptation fund established under the Kyoto Protocol nor those established by the Marrakesh Accord to the UNFCCC may be adequate to address these issues. See Suraje Dessai, *The Special Climate Change Fund: Origins and Prioritisation Assessment*, CLIMATE POL'Y 3, 295–302 (2003).

176. For a general background on the role of the UNHCR in developing international refugee law, see Corinne Lewis, *UNHCR's Contribution to the Development of International Refugee Law: Its Foundation and Evolution*, 17 INT'L J. REFUGEE L. 67, 69–76 (2005).

177. For a comprehensive analysis on the problem of climate change and the potential challenge to the UNHCR, see U.N. High Comm'n for Refugees, *Climate Change, Natural Disasters and Human Displacement: A UNHCR Perspective* (Oct. 23, 2008) (prepared by Antonio Guterres), <http://www.unhcr.org/refworld/pdfid/492bb6b92.pdf>. See also Bonnie Docherty & Tyler Giannini, *Confronting a Rising Tide: A Proposal For a Convention on Climate Change Refugees*, 33 HARV. ENVTL. L. REV. 349, 357–59, 367–71 (2009) (discussing the legal gaps in addressing the problem of climate “refugees” and proposing a preliminary framework for action).

ii. *Recognizing Investment-Based Emissions Increases*

Current approaches to international climate treaties are essentially state-centric to the extent that they view the problem and solution to global warming as a state problem. However, such a view obscures the fact that contributors to climate change may be dispersed within core states, in the same way that the beneficiaries of trading relations were historically dispersed within the colonizing nation. Furthermore, the current free-trade environment suggests that emission increases may be tied to global movement of capital, production, and goods to different markets. For example, investors from Europe may produce goods in India, sell them in Europe, and send any associated waste to China for disposal or recycling,¹⁷⁸ all of which results in emissions. Thus, legal responses should not only focus on requiring states to regulate emissions, but also on the movement of capital that triggers high emissions.

iii. *Understanding the Limits of Domestic Law*

Another challenge the current international community faces is that nations have different regulatory capabilities. Many well-established modern, economically wealthy democracies boast relatively effective domestic legal systems that incorporate a functioning legislature, executive, and judiciary. However, despite the political control exerted and the legal systems established by colonialists,¹⁷⁹ many nations still lack effective legal structures.¹⁸⁰

178. While there is no empirical data supporting entire life cycles of products, there are data linking investments with carbon emissions. Joysri Acharya, *FDI, Growth and the Environment: Evidence from India on CO₂ Emission During the Last Two Decades*, 34 J. ECON. DEV. 43, 46–47, 53–54 (2009) (identifying the linkage between foreign direct investments and increased CO₂ emissions in India); Karen L. O'Brien & Robin M. Leichenko, *Double Exposure: Assessing the Impacts of Climate Change Within the Context of Economic Globalization*, 10 GLOBAL ENVTL. CHANGE 221, 221–32 (2000) (tracing the flow of investments and integration of markets, but not reflecting on the potential implications for emissions).

179. The British in particular have been credited with introducing institutions essential to prosperity in non-European states: “free trade, free (and indeed forced) migration, infrastructural investment, balanced budgets, sound money, the rule of law and incorrupt administration.” FERGUSON, *supra* note 40, at 269.

180. See, e.g., Patricia Ross McCubbin, *China and Climate Change: Domestic Environmental Needs, Differentiated International Responsibilities, and Rule of Law Weakness*, 3 ENVTL. & ENERGY L. & POL’Y J. 200, 228–34 (2008) (noting the difficulties in implementing environmental policies in China).

Complex international climate policies may not be effectively carried out in states with poor regulatory structure and oversight.¹⁸¹ Also, poor legal systems generally translate into a limited ability to coerce state action¹⁸² and address potential violations of rights.¹⁸³ Such constraints should be considered when crafting international policies related to climate change. For example, policies to transfer technology or support alternative energy systems might fail due to inadequate legal and administrative mechanisms.¹⁸⁴

iv. Reexamining International Legal Reform Projects with an Economic Lens

At the height of the economic globalization of the past decade, the overarching international vision was of a globally harmonized world in which a more inclusive “law of humanity” would emerge and replace the interstate international law-making process.¹⁸⁵ As technology and commerce flourished, the possibilities of international law seemed promising, although some cautioned against over-enthusiasm.¹⁸⁶ Today, as the world faces global warming, several established international legal theses of the past need rethinking and reexamination. The International Law Commission (ILC) has noted that the rise in international law of

181. Michael W. Wara & David G. Victor, *A Realistic Policy on International Carbon Offsets*, 18–19 (Stanford U. Program on Energy and Sustainable Dev., Working Paper No. 74, 2008), available at http://iis-db.stanford.edu/pubs/22157/WP74_final_final.pdf (arguing that while the Clean Development Mechanism is an important mechanism for engaging developing countries, there are problems with administration that require greater legislative control).

182. For a thoughtful analysis on how litigation could catalyze state action in China, see Titi M. Liu, *Transmission of Public Interest Law: A Chinese Case Study*, 13 UCLA J. INT'L L. & FOREIGN AFF. 263 (2008).

183. For instance, despite being a democracy, it is widely accepted that legal remedies in India may not be adequate for providing redress to affected populations. See Badrinarayana, *supra* note 128, at 1.

184. Nuclear energy is cited as one possible option for addressing the issue and in this context the recent US-India Civilian Nuclear Energy Agreement is viewed as a positive development. See David G. Victor, *Nuclear Power for India is Good for All of Us*, N.Y. TIMES, Mar. 16, 2006, http://www.nytimes.com/2006/03/16/opinion/16iht-edvictor.html?_r=1. While this may be true, the possible deficiencies in handling nuclear waste must not be overlooked. See generally Patsy T. Mink, *Nuclear Waste: The Most Compelling Environmental Issue Facing the World Today*, 8 FORDHAM ENVTL. L.J. 165 (1996) (arguing that the regulatory and policy framework on nuclear waste disposal is a serious and unresolved problem).

185. See Falk, *supra* note 63, at 25 (calling for the establishment of a law of humanity, which is facilitated by globalization and the consequent erosion of territory).

186. The transnational network theory that gained prominence during the past decade implicitly recognized the expansion of networks due to globalization. See *supra* note 159 and accompanying text.

super specializations, such as environmental law, have resulted in “conflicts between rules or rule-systems, deviating institutional practices and, possibly, the loss of an overall perspective on the law.”¹⁸⁷

The ILC recommended that international law be formulated into a “‘restatement’ of general international law in forms other than codification and progressive development . . . as a supplement to [specialized laws].”¹⁸⁸ The loftier goals of identifying and defining general international law are no doubt an important endeavor for international lawyers. Yet they are not adequate in a world facing climate change—where there is not merely fragmentation, but also a continuing cycle of economic dependence and a sense of connectedness that is deeply rooted in economic interests. A meaningful reexamination of international law must actively include a reexamination of the nature of international policies, particularly whether a system of rights can be established where economic dependence has historically underpinned the discourse—as well as the persuasive power—of both wealthy and poor states.

In sum, the relevance of international law to climate change should not be considered in the context of descriptive theories that focus on compliance or expanding the scope of the decision-making process. Instead, scholars, policy-makers, and law-makers should consider international law’s ability to attain normative goals such as preserving the equal sovereign rights of threatened states. To achieve this, states must take innovative approaches to international climate action and address the consequences of inaction.

CONCLUSION

Justice Oliver Wendell Holmes famously quipped that the “life of the law has not been logic; it has been experience.”¹⁸⁹ Indeed, it is hardly logical that there is no legal safeguard or redress against threats to a state’s sovereign right to control its domestic affairs, or against threats to a person’s right to life and property. Absent an adequate explanation of law’s role in the climate context by existing international legal theories, reliance on experience may be the most viable option.

187. Int’l Law Comm’n, *supra* note 154, at 11.

188. The ILC set out the following topics for further examination: sources covered by “general international law,” the manifestation of “general international law” in international and domestic courts, and more factual examination on the emergence and codification of international law. *Id.* at 256.

189. G. EDWARD WHITE, JUSTICE OLIVER WENDELL HOLMES, LAW AND THE INNER SELF 149 (1993).

Experience shows that ours is an international economic community, which has historically privileged material and trade interests over legal rights. The climate context is no different. Economic interests of controlling states, rather than concerns about people's rights to property and life, shape international law. There is no indication that the international economic union will be replaced by a legal union like that of the United States.

It is therefore necessary to produce "new products at every stage"¹⁹⁰ based on our understanding of history and theories of legislation. International legal history reveals that traditional conceptions such as sovereignty will not protect states or their citizens against rights violations without some mechanism of legal redress. Climate change may well bring about the second coming of international law because it demands such innovative legal responses.

190. *Id.*