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Luciano Butti

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THE TORTUOUS ROAD TO LIABILITY:

A CRITICAL SURVEY ON CLIMATE CHANGE LITIGATION IN EUROPE AND NORTH AMERICA

by Luciano Butti*

INTRODUCTION

Climate change is increasingly coming to the fore of public debate. Since the adoption of the Kyoto Protocol on December 10, 1997¹ and its entry into force on February 16, 2005,² the international community has drawn increasing attention to the topic of carbon dioxide (“CO₂”) emissions. The most recent international meetings and political trends, such as the Copenhagen Climate Conference of 2009³ and the latest steps taken by the U.S. administration⁴ have resulted in perplexity and criticism from many international commentators.⁵ Critics have argued that “the Copenhagen Accord left most substantive disagreements unresolved.”⁶ However, these recent developments have paved the way for a more informed debate on global warming and environmental issues in general.⁷

The development of high-profile domestic and global discussion has also impacted the legal realm.⁸ In recent years, particularly since 2006,⁹ climate change lawsuits have increased in quantity and in sophistication, presenting one of the newest challenges within the public law arena. The increased sophistication of climate change lawsuits is a result of individuals who recognize that climate regulation is an issue for both governments and citizens to pursue. This mounting public awareness is evident in U.S. climate change lawsuits. The vast majority of U.S. climate change-related claims are based on individual or communal actions meant to influence industrial and environmental policies by promoting regulation and impact assessment. The U.S. focus on “regulatory claims,” rather than on tort law claims, is mainly due to the difficulties individual applicants face in showing *locus standi*, in demonstrating direct liability of the entity sued, and in finding a feasible pathway for redressability. On the other hand, European climate change litigation has blossomed out of private and governmental market-induced interests, as they have been brought primarily with respect to “carbon market” issues. Such a tendency has clearly been highlighted by European Union Courts’ case law concerning the European Union Emissions Trading System (“EU ETS”) Directive.

An additional method of linking climate change to legal claims is the presentation of individual actions for damages directly associated with global warming-related human rights violations. Although important, such an approach to climate change litigation is still far from being widely accepted by courts. The decisions of the European Court of Human Rights (“ECtHR”) and the Inter-American Commission on Human Rights (“IACHR”) are not encouraging for the prospects of the

viability of human rights claims within the climate change context. Therefore, it may be a long time before climate change litigation becomes commonplace among individual rights claims.

This article provides an overview of the evolution of climate change related litigation, highlighting the differences and similarities between the U.S. and the European context. Additionally, the article analyzes the future perspective of such claims and concludes with a discussion concerning the possibility of linking climate change to human rights.

CLIMATE CHANGE LITIGATION: THE UNITED STATES SCENARIO

Recent U.S. case law involving climate change demonstrates that most successful claims concern existing regulations. This is due to the specific aims that applicants pursue, using “existing law—primarily environmental law—to force or block regulatory behavior” in response to policy failures.¹⁰ Thus what climate change litigation has so far achieved is to effectively function as a “gap-filling role” as defined by Professor Hari Osofsky.¹¹

The results of a recent study relating to climate change cases filed through the end of 2009 highlights that the courts play a pivotal role in governance, especially with respect to partially unregulated areas such as those of environmental law, regulation, and responsibility.¹² The same survey depicts a situation where almost 40.5% of legal actions related to climate change are brought to achieve “substantive mitigation regulation.”¹³ Therefore, most controversies are based on the willingness of public bodies, states, companies, or non-governmental organizations (“NGOs”) to urge for public intervention, focusing on the necessity of the limitations of the promulgation of statutes and policies establishing more stringent limits on emissions. The 2006 U.S. Supreme Court case of *Massachusetts v. EPA*¹⁴ is probably the most distinguished example of a regulatory claim

* Luciano Butti, after serving as a judge in Italy from 1984 to 1997, joined B&P Law Firm (www.buttiandpartners.com) as a partner in 1998. He is a contract professor of International Environmental Law at Padua University (Faculty of Engineering – Environmental Engineering) and has taught several post-graduate courses organized by the Scuola Superiore S. Anna (Pisa), the Universities of Bologna, Ferrara, Milano, Rome (Luiss), Verona, and Venice. In 2009, he was appointed as a member of the Editorial Board of “Waste Management” (International Journal of Integrated Waste Management, Science and Technology – Elsevier) and of the Managing Board of the International Waste Working Group. He is the author of several books and articles in English and Italian in the fields of Italian, European, and International environmental law.

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in the context of climate change.¹⁵ Twelve states, three cities, a U.S. territory, and several NGOs claimed that the Environmental Protection Agency's ("EPA") denial of a petition to address CO₂ emissions was an arbitrary exercise of the EPA's mandatory function.¹⁶ Many petitions of the same nature¹⁷ have been filed by public and private actors¹⁸ in state and federal U.S. courts to promote enhanced regulation of carbon dioxide emissions and to force public authorities to take positive action in limiting CO₂ pollution. Such pressures by both public and private actors ultimately resulted in urging public authorities to reform the existing regulatory framework, which happened mainly through the modification of existing laws. Examples of these modifications may be found in some of the major environmental related acts such as the Clean Air Act of 2000 ("CAA") or the National Environmental Policy Act of 1969 ("NEPA").¹⁹ The aforementioned statistics uncontroversibly demonstrate that in most circumstances "climate change litigation . . . represents an effort to fill perceived regulatory gaps."²⁰

A second trend playing a dominant part in U.S. climate change litigation is what Professors David Markell and J.B. Ruhl have defined as "Procedural Monitoring, Impact Assessment, and Information Reporting."²¹ Claims that fall within this category are similar in scope to those of the "regulatory claims model" outlined above, as they seek to impose on public or private entities new or more stringent obligations in monitoring, assessing, or disclosing the environmental impact of activities that such entities perform. An example of this type of claim is the complaint for declaratory and injunctive relief that Greenpeace, Friends of Earth, and four U.S. cities filed against a private investment corporation and a bank for the failure to produce an environmental impact assessment when developing heavily polluting overseas projects.²² Some fifty-five petitions of this kind have been filed in U.S. courts with the same monitoring and assessment purpose,²³ representing the majority of the U.S. climate change related claims.

Thirdly, tort claims, mostly public nuisance and negligence, have also been brought in U.S. litigation.²⁴ However, case law concerning the violation of individual rights and liabilities represents only a small minority of the legal arguments brought before U.S. judges when compared to the amount of cases aimed at pushing authorities toward a more efficient, large-scale regulation of CO₂ emissions.²⁵ Although tort law as a basis for climate change challenges has advanced from a situation in which "such cases were . . . derided as frivolous long shots that would be shot down quickly"²⁶ to one in which more reliance is placed in claims of individual harms from CO₂ emitters, such claims have yet to result in fully successful outcomes.

The difficulties complainants encounter are numerous when seeking redress of environmental wrongs linked with carbon emissions through tort actions.²⁷ The primary hurdle for applicants is demonstrating substantial interest for standing.²⁸ The "classic" U.S. theory of environmental *locus standi* does not fit the peculiar requirements of climate change.²⁹ Climate change usually does not entail the existence of a specific natural feature (e.g. a river or a forest) which human behavior is about to

despoil or endanger. On the contrary, climate change stems from a multiplicity of sources and affects different aspects of the environment including: arctic melting, rising sea-levels, and disappearing endangered species due to changed weather conditions; these are merely examples of the numerous, yet unpredictable, consequences of greenhouse gas emissions in the atmosphere.³⁰ Since it is difficult to identify the specific harms that may affect the environment and the specific species that are at risk of being endangered, it is that much more difficult for a judicial panel to grant standing to the plaintiffs.³¹

The most difficult standing-related hardship that applicants must face when filing emissions-related court claims is proving an emitter's direct responsibility. It is often argued that there are not a definitive number of entities liable for climate change, or that, on the contrary, this number is too great. Scholars have tried to overcome such hurdles by applying innovative theories on climate change liability,³² some of which aim to establish a link between local causation and local consequences.³³ These doctrines may prove successful in those cases where the damages at stake are clearly identifiable (and, therefore, the obstacle of *locus standi* has already been surmounted) and where such damages occur in areas where major emitters directly operate. Also, the application of the environmentally based precautionary principle to tort litigation may provide a clearer basis for allocating liability, thereby providing a reverse burden of proof under which "economic actors are liable unless they can prove that their activities are environmentally harmless."³⁴ Such a principle though, despite having been frequently recognized as a "general principle of international law,"³⁵ has not yet been accepted by U.S. courts, so that future applications within the United States still appear highly improbable.

However, even if these doctrines may sometimes prove successful, applicants may not always find the road to redress clear of impediments since "there is at present no international liability framework directly applicable to climate change-related damage."³⁶ This is demonstrated, for instance, by the unfortunate outcome of *Connecticut v. American Electric Power Company*,³⁷ in which plaintiffs unsuccessfully alleged infringement by six U.S. power companies (alleged to be major polluters with respect to carbon dioxide emissions) of federal and state public nuisance law.³⁸ Although the decision was reversed by the U.S. Court of Appeals for the Second Circuit,³⁹ the District Court decision represents a valuable example of an approach that is still frequently adopted by U.S. courts. Even if it were proven beyond a reasonable doubt that climate change-related damages had actually occurred, it would nonetheless be difficult to identify the entity liable for damages.⁴⁰

Finally, there is one other barrier to justiciability which may be the most difficult to overcome. The "political question doctrine" permits judges to defer climate change questions for political consideration reason.⁴¹ The doctrine highlights the fact that climate change concerns are more appropriate for the legislative branch of the government than for the judiciary.⁴² The original District Court's decision in *Connecticut v. American Electric Power Co.* aligned with this doctrine,⁴³ which is now at the center of the American debate.⁴⁴

Nevertheless, tort claims have attracted a lot of attention from the public. Many “liability” actions result in widespread discussion. Some of the most renowned examples include the Inuit Circumpolar Conference Petition, which will be further examined below,⁴⁵ or the Hurricane Katrina case,⁴⁶ in which victims of the Katrina hurricane sought compensation from CO₂ emitters for loss of private property and use of public property.⁴⁷

In light of the above, it can be concluded that the U.S. approach to climate change litigation has been primarily based on regulatory claims. Although it is debatable whether the CAA is the most suitable instrument for addressing such problems,⁴⁸ it is nonetheless clear that judicial rulings cannot substitute for robust and stringent policies on global warming and carbon emissions, and that the “abdication of congressional responsibility” feared by some commentators should be avoided.⁴⁹ Despite the fact that many, even within Congress, applauded the initiatives undertaken by the Supreme Court, viewing them as ways to enact CO₂ controls without directly taking responsibility for them, it has been noted that such ceding of legislative power to non elected litigators and judges may ultimately endanger the principle of representative democracy.⁵⁰

CLIMATE CHANGE LITIGATION: THE EUROPEAN SCENARIO

European climate change litigation has differed from that of the U.S. mainly because of the diverse and less homogeneous framework that characterizes Europe. Each European state tends to tackle domestic issues, including those related to the environment, with a unique and cultural-specific approach, not only from a legal perspective, but also from political and cultural points of view.

To identify a common European trend, it is necessary to reference the supranational political framework provided by the European Union (“EU”) institutions, which have been far-sighted in enacting a thorough regulation of greenhouse gas emissions. When analyzing EU climate change policies, recall that the EU, which was born out of the ashes of a purely economic entity,⁵¹ is facing a difficult process of integrating political, military, financial, and cultural aspects.⁵² This process is ongoing, with many purported goals still unachieved, and the road to further unification seems at present tortuous and uncertain.⁵³ Although important steps have been taken to allow individuals to use the European Union Foundation Treaties, which include the defense of individual subjective rights,⁵⁴ when European Union litigation is involved (the Luxembourg-based Court of First Instance and European Court of Justice) the concerns of applicants and defendants are arguably of a purely economic nature.⁵⁵

Directive 2003/87/EC established a greenhouse gas emission allowance trading system within the Community⁵⁶ commonly known as the Emissions Trading Scheme (“ETS”),⁵⁷ which fixes a number of allowances for the quantity of CO₂ that can be emitted by a single Member state over a particular period; the level of emissions in such period shall then “be equal to the established cap.”⁵⁸ Under the ETS, Member states may buy and sell allowances, thereby creating a supply and demand model that forms a basis for the European carbon market.

As a result, carbon market litigation has ensued, resulting in a considerable number of proceedings before the Luxembourg Courts, which have been conceptually divided into the following three categories:⁵⁹ challenges to the validity of the Directive,⁶⁰ infringement proceedings,⁶¹ and challenges to decisions of the European Commission on the National Allocation Plans⁶² designed by Member states for re-allocating the allowances to national installations.⁶³ The case of *Abraham and Others*⁶⁴ slightly detaches itself from this categorization since the applicants asked the European Court of Justice (“ECJ”) to interpret the European Environmental Impact Assessment Directive (85/337/EEC) so that restructuring of the Liège-Bierset Airport could be included within the definition of “project” set out in the directive, and the environmental impact assessment could be considered mandatory for the restructuring.⁶⁵

Although many claims have been brought with respect to carbon market issues, regulatory claims are similarly predominant in Europe. Even the abovementioned case of *Abraham and Others*, although directly linked to the impact of potentially polluting works on the well being of a community, was aimed at triggering inclusionary interpretation by the ECJ of a specific regulation.⁶⁶ Evidently, little room is left for individual applications aimed at recovering damages suffered as a result of global warming and, therefore, linked to CO₂ emissions. Currently “EU ETS litigation is not concerned with the impacts of climate change . . . but rather the finessing of a new market mechanism from the perspective of key market actors within the established confines of EU law.”⁶⁷

The implications of this mainly regulatory approach to climate change litigation are even worse for Europe than they are for the U.S. Although the U.S. carbon emissions framework is in dire need of further regulation,⁶⁸ and though litigation may not be a completely adequate substitute for legislative control, the benefits of litigation far outweigh the drawbacks of total inaction. In Europe, where the ETS is the core of the carbon emission regulatory framework, climate change related claims are primarily concerned only with the applications of such a scheme.⁶⁹ The influence of the resulting jurisprudence thus ends up being considerably more limited, and the possibilities of evolution more scant.

In addition, other criticisms may arise. Firstly, as has already been mentioned, regulation is not considered by some as an appropriate task for judges. Even though such an assertion is debatable, it will always be difficult for counter-arguments to prevail, even from a theoretical standpoint.⁷⁰ It may be argued, for instance, that the strict “separation of tasks” theory, which some British judges are already accustomed to,⁷¹ is often supported by governments, entities, and courts for nothing but specious reasons.⁷² Such arguments, though, appear particularly difficult to prove, and the “spatial separation of competence theory” remains difficult to rebut.⁷³

Secondly, once a regulatory mechanism has been successfully implemented, it may not suffice on its own to reduce the effects that greenhouse gases have on the environment.⁷⁴ As Philippe Cullet argues, “[I]t cannot be expected that the Climate

Change Convention, the Kyoto Protocol, or any other protocol . . . would be sufficient to effectively mitigate global warming so as to avert the need for adaptation”⁷⁵ In other words, the EU ETS Directive, as well as the other international instruments mentioned by Cullet, should be supported by a more complete framework of policies (for instance, liability schemes applicable at the international level), in order to be more effective at preventing—or at least in limiting—climate change.

Thirdly, a lack of political willingness to attain a stricter liability regime for ecological damages exists. The European Environmental Liability Directive, which entered into force in 2009⁷⁶ with the purpose of harmonizing the concept of pollution and the reinstatement of regimes throughout the region, has been until now heavily criticized for not having provided Europe with the expected uniformity with regard to liability for ecological damages.⁷⁷ Similarly, the 1993 Lugano Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment,⁷⁸ which established tougher rules for liability for environmental damages,⁷⁹ has not yet been ratified or entered into force.⁸⁰

The above analysis clearly does not favor a bright future for a comprehensive civil liability regime for damages stemming from carbon dioxide emissions.⁸¹ The outcomes of the efforts made by applicants in the human rights law arena are not any more encouraging.

LINKING CLIMATE CHANGE TO HUMAN RIGHTS

Recent attempts to link climate change claims to human rights principles have not achieved any revolutionary outcomes. While several human rights-based petitions alleging climate change damages have been filed in international or regional tribunals, none of them has yet come to a completely favorable conclusion for the applicants.

The Inuit petition filed at the IACHR,⁸² by far the most famous case in which a human rights-focused body addressed climate change, featured applicants seeking “relief from human rights violations resulting from the impacts of global warming and climate change caused by acts and omissions of the United States.”⁸³ The action was brought against the U.S. for being the largest emitter of greenhouse gases and because, according to the applicants, it continually refused to undertake serious efforts to reduce emissions.⁸⁴ The IACHR rejected the petition, holding that the information provided by the claimants did not enable the Commission to determine whether the alleged facts entailed a violation of the rights protected by the American Declaration of the Rights and Duties of Man.⁸⁵ Even though a subsequent hearing could be held by the IACHR focusing on “the right to use and enjoy property; the right of peoples to enjoy the benefits of culture; and the rights to life, physical integrity, and security,”⁸⁶ no further action has been taken.⁸⁷

The Inuit petition outcome may sound surprising, especially in light of the fact that the IACHR had previously upheld indigenous people’s claims related to violations of rights analogous to those mentioned in the petition.⁸⁸ However, the Inuit petition distinguishes itself from other indigenous communities’ legal actions because of its peculiar liability-related aspects. It is

difficult to establish direct links of causation between emitters, no matter how big they are, and damages when climate change is involved. In addition, it can be argued that a decision holding the United States responsible for arctic melting and other damages related to CO₂ emissions would have ended up being too big of a step, providing legal basis for claimants all around the world to sue Western industrialized countries for sea-level rise, hurricanes, flooding, and other effects of climate change. It is undisputable that politically revolutionary decisions have to be balanced with political counter-interests that cannot be set aside: therefore, justices and commissioners tend to be cautious before allowing potentially destabilizing claims to succeed.

In Europe, claimants have not been any more successful. The ECtHR, based in Strasbourg and acting within the framework of the 1951 European Convention of Human Rights (“ECHR”),⁸⁹ is renowned for being the most important tribunal for assessing human rights claims in Europe and one of the most efficient civil rights monitoring bodies in the world.⁹⁰ However, the area pertaining to environmental damages is a partially neglected area in the ECtHR’s case law: successful claims in connection with the environment have so far been grounded mostly on Article 8 of the ECHR on protection of private and family life, broadly interpreted so as to include interferences with individuals’ well-being caused by public nuisance and environmental damage.⁹¹ In the context of violation of property rights,⁹² the Court has also recognized that “the environment is a value in itself in which both society and the public authorities take keen interest.”⁹³ Although the ECtHR has recently begun to consider the precautionary principle, while assessing claims on unlawful interference on the applicant’s right to a healthy life,⁹⁴ there are several obstacles that impede climate change-related claims from being justiciable within the ECHR framework.

First, for a claim to succeed, applicants must demonstrate a concrete interference of their rights beyond all doubt.⁹⁵ Given that the Convention does not provide for an express right to a safe and healthy environment, whether the latter is included within the scope of Article 8 (the right to private and family life) or Article 1, Protocol 1 (the right to peaceful enjoyment of possession) of the ECHR, is a matter of interpretation. In light of the abovementioned case law, this hurdle may not seem insurmountable. However, climate change claims are different from the classic “environmental claims” brought before the ECtHR because in the former no explicit link between emissions and damages can be easily demonstrated.⁹⁶

Second, in the unlikely case of an incontrovertible causal relationship between greenhouse gases and local damages in Europe, the “margin of appreciation” doctrine could serve as a convenient tool for the ECtHR judges to defer the matter to the national regulatory level.⁹⁷ In short, once a private or public entity has satisfactorily demonstrated that domestic law on greenhouse gas emissions has not been infringed upon, the Court could decide to leave this sensitive area of judgment to the discretion of national Member states’ authorities (legislators and judges), thereby abiding by the Court’s subsidiary role.⁹⁸

It has been recently argued that the ECtHR should address climate change within the scope of the right to property, namely that of protecting private low-carbon investors against risks of excessive state interference through regulatory changes and the imposition of heavy financial burdens.⁹⁹ This innovative and practical approach is proof that there are strong countervailing interests (namely, those of investors and corporations) that should be balanced with the perceived need of establishing the civil liability of corporations and emitters. These countervailing interests are worth considering if their aim is “stimulat[ing] the flow of private capital in the implementation of low-carbon investments.”¹⁰⁰

In other fora, more attention has been drawn to the human rights implications of climate change. For example, in *Gbemre v. Shell*¹⁰¹ the Federal High Court of Nigeria held that gas flaring, an unconstitutional practice in breach of the fundamental human right to health, also contributes to adverse climate change as it emits carbon dioxide.¹⁰² The case is particularly important because it is “one of the first where a national court held that climate change, like other environmental issues, may implicate human rights.”¹⁰³ However, the Nigerian judges’ conclusions on climate change are not final and do not address global warming directly since gas flaring was the real underlying issue in the case.

In light of the above, it is clear that counter-interests have thus far prevailed over the commitment of states to take a strong standpoint against violations of fundamental human rights caused by human-induced global warming. Arguments against linkages between climate change and human rights law have been brought on several grounds, including the idea that international human rights actors and tribunals should prioritize other emergencies (which are also depicted as easier to cope with in legal terms) and concerns relating to the current trend of excessive anthropocentricity under which climate change is currently being approached.¹⁰⁴ The most convincing explanation of the scant success obtained by climate change petitions in human rights fora seems to be, however, the one which links together hypothetical favorable judgments and their potential consequences, and which takes into account the countervailing economic interests of major public and private emitters.¹⁰⁵ The unwillingness of domestic tribunals throughout the world to acknowledge the existence of “environmental refugees” (who often flee from their countries because of the consequences of climate change) and to grant to such migrants the state-onerous refugee status is clearly another side of the same story.¹⁰⁶ In this sense, the obstacles that prevent human rights tribunals from intervening directly in the climate change issue are similar to those that actors seeking redress in domestic tort actions have found.

CONCLUSION: BLEAK PROSPECTS FOR CIVIL LIABILITY?

Notwithstanding the recent developments of the environmental liability doctrine, which seems to be undergoing a process of strong “internationalization,”¹⁰⁷ it can be concluded that the road to clear and convincing guidelines for establishing liability in cases of climate change-originated damages still appears to be long and tortuous. Even those authors who have tried to provide climate change litigation advocates with a “more realistic understanding of the scientific reality of causation” that “will suitably address climate change”¹⁰⁸ have had to deal with the fact that the proposed solution of making recourse to “probabilistic causation” still leaves several problems unsolved.¹⁰⁹

Moreover, all the proposed “technical” solutions for establishing airtight causal links tend to overlook the political and institutional problems underlying the task that courts should perform in relation to climate change. As it has been argued in this article, there is a lack of commitment by governments, judges, and other public and private multinational actors to allow the courts to take over the role, which many see as best left to domestic and international regulators. Should a court provide leeway for claimants to obtain redress for damages not strictly linked to local infringements, more petitions would proliferate and the consequences on the international equilibrium would be immense.

The scenarios discussed may be satisfying to those who are “skeptical that tort litigation will be an effective way to combat climate change.”¹¹⁰ However, from a different standpoint, this “skeptical” approach appears to be misplaced as it tends to confuse the regulatory function with that of assessing damages. While on the one hand it is difficult to rebut the critiques that regulation should be left to the government, on the other hand one could object that the “skeptical” approach would sound more reasonable if applied to regulatory claims, which have proved to be the most successful up to now. On the contrary, establishing standing, liability, and redressability is an appropriate task for the judiciary to carry out.¹¹¹

Civil liability is still far from taking root in the climate change litigation context for different reasons. They are grounded on the far-sightedness that judicial panels have so far demonstrated in dealing with this area of litigation. Judges are often conscious of the vast, wide-ranging consequences (involving, *inter alia*, economic, energetic, developmental, and migratory issues) that holding an American or European actor responsible for damages occurring thousands of miles away would entail in legal terms. Consequently, before innovative liability principles are established, decision-makers, such as national legislators, must ask if the climate change litigation floodgates are ready to be opened. 

Endnotes: The Tortuous Road to Liability

¹ Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, 37 I.L.M. 22 (1998).

² *Id.*

³ United Nations Framework Convention on Climate Change, 15th Conference of the Parties, Copenhagen, Den., Dec. 7-19, 2009, *Copenhagen Accord*, U.N. Doc. FCCC/CP/2009/11/Add.1 (Mar. 30, 2010), <http://unfccc.int/>

resource/docs/2009/cop15/eng/11a01.pdf.

⁴ See Randolph E. Schmid, *New Federal Climate Agency Forming*, ASSOCIATED PRESS, Feb. 8, 2010, http://www.huffingtonpost.com/2010/02/08/climate-service-new-feder_n_453541.html.

⁵ See, e.g., Nick Vinocur, *Obama Not Doing Enough on Climate Change—Pachauri*, REUTERS, Oct. 22, 2009, <http://in.reuters.com/article/2009/10/22/idINIndia-43370420091022> (including observations made by Dr. Rajendra Pachauri, chairman of the Intergovernmental Panel on Climate Change (“IPCC”) in relation to the inadequacy of the emission reduction goals proclaimed by the Obama administration).

⁶ Lavanja Rajamani, *The Making and Unmaking of the Copenhagen Accord*, 59 INT’L & COMP. L.Q. 824, 842 (2010).

⁷ *Id.* at 24 (“No collective challenge facing humanity has ever before attracted such attention, participation and political capital . . .”). See also Robert H. Cutting & Lawrence B. Cahoon, *The “Gift” that Keeps on Giving: Climate Change Meets the Common Law*, 10 VT. J. ENV’T L. 109, 111 (2008) (“Global warming issues have captured an Oscar, the Nobel Prize, and the attention of mainstream media and main street America.”).

⁸ See generally David B. Hunter, *The Implications of Climate Change Litigation: Litigation for International Law-Making*, in ADJUDICATING CLIMATE CHANGE: STATE, NATIONAL, AND INTERNATIONAL APPROACHES 357-76 (William C. G. Burns & Hari M. Osofsky eds., 2009).

⁹ Richard Ingham, *Climate Change: Dogs of Law Are Off the Leash*, AGENCE FRANCE-PRESSE (Jan. 22, 2011), <http://www.google.com/hostednews/afp/article/ALeqM5jLQy3ze-D7N4ZQzyDjvLA8ChIEhQ>.

¹⁰ Hari M. Osofsky, *The Continuing Importance of Climate Change Litigation*, 1 CLIMATE L. 1878, 1886 (2010).

¹¹ *Id.* at 1905.

¹² David Markell & J.B. Ruhl, *An Empirical Survey of Climate Change Litigation in the United States*, 7 ENV’T L. REP. 10644, 10645-47 (2010).

¹³ *Id.* at 10651.

¹⁴ *Massachusetts v. EPA*, 549 U.S. 497 (2007).

¹⁵ See Hari M. Osofsky, *The Geography of Climate Change Litigation Part II: Narratives of Massachusetts v. EPA*, 8 CHI. J. INT’L L. 573 (2008) (providing a detailed narrative of *Massachusetts v. EPA*).

¹⁶ 42 U.S.C. § 7521(a)(1) (2006) (“The [EPA] Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.”).

¹⁷ See Markell & Ruhl, *supra* note 12 (providing that no fewer than 52 cases involving climate change regulatory issues have been brought since December 31, 2009).

¹⁸ See, e.g., Hari M. Osofsky, *The Geography of Climate Change Litigation: Implications for Transnational Regulatory Governance*, 83 WASH. U. L.Q. 1789, 1827 (2005) (mapping examples of actors and claims in climate change litigation).

¹⁹ See Christopher R. Reeves, *Climate Change on Trial: Making the Case for Causation*, 32 AM. J. TRIAL ADVOC. 495, 497-503 (2010).

- ²⁰ Osofsky, *supra* note 18, at 1851.
- ²¹ Markell & Ruhl, *supra* note 12, at 10651.
- ²² Friends of the Earth v. Watson, No. C 02-4106 JSW (N.D. Cal. Aug. 23, 2005).
- ²³ Markell & Ruhl, *supra* note 12, at 10651.
- ²⁴ See Reeves, *supra* note 19, at 502-03 (describing such legal methods as “controversial”).
- ²⁵ See Markell & Ruhl, *supra* note 12, at 10651 (explaining that only eight such actions were filed in the U.S. before 2010, amounting to only six percent of the total number of climate change-related petitions in the nation).
- ²⁶ John Schwartz, *Courts as Battlefields in Climate Fights*, N.Y. TIMES, Jan. 27, 2010, <http://www.nytimes.com/2010/01/27/business/energy-environment/27lawsuits.html>.
- ²⁷ See generally Jacqueline Peel, *Climate Change Governance After Copenhagen: Issues in Climate Change Litigation* (Nov. 2010) (unpublished paper), [http://www.ucl.ac.uk/laws/environment/docs/hong-kong/Issues%20in%20Climate%20Change%20Litigation%20\(Jacqueline%20Peel\).pdf](http://www.ucl.ac.uk/laws/environment/docs/hong-kong/Issues%20in%20Climate%20Change%20Litigation%20(Jacqueline%20Peel).pdf); INTERNATIONAL COUNCIL ON HUMAN RIGHTS POLICY, CLIMATE CHANGE AND HUMAN RIGHTS: A ROUGH GUIDE 41 (2008) [hereinafter A ROUGH GUIDE].
- ²⁸ See, e.g., *Massachusetts v. EPA*, 549 U.S. 497 (2007); see also A ROUGH GUIDE, *supra* note 27, at 44 (explaining *Massachusetts v. EPA*). On the substantial interest theory in connection with environmental law, see Rónán Kennedy, “Substantial Interest” Requirement for Judicial Review of Planning Decisions, 11 ENVTL. L. REV. 46 (2009) (describing a case from the Supreme Court of Ireland).
- ²⁹ See *Sierra Club v. Morton*, 405 U.S. 727, 741-52 (1972) (Douglas, J., dissenting) (elaborating the classic U.S. theory for environmental standing by arguing that standing should be accorded when claims are brought “in the name of the inanimate object about to be despoiled, defaced, or invaded by roads and bulldozers and where injury is the subject of public outrage”).
- ³⁰ See Jennifer Kilinski, *International Climate Change Liability: A Myth or a Reality?*, 18 J. TRANSNAT’L L. & POL’Y 377, 414-15 (2009) (regarding the technicalities that courts encounter when assessing climate change claims).
- ³¹ See, e.g., *Massachusetts v. EPA*, 415 F.3d 50, 60 (D.C. Cir. 2005) (Sentelle, J., dissenting in part and concurring in part) (opining that petitioners lacked standing because they had not demonstrated particularized injury).
- ³² An international framework for allocating responsibility for damage that has and will occur due to global warming has been upheld, among others, in the Stockholm and Rio declarations. See, e.g., Stockholm Declaration on the Human Environment of the United Nations Conference on the Human Environment, U.N. Doc. A/Conf 48/14/Rev.1, 11 I.L.M. 1416 (June 16, 1972), <http://www.unep.org/Documents/Multilingual/Default.asp?DocumentID=97&ArticleID=1503>; United Nations Conference on Environment and Development, June 3-14, 1992 *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/5/Rev. 1 (Vol. 1), Annex I (Aug. 12, 1992), <http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm>; see also Philippe Cullet, Symposium, *Liability and Redress for Human-Induced Global Warming: Towards an International Regime*, 43A STAN. J. INT’L L. 99, 100 (2007).
- ³³ See Hari M. Osofsky, *Is Climate Change “International”? Litigation’s Diagonal Regulatory Role*, 49 VA. J. INT’L L. 585, 587-88 (2009).
- ³⁴ See Cullet, *supra* note 32, at 106 (referring to the European Court of Justice’s support of this interpretation of the precautionary principle in its decision in Case C-127/02, *Landelijke Vereniging tot Behoud van de Waddenzee v. Staatssecretaris Van Landbouw, Natuurbeheer en Visserij*, 2004 E.C.R. I-7405).
- ³⁵ See ARIE TROUWBORST, *EVOLUTION AND STATUS OF THE PRECAUTIONARY PRINCIPLE IN INTERNATIONAL LAW* 286 (2002).
- ³⁶ See Cullet, *supra* note 32, at 106.
- ³⁷ *Connecticut v. Am. Elec. Power Co.*, 406 F. Supp. 2d 265 (S.D.N.Y. 2005).
- ³⁸ *Id.* at 268-69, 274 (finding the claims non-justiciable political questions); see Osofsky, *supra* note 18, at 1827-28.
- ³⁹ *Connecticut v. Am. Elec. Power Co.*, 582 F.3d 309 (2d Cir. 2009), *reversing* 406 F. Supp. 2d 265 (S.D.N.Y. 2005), *cert. granted*, Dec. 6, 2010. The case is now pending before the Supreme Court of the United States (No. 10-174) with the oral argument scheduled for April 19, 2011.
- ⁴⁰ See Cullet, *supra* note 32, at 117.
- ⁴¹ See Melissa Farris, *Compensating Climate Change Victims: The Climate Compensation Fund as an Alternative to Tort Litigation*, 2 SEA GRANT L. & POL’Y J. 49, 52 (2009-2010) (“Under the political question doctrine, courts must refrain from reviewing controversies revolving around national policy choices or developing standards for matters not legal in nature when the power to make such determinations has been delegated to Congress and the executive branch by the Constitution.”).
- ⁴² Randall S. Abate, Symposium, *Climate Change, the United States and the Impacts of Arctic Melting: A Case Study in the Need for Enforceable International Environmental Human Rights*, 43A STAN. J. INT’L L. 3, 19 (2007) (examining *Connecticut v. Am. Elec. Power Co.*); see also Jaw-Tyng Hwang, *Climate Change Litigation: Why California and Other States May Stop Using Lawsuits to Force Regulation of Greenhouse Gas Emissions Under the Clean Air Act*, 4 ENVTL. & ENERGY L. & POL’Y J. 157 (2009).
- ⁴³ See Joy C. Fuhr, *Connecticut v. AEP The New Normal?*, 24 NAT. RESOURCES & ENV’T 58 (2010); Nikhil V. Gore & Jennifer E. Tarr, *Case Note: Connecticut v. American Electric Power Co.*, 34 HARV. ENVTL. L. REV. 577 (2010).
- ⁴⁴ See David G. Savage, *Obama Administration Leaves Climate Change to Congress, Not the Courts*, L.A. TIMES, Sept. 18, 2010, <http://articles.latimes.com/2010/sep/18/nation/la-na-climate-obama-20100919>.
- ⁴⁵ See Sheila Watt-Cloutier, *Petition to the Inter-American Commission on Human Rights Seeking Relief From Violations Resulting From Global Warming Caused by Acts and Omissions of the United States*, Dec. 7, 2005, <http://www.inuitcircumpolar.com/files/uploads/icc-files/FINALPetitionICC.pdf>.
- ⁴⁶ *Comer v. Murphy Oil USA*, 607 F.3d 1049 (5th Cir. 2010).
- ⁴⁷ *Id.*; see also Jay Carmella, *Fifth Circuit Grants Katrina Victims Standing in Global Warming Class Action Suit*, JURIST (Oct. 20, 2009), <http://jurist.law.pitt.edu/paperchase/2009/10/fifth-circuit-grants-katrina-victims.php>.
- ⁴⁸ Some authors take a strong stance in making a case against regulatory claims based on the Clean Air Act and its underlying preventive mechanisms. See, e.g., George F. Allen & Marlo Lewis, *Finding the Proper Forum for Regulation of U.S. Greenhouse Gas Emissions: the Legal and Economic Implications of Massachusetts v. EPA*, 44 U. RICH. L. REV. 919 (2010).
- ⁴⁹ *Id.* at 935.
- ⁵⁰ *Id.*
- ⁵¹ JOSEPHINE STEINER, LORNA WOODS & CHRISTIAN TWIGG-FLESNER, E.U. LAW 3 (2006) (illustrating that the EU arose from the European Economic Community, which itself evolved out of the European Coal and Steel Community, established in 1951).
- ⁵² See generally Kathleen R. McNamara, *The Eurocrisis and the Uncertain Future of European Integration* (Council on Foreign Relations, Working Paper, 2010).
- ⁵³ See MIROSLAV N. JOVANOVIĆ, *THE ECONOMICS OF EUROPEAN INTEGRATION: LIMITS AND PROSPECTS* 54-59 (2005).
- ⁵⁴ By way of example, art. 6(2) of the Lisbon Treaty (entered into force on December 1, 2009, now Art. 6(2) of the Treaty on European Union), provides: “The Union shall accede to the European Convention for the Protection of Human Rights and Fundamental Freedoms.” When realized, it is expected that this change will bring significant improvement for the European framework of human rights protection.
- ⁵⁵ For the primacy of the economic aspects underlying the European Union framework, see ALEX WARLEIGH-LACK, *EUROPEAN UNION: THE BASICS* 60 (2004).
- ⁵⁶ See JAN H. JANS & HANS H.B. VEDDER, *EUROPEAN ENVTL. LAW* 385-88 (3d ed. 2008).
- ⁵⁷ See generally A. Denny Ellerman & Barbara K. Buchner, *The European Union Emissions Trading Scheme: Origins, Allocation, and Early Results*, 1 REV. ENVIRON. ECON. & POL’Y 66 (2007).
- ⁵⁸ Navraj Singh Ghaleigh, *Emissions Trading Before the European Court of Justice: Market Making in Luxembourg* 6 (Edinburgh School of Law Working Paper Series, Paper No. 12, 2009), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1371513.
- ⁵⁹ *Id.* at 13, 16, 27.
- ⁶⁰ E.g., Case C-127/07, *Société Arcelor Atlantique et Lorraine and Others v. Premier Ministre*, 2008 E.C.R. I-09895.
- ⁶¹ E.g., Case C-122/05, *Comm’n v. Italy*, 2006 E.C.R. I-65.
- ⁶² See Regina Betz, Wolfgang Eichhammer, & Joachim Schleich, *Designing National Allocation Plans for EU Emissions Trading—A First Analysis of the Outcome*, 15 ENERGY & ENV’T 375, 376 (2004) (explaining the sub-allocation plans and mechanisms).
- ⁶³ E.g., Case T-387/04, *Energie Baden Württemberg v. Comm’n*, 2007 E.C.R. II-1195.
- ⁶⁴ Case C-2/07, *Abraham v. Région Wallonne*, 2008 E.C.R. I-0000.
- ⁶⁵ *Id.*
- ⁶⁶ *Id.*
- ⁶⁷ Ghaleigh, *supra* note 58, at 28-29.
- ⁶⁸ See Timothy Gardner, *U.S. Must Tackle Emissions First: Chu*, REUTERS, Oct. 20, 2009, <http://www.reuters.com/article/2009/10/20/us-washington-summit-tariffs-idUSTRE59J4PT20091020>.
- ⁶⁹ Frank J. Convery, *Origins and Development of the EU ETS*, 43 ENVTL. & RESOURCE ECON. 391, 407 (2009) (“[T]he EU is the initiator and the operator of the world’s first and largest international emissions trading scheme.”).

⁷⁰ Arguments against judge-made regulation are many in legal theory. *See, e.g.,* William Kristol & Jeffrey Bell, *Against Judicial Supremacy*, WEEKLY STANDARD, Dec. 4, 2000, at 11.

⁷¹ *See, e.g.,* the observations of Lord Hoffmann, according to whom some legal decisions (those concerning the allocation of resources, for example) should be deferred by judges to the Government. Secretary of State for the Home Department v. Rehman, [2001] UKHL 47, [62].

⁷² *See* Jim Rossi, *Moving Public Law Out of the Deference Trap in Regulated Industries*, 40 WAKE FOREST L. REV. 617 (2005). For a theoretical point of view, see the second part of the article written by Alison L. Young, Ghaidan v. Godin-Mendoza: *Avoiding the Deference Trap*, PUB. L., Spring 2005, at 23, 29-33.

⁷³ *See* Murray Hunt, *Sovereignty's Blight: Why Contemporary Public Law Needs the Concept of "Due Deference,"* in PUBLIC LAW IN A MULTI-LAYERED CONSTITUTION 338 (Nicholas Bamforth & Peter Leyland eds., 2003) (providing a critical reference to the so-called "spatial metaphor").

⁷⁴ Cullet, *supra* note 32, at 115 (agreeing with the idea that regulation and allocation of greenhouse gases emissions would not be sufficient to mitigate global warming).

⁷⁵ *Id.*

⁷⁶ Council Directive 2004/35/EC, of the European Parliament and of the Council of 21 April 2004 on Environmental Liability with Regard to the Prevention and Remedying of Environmental Damage, 2004 O.J. (L 143) 56 (establishing "a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage").

⁷⁷ *See* MONIKA HINTEREGGER, ENVIRONMENTAL LIABILITY AND ECOLOGICAL DAMAGES IN EUROPEAN LAW (2008).

⁷⁸ The Lugano Convention was adopted on June 21, 1993 within the framework of the Council of Europe.

⁷⁹ Under Article 2.7(d), the definition of damages for the purposes of the Convention also includes "the costs of preventive measures and any loss or damage caused by preventive measures."

⁸⁰ *See* HINTEREGGER, *supra* note 77, at 4; *see also* the *Lugano Convention Record Details*, ECOLEX, <http://www.ecolex.org/ecolex/ledge/view/RecordDetails?id=TRE-001166&index=treaties> (last visited Mar. 10, 2011).

⁸¹ Similarly, in other jurisdictions courts and claimants have drawn their attention more to the regulatory aspects of the global warming issue. Namely, Australian applicants have tried to "use the courts as a tool for climate change reform" seeking a favorable interpretation of the 1999 Environment Protection and Biodiversity Conservation Act. Tracy Bach & Justin Brown, *Recent Developments in Australian Climate Change Litigation: Forward Momentum from Down Under*, SUSTAINABLE DEV. L. & POL'Y, Winter 2008, at 39 (describing Australian conservation foundation's grassroots movement). For a thorough analysis of similarities and differences between U.S. and Australian climate change litigation, *see* Virginia Tice, *From Vermont's Maples to Wybong's Olives: Cross-Cultural Lessons From Climate Change Litigation in the United States and Australia*, 10 ASIAN-PAC. L. & POL'Y J. 292 (2008). In New Zealand, courts have focused more on the judicial review of the correct application of the law (which may nonetheless "bring scrutiny to bear on the deficiencies of the law") than on developing new pathways for establishing redress for global warming-induced damages. Brian J. Preston, *Climate Change Litigation in the Land and Environment Court of New South Wales and Other Courts*, ACPECT 2009 CONFERENCE, Aug. 19-20, 2009, [http://www.lawlink.nsw.gov.au/lawlink/lec/ll Lec.nsf/vwFiles/Paper_20Aug09_PrestonCJ_NZ.pdf/\\$file/Paper_20Aug09_PrestonCJ_NZ.pdf](http://www.lawlink.nsw.gov.au/lawlink/lec/ll Lec.nsf/vwFiles/Paper_20Aug09_PrestonCJ_NZ.pdf/$file/Paper_20Aug09_PrestonCJ_NZ.pdf).

⁸² *See* Watt-Cloutier, *supra* note 45.

⁸³ *See id.* at 1.

⁸⁴ *See id.* at 6.

⁸⁵ *See* Jane George, *ICC Climate Change Petition Rejected*, NUNATSIAQ NEWS, Dec. 15, 2006, http://www.nunatsiaqonline.ca/archives/61215/news/nunavut/61215_02.html; Sarah Nuffer, *Human Rights Violations and Climate Change: The Last Days of the Inuit People?*, 37 RUTGERS L. REC. 182, 191-92 (2010).

⁸⁶ Pamela Stephens, *Applying Human Rights Norms to Climate Change: The Elusive Remedy*, 21 COLO. J. INT'L ENVTL. L. & POL'Y 49, 56 (2010) (referring to Martin Wagner, Testimony Before the Inter-American Commission on Human Rights on March 1, 2007), http://www.ciel.org/Publications/IACHR_Wagner_Mar07.pdf.

⁸⁷ For further comments on the Inuit case, *see* Hari M. Osofsky, *The Inuit Petition as a Bridge? Beyond Dialectics of Climate Change and Indigenous Peoples' Rights*, 31 AM. INDIAN L. REV. 675 (2007).

⁸⁸ *See, e.g.,* Maya Indigenous Cmty. of the Toledo Dist. v. Belize, Case 12.053, Inter-Am Comm'n H.R., Report No. 40/04, OEA/Ser.L/V/II.122, doc.

5 rev. 1 (2005), <http://www.cidh.org/annualrep/2004eng/belize.12053eng.htm>; Yanomami v. Brazil, Case 7615, Inter-Am. Comm'n H.R., Report No. 12/85, OAS/Ser.L/V/II.66, doc. 10 rev. 1 (1985), <http://www.cidh.org/annualrep/84.85eng/Brazil7615.htm>.

⁸⁹ *See* MICHAEL D. GOLDBABER, A PEOPLE'S HISTORY OF THE EUROPEAN COURT OF HUMAN RIGHTS (2009) (presenting an in-depth analysis of the ECtHR's 50-year history).

⁹⁰ *See* J.G. MERRILLS, THE DEVELOPMENT OF INTERNATIONAL LAW BY THE EUROPEAN COURT OF HUMAN RIGHTS, at ix (1993).

⁹¹ *See, e.g.,* Guerra v. Italy, 1998-I Eur. Ct. H.R. 210 (1998); López Ostra v. Spain, 303-C Eur. Ct. H.R. (ser. A) (1994).

⁹² *See* Hamer v. Belgium, 21861/03 Eur. Ct. H.R. 102 (2007).

⁹³ Press Release, ECtHR Press Unit, Factsheet: Environment-related Cases in the Court's Case Law (Jan. 2011), http://www.echr.coe.int/NR/rdonlyres/0C818E19-C40B-412E-9856-44126D49BDE6/0/FICHES_Environment_EN.pdf.

⁹⁴ *See* T tar v. Romania, 67021/01 Eur. Ct. H.R. ¶¶ II, B(h) (2009) (stating that: "En vertu du principe de précaution, l'absence de certitude compte tenu des connaissances scientifiques et techniques du moment ne saurait justifier que l'État retarde l'adoption de mesures effectives et proportionnées visant à prévenir un risque de dommages graves et irréversibles à l'environnement."); *see also* LUCIANO BUTTI, THE PRECAUTIONARY PRINCIPLE IN ENVIRONMENTAL LAW 73-81 (2007) (discussing the relationship between the precautionary principle and climate change).

⁹⁵ *See* Sara C. Aminzadeh, *A Moral Imperative: the Human Rights Implications of Climate Change*, 30 HASTINGS INT'L & COMP. L. REV. 231, 238 (2007); Megan S. Chapman, *Climate Change and the Regional Human Rights Systems*, SUSTAINABLE DEV. L. & POL'Y, Spring 2010, at 37.

⁹⁶ *See* Kyrtatos v. Greece, 40 Eur. H.R. Rep. 16 (2003) (holding that there had been no violation of article 8 as the applicants had not been directly affected by urban development in the south-eastern part of the island of Tinos, which had changed the area from a wild natural habitat to a tourist attraction).

⁹⁷ *See* Handyside v. United Kingdom, 24 Eur. Ct. H.R. (ser. A) ¶¶ 48-49 (1976) (establishing the margin of appreciation doctrine); *see also* Yutaka Arai, *The Margin of Appreciation Doctrine in the Jurisprudence of Article 8 of the European Convention on Human Rights*, 16 NETH. Q. OF H.R. 41 (1998) (explaining the margin of appreciation doctrine further).

⁹⁸ The subsidiary role of the ECtHR was recently reaffirmed by the Committee of Ministers of the Council of Europe during the High Level Conference on the Future of the European Court of Human Rights. *See, in particular,* Section E, Article 9(b) of the Action Plan. High Level Conference on the Future of the European Court of Human Rights, Interlaken, Switz., Feb. 18-19, 2010, *Interlaken Declaration* (Feb. 19, 2010), http://www.eda.admin.ch/etc/medialib/downloads/edazen/topics/europa/euroc.Par.0133.File.tmp/final_en.pdf.

⁹⁹ Anatole Boute, *The Protection of Property Rights Under the European Convention on Human Rights and the Promotion of Low-Carbon Investments*, 1 CLIMATE L. 93, 95-96 (2010).

¹⁰⁰ *Id.* at 130.

¹⁰¹ *Gbemre v. Shell Petroleum Dev. Co. Nigeria Ltd.*, [2005] EHC/B/CS/53/05 FHCNLR (Nigeria), <http://www.climatelaw.org/cases/case-documents/nigeria/ni-shell-nov05-judgment.pdf>.

¹⁰² *See* Labode Adegoke, *Pollution as a Constitutional Violation: Gbemre's Case* (Oct. 22, 2009) (presenting a detailed summary of the case), <http://www.scribd.com/doc/21340644/Pollution-as-a-Constitutional-Violation-Gbemre%E2%80%99s-Case-by-Labode-Adegoke>.

¹⁰³ *See* Aminzadeh, *supra* note 95, at 238.

¹⁰⁴ *See id.* at 262-64.

¹⁰⁵ *See id.*

¹⁰⁶ *See* SATVINDER SINGH JUSS, INTERNATIONAL MIGRATION AND GLOBAL JUSTICE 168-78 (2006).

¹⁰⁷ *See* Robert V. Percival, *Liability for Environmental Harm and Emerging Global Environmental Law*, 25 MD. J. INT'L L. 37 (2010).

¹⁰⁸ *See* Michael Duffy, *Climate Change Causation: Harmonizing Tort Law and Scientific Probability*, 28 TEMP. J. SCI., TECH. & ENVTL. L. 185, 188 (2009).

¹⁰⁹ *Id.* at 240 (admitting that "defendants may not be selected based on moral culpability or the ease and efficiency with which they can abate their harmful activity").

¹¹⁰ Michael B. Gerrard, *What the Law and the Lawyers Can and Cannot Do About Global Warming*, 16 SOUTHEASTERN ENVTL. L.J. 33, 51 (2007).

¹¹¹ *See* David A. Grossman, *Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation*, 28 COLUM. J. ENVTL. L. 1, 3-5 (2003) (illustrating the appropriateness of pursuing typical tort law goals in the context of climate change litigation).