

Chapter 17

CLIMATE CHANGE IN THE COURTS: JURISDICTION AND COMMON LAW LITIGATION

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I. THE UNCERTAIN FUTURE OF CLIMATE CHANGE LITIGATION

In the 1990s, states and environmental groups began using litigation as a strategy to compel agency action to reduce greenhouse gas emissions or to force large greenhouse gas emitters to reduce their emissions or pay damages for the harm they caused. Suits against agencies typically arose under federal environmental statutes, most importantly the Clean Air Act. Suits against emitters typically proceeded under tort law and primarily alleged that the emitters had caused or contributed to a public nuisance. Despite the prevalence of environmental litigation in modern society and the long history of using the common law to remedy environmental harms, courts have struggled to fit climate change into statutory frameworks and common law doctrines. In particular, courts have displayed a reticence to accept jurisdiction over cases involving climate change. As this chapter explores, this reticence seems to have increased even after the Supreme Court found climate change claims justiciable in *Massachusetts v. EPA*, 549 U.S. 497 (2007), and courts have increasingly rejected various climate change cases on jurisdictional grounds.

Before proceeding with any substantive claims, plaintiffs must demonstrate they have Article III standing to establish federal court jurisdiction. Most litigants and court observers expected the standing hurdle to be high, but state litigants surmounted the hurdle in *Massachusetts v. EPA*, the

Supreme Court's first standing ruling regarding climate change. However, that case left many questions unanswered, particularly because the Court narrowly found the plaintiffs had standing by acknowledging the "special solicitude" given to states. It thus left unanswered whether private citizens have standing to bring climate change-related claims. As a result, lower courts have issued conflicting and often confusing decisions. Several courts have declared *Massachusetts* applicable only to states, believing that it implicitly rejects Article III standing for private parties to pursue climate change claims. Standing is thus an actively contested issue in climate change and has become perhaps an even higher hurdle than observers would have expected before *Massachusetts*. Section II explores these issues.

Several courts, particularly in the context of public nuisance claims, have also wrestled with whether the scale and complexity of climate change make courts suitable fora for granting injunctive or monetary relief or whether the executive or legislative branches are best equipped to address climate change. The political question doctrine directs courts to decline jurisdiction over cases that present "political questions." Although there is no precise definition of what constitutes a political question, the Supreme Court has long held that courts should invoke the doctrine sparingly and usually only in those rare cases in which a court cannot exercise jurisdiction without substantially interfering in the business of the political branches of government. Despite the narrow nature of the doctrine, many lower federal and some state courts have invoked the doctrine to dismiss common law suits involving climate change, and a split exists between circuits at the federal appellate level. It seems likely that the political question doctrine will remain an active issue for litigation in the foreseeable future. Section III considers whether climate change claims raise nonjusticiable political questions best left to the executive and the legislature.

For those litigants that get beyond standing and the political question doctrine, another threshold issue emerges: whether any federal environmental statutes, particularly the Clean Air Act, displace or preempt such claims. In 2011, the Supreme Court concluded that the Clean Air Act is so comprehensive that it entirely displaces any federal common law claims regarding climate change. *Am. Elec. Power Co., Inc. v. Connecticut*, 131 S.Ct. 2527 (2011). Since this decision, lower courts have considered its application to state common law claims and even some state statutes. Although the doctrine of preemption typically begins with the presumption that federal law does not preempt state law, some lower courts have relied on the *Connecticut* case to conclude the Clean Air Act's comprehensiveness must indicate congressional intent to preempt all state laws regarding climate change. As Section IV explores, the scope of the Clean Air Act's preemption is another area of significant disagreement and uncertainty.

Finally, if a case makes it past the threshold issues to reach the merits, a last, essential question is whether courts have the power under traditional common law doctrines to address climate change injuries. The first wave of lawsuits seeking to use the common law alleged that major greenhouse gas emitters were causing or contributing to a public nuisance, i.e., an unreasonable interference with public rights. While the vast majority of these cases failed under the threshold issues of standing, political question, or preemption, the Second Circuit indicated that it had no conceptual problem with fitting climate change into a public nuisance framework. Many other courts, however, voiced their clear discomfort with applying nuisance law to climate

change and used that discomfort to justify their dismissals on jurisdictional grounds. Partly in response to these failed efforts and partly motivated by frustration with the pace of state and federal activity to reduce greenhouse gas emissions, a group of litigants has pursued a new theory under the public trust doctrine. The public trust doctrine has traditionally applied to submerged lands and water resources, but litigants have sought to expand the doctrine's application to the air, under a theory now called the "atmospheric trust." Whether this new theory will yield different results than tort law remains to be seen. Section V briefly considers both tort claims and the emerging atmospheric trust doctrine to assess whether common law could play a substantive role in climate change mitigation.

The role of the courts is thus as active and unpredictable as ever in climate change law. As you read the materials in this chapter, consider what role you think the courts should play in climate change mitigation. Consider also the following questions:

- What are the long-term implications of the decisions excerpted below, not just on climate change law, but on standing, preemption, and other doctrines that apply well beyond the climate change context?
- Has climate change irrevocably altered these doctrines?
- What does climate change litigation mean for the future of environmental litigation more generally?

II. ARTICLE III STANDING

Article III of the U.S. Constitution limits the authority of federal courts to hear only "Cases or Controversies." Although Article III itself does not define a case or controversy, the Supreme Court has interpreted Article III as requiring plaintiffs to show they have a genuine interest and stake in a case by demonstrating they have standing to sue. To satisfy Article III's standing requirement, a plaintiff must show (1) "'an injury in fact' that is (a) concrete and particularized and (b) actual or imminent and not conjectural or hypothetical; (2) that the injury is fairly traceable to the challenged action of the defendant; and (3) it is likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." *See, e.g., Friends of the Earth, Inc. v. Laidlaw Environmental Services (TOC), Inc.*, 528 U.S. 167, 180-81 (2000).

Environmental disputes have led to some of the most important standing jurisprudence. They also have demonstrated the Supreme Court's shifting approaches to standing, which have moved between a generally permissive attitude and a more stringent approach that can limit access to the courts.

Standing became a major environmental law issue in the 1970s, beginning with the Supreme Court's decision in *Sierra Club v. Morton*. 405 U.S. 727 (1972). There, the Supreme Court ruled that the Sierra Club's special interest in the environment was insufficient to grant it standing to

challenge the development of a ski resort, but noted that Sierra Club could file suit on behalf of its members provided that a member could show an aesthetic or recreational injury. A few years later, in *SCRAP*, perhaps the high water mark for permissive standing, the Supreme Court found that members of an environmental group were injured by a railroad freight rate surcharge. The court reasoned that the plaintiff's members would be harmed by increased refuse that might appear in parks as a result of the greater use of nonrecyclable goods caused by the higher freight rates. *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U.S. 669 (1973). The Court noted that the widespread nature of the challenged action, which could allegedly impact all railroads in the nation and thus "all the natural resources of the country," did not diminish *SCRAP*'s own claims of injury: "To deny standing to persons who are in fact injured simply because many others are also injured, would mean that the most injurious and widespread Government actions could be questioned by nobody." *Id.* at 687–88. The Court also rejected the contention that plaintiffs must demonstrate a "significant" injury for standing purposes, noting that even an "identifiable trifle" qualifies as a sufficient injury for Article III. *Id.* at 689 n.14.

In the 1990s, however, the Supreme Court tightened standing requirements. In *Lujan v. Defenders of Wildlife*, plaintiffs challenged a revised regulation that limited the geographic scope of the consultation provisions of Section 7 of the Endangered Species Act to federal actions within the United States. 504 U.S. 555 (1992). The plaintiffs claimed they would be injured by the lack of consultation concerning federally funded activities in foreign countries, because the rate of extinction of endangered and threatened species would increase. The plaintiffs' members noted that U.S. government-funded projects would further threaten species in areas they had traveled to — such as Egypt, where the endangered Nile crocodile existed — and that they intended to return to these areas. Justice Scalia, writing for the majority, stated that "[s]uch some day intentions — without any description of concrete plans, or indeed even any specification of *when* the some day will be — do not support a finding of the 'actual or imminent' injury that our cases require." 504 U.S. at 564.

The Supreme Court has also held that an Article III injury cannot take place unless a person uses the actual area affected by an activity. Thus, the Court found that plaintiffs lacked standing to challenge a project when the plaintiffs could show only that they used areas "in the vicinity" of the challenged project rather than the area actually affected by the challenged activity. *Lujan v. National Wildlife Federation*. 497 U.S. 871 (1990). For parties interested in challenging projects with potentially broad impacts, linking a project to a specific area became another significant hurdle.

While these decisions certainly narrowed standing for environmental plaintiffs, the Supreme Court opened the 21st Century with a decision that again offered hope to environmental litigants. In *Laidlaw*, the Court held that a person's reasonable concerns about the defendant's pollutant discharges satisfied the "injury" requirement:

The relevant showing for purposes of Article III standing, however, is not injury to the environment but injury to the plaintiff. To insist upon the former rather than

the latter as part of the standing inquiry . . . is to raise the standing hurdle higher than the necessary showing for success on the merits.

528 U.S. at 181. The Court also found that plaintiffs' injuries could be redressed by civil penalties, because civil penalties deter ongoing and future violations of the law. *Id.* at 185–88. The Fourth Circuit declared that *Laidlaw* created a “sea change” in standing jurisprudence, *Friends of the Earth, Inc. v. Gaston Copper Recycling Corp.*, 204 F.3d 149, 160 (4th Cir. 2000) (en banc), and many observers wondered if standing law would continue to relax over time. In the climate change context, the answer seems to be “no.”

A. Standing in Early Climate Change Cases

This Supreme Court standing jurisprudence created great uncertainty concerning the ability of environmental litigants to challenge climate change-related activities. Indeed, all three elements of standing pose challenges to plaintiffs. The global nature of climate change, for example, could suggest that no one has a particularized injury because everyone is injured. The scientific uncertainty concerning specific impacts of climate change and the contribution of specific activities, such as GHG emissions from a particular facility, to a specific injury, such as melting ice, make the “fairly traceable” requirement potentially difficult to show. In addition, the contribution to climate change from every single automobile tail pipe and every single coal-fired power plant, in addition to many other activities, could suggest that the injury is not redressable except through the political branches. Some early court cases, in fact, rejected plaintiffs' standing argument for these reasons. *See* *Foundation on Economic Trends v. Watkins*, 794 F. Supp. 395, 400-401 (D.D.C. 1992); *see also* *City of Los Angeles v. NHTSA*, 912 F.2d 478, 484 (D.C. Cir. 1990) (Ginsburg, J., dissenting); *Massachusetts v. Environmental Protection Agency*, 415 F.3d 50, 60 (D.C. Cir. 2005) (Sentelle, J., dissenting in part and concurring in judgment), *rev'd* 549 U.S. 497 (2007).

Not all courts and judges found climate change nonjusticiable, however. In *Covington v. Jefferson County*, 358 F.3d 626 (9th Cir. 2004), the court addressed whether injuries caused by another global environmental problem — ozone depletion — could be redressed by courts. In this case, the Covingtons claimed that Jefferson County violated the Clean Air Act (CAA) by not following federal procedures to account for removal or recapture of chlorofluorocarbons (CFCs) and other ozone-depleting substances before disposal or recycling. Despite the global nature of ozone depletion, the court treated the alleged injuries as essentially a local issue:

The evidence of leakage of white goods provided by the Covingtons is sufficient to show injury in fact because the failure to comply with CAA has increased the risk of harm to the Covingtons' property. The Covingtons have observed liquids leaking from the white goods and they fear that this liquid will contaminate their property. From this, the Covingtons' enjoyment of their property is diminished by the attested leaks. This analysis is parallel to our analysis of injury in fact for the RCRA [Resource Conservation and Recovery Act] violations. A credible threat of risks to their home yields a loss of enjoyment of property. That is enough for injury in fact for the CAA claims.

There is also causation: Failure of the landfill to follow CAA procedure allowed CFCs and other ozone-depleting substances to be released in the landfill, instead of being recaptured or properly removed. If the CAA regulation had been followed, no liquids would have leaked from the white goods. Or if liquid had leaked, these violations of federal law would have been documented. Redressability is satisfied, as with the RCRA violations, by the fines and penalties applicable for violations of CAA. *Laidlaw*, 528 U.S. at 185-86. Such CAA fines and penalties can cause Jefferson County to bring the landfill into compliance with the CAA. We conclude that the Covingtons have standing to bring the CAA claim.

Id. at 641. In a lengthy concurrence, Judge Gould — who also authored the panel’s decision — discussed the question of whether “injury to all is injury to none,” and concluded that it was not. A short time later, a district court squarely considered a defendant’s argument that plaintiffs could not have Article III standing to challenge actions that will cause “global injuries.”

In *Northwest Environmental Defense Center v. Owens Corning Corporation*, 434 F. Supp.2d 957 (D. Or. 2006), environmental organizations brought suit against a company for constructing a facility without first obtaining a permit as required under the New Source Review program of the Clean Air Act. Once operational, the facility would have emitted HCFC-142b, an ozone-depleting substance and greenhouse gas. The defendant argued that the groups’ alleged injuries were indistinguishable from any harm that individuals might suffer in Mongolia, Australia, or anywhere else in the world. The court, however, rejected the argument that climate change will have uniform global impacts. The court also followed Judge Gould’s concurrence and rejected the contention that “injury for all is injury for none,” noting:

If Defendant’s theory of standing were correct, no person could have standing to maintain an action aimed at averting harm to the Grand Canyon or Yellowstone National Park, or threats to the giant sequoias and blue whales, as the loss of those treasures would be felt by everyone. For that matter, if the proposed action threatened the very survival of our species, no person would have standing to contest it. The greater the threatened harm, the less power the courts would have to intercede. That is an illogical proposition.

Northwest Env’tl. Def. Ctr., 434 F. Supp.2d at 966.

B. *Massachusetts v. EPA*

Less than a year after the Oregon district court ruled that the plaintiffs had standing in *Northwest Environmental Defense Center*, the Supreme Court addressed standing in the climate context.

MASSACHUSETTS V. ENVIRONMENTAL PROTECTION AGENCY

549 U.S. 497 (2007)

JUSTICE STEVENS delivered the opinion of the Court. * * *

Calling global warming “the most pressing environmental challenge of our time,” a group of States, local governments, and private organizations, alleged in a petition for certiorari that the Environmental Protection Agency (EPA) has abdicated its responsibility under the Clean Air Act to regulate the emissions of four greenhouse gases, including carbon dioxide. Specifically, petitioners asked us to answer two questions concerning the meaning of § 202(a)(1) of the Act: whether EPA has the statutory authority to regulate greenhouse gas emissions from new motor vehicles; and if so, whether its stated reasons for refusing to do so are consistent with the statute.

In response, EPA, supported by 10 intervening States and six trade associations, correctly argued that we may not address those two questions unless at least one petitioner has standing to invoke our jurisdiction under Article III of the Constitution. * * *

IV

Article III of the Constitution limits federal-court jurisdiction to “Cases” and “Controversies.” Those two words confine “the business of federal courts to questions presented in an adversary context and in a form historically viewed as capable of resolution through the judicial process.” It is therefore familiar learning that no justiciable “controversy” exists when parties seek adjudication of a political question, or when the question sought to be adjudicated has been mooted by subsequent developments. This case suffers from none of these defects.

The parties’ dispute turns on the proper construction of a congressional statute, a question eminently suitable to resolution in federal court. Congress has moreover authorized this type of challenge to EPA action. *See* 42 U.S.C. § 7607(b)(1). That authorization is of critical importance to the standing inquiry: “Congress has the power to define injuries and articulate chains of causation that will give rise to a case or controversy where none existed before.” *Lujan*, 504 U.S., at 580 (KENNEDY, J., concurring in part and concurring in judgment). “In exercising this power, however, Congress must at the very least identify the injury it seeks to vindicate and relate the injury to the class of persons entitled to bring suit.” *Ibid.* We will not, therefore, “entertain citizen suits to vindicate the public’s nonconcrete interest in the proper administration of the laws.” *Id.*, at 581.

EPA maintains that because greenhouse gas emissions inflict widespread harm, the doctrine of standing presents an insuperable jurisdictional obstacle. We do not agree. At bottom, “the gist of the question of standing” is whether petitioners have “such a personal stake in the outcome of the controversy as to assure that concrete adverseness which sharpens the presentation of issues upon which the court so largely depends for illumination.” *Baker v. Carr*, 369 U.S. 186, 204 (1962). As JUSTICE KENNEDY explained in his *Lujan* concurrence:

“While it does not matter how many persons have been injured by the challenged action, the party bringing suit must show that the action injures him in a concrete and personal way. This requirement is not just an empty formality. It preserves the vitality of the adversarial process by assuring both that the parties before the court have an actual, as opposed to professed, stake in the outcome, and that the legal questions presented . . . will be resolved, not in the rarified atmosphere of a debating society, but in a concrete factual context conducive to a realistic appreciation of the consequences of judicial action.” 504 U.S., at 581 (internal quotation marks omitted).

To ensure the proper adversarial presentation, *Lujan* holds that a litigant must demonstrate that it has suffered a concrete and particularized injury that is either actual or imminent, that the injury is fairly traceable to the defendant, and that it is likely that a favorable decision will redress that injury. However, a litigant to whom Congress has “accorded a procedural right to protect his concrete interests,” — here, the right to challenge agency action unlawfully withheld, § 7607(b)(1) — “can assert that right without meeting all the normal standards for redressability and immediacy,” *ibid*. When a litigant is vested with a procedural right, that litigant has standing if there is some possibility that the requested relief will prompt the injury-causing party to reconsider the decision that allegedly harmed the litigant. *Ibid*.

Only one of the petitioners needs to have standing to permit us to consider the petition for review. We stress here, as did Judge Tatel below, the special position and interest of Massachusetts. It is of considerable relevance that the party seeking review here is a sovereign State and not, as it was in *Lujan*, a private individual.

Well before the creation of the modern administrative state, we recognized that States are not normal litigants for the purposes of invoking federal jurisdiction. As Justice Holmes explained in *Georgia v. Tennessee Copper Co.*, 206 U.S. 230, 237 (1907), a case in which Georgia sought to protect its citizens from air pollution originating outside its borders:

“The case has been argued largely as if it were one between two private parties; but it is not. The very elements that would be relied upon in a suit between fellow-citizens as a ground for equitable relief are wanting here. The State owns very little of the territory alleged to be affected, and the damage to it capable of estimate in money, possibly, at least, is small. This is a suit by a State for an injury to it in its capacity of *quasi*-sovereign. In that capacity the 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.”

Just as Georgia’s “independent interest . . . in all the earth and air within its domain” supported federal jurisdiction a century ago, so too does Massachusetts’ well-founded desire to preserve its sovereign territory today. Cf. *Alden v. Maine*, 527 U.S. 706, 715 (1999) (observing that in the federal system, the States “are not relegated to the role of mere provinces or political

corporations, but retain the dignity, though not the full authority, of sovereignty”). That Massachusetts does in fact own a great deal of the “territory alleged to be affected” only reinforces the conclusion that its stake in the outcome of this case is sufficiently concrete to warrant the exercise of federal judicial power.

When a State enters the Union, it surrenders certain sovereign prerogatives. Massachusetts cannot invade Rhode Island to force reductions in greenhouse gas emissions, it cannot negotiate an emissions treaty with China or India, and in some circumstances the exercise of its police powers to reduce in-state motor-vehicle emissions might well be pre-empted. See *Alfred L. Snapp & Son, Inc. v. Puerto Rico ex rel. Barez*, 458 U.S. 592, 607 (1982) (“One helpful indication in determining whether an alleged injury to the health and welfare of its citizens suffices to give the State standing to sue *parens patriae* is whether the injury is one that the State, if it could, would likely attempt to address through its sovereign lawmaking powers”).

These sovereign prerogatives are now lodged in the Federal Government, and Congress has ordered EPA to protect Massachusetts (among others) by prescribing standards applicable to the “emission of any air pollutant from any class or classes of new motor vehicle engines, which in [the Administrator’s] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.” 42 U.S.C. § 7521(a)(1). Congress has moreover recognized a concomitant procedural right to challenge the rejection of its rulemaking petition as arbitrary and capricious. § 7607(b)(1). Given that procedural right and Massachusetts’ stake in protecting its quasi-sovereign interests, the Commonwealth is entitled to special solicitude in our standing analysis.¹⁷

¹⁷ The Chief Justice accuses the Court of misreading *Georgia v. Tennessee Copper Co.*, 206 U.S. 230 (1907), see *post*, at 3-4 (dissenting opinion), and “devising a new doctrine of state standing,” *id.*, at 15. But no less an authority than Hart & Wechsler’s *The Federal Courts and the Federal System* understands *Tennessee Copper* as a standing decision. R. Fallon, D. Meltzer, & D. Shapiro, *Hart & Wechsler’s The Federal Courts and the Federal System* 290 (5th ed. 2003). Indeed, it devotes an entire section to chronicling the long development of cases permitting States “to litigate as *parens patriae* to protect quasi-sovereign interests—*i.e.*, public or governmental interests that concern the state as a whole.” *Id.*, at 289; see, *e.g.*, *Missouri v. Illinois*, 180 U.S. 208, 240-241 (1901) (finding federal jurisdiction appropriate not only “in cases involving boundaries and jurisdiction over lands and their inhabitants, and in cases directly affecting the property rights and interests of a state,” but also when the “substantial impairment of the health and prosperity of the towns and cities of the state” are at stake).

Drawing on *Massachusetts v. Mellon*, 262 U.S. 447 (1923), and *Alfred L. Snapp & Son, Inc. v. Puerto Rico ex rel. Barez*, 458 U.S. 592 (1982) (citing *Missouri v. Illinois*, 180 U.S. 208 (1901)), The Chief Justice claims that we “overlook the fact that our cases cast significant doubt on a State’s standing to assert a quasi-sovereign interest . . . against the Federal Government.” *Post*, at 5. Not so. *Mellon* itself disavowed any such broad reading when it noted that the Court had been “called upon to adjudicate, not rights of person or property, not rights of dominion over physical domain, [and] not quasi sovereign rights actually invaded or threatened.” 262 U.S., at 484-485 (emphasis added). In any event, we held in *Georgia v. Pennsylvania R. Co.*, 324 U.S. 439, 447 (1945), that there is a critical difference between allowing a State “to protect her citizens from the operation of federal statutes” (which is what *Mellon* prohibits) and allowing a State to assert its rights under federal law (which it has standing to do). Massachusetts does not here dispute that the Clean Air Act applies to its citizens; it rather seeks to assert its rights under the Act. See also *Nebraska v. Wyoming*, 515 U.S. 1, 20 (1995) (holding that Wyoming had standing to bring a cross-claim against the United States to vindicate its “‘quasi-sovereign’ interests which are ‘independent of and behind the titles of its citizens, in all the earth and air within its domain’” (quoting *Tennessee Copper*, 206 U.S., at 237)).

With that in mind, it is clear that petitioners' submissions as they pertain to Massachusetts have satisfied the most demanding standards of the adversarial process. EPA's steadfast refusal to regulate greenhouse gas emissions presents a risk of harm to Massachusetts that is both "actual" and "imminent." *Lujan*, 504 U.S., at 560 (internal quotation marks omitted). There is, moreover, a "substantial likelihood that the judicial relief requested" will prompt EPA to take steps to reduce that risk. *Duke Power Co. v. Carolina Environmental Study Group, Inc.*, 438 U.S. 59, 79 (1978).

The Injury

The harms associated with climate change are serious and well recognized. Indeed, the NRC Report itself — which EPA regards as an "objective and independent assessment of the relevant science," 68 Fed. Reg. 52930 — identifies a number of environmental changes that have already inflicted significant harms, including "the global retreat of mountain glaciers, reduction in snow-cover extent, the earlier spring melting of rivers and lakes, [and] the accelerated rate of rise of sea levels during the 20th century relative to the past few thousand years...."

Petitioners allege that this only hints at the environmental damage yet to come. According to the climate scientist Michael MacCracken, "qualified scientific experts involved in climate change research" have reached a "strong consensus" that global warming threatens (among other things) a precipitate rise in sea levels by the end of the century, "severe and irreversible changes to natural ecosystems," a "significant reduction in water storage in winter snowpack in mountainous regions with direct and important economic consequences," and an increase in the spread of disease. He also observes that rising ocean temperatures may contribute to the ferocity of hurricanes.

That these climate-change risks are "widely shared" does not minimize Massachusetts' interest in the outcome of this litigation. See *Federal Election Comm'n v. Akins*, 524 U.S. 11, 24 (1998) ("Where a harm is concrete, though widely shared, the Court has found 'injury in fact'"). According to petitioners' unchallenged affidavits, global sea levels rose somewhere between 10 and 20 centimeters over the 20th century as a result of global warming. These rising seas have already begun to swallow Massachusetts' coastal land. Because the Commonwealth "owns a substantial portion of the state's coastal property," it has alleged a particularized injury in its capacity as a landowner. The severity of that injury will only increase over the course of the next century: If sea levels continue to rise as predicted, one Massachusetts official believes that a significant fraction of coastal property will be "either permanently lost through inundation or temporarily lost through periodic storm surge and flooding events." Remediation costs alone, petitioners allege, could run well into the hundreds of millions of dollars.²¹

²¹ In dissent, The Chief Justice dismisses petitioners' submissions as "conclusory," presumably because they do not quantify Massachusetts' land loss with the exactitude he would prefer. He therefore asserts that the Commonwealth's injury is "conjectural." Yet the likelihood that Massachusetts' coastline will recede has nothing to do with whether petitioners have determined the precise metes and bounds of their soon-to-be-flooded land. Petitioners maintain that the seas are rising and will continue to rise, and have alleged that such a rise will lead to the loss of Massachusetts' sovereign territory. No one, save perhaps the dissenters, disputes those allegations. Our cases

Causation

EPA does not dispute the existence of a causal connection between man-made greenhouse gas emissions and global warming. At a minimum, therefore, EPA’s refusal to regulate such emissions “contributes” to Massachusetts’ injuries.

EPA nevertheless maintains that its decision not to regulate greenhouse gas emissions from new motor vehicles contributes so insignificantly to petitioners’ injuries that the agency cannot be haled into federal court to answer for them. For the same reason, EPA does not believe that any realistic possibility exists that the relief petitioners seek would mitigate global climate change and remedy their injuries. That is especially so because predicted increases in greenhouse gas emissions from developing nations, particularly China and India, are likely to offset any marginal domestic decrease.

But EPA overstates its case. Its argument rests on the erroneous assumption that a small incremental step, because it is incremental, can never be attacked in a federal judicial forum. Yet accepting that premise would doom most challenges to regulatory action. Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop. See *Williamson v. Lee Optical of Okla., Inc.*, 348 U.S. 483, 489 (1955) (“[A] reform may take one step at a time, addressing itself to the phase of the problem which seems most acute to the legislative mind”). They instead whittle away at them over time, refining their preferred approach as circumstances change and as they develop a more-nuanced understanding of how best to proceed. Cf. *SEC v. Chenery Corp.*, 332 U.S. 194, 202 (1947) (“Some principles must await their own development, while others must be adjusted to meet particular, unforeseeable situations”). That a first step might be tentative does not by itself support the notion that federal courts lack jurisdiction to determine whether that step conforms to law.

And reducing domestic automobile emissions is hardly a tentative step. Even leaving aside the other greenhouse gases, the United States transportation sector emits an enormous quantity of carbon dioxide into the atmosphere — according to the MacCracken affidavit, more than 1.7 billion metric tons in 1999 alone. That accounts for more than 6% of worldwide carbon dioxide emissions. To put this in perspective: Considering just emissions from the transportation sector, which represent less than one-third of this country’s total carbon dioxide emissions, the United States would still rank as the third-largest emitter of carbon dioxide in the world, outpaced only by the European Union and China. Judged by any standard, U.S. motor-vehicle emissions make a meaningful contribution to greenhouse gas concentrations and hence, according to petitioners, to global warming.

The Remedy

While it may be true that regulating motor-vehicle emissions will not by itself reverse global warming, it by no means follows that we lack jurisdiction to decide whether EPA has a duty to

require nothing more.

take steps to *slow* or *reduce* it. See also *Larson v. Valente*, 456 U.S. 228, 244, n. 15 (1982) (“[A] plaintiff satisfies the redressability requirement when he shows that a favorable decision will relieve a discrete injury to himself. He need not show that a favorable decision will relieve his *every* injury”). Because of the enormity of the potential consequences associated with man-made climate change, the fact that the effectiveness of a remedy might be delayed during the (relatively short) time it takes for a new motor-vehicle fleet to replace an older one is essentially irrelevant. Nor is it dispositive that developing countries such as China and India are poised to increase greenhouse gas emissions substantially over the next century: A reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere.

We moreover attach considerable significance to EPA’s “agreement with the President that ‘we must address the issue of global climate change,’” and to EPA’s ardent support for various voluntary emission-reduction programs. As Judge Tatel observed in dissent below, “EPA would presumably not bother with such efforts if it thought emissions reductions would have no discernable impact on future global warming.”

In sum — at least according to petitioners’ uncontested affidavits — the rise in sea levels associated with global warming has already harmed and will continue to harm Massachusetts. The risk of catastrophic harm, though remote, is nevertheless real. That risk would be reduced to some extent if petitioners received the relief they seek. We therefore hold that petitioners have standing to challenge the EPA’s denial of their rulemaking petition.²⁴ * * *

CHIEF JUSTICE ROBERTS, with whom JUSTICE SCALIA, JUSTICE THOMAS, and JUSTICE ALITO join, dissenting.

* * *

²⁴ In his dissent, The Chief Justice expresses disagreement with the Court’s holding in *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U.S. 669, 687-688 (1973). He does not, however, disavow this portion of Justice Stewart’s opinion for the Court:

“Unlike the specific and geographically limited federal action of which the petitioner complained in *Sierra Club [v. Morton]*, 405 U.S. 727 (1972)], the challenged agency action in this case is applicable to substantially all of the Nation’s railroads, and thus allegedly has an adverse environmental impact on all the natural resources of the country. Rather than a limited group of persons who used a picturesque valley in California, all persons who utilize the scenic resources of the country, and indeed all who breathe its air, could claim harm similar to that alleged by the environmental groups here. But we have already made it clear that standing is not to be denied simply because many people suffer the same injury. Indeed some of the cases on which we relied in *Sierra Club* demonstrated the patent fact that persons across the Nation could be adversely affected by major governmental actions. *To deny standing to persons who are in fact injured simply because many others are also injured, would mean that the most injurious and widespread Government actions could be questioned by nobody.* We cannot accept that conclusion.” *Ibid.* (citations omitted and emphasis added).

It is moreover quite wrong to analogize the legal claim advanced by Massachusetts and the other public and private entities who challenge EPA’s parsimonious construction of the Clean Air Act to a mere “lawyer’s game.”

I would reject these challenges as nonjusticiable. Such a conclusion involves no judgment on whether global warming exists, what causes it, or the extent of the problem. Nor does it render petitioners without recourse. This Court’s standing jurisprudence simply recognizes that redress of grievances of the sort at issue here “is the function of Congress and the Chief Executive,” not the federal courts. *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 576 (1992). I would vacate the judgment below and remand for dismissal of the petitions for review.

I

Article III, § 2, of the Constitution limits the federal judicial power to the adjudication of “Cases” and “Controversies.” “If a dispute is not a proper case or controversy, the courts have no business deciding it, or expounding the law in the course of doing so.” *DaimlerChrysler Corp. v. Cuno*, 547 U.S. , 126 S. Ct. 1854 (2006) (slip op., at 5). “Standing to sue is part of the common understanding of what it takes to make a justiciable case,” *Steel Co. v. Citizens for Better Environment*, 523 U.S. 83, 102 (1998), and has been described as “an essential and unchanging part of the case-or-controversy requirement of Article III,” *Defenders of Wildlife, supra*, at 560.

Our modern framework for addressing standing is familiar: “A plaintiff must allege personal injury fairly traceable to the defendant’s allegedly unlawful conduct and likely to be redressed by the requested relief.” *DaimlerChrysler*, *supra*, at , 126 S. Ct. 1854 (slip op., at 6) (quoting *Allen v. Wright*, 468 U.S. 737, 751 (1984) (internal quotation marks omitted)). Applying that standard here, petitioners bear the burden of alleging an injury that is fairly traceable to the Environmental Protection Agency’s failure to promulgate new motor vehicle greenhouse gas emission standards, and that is likely to be redressed by the prospective issuance of such standards.

Before determining whether petitioners can meet this familiar test, however, the Court changes the rules. It asserts that “States are not normal litigants for the purposes of invoking federal jurisdiction,” and that given “Massachusetts’ stake in protecting its quasi-sovereign interests, the Commonwealth is entitled to *special solicitude* in our standing analysis.” (emphasis added).

Relaxing Article III standing requirements because asserted injuries are pressed by a State, however, has no basis in our jurisprudence, and support for any such “special solicitude” is conspicuously absent from the Court’s opinion. The general judicial review provision cited by the Court, 42 U.S.C. § 7607(b)(1), affords States no special rights or status. The Court states that “Congress has ordered EPA to protect Massachusetts (among others)” through the statutory provision at issue, § 7521(a)(1), and that “Congress has . . . recognized a concomitant procedural right to challenge the rejection of its rulemaking petition as arbitrary and capricious.” The reader might think from this unfortunate phrasing that Congress said something about the rights of States in this particular provision of the statute. Congress knows how to do that when it wants to, see, *e.g.*, § 7426(b) (affording States the right to petition EPA to directly regulate certain sources of pollution), but it has done nothing of the sort here. Under the law on which petitioners rely, Congress treated public and private litigants exactly the same.

Nor does the case law cited by the Court provide any support for the notion that Article III somehow implicitly treats public and private litigants differently. The Court has to go back a full century in an attempt to justify its novel standing rule, but even there it comes up short. The Court’s analysis hinges on *Georgia v. Tennessee Copper Co.*, 206 U.S. 230 (1907) — a case that did indeed draw a distinction between a State and private litigants, but solely with respect to available remedies. The case had nothing to do with Article III standing.

In *Tennessee Copper*, the State of Georgia sought to enjoin copper companies in neighboring Tennessee from discharging pollutants that were inflicting “a wholesale destruction of forests, orchards and crops” in bordering Georgia counties. Although the State owned very little of the territory allegedly affected, the Court reasoned that Georgia — in its capacity as a “quasi-sovereign” — “has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain.” The Court explained that while “the very elements that would be relied upon in a suit between fellow-citizens as a ground for equitable relief [were] wanting,” a State “is not lightly to be required to give up quasi-sovereign rights for pay.” Thus while a complaining private litigant would have to make do with a *legal* remedy — one “for pay” — the State was entitled to *equitable* relief.

In contrast to the present case, there was no question in *Tennessee Copper* about Article III injury. There was certainly no suggestion that the State could show standing where the private parties could not; there was no dispute, after all, that the private landowners had “an action at law”. *Tennessee Copper* has since stood for nothing more than a State’s right, in an original jurisdiction action, to sue in a representative capacity as *parens patriae*. See, e.g., *Maryland v. Louisiana*, 451 U.S. 725, 737 (1981). Nothing about a State’s ability to sue in that capacity dilutes the bedrock requirement of showing injury, causation, and redressability to satisfy Article III.

A claim of *parens patriae* standing is distinct from an allegation of direct injury. Far from being a substitute for Article III injury, *parens patriae* actions raise an additional hurdle for a state litigant: the articulation of a “quasi-sovereign interest” “*apart* from the interests of particular private parties.” *Alfred L. Snapp & Son, Inc. v. Puerto Rico ex rel. Barez*, 458 U.S. 592, 607 (1982) (emphasis added). Just as an association suing on behalf of its members must show not only that it represents the members but that at least one satisfies Article III requirements, so too a State asserting quasi-sovereign interests as *parens patriae* must still show that its citizens satisfy Article III. Focusing on Massachusetts’s interests as quasi-sovereign makes the required showing here harder, not easier. The Court, in effect, takes what has always been regarded as a *necessary* condition for *parens patriae* standing — a quasi-sovereign interest — and converts it into a *sufficient* showing for purposes of Article III.

What is more, the Court’s reasoning falters on its own terms. The Court asserts that Massachusetts is entitled to “special solicitude” due to its “quasi-sovereign interests,” but then applies our Article III standing test to the asserted injury of the State’s loss of coastal property. See *ante*, at 19 (concluding that Massachusetts “has alleged a particularized injury *in its capacity as a landowner*” (emphasis added)). In the context of *parens patriae* standing, however, we have characterized state ownership of land as a “nonsovereign interest” because a State “is likely to

have the same interests as other similarly situated proprietors.” *Alfred L. Snapp & Son, supra*, at 601.

On top of everything else, the Court overlooks the fact that our cases cast significant doubt on a State’s standing to assert a quasi-sovereign interest — as opposed to a direct injury — against the Federal Government. As a general rule, we have held that while a State might assert a quasi-sovereign right as *parens patriae* “for the protection of its citizens, it is no part of its duty or power to enforce their rights in respect of their relations with the Federal Government. In that field it is the United States, and not the State, which represents them.” *Massachusetts v. Mellon*, 262 U.S. 447, 485-486 (1923) (citation omitted). . . .

All of this presumably explains why petitioners never cited *Tennessee Copper* in their briefs before this Court or the D. C. Circuit. It presumably explains why not one of the legion of *amici* supporting petitioners ever cited the case. And it presumably explains why not one of the three judges writing below ever cited the case either. Given that one purpose of the standing requirement is “to assure that concrete adverseness which sharpens the presentation of issues upon which the court so largely depends for illumination,” *ante*, at 13-14 (quoting *Baker v. Carr*, 369 U.S. 186, 204 (1962)), it is ironic that the Court today adopts a new theory of Article III standing for States without the benefit of briefing or argument on the point.¹

II

It is not at all clear how the Court’s “special solicitude” for Massachusetts plays out in the standing analysis, except as an implicit concession that petitioners cannot establish standing on traditional terms. But the status of Massachusetts as a State cannot compensate for petitioners’ failure to demonstrate injury in fact, causation, and redressability.

When the Court actually applies the three-part test, it focuses, as did the dissent below, on the State’s asserted loss of coastal land as the injury in fact. If petitioners rely on loss of land as the Article III injury, however, they must ground the rest of the standing analysis in that specific injury. That alleged injury must be “concrete and particularized,” and “distinct and palpable.” Central to this concept of “particularized” injury is the requirement that a plaintiff be affected in a “personal and individual way,” and seek relief that “directly and tangibly benefits him” in a manner distinct from its impact on “the public at large.” Without “particularized injury, there can be no confidence of ‘a real need to exercise the power of judicial review’ or that relief can be

¹ The Court seems to think we do not recognize that *Tennessee Copper* is a case about *parens patriae* standing, but we have no doubt about that. The point is that nothing in our cases (or Hart & Wechsler) suggests that the prudential requirements for *parens patriae* standing can somehow substitute for, or alter the content of, the “irreducible constitutional minimum” requirements of injury in fact, causation, and redressability under Article III. *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992). *Georgia v. Pennsylvania R. Co.*, 324 U.S. 439 (1945), is not to the contrary. As the caption makes clear enough, the fact that a State may assert rights under a federal statute as *parens patriae* in no way refutes our clear ruling that “[a] State does not have standing as *parens patriae* to bring an action against the Federal Government.” *Alfred L. Snapp & Son, Inc. v. Puerto Rico ex rel. Barez*, 458 U.S. 592, 610, n. 16 (1982).

framed ‘no broader than required by the precise facts to which the court’s ruling would be applied.’”

The very concept of global warming seems inconsistent with this particularization requirement. Global warming is a phenomenon “harmful to humanity at large,” 415 F.3d at 60 (Sentelle, J., dissenting in part and concurring in judgment), and the redress petitioners seek is focused no more on them than on the public generally — it is literally to change the atmosphere around the world.

If petitioners’ particularized injury is loss of coastal land, it is also that injury that must be “actual or imminent, not conjectural or hypothetical,” “real and immediate,” and “certainly impending.”

As to “actual” injury, the Court observes that “global sea levels rose somewhere between 10 and 20 centimeters over the 20th century as a result of global warming” and that “these rising seas have already begun to swallow Massachusetts’ coastal land.” But none of petitioners’ declarations supports that connection. One declaration states that “a rise in sea level due to climate change is occurring on the coast of Massachusetts, in the metropolitan Boston area,” but there is no elaboration. And the declarant goes on to identify a “significant” *non*-global-warming cause of Boston’s rising sea level: land subsidence. Thus, aside from a single conclusory statement, there is nothing in petitioners’ 43 standing declarations and accompanying exhibits to support an inference of actual loss of Massachusetts coastal land from 20th century global sea level increases. It is pure conjecture.

The Court’s attempts to identify “imminent” or “certainly impending” loss of Massachusetts coastal land fares no better. One of petitioners’ declarants predicts global warming will cause sea level to rise by 20 to 70 centimeters *by the year 2100*. Another uses a computer modeling program to map the Commonwealth’s coastal land and its current elevation, and calculates that the high-end estimate of sea level rise would result in the loss of significant state-owned coastal land. But the computer modeling program has a conceded average error of about 30 centimeters and a maximum observed error of 70 centimeters. As an initial matter, if it is possible that the model underrepresents the elevation of coastal land to an extent equal to or in excess of the projected sea level rise, it is difficult to put much stock in the predicted loss of land. But even placing that problem to the side, accepting a century-long time horizon and a series of compounded estimates renders requirements of imminence and immediacy utterly toothless. See *Defenders of Wildlife, supra*, at 565, n. 2 (while the concept of “imminence” in standing doctrine is “somewhat elastic,” it can be “stretched beyond the breaking point”). “Allegations of possible future injury do not satisfy the requirements of Art. III. A threatened injury must be *certainly impending* to constitute injury in fact.” *Whitmore, supra*, at 158.).

III

Petitioners’ reliance on Massachusetts’s loss of coastal land as their injury in fact for standing purposes creates insurmountable problems for them with respect to causation and redressability. To establish standing, petitioners must show a causal connection between that

specific injury and the lack of new motor vehicle greenhouse gas emission standards, and that the promulgation of such standards would likely redress that injury. As is often the case, the questions of causation and redressability overlap. And importantly, when a party is challenging the Government's allegedly unlawful regulation, or lack of regulation, of a third party, satisfying the causation and redressability requirements becomes "substantially more difficult." *Defenders of Wildlife, supra*, at 562.

Petitioners view the relationship between their injuries and EPA's failure to promulgate new motor vehicle greenhouse gas emission standards as simple and direct: Domestic motor vehicles emit carbon dioxide and other greenhouse gases. Worldwide emissions of greenhouse gases contribute to global warming and therefore also to petitioners' alleged injuries. Without the new vehicle standards, greenhouse gas emissions — and therefore global warming and its attendant harms — have been higher than they otherwise would have been; once EPA changes course, the trend will be reversed.

The Court ignores the complexities of global warming, and does so by now disregarding the "particularized" injury it relied on in step one, and using the dire nature of global warming itself as a bootstrap for finding causation and redressability. First, it is important to recognize the extent of the emissions at issue here. Because local greenhouse gas emissions disperse throughout the atmosphere and remain there for anywhere from 50 to 200 years, it is global emissions data that are relevant. According to one of petitioners' declarations, domestic motor vehicles contribute about 6 percent of global carbon dioxide emissions and 4 percent of global greenhouse gas emissions. The amount of global emissions at issue here is smaller still; § 202(a)(1) of the Clean Air Act covers only *new* motor vehicles and *new* motor vehicle engines, so petitioners' desired emission standards might reduce only a fraction of 4 percent of global emissions.

This gets us only to the relevant greenhouse gas emissions; linking them to global warming and ultimately to petitioners' alleged injuries next requires consideration of further complexities. As EPA explained in its denial of petitioners' request for rulemaking,

predicting future climate change necessarily involves a complex web of economic and physical factors including: our ability to predict future global anthropogenic emissions of [greenhouse gases] and aerosols; the fate of these emissions once they enter the atmosphere (e.g., what percentage are absorbed by vegetation or are taken up by the oceans); the impact of those emissions that remain in the atmosphere on the radiative properties of the atmosphere; changes in critically important climate feedbacks (e.g., changes in cloud cover and ocean circulation); changes in temperature characteristics (e.g., average temperatures, shifts in daytime and evening temperatures); changes in other climatic parameters (e.g., shifts in precipitation, storms); and ultimately the impact of such changes on human health and welfare (e.g., increases or decreases in agricultural productivity, human health impacts).

Petitioners are never able to trace their alleged injuries back through this complex web to the fractional amount of global emissions that might have been limited with EPA standards. In light of the bit-part domestic new motor vehicle greenhouse gas emissions have played in what petitioners describe as a 150-year global phenomenon, and the myriad additional factors bearing on petitioners' alleged injury — the loss of Massachusetts coastal land — the connection is far too speculative to establish causation.

IV

Redressability is even more problematic. To the tenuous link between petitioners' alleged injury and the indeterminate fractional domestic emissions at issue here, add the fact that petitioners cannot meaningfully predict what will come of the 80 percent of global greenhouse gas emissions that originate outside the United States. As the Court acknowledges, “developing countries such as China and India are poised to increase greenhouse gas emissions substantially over the next century,” so the domestic emissions at issue here may become an increasingly marginal portion of global emissions, and any decreases produced by petitioners' desired standards are likely to be overwhelmed many times over by emissions increases elsewhere in the world.

Petitioners offer declarations attempting to address this uncertainty, contending that “if the U.S. takes steps to reduce motor vehicle emissions, other countries are very likely to take similar actions regarding their own motor vehicles using technology developed in response to the U.S. program.” In other words, do not worry that other countries will contribute far more to global warming than will U.S. automobile emissions; someone is bound to invent something, and places like the People's Republic of China or India will surely require use of the new technology, regardless of cost. The Court previously has explained that when the existence of an element of standing “depends on the unfettered choices made by independent actors not before the courts and whose exercise of broad and legitimate discretion the courts cannot presume either to control or to predict,” a party must present facts supporting an assertion that the actor will proceed in such a manner. *Defenders of Wildlife*, 504 U.S. at 562. The declarations' conclusory (not to say fanciful) statements do not even come close.

No matter, the Court reasons, because *any* decrease in domestic emissions will “slow the pace of global emissions increases, no matter what happens elsewhere.” Every little bit helps, so Massachusetts can sue over any little bit.

The Court's sleight-of-hand is in failing to link up the different elements of the three-part standing test. What must be *likely* to be redressed is the particular injury in fact. The injury the Court looks to is the asserted loss of land. The Court contends that regulating domestic motor vehicle emissions will reduce carbon dioxide in the atmosphere, *and therefore* redress Massachusetts's injury. But even if regulation *does* reduce emissions — to some indeterminate degree, given events elsewhere in the world — the Court never explains why that makes it *likely* that the injury in fact — the loss of land — will be redressed. Schoolchildren know that a kingdom might be lost “all for the want of a horseshoe nail,” but “likely” redressability is a

different matter. The realities make it pure conjecture to suppose that EPA regulation of new automobile emissions will *likely* prevent the loss of Massachusetts coastal land.

V

Petitioners' difficulty in demonstrating causation and redressability is not surprising given the evident mismatch between the source of their alleged injury — catastrophic global warming — and the narrow subject matter of the Clean Air Act provision at issue in this suit. The mismatch suggests that petitioners' true goal for this litigation may be more symbolic than anything else. The constitutional role of the courts, however, is to decide concrete cases—not to serve as a convenient forum for policy debates. See *Valley Forge Christian College v. Americans United for Separation of Church and State, Inc.*, 454 U.S. 464, 472 (1982) (“[Standing] tends to assure that the legal questions presented to the court will be resolved, not in the rarified atmosphere of a debating society, but in a concrete factual context conducive to a realistic appreciation of the consequences of judicial action”).

When dealing with legal doctrine phrased in terms of what is “fairly” traceable or “likely” to be redressed, it is perhaps not surprising that the matter is subject to some debate. But in considering how loosely or rigorously to define those adverbs, it is vital to keep in mind the purpose of the inquiry. The limitation of the judicial power to cases and controversies “is crucial in maintaining the tripartite allocation of power set forth in the Constitution.” *DaimlerChrysler*, 547 U. S., at 126 S. Ct. 1854 (slip op., at 5) (internal quotation marks omitted). In my view, the Court today — addressing Article III’s “core component of standing,” *Defenders of Wildlife, supra*, at 560 — fails to take this limitation seriously.

To be fair, it is not the first time the Court has done so. Today’s decision recalls the previous high-water mark of diluted standing requirements, *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U.S. 669 (1973). *SCRAP* involved “probably the most attenuated injury conferring Art. III standing” and “surely went to the very outer limit of the law” — until today. *Whitmore*, 495 U.S., at 158-159; see also *Lujan v. Nat’l Wildlife Fed’n*, 497 U.S. 871, 889 (1990) (*SCRAP* “has never since been emulated by this Court”). In *SCRAP*, the Court based an environmental group’s standing to challenge a railroad freight rate surcharge on the group’s allegation that increases in railroad rates would cause an increase in the use of nonrecyclable goods, resulting in the increased need for natural resources to produce such goods. According to the group, some of these resources might be taken from the Washington area, resulting in increased refuse that might find its way into area parks, harming the group’s members. 412 U.S., at 688.

Over time, *SCRAP* became emblematic not of the looseness of Article III standing requirements, but of how utterly manipulable they are if not taken seriously as a matter of judicial self-restraint. *SCRAP* made standing seem a lawyer’s game, rather than a fundamental

limitation ensuring that courts function as courts and not intrude on the politically accountable branches. Today's decision is *SCRAP* for a new generation.²

Perhaps the Court recognizes as much. How else to explain its need to devise a new doctrine of state standing to support its result? The good news is that the Court's "special solicitude" for Massachusetts limits the future applicability of the diluted standing requirements applied in this case. The bad news is that the Court's self-professed relaxation of those Article III requirements has caused us to transgress "the proper — and properly limited — role of the courts in a democratic society." *Allen*, 468 U.S., at 750 (internal quotation marks omitted).

I respectfully dissent.

QUESTIONS AND DISCUSSION

1. Injury in Fact. The federal courts have issued varied decisions regarding whether a widely shared injury may be "concrete and particularized." In *SCRAP*, the Supreme Court observed that "to deny standing to persons who are in fact injured simply because many others are also injured, would mean that the most injurious and widespread Government actions could be questioned by nobody." *SCRAP*, 412 U.S. 687-88. However, where a plaintiff fails to demonstrate how a widely-shared injury will impact the plaintiff in a particularized way, the Supreme Court has refused to find that the plaintiff has standing. *See, e.g.,* *United States v. Richardson*, 418 U.S. 166, 176-77 (1974) (stating that generalized grievances do not give rise to a concrete injury); *Lujan*, 504 U.S. at 573-74 (same). This theory has been characterized as "injury to all is injury to none." As Judge Gould stated in *Covington*, "A theory that 'injury to all is injury to none' seems wrong in theory, for it would deny standing to every citizen such that no matter how badly the whole may be hurt, none of the parts could ever have standing to go to court to cure a harmful violation." 358 F.3d at 651. Has the dissent in *Massachusetts* adopted this theory? Under the dissenting opinion, could any plaintiff ever be able to bring a case related to climate change? What would a plaintiff need to allege to meet the dissent's theory of standing?

2. Injury in Fact: "Actual or Imminent." The majority recognized Massachusetts's claim of present and future sea level rise arising from human contributions of GHGs. While some portion of sea level rise is due to natural phenomena, the petitioners submitted affidavits from scientists detailing estimates and projections of future increases in sea level over the next several decades ("by 2100") that would be due, in part, to human GHG emissions. Writing for the dissent, Chief

² The difficulty with *SCRAP*, and the reason it has not been followed, is not the portion cited by the Court. Rather, it is the *attenuated* nature of the injury there, and here, that is so troubling. Even in *SCRAP*, the Court noted that what was required was "something more than an ingenious academic exercise in the conceivable," 412 U.S., at 688, and we have since understood the allegation there to have been "that the string of occurrences alleged would happen *immediately*," *Whitmore v. Arkansas*, 495 U.S. 149, 159 (1990) (emphasis added). That is hardly the case here.

The Court says it is "quite wrong" to compare petitioners' challenging "EPA's parsimonious construction of the Clean Air Act to a mere 'lawyer's game.'" Of course it is not the legal challenge that is merely "an ingenious academic exercise in the conceivable," *SCRAP, supra*, at 688, but the assertions made in support of standing.

Justice Roberts finds these future projections of injury far too speculative to satisfy the “imminence” requirement. Does he have a point? If an injury will not occur for 100 years, is it really “imminent”? What about five years? 50 years?

3. The courts’ approach to addressing future injuries often occurs under a “probabilistic harm” theory. Several courts have held that plaintiffs have Article III standing if they can demonstrate that they will suffer a demonstrable increased risk of death or injury as a result of a challenged action. *See Baur v. Veneman*, 352 F.3d 625, 634 (2d Cir. 2003); *Cent. Delta Water Agency v. United States*, 306 F.3d 938, 947-48 (9th Cir. 2002); *Gaston Copper*, 204 F.3d at 160. Other courts, however, have rejected this approach to standing. *Shain v. Veneman*, 376 F.3d 815, 818 (8th Cir. 2004); *Baur*, 352 F.3d at 651 & n. 3 (Pooler, J., dissenting). Under this approach, plaintiffs must often submit detailed scientific declarations to demonstrate the likelihood of future injury, and defendants often submit their own declarations refuting plaintiffs’ scientific claims. Thus, the standing inquiry often turns into a “battle of the experts,” even if the claims on the merits involve purely legal questions. Is this appropriate? How else should courts approach the question of standing for future injuries that will result from present actions?

4. Standing for Private Litigants. By focusing its standing decision on the unique status of states, the Supreme Court left unanswered whether private citizens have standing to challenge actions that contribute to climate change. Consider the district court’s decision in *Northwest Environmental Defense Center v. Owens Corning*. Do you think the district court would have reached the same decision if the case had been decided after *Massachusetts*?

5. Procedural Injuries. Many climate-related cases have alleged that agencies have failed to fulfill the procedural requirements under the National Environmental Policy Act (NEPA) to prepare an Environmental Impact Statement or even discuss climate change in their environmental analyses. One question of importance is whether plaintiffs seeking redress of procedural violations must meet the “normal standards for redressability and immediacy.” In dictum, Justice Scalia suggested that the standing requirements may be relaxed:

There is this much truth to the assertion that “procedural rights” are special: The person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy. Thus, under our case law, one living adjacent to the site for proposed construction of a federally licensed dam has standing to challenge the licensing agency’s failure to prepare an environmental impact statement, even though he cannot establish with any certainty that the statement will cause the license to be withheld or altered, and even though the dam will not be completed for many years.

Lujan, 504 U.S. at 572–73, n. 7. Outside of the climate change context, the Ninth and Tenth Circuits have embraced a relatively relaxed test for standing under NEPA. *Citizens for Better Forestry v. United States Dept. of Agriculture*, 341 F.3d 961, 972 (9th Cir. 2003) (holding that plaintiffs “need only establish ‘the reasonable probability of the challenged action’s threat to [their] concrete interest.’”); *Committee to Save the Rio Hondo v. Lucero*, 102 F.3d 445, 447 n.2,

451 (10th Cir. 1996) (“litigants face few standing barriers where an agency’s procedural flaw results in concrete injuries” and that under NEPA “a plaintiff need only show its increased risk is fairly traceable to the agency’s failure to comply with the [NEPA]”). In contrast, the D.C. Circuit has adopted a more rigorous test. *Florida Audubon Society v. Bentsen*, 94 F.3d 658, 666 (D.C. Cir. 1996) (en banc) (plaintiffs must demonstrate that the “challenged act is substantially probably to cause the demonstrated particularized injury”). Should standing requirements be more or less rigorous when plaintiffs assert violations of procedural rights? Which view appears to be more consistent with Justice Scalia’s passage in *Lujan*? As explored below, this issue has become increasingly complicated in the climate change context.

6. For private litigants, another important question that the Court left unanswered is the extent to which Congress can define injuries. In *Laidlaw*, the Supreme Court found that civil penalties would redress private plaintiffs’ injuries, observing:

Congress has found that civil penalties in Clean Water Act cases do more than promote immediate compliance by limiting the defendant’s economic incentive to delay its attainment of permit limits; they also deter future violations. This congressional determination warrants judicial attention and respect.

528 U.S. at 706. In *Massachusetts*, the Court noted that the Clean Air Act expressly authorizes the type of suits the plaintiffs had filed in that case, noting, “[t]hat authorization is of critical importance to the standing inquiry . . .” 549 U.S. at 516. In the past, Justice Kennedy has also recognized that Congress can “define injuries and articulate chains of causation that will give rise to a case or controversy where none existed before.” *Lujan*, 504 U.S. at 580 (Kennedy, J., concurring in part and concurring in judgment). Yet, the role of Congress in standing decisions does not appear settled. Indeed, courts have been reluctant to find that private parties have Article III standing, even under statutes that expressly require consideration of climate change impacts. Congress’s role in defining injuries will likely face much more scrutiny in the future. For an excellent article on standing and climate change prior to *Massachusetts v. EPA* as well as a view on the role of Congress in standing analyses, see Bradford C. Mank, *Standing and Global Warming: Is Injury to All Injury to None?*, 35 ENVTL. L. 1, 81–82 (2005).

7. Both the majority and dissenting opinions acknowledge that domestic motor vehicle emissions contribute about 6 percent of world emissions of carbon dioxide — but they reach polar opposite conclusions about the redressability of the harm. In his dissent in *Massachusetts v. EPA*, Chief Justice Roberts concludes that the petitioners’ alleged injuries are “too speculative to establish causation.” On redressability, he concludes that it is “pure conjecture” to believe that the regulation of new automobile emissions “will *likely* prevent the loss of Massachusetts coastal land.” Should the “bit part” that new U.S. auto emissions may play in reducing global GHG emissions be relevant to causation and redressability? How does the majority’s approach to redressability differ from the dissent’s? What percentage of current and future emissions would have to be involved in a case before the dissent would likely find standing?

8. **Causation.** The dissent seems unwilling to hold specific parties — or perhaps any party — accountable for pollution to which everyone in the world contributes. Do you agree with that

approach? In the Clean Water Act context, courts have routinely allowed plaintiffs to challenge the actions of just one defendant, even though many other parties are contributing pollution to a given waterway. *Public Interest Research Group of New Jersey, Inc. v. Powell Duffryn Terminals Inc.*, 913 F.2d 64, 72 (3d Cir. 1990) (“The requirement that plaintiff’s injuries be ‘fairly traceable’ to the defendant’s conduct does not mean that plaintiffs must show to a scientific certainty that defendant’s effluent, and defendant’s effluent alone, caused the precise harm suffered by the plaintiffs.”); *Sierra Club, Lone Star Chapter v. Cedar Point Oil Co. Inc.*, 73 F.3d 546, 558 (5th Cir. 1996) (same); *Natural Resources Defense Council v. Southwest Marine, Inc.*, 236 F.3d 985, 995 (9th Cir. 2000) (same). Should climate change be treated differently? As explored below, several courts have said yes.

9. Zone of Interests. In addition to the constitutional requirements for standing, the Supreme Court has also added “prudential” requirements to standing. For example, the Supreme Court has held that plaintiffs claiming a right to sue must “establish that the injury he complains of (his aggrievement, or the adverse effect upon him) falls within the ‘zone of interests’ sought to be protected by the statutory provision whose violation forms the legal basis for his complaint.” *Nat’l Wildlife Fed’n*, 497 U.S. at 883. In the context of climate change, one of the possibly more important prudential limitations is that the federal courts “refrain[] from adjudicating ‘abstract questions of wide public significance’ which amount to ‘generalized grievances,’ pervasively shared and most appropriately addressed in the representative branches.” *Valley Forge Christian College v. Americans United for Separation of Church and State*, 454 U.S. 464, 475 (1982). Note that, unlike the constitutional requirements of standing, the prudential limits on standing “can be modified or abrogated by Congress.” *Bennett v. Spear*, 520 U.S. 154, 162 (1997).

10. Parens Patriae and the “Special Solitude” for States. The majority bases its view that states should receive “special solicitude” on *Georgia v. Tennessee Copper*. In that case, the Supreme Court stated:

The state owns very little of the territory alleged to be affected, and the damage to it capable of estimate in money, possibly, at least, is small. This is a suit by a state for an injury to it in its capacity of *quasi*-sovereign. In that capacity the 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. . . . The alleged damage to the state as a private owner is merely a makeweight.

206 U.S. 230, 237 (1907). While the majority in *Massachusetts* declares that states should be given “special solicitude,” it never actually says in what way Massachusetts is being given “special solicitude.” Is there evidence that the majority relaxed standing requirements for Massachusetts? If so, is there any reason that the constitutional requirements for standing should have been relaxed?

The *parens patriae* doctrine allows states, acting in their “quasi-sovereign” capacity, to represent in litigation the interests of their citizens’ health and well-being, even where the states’ direct sovereign or proprietary interests are not at issue. See *Alfred L. Snapp & Son, Inc. v.*

Puerto Rico *ex rel. Barez*, 458 U.S. 592 (1982). The Second Circuit explored the role of the *parens patriae* in climate change litigation in *Connecticut v. American Electric Power Company*, 582 F.3d 309 (2009), excerpted below. After you read the Second Circuit’s decision, consider how and whether *parens patriae* was at issue in *Massachusetts*.

For more on states suing as *parens patriae*, see Ann Woolhandler & Michael G. Collins, *State Standing*, 81 VA. L. REV. 387 (1995); R. FALLON, D. MELTZER, & D. SHAPIRO, HART & WECHSLER’S THE FEDERAL COURTS AND THE FEDERAL SYSTEM 287–94 (5th ed. 2003).

C. Post-*Massachusetts* Standing Analysis

Since the Court issued *Massachusetts* in 2007, several courts have considered how it affects Article III standing for both private litigants and states. The *Massachusetts* decision left a number of questions unanswered, including:

- What does the Court’s reference to “special solicitude” for the states mean? Is *Massachusetts* a state-specific standing doctrine, or does it establish the standing framework for private parties and other entities (e.g., municipalities and other government entities)?
- Does the invocation of the *parens patriae* doctrine lessen a state’s obligation to prove Article III standing, or does it create a separate, additional burden for states to meet to establish standing in climate change lawsuits?
- What does “imminent” injury require? Is imminence an issue of timing and immediacy, or does it refer to the certainty that an event will occur?
- What is the significance of the emissions thresholds referenced in *Massachusetts*? Do litigants need to demonstrate that the activities they challenge will emit similar amounts of greenhouse gases as the ones at issue in *Massachusetts*? If smaller amounts are at issue, should this affect a party’s standing?
- Do procedural claims give parties a better chance of demonstrating standing? What about claims that arise under federal statutes, as opposed to the common law?
- Is “standing for all is standing for none” the rule for private parties?

The Second Circuit explored some of these issues in an extensive decision in *Connecticut* that ultimately found that both state parties and private land trusts had Article III standing. However, as the *Amigos Bravos* case excerpt reveals, some lower courts have reached different conclusions regarding the meaning and applicability of *Massachusetts*. *Amigos Bravos v. U.S. Bureau of Land Management*, 806 F. Supp.2d 1118 (D. N.M. 2011). The notes following these cases further highlight some of the questions *Massachusetts* left unanswered.

CONNECTICUT V. AMERICAN ELECTRIC POWER COMPANY INC.

582 F.3d 309 (2009),
rev'd on other grounds and remanded,
Am. Elec. Power Co., Inc. v. Connecticut,
131 S.Ct. 2527 (2011)

Before: McLAUGHLIN and HALL, Circuit Judges.

In 2004, two groups of Plaintiffs, one consisting of eight States and New York City, and the other consisting of three land trusts (collectively “Plaintiffs”), separately sued the same six electric power corporations that own and operate fossil-fuel-fired power plants in twenty states (collectively “Defendants”), seeking abatement of Defendants’ ongoing contributions to the public nuisance of global warming. Plaintiffs claim that global warming, to which Defendants contribute as the “five largest emitters of carbon dioxide in the United States and ... among the largest in the world,” by emitting 650 million tons per year of carbon dioxide, is causing and will continue to cause serious harms affecting human health and natural resources. . . . Pointing to a “clear scientific consensus” that global warming has already begun to alter the natural world, Plaintiffs predict that it “will accelerate over the coming decades unless action is taken to reduce emissions of carbon dioxide.”

Plaintiffs brought these actions under the federal common law of nuisance or, in the alternative, state nuisance law, to force Defendants to cap and then reduce their carbon dioxide emissions. Defendants moved to dismiss on a number of grounds. The district court held that Plaintiffs’ claims presented a non-justiciable political question and dismissed the complaints. * * *

BACKGROUND

I. The States’ Complaint

* * * [T]he States assert that Defendants are “substantial contributors to elevated levels of carbon dioxide and global warming,” as their annual emissions comprise “approximately one quarter of the U.S. electric power sector’s carbon dioxide emissions and approximately ten percent of all carbon dioxide emissions from human activities in the United States.” Moreover, the rate of increase of emissions from the U.S. electric power sector is expected to rise “significantly faster than the projected growth rate of emissions from the economy as a whole” from now until the year 2025. At the same time, the States contend that Defendants have “practical, feasible and economically viable options for reducing emissions without significantly increasing the cost of electricity for their customers.” * * *

II. The Land Trusts’ Complaint

. . . The Trusts are “nonprofit land trusts that acquire and maintain ecologically significant and sensitive properties for scientific and educational purposes, and for human use and enjoyment. They own nature sanctuaries, outdoor research laboratories, wildlife preserves, recreation areas, and open space.” . . . Their complaint asserts that “[w]hile the global warming to which Defendants contribute injures the public at large, Plaintiffs suffer special injuries, different in degree and kind from injuries to the general public.” They then enumerate how the ecological value of specific properties in which they have an interest will be diminished or destroyed by global warming. * * *

III. Standing

The procedural posture of a case is important when assessing standing. The standard against which a court measures allegations of standing on the pleadings is well known:

[W]e presume the general factual allegations embrace those facts necessary to support the claim and are constrained not only to accept the truth of the plaintiffs’ jurisdictional allegations, but also to construe all reasonable inferences to be drawn from those allegations in plaintiffs’ favor.

The Supreme Court has commented on the lowered bar for standing at the pleading stage, stating that “general factual allegations of injury resulting from the defendant’s conduct may suffice, for on a motion to dismiss we ‘presum[e] that general allegations embrace those specific facts that are necessary to support the claim.’” *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1992).

At this point in the litigation, Plaintiffs need not present scientific evidence to prove that they face future injury or increased risk of injury, that Defendants’ emissions cause their injuries, or that the remedy they seek will redress those injuries. * * *

In *Connecticut v. Cahill*, 217 F.3d 93 (2d Cir. 2000), this Court enumerated three capacities in which States may bring suit in federal court: “(1) proprietary suits in which the State sues much like a private party suffering a direct, tangible injury; (2) sovereignty suits requesting adjudication of boundary disputes or water rights; or (3) *parens patriae* suits in which States litigate to protect ‘quasi-sovereign’ interests.” Here, the States are suing in both their proprietary and *parens patriae* capacities, and New York City and the Trusts are suing in their proprietary capacities. . . .

A. The States’ *Parens Patriae* Standing

1. Background

Parens patriae is an ancient common law prerogative which “is inherent in the supreme power of every state . . . [and is] often necessary to be exercised in the interests of humanity, and for the prevention of injury to those who cannot protect themselves.” *Late Corp. of the Church of Jesus Christ of Latter-Day Saints v. United States*, 136 U.S. 1, 57 (1890). The Supreme Court, in

Missouri I, articulated the rationale behind *parens patriae* standing in common law nuisance cases when it allowed Missouri to sue Illinois to enjoin it from dumping sewage that poisoned Missouri's water supply. The Court stated that:

[A]n adequate remedy can only be found in this court at the suit of the state of Missouri. It is true that no question of boundary is involved, nor of direct property rights belonging to the complainant state. But it must surely be conceded that, if the health and comfort of the inhabitants of a state are threatened, the state is the proper party to represent and defend them. If Missouri were an independent and sovereign State all must admit that she could seek a remedy by negotiation, and, that failing, by force. Diplomatic powers and the right to make war having been surrendered to the general government, it was to be expected that upon the latter would be devolved the duty of providing a remedy, and that remedy, we think, is found in the constitutional provisions we are considering.

Missouri I, 180 U.S. at 241. . . . These cases demonstrate that a state's interests in protecting both its natural resources and the health of its citizens have been recognized as legitimate quasi-sovereign interests since the turn of the last century. * * *

2. *Parens Patriae as a Species of Article III Standing*

State standing is not monolithic and depends on the role a state takes when it litigates in a particular case. In *Snapp*, the seminal modern-day *parens patriae* standing case, the Supreme Court explained how the capacity in which a state sues has an impact on the standing analysis. After discussing a state's sovereign interests, the Court drew a distinction between a state's proprietary and quasi-sovereign interests:

Not all that a State does, however, is based on its sovereign character. Two kinds of nonsovereign interests are to be distinguished. First, *like other associations and private parties*, a State is bound to have a variety of proprietary interests. A State may, for example, *own land* or participate in a business venture. . . . And like other such proprietors it may at times need to pursue those interests in court. Second, a State may, for a variety of reasons, attempt to pursue the interests of a private party, and pursue those interests only for the sake of the real party in interest. . . .

Quasi-sovereign interests stand apart from . . . the above: They are not sovereign interests, proprietary interests, or private interests pursued by the State as a nominal party. They consist of a set of interests that the State has in the well-being of its populace. Formulated so broadly, the concept risks being too vague to survive the standing requirements of Art. III: A quasi-sovereign interest must be sufficiently concrete to create an actual controversy between the State and the defendant. The vagueness of this concept can only be filled in by turning to individual cases.

Snapp, 458 U.S. at 601–02 (emphases added).

In order to ensure that a state suing on behalf of its injured citizens properly asserts a case or controversy sufficient for Article III standing purposes, *Snapp* formulated a test for *parens patriae* standing. A state: (1) “must articulate an interest apart from the interests of particular private parties, *i.e.*, the State must be more than a nominal party”; (2) “must express a quasi-sovereign interest”¹¹ and (3) must have “alleged injury to a sufficiently substantial segment of its population.” *Id.* at 607. * * *

3. *Effect of Massachusetts v. EPA*

* * * The Supreme Court ruled that Massachusetts had Article III standing. The Court introduced the standing section by citing the three-part *Lujan* test, focusing in its initial analysis on the States’ proprietary interests as property owners. This approach is consistent with *Snapp*’s distinction between a state suing as *parens patriae* and a state suing in a capacity similar to that of an individual landowner. The Court observed that Congress had explicitly authorized a procedural right to challenge EPA actions under the CAA, *see* 42 U.S.C. § 7607(b)(1) (pertaining to judicial review), reaffirming Congress’s power to “define injuries and articulate chains of causation that will give rise to a case or controversy where none existed before.” *Id.* at 516. This procedural right was “of critical importance to the standing inquiry” and permitted the States a short cut in the *Lujan* standing analysis, as they were not obliged to “meet[] all the normal standards for redressability and immediacy.” *Id.* at 516–17.

But the *Massachusetts* Court then added another layer to its analysis — one which arguably muddled state proprietary and *parens patriae* standing. The majority noted that it was “of considerable relevance that the party seeking review here is a sovereign State and not, as it was in *Lujan*, a private individual.” *Id.* at 518. The majority also quoted language from *Tennessee Copper*, 206 U.S. at 237, which defined injury to a state “in its capacity of quasi-sovereign. * * *

In the midst of invoking language that hearkened to a state’s quasi-sovereign interests, the *Massachusetts* Court mentioned proprietary injury to the State as a landowner, commenting: “That Massachusetts does in fact *own a great deal of the territory* alleged to be affected only reinforces the conclusion that its stake in the outcome of this case is sufficiently concrete to warrant the exercise of federal judicial power.” *Id.* (emphasis added). This sentence appears to conflate, to an extent, state *parens patriae* standing and proprietary standing. The Court seemed to find that injury to a state as a quasi-sovereign is a sufficiently concrete injury to be cognizable under Article III, and its finding of such injury is reinforced by the fact that the State is also a landowner and suffers injury to its land. The Court concluded this section of its standing analysis by opining: “Given that procedural right and Massachusetts’ stake in protecting its quasi-sovereign interests, the Commonwealth is entitled to special solicitude in our standing analysis.” *Id.* at 520. The Court then briefly analyzed state standing under the *Lujan* injury, causation, and

¹¹ The Court identified two types of quasi-sovereign interests: (1) protecting “the health and well-being ... of its residents,” and (2) “securing observance of the terms under which [the state] participates in the federal system.” Only the “health and well-being” quasi-sovereign interest is at issue here, and our analysis is thus limited to this interest.

redressability tests-in Massachusetts' capacity as a property owner, not as a quasi-sovereign-and found that Massachusetts had satisfied those requirements.

The question is whether *Massachusetts'* discussion of state standing has an impact on the analysis of *parens patriae* standing, *supra*. That is, what is the role of Article III *parens patriae* standing in relation to the test set out in *Lujan*? Must a state asserting *parens patriae* standing satisfy both the *Snapp* and *Lujan* tests? However, we need not answer these questions because as discussed in Part III.B, *infra*, all of the plaintiffs have met the *Lujan* test for standing. Thus, even assuming that a state asserting *parens patriae* standing must meet the *Lujan* requirements, here, those requirements have been met.

4. *States' Allegations Satisfy the Snapp Test*

The States have adequately alleged the requirements for *parens patriae* standing pursuant to the *Snapp-11 Cornwell Co.* standards. They are more than "nominal parties." Their interest in safeguarding the public health and their resources is an interest apart from any interest held by individual private entities. Their quasi-sovereign interests involving their concern for the "health and well-being-both physical and economic-of [their] residents in general," *Snapp*, 458 U.S. at 607, are classic examples of a state's quasi-sovereign interest. The States have alleged that the injuries resulting from carbon dioxide emissions will affect virtually their entire populations. Moreover, it is doubtful that individual plaintiffs filing a private suit could achieve complete relief. * * *

B. *The States' and the Trusts' Article III Proprietary Standing*

The States and New York City have sued in their proprietary capacity as property owners. . . The allegations in the complaint indicate that each [Trust] is suing on its own behalf, in its proprietary capacity as an owner of particular pieces of property dedicated to conservation uses.

1. *Have Plaintiffs Sufficiently Alleged Injury-in-Fact?*

* * * The States claim current injury as a result of the increase in carbon dioxide levels that has already caused the temperature to rise and change their climates; devastating future injury to their property from the continuing, incremental increases in temperature projected over the next 10 to 100 years; and increased risk of harm from global warming, including an abrupt and catastrophic change in climate when a "tipping point of radiative forcing is reached." The Trusts do not allege any current injury. But like the States, they allege a multitude of future injuries and an increased risk of harm resulting from global warming, and assert that these future injuries constitute "special injuries" to their property interests-injuries different in kind and degree from the injuries suffered by the general public.

Defendants challenge the proprietary standing of the States and the Trusts on the same grounds. They contend that no Plaintiff has alleged a current injury, that the future harms alleged in the complaints are not "imminent" enough to satisfy Article III injury-in-fact, and that the

increased risks of harm cited by Plaintiffs are not cognizable . . .

a. Current Injury

One current harm that the States mention is the reduced size of the California snowpack. “This process of reduced mountain snowpack, earlier melting and associated flooding, and reduced summer streamflows already has begun.” The current declining water supplies and the flooding occurring as a result of the snowpack’s earlier melting obviously injure property owned by the State of California. * * * Such an injury is “concrete,” as property damage is “plainly [a] concrete harm[] under Supreme Court precedents.” Moreover, the injuries to California far exceed the “identifiable trifle” required by Article III. We thus reject Defendants’ argument that the Plaintiff States do not allege any current injury.

b. Future Injury

The bulk of the States’ allegations concern future injury. For example, those Plaintiff States with ocean coastlines, including New York City, charge that a rise in sea level induced by global warming will cause more frequent and severe flooding, harm coastal infrastructure including airports, subway stations, tunnels, tunnel vent shafts, storm sewers, wastewater treatment plants, and bridges, and cause hundreds of billions of dollars of damage. * * * Plaintiff States predict these injuries will come to pass in the next 10 to 100 years.

The Trusts’ complaint also focuses on future injury. For instance, the Trusts claim that the ecological value of their properties will be diminished or destroyed by the global warming to which Defendants’ emissions contribute. * * * Like the claims asserted by the States and New York City, the Trusts’ allegations of injury are not stated in terms of possibilities or contingencies, but certainties. While the Trusts do not provide a time frame for the injuries they expect to sustain from global warming, they assert that those injuries are “imminent.”

Defendants challenge Plaintiffs’ contentions of future injury by arguing that injuries occurring at “some unspecified future date” are not the kind of “imminent” injury referred to in *Lujan* and therefore neither the States nor the Trusts have properly alleged injury-in-fact. * * * In describing imminence, the [*Lujan*] Court was not imposing a strict temporal requirement that a future injury occur within a particular time period following the filing of the complaint. Instead, the Court focused on the *certainty* of that injury occurring in the future, seeking to ensure that the injury was not speculative. The Court also expressed wariness that if the future injury was contingent, at least to some extent, on a plaintiff acting in a particular way in the future, that plaintiff would have within its control whether the future injury would actually occur at all. If the plaintiff did not act in such a way as to incur the injury, a court would be left with a hypothetical injury—an insufficient basis upon which to confer standing. * * *

[W]hat makes Plaintiffs’ future injury claims more compelling here is that Defendants are *currently* emitting large amounts of carbon dioxide and will continue to do so in the future. Due to Plaintiffs’ exposure to the emissions, the future injuries complained of are “certainly impending” and are more concrete . . . because the processes producing them have already

begun. As a result, according to Plaintiffs, the future injuries they predict are anything but speculation and conjecture: “Rather, they are certain to occur because of the consequences, based on the laws of physics and chemistry, of the documented increased carbon dioxide in the atmosphere.” There is no probability involved. These emissions, which allegedly contribute to global warming, will continue to exacerbate the injuries Plaintiffs are currently experiencing. Moreover, the future injuries that Plaintiffs allege are not in any way contingent on Plaintiffs’ actions or inactions.

We find that Plaintiffs have sufficiently alleged future injury. Given the current injury alleged by the States, and the future injuries alleged by all Plaintiffs, we hold that Plaintiffs have alleged injury-in-fact.

2. *Causation*

* * * Plaintiffs allege that Defendants are the “five largest emitters of carbon dioxide in the United States,” and that Defendants’ emissions directly and proximately contribute to their injuries and threatened injuries. Defendants respond that Plaintiffs can neither isolate which alleged harms will be caused by Defendants’ emissions, nor can Plaintiffs allege that such emissions would alone cause any future harms. In particular, Defendants claim that Plaintiffs’ use of the words “contribute to” is not sufficient to allege causation, that the multiple polluter cases relied upon by Plaintiffs are inapposite because causation was presumed by contributions of a harmful pollutant in amounts that exceeded federally prescribed limits, and that, in any event, carbon dioxide is not inherently harmful but mixes with worldwide emissions that collectively contribute to global warming.

Defendants’ arguments are unavailing and we find that Plaintiffs have sufficiently alleged that their injuries are “fairly traceable” to the actions of Defendants. Plaintiffs assert that Defendants’ continued emissions of carbon dioxide contribute to global warming, which harms them now and will harm them in the future in specific ways. Defendants’ attempts to argue the insufficiency of Plaintiffs’ allegations of traceability must be evaluated in accordance with the standard by which a common law public nuisance action imposes liability on contributors to an indivisible harm. *See, e.g., Cox v. City of Dallas*, 256 F.3d 281, 292 n. 19 (5th Cir. 2001) (declaring that “nuisance liability at common law has been based on actions which ‘contribute’ to the creation of a nuisance”); Restatement (Second) of Torts § 840E (“[T]he fact that other persons contribute to a nuisance is not a bar to the defendant’s liability for his own contribution.”); *id.* § 875 (“Each of two or more persons whose tortious conduct is a legal cause of a single and indivisible harm to the injured party is subject to liability to the injured party for the entire harm.”). Moreover, the cases are clear that, particularly at the pleading stage, the “fairly traceable” standard is not equivalent to a requirement of tort causation ... that “tort-like causation is not required by Article III,” and “[t]he requirement that plaintiff’s injuries be ‘fairly traceable’ to the defendant’s conduct does not mean that plaintiffs must show to a scientific certainty that defendant’s effluent, and defendant’s effluent alone, caused the precise harm suffered by the plaintiffs.” * * *

In view of this widely accepted case law, and the procedural posture of the case, Defendants’

argument that many others contribute to global warming in a variety of ways, and that therefore Plaintiffs cannot allege traceability, does not defeat the causation requirement.

Defendants also claim that their emissions, which “allegedly account for 2.5% of man-made carbon dioxide emissions” are, in essence, too insignificant to cause future injuries, particularly since only the collective effect of worldwide emissions allegedly causes injury. They conclude that the States cannot allege that their emissions would alone cause *any* future harms. This is simply a variation on their argument that a polluter who “contributes to” pollution does not allege causation, an argument we have addressed *supra*. Additionally, this is an issue best left to the rigors of evidentiary proof at a future stage of the proceedings, rather than dispensed with as a threshold question of constitutional standing. * * *

3. *Redressability*

* * * Plaintiffs assert that, because Defendants are major emitters of carbon dioxide, capping Defendants’ emissions and reducing them by a specified percentage each year for at least a decade “is necessary to avert or reduce the risk of the injuries described above.” Defendants insist that Plaintiffs’ injuries are not redressable because Plaintiffs do not and cannot allege that capping and reducing emissions by an unidentified percentage “would or could remediate the alleged future harms they seek to forestall.” Defendants maintain that the emissions reductions are “merely a part of the overall reductions ‘necessary’ to slow global warming.” In addition, Defendants contend that the harms of global warming can only be redressed by reaching the actions of third party emitters * * *

Defendants’ assertions echo their arguments for nonjusticiability under the political question doctrine: because global warming is a world-wide problem, federal courts are not the proper venue for this action, nor could the courts redress the injuries about which Plaintiffs complain because global warming will continue despite any reduction in Defendants’ emissions. *Massachusetts* disposed of this argument. The Court recognized that regulation of motor vehicle emissions would not “by itself *reverse* global warming,” but that it was sufficient for the redressability inquiry to show that the requested remedy would “*slow or reduce* it.” * * *

AMIGOS BRAVOS V. U.S. BUREAU OF LAND MANAGEMENT

806 F. Supp.2d 1118 (D. N.M. 2011)

I. BACKGROUND

This civil action arises out of a dispute over whether the United States Bureau of Land Management (BLM) fully considered the issue of climate change, global warming, and greenhouse gases (GHGs) when it approved two quarterly oil and gas lease sales on April 16, 2008 and July 16, 2008. * * *

In this case, Plaintiffs are six citizen environmental groups suing to protect their members from climate change and the accompanying environmental harms that will allegedly result from

BLM's approval of 92 separate oil and gas leases on federal lands in New Mexico. As Plaintiffs are suing on behalf of their members, however, they must demonstrate that their members would have standing to sue in their own right * * *

C. Relaxed Standing Requirement for Procedural Rights Violations

Plaintiffs argue that they are entitled to a relaxed standing analysis because they assert procedural violations by BLM in approving the contested oil and gas leases. The Supreme Court and the Tenth Circuit have concluded that where a plaintiff is asserting his procedural rights under NEPA the normal requirements for the redressability element of standing are relaxed.

Nevertheless, "the requirement of injury in fact is a hard floor of Article III jurisdiction that cannot be removed by statute." *Summers v. Earth Island Inst.*, 555 U.S. 488 (2009). In other words, unless a plaintiff can show an injury-in-fact that is (a) actual or imminent and (b) concrete and particularized, the Court must dismiss for lack of standing. * * *

III. ANALYSIS * * *

B. Plaintiffs Failed to Demonstrate an Injury-in-Fact

The first requirement of standing is that Plaintiffs demonstrate their members suffered an injury-in-fact. . . . Standing is not "an ingenious academic exercise in the conceivable"; rather, it minimally requires "a factual showing of perceptible harm." In cases alleging environmental harm due to an agency's improper decision-making, the Tenth Circuit has broken down the injury-in-fact prong of the Article III standing analysis into two parts: "(1) the litigant must show that in making its decision without following [proper procedure], the agency created an increased risk of actual, threatened, or imminent environmental harm; and (2) the litigant must show that the increased risk of environmental harm injures its concrete interests by demonstrating either its geographical nexus to, or actual use of the site of the agency action."

In determining whether Plaintiffs suffered an injury-in-fact, the Court must first look at whether BLM's alleged uninformed decisionmaking led to an increased risk of environmental harm that was "actual, threatened, or imminent, not merely conjectural or hypothetical." In *Mass. v. EPA*, the U.S. Supreme Court recognized there is now a fairly clear scientific consensus that greenhouse gas emissions from human activities are increasing average global temperatures and producing changes to the climate. * * *

In the case at hand, Plaintiffs allege that climate change will have a negative impact on the New Mexico climate and therefore impinge upon their members' ability to live, recreate, and earn a living. Declarants assert that climate change will lead to, among other harms, less water, decreased biodiversity, siltier rivers, and more forest fires; yet, Plaintiffs present no scientific evidence or formal, recorded observations to support these allegations. Federal Defendants argue that "[n]one of the individuals offering opinions on these subjects . . . assert that they are experts in the relevant scientific fields and they provide no foundation or evidence for their conclusions. These portions of Plaintiffs' declarations therefore constitute inadmissible evidence and opinion

testimony, and cannot be considered in determining whether GHG emissions provide a basis for Plaintiffs' standing." At this stage of the litigation, Plaintiffs must come forward with more than just bare assertions of perceived climate changes. Although Declarants may be legitimately concerned about the possible effects of climate change on the New Mexico environment, their allegations are conjectural and hypothetical. * * *

Still, Plaintiffs argue that they have demonstrated injury-in-fact because the Declarations demonstrate "the requisite 'reasonable concerns' and 'reasonable probability' that BLM's procedural violations risk concrete interests." . . . Yet, Plaintiffs must show more than a reasonable concern: . . . the Tenth Circuit requires that a plaintiff show an agency's failure to follow proper procedures "created an increased risk of actual, threatened, or imminent environmental harm." Notwithstanding the textual differences, both cases require that a plaintiff demonstrate something beyond a reasonable concern over future environmental harm, and the Declarations fail to meet this standard.

Furthermore, while there may be a generally accepted scientific consensus with regard to global climate change, *Mass. v. EPA*, 549 U.S. at 521–23, there is not the same consensus with regard to what the specific effects of climate change will be on individual geographic areas. This is a highly technical field that depends on complex climate mapping and observations taken over many years and decades. Climate change is not uniform; there will be winners and losers, with some areas more affected than others. Thus, Declarants' general assertions that they have noticed a warmer climate or less snow are insufficient to establish an increased risk of actual, threatened, or imminent environmental harm. * * *

Additionally, even if the Court were to consider the scientific reports cited in the Declarations . . . it appears the reports cited primarily discuss changes that are likely to occur over the next century. Nothing in the reports indicate any current harm to the New Mexico environment, or that the harm is particularly imminent. If the increases in temperature and water shortages that the reports predict are not anticipated to occur for many years or decades, then it is questionable whether they represent an actual and imminent threat to Declarants' interests. * * *

In *Mass. v. EPA*, where the Supreme Court found that the Commonwealth of Massachusetts had suffered an injury-in-fact due to the EPA's failure to regulate GHGs, the plaintiffs presented an affidavit from climate scientist Michael MacCracken stating that there was a "strong consensus" among "qualified scientific experts involved in climate change research" that climate change was likely to cause, among other things, "a precipitate rise in sea levels." Additionally, according to MacCracken's unchallenged affidavit, "global sea levels rose somewhere between 10 and 20 centimeters over the 20th century as a result of global warming." * * *

The determinative factors in finding that Massachusetts had standing to contest the EPA's actions were the following: (1) Massachusetts was a landowner of considerable coastal property and (2) that the plaintiffs provided hard evidence of an actual and imminent injury to the State due to rising sea levels. In the case at hand, Plaintiffs' members provide only generalized and unsubstantiated concerns of changes to the environment they perceive as having occurred or as likely to occur at some time in the future. Without more definitive proof of an actual or imminent

environmental harm to the members' interests, the Court cannot conclude that Plaintiffs have demonstrated an injury-in-fact. * * *

With climate change, the Court must enforce some limits on what constitutes an injury-in-fact; otherwise, it would be overwhelmed by a flood of lawsuits asserting generalized grievances against polluters large and small. Article III's standing requirement was designed to prevent just this sort of occurrence, limiting disputes to those "which are appropriately resolved through the judicial process," as opposed to legislative or executive action. . . . Declarants represent a minuscule slice of the global population, and the effects of climate change, while widely shared, are disparate and uncertain. . . . In sum, Plaintiffs are less concerned about the harm to the leased lands and their concrete and particularized interests, as they are about the activity conducted on the leased lands and its resulting harm to the environment in general. * * *

C. Plaintiffs Failed to Demonstrate Causation

Even assuming, *arguendo*, that Plaintiffs could establish an injury-in-fact, there is still the issue of causation, the second prong of Article III's standing test. Federal Defendants argue that the amount of GHGs conceivably attributable to BLM's alleged failure to follow proper procedure in the approval of the oil and gas leases is "minuscule," and therefore, Plaintiffs cannot establish causation based on these emissions. Furthermore, Federal Defendants argue that if there were no such limitations, "standing would exist for any person living anywhere in the world (who could presumably cite to at least some incremental potential effect of climate change that affects them) to bring a challenge under the APA to virtually any federal agency action on the basis of any incremental contribution to climate change from even a minimal release of GHGs." . . . Plaintiffs counter that the GHG emissions are hardly "tentative," nor "minuscule," and that in *Mass. v. EPA*, 549 U.S. at 524, the Supreme Court "flatly rejected a virtually identical argument."

To satisfy the causation prong of standing, Plaintiffs' alleged injuries must be "fairly traceable" to the Defendants' actions. In the case of global warming, however, this does not necessarily mean that Plaintiffs must trace their injuries directly to Defendants' emissions. Considering the large and diffuse number of polluters throughout the world, and the continuous mixing of GHG emissions in the atmosphere, such an undertaking would be impossible; accordingly, in finding causation, the Court only need consider whether a defendant's emissions "meaningfully contributed" to climate change. In *Mass. v. EPA*, the Supreme Court concluded that a causal connection between the EPA's refusal to regulate GHGs and Massachusetts' injuries existed because "U.S. motor-vehicle emissions make a *meaningful contribution* to greenhouse gas concentrations and hence . . . to global warming." (emphasis added).

A similar contribution theory of causation has been applied in cases brought under the Clean Water Act. Under this approach, it is not necessary that plaintiffs show with absolute scientific certainty that a particular defendant's pollution, and its pollution alone, was responsible for their injuries. . . . In Clean Water Act cases, to determine whether there exists a substantial likelihood, courts apply the following three-part test:

[T]his likelihood may be established by showing that a defendant has (1) discharged some pollutant in concentrations greater than allowed by its permit (2) into a waterway in which the plaintiffs have an interest that is or may be adversely affected by the pollutant and that (3) this pollutant causes or contributes to the kinds of injuries alleged by the plaintiffs.

* * * Like pollution emitted into the air, molecules of pollutants released into a waterway readily mix with each other, and there is no way to distinguish molecules originating from one polluter from those originating from another polluter; accordingly, “[r]ather than pinpointing the origins of particular molecules, a plaintiff ‘must merely show that a defendant discharges a pollutant that causes or contributes to the kinds of injuries alleged.’”

Yet, in order for the plaintiffs’ injuries to be “fairly traceable” to a particular defendant’s actions, the plaintiffs cannot be “so far downstream that their injuries cannot be fairly traced to that defendant.” Unlike pollution in a stream that can be easily traced to a few likely polluters, climate change is a global phenomenon whose manmade causes originated decades or centuries ago with the advent of the industrial revolution and continue today. Thus, climate change is dependent on an unknowable multitude of GHG sources and sinks, and it is impossible to say with any certainty that Plaintiffs’ alleged injuries were the result of any particular action or actions by Defendants.

Returning to the river analogy, there may be hundreds or even thousands of property owners along a river, but generally only a few of them are discharging the target pollutant. In such a case, a court can reasonably conclude that there is “a substantial likelihood that defendant’s conduct caused plaintiff’s harm.” At some point, however, the waterway may become too large, or the plaintiff may be too far removed from the point of discharge for a court to reasonably conclude the pollutant can be fairly traced to the defendant.

In the case of global warming, there are literally hundreds of millions, if not billions, of sources of GHGs spewing pollutants into the air and contributing to climate change. Some of these sources are naturally occurring (i.e., ruminants or volcanoes), some local (as close as the Court’s lawnmower), and some far away (a coal-fired power plant on the other side of the globe). Also, some sources are very minor contributors, while others are almost incomprehensible in scale: in *Mass. v. EPA*, the Supreme Court noted that the U.S. transportation sector accounted for 1.7 billion metric tons of carbon dioxide in 1999, which constituted 6% of the worldwide total for that year. In the case at hand, BLM’s approval of the 92 oil and gas leases in New Mexico — assuming full development of the leases and overestimating emissions — would produce no more than 254,730 metric tons of GHGs per year, amounting to just 0.0009% of global GHG emissions. . . . It stretches credibility to believe that the injuries Plaintiffs’ members complain of — less snowpack in winter, earlier runoffs in spring, reduced biodiversity, higher temperatures, decreased availability of water, and siltier rivers — can be said to be fairly traceable to this relatively small amount of GHG emissions. * * *

D. Plaintiffs Can Likely Meet the Relaxed Redressability Standard

* * * Plaintiffs satisfy the redressability prong: if the Court set aside BLM’s approval of the leases based on Plaintiffs’ assertions that the agency failed to sufficiently consider the issue of GHG emissions, as requested in the First Amended Complaint, then BLM would have to reevaluate the leases. * * *

QUESTIONS AND DISCUSSION

1. Although the Supreme Court accepted *certiorari* in *Connecticut* and issued a decision regarding the intersection of the common law and the federal Clean Air Act, the Court split 4-4 regarding standing and political question. *Am. Elec. Power Co. Inc. v. Connecticut*, U.S. —, 131 S.Ct. 2527 (2011). Under the Court’s rules, when the justices are equally divided, the decision of the lower court is deemed affirmed without opinion. Thus, lower courts must continue to try to figure out how *Massachusetts* affects Article III standing.

2. ***Special solicitude revisited.*** How does the Second Circuit address the Supreme Court’s “special solicitude” to states in *Massachusetts*? In a 2009 decision involving a challenge to the Department of Interior’s actions involving oil and gas leasing in the Arctic, the D.C. Circuit concluded that the Supreme Court must have intended for *Massachusetts v. EPA* not to apply to private parties at all. *Center for Biological Diversity v. United States Department of the Interior*, 563 F.3d 466 (D.C. Cir. 2009). Which is the right approach? Should the existence of a Case or Controversy depend on whether an injured party is a state or private actor?

3. ***Property ownership and standing.*** How should property ownership affect standing for climate change injuries? In *Massachusetts* and *Connecticut*, the plaintiffs successfully argued they would suffer cognizable injuries to their property as a result of rising sea levels and other effects of climate change. In *Amigos Bravos* and *Center for Biological Diversity*, plaintiffs unsuccessfully argued they had standing based on injuries to land they would visit, but did not own. Does it make sense that property owners may have better standing arguments, and if so, why? Should it matter under *Laidlaw*?

4. The *Amigos Bravos* decision is one of the first published lower court cases applying *Massachusetts* to site-specific activities that will emit greenhouse gases. Do you think the court reached the right result? If the plaintiffs had submitted expert declarations supporting their standing arguments, would they have prevailed? Should they have?

5. ***Procedural standing.*** The D.C. Circuit in *Center for Biological Diversity* also addressed the significance of the “procedural injury” at issue in *Massachusetts*. The D.C. Circuit distinguished the Petitioners’ substantive arguments from their procedural ones and ultimately concluded that the Petitioners had standing only to raise procedural arguments. Specifically, the court found that, while the Petitioners did not demonstrate an adequately imminent injury in challenging oil and gas leases under laws that establish the substantive leasing requirements, they had demonstrated a sufficiently imminent injury for purposes of challenging the decisions under the National Environmental Policy Act (NEPA). Although the Supreme Court has recognized that plaintiffs may bear a lighter burden to demonstrate the immediacy of the injury and the

redressability prong of standing in cases involving procedural claims, it has also repeatedly emphasized that plaintiffs must continue to demonstrate an injury to a concrete interest. *Lujan*, 504 U.S. at 572 n.7 (1992) (“The person who has been accorded a procedural right to protect his concrete interests can assert that right without meeting all the normal standards for redressability and immediacy. Thus, under our case law, one living adjacent to the site for proposed construction of a federally licensed dam has standing to challenge the licensing agency’s failure to prepare an environmental impact statement, even though he cannot establish with any certainty that the statement will cause the license to be withheld or altered, and even though the dam will not be completed for many years.”).

6. *The multiple-polluters analogy.* The *Connecticut* and *Amigos Bravos* decisions reference multiple polluter cases in analyzing causation. Many multiple polluter cases have arisen under the Clean Water Act. In the typical case, the defendant is one of several dischargers into an already polluted water body. The defendant will often challenge the plaintiff’s standing on the basis that the plaintiff cannot link its injuries to the defendant’s pollution. Courts have often rejected this line of reasoning. For example in a case involving a polluted river in New Jersey, the Third Circuit held: “In order to obtain standing, plaintiffs need not sue *every* discharger in one action, since the pollution of any one may be shown to cause some part of the injury suffered.” *Powell Duffryn*, 913 F.2d at 72 n.8.

In the *Amigos Bravos* decision, however, the district court rejected the multiple polluter analogy, in part relying on a Fifth Circuit decision noting that the *Powell Duffryn* test may not prove useful in cases involving large water bodies. *See Friends of the Earth, Inc. v. Crown Cent. Petrol. Corp.*, 95 F.3d 358, 360–61 (5th Cir. 1996)). Other district courts have also found *Powell Duffryn* and other multiple polluter cases inapplicable, because they involved violations of “Congressionally-prescribed federal limits,” rather than common law claims. *See Comer v. Murphy Oil Co.*, 839 F. Supp.2d 849, 860 (2012); *Native Vill. of Kivalina v. ExxonMobil Corp.*, 663 F. Supp.2d 863, 879–80 (N.D. Cal. 2009).

7. *Third parties not before the court.* In *Massachusetts*, the Supreme Court rejected the argument that climate change injuries could not be redressed because independent third parties not before the Court would continue to release greenhouse gas emissions regardless of U.S. vehicle emissions limitations. 549 U.S. at 525–26 (“Nor is it dispositive that developing countries such as China and India are poised to increase greenhouse gas emissions substantially over the next century: A reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere.”). Yet, lower courts continue to find the potential emissions from other countries a significant limitation on private parties’ ability to show standing. In *U.S. Defense Energy Support*, for example, the district court concluded the plaintiffs could not show standing because any emissions reductions through EISA would be offset by emissions increases elsewhere.

8. *Standing for regulated entities.* In *Lujan*, the Supreme Court noted that it would usually be easier for a regulated entity to show standing: “[S]tanding depends considerably upon whether the plaintiff is himself an object of the action (or forgone action) at issue. If he is, there is ordinarily little question that the action or inaction has caused him injury, and that a judgment

preventing or requiring the action will redress it.” 504 U.S. at 561-62. It is somewhat surprising, therefore, that standing has also become a hurdle for regulated entities seeking to challenge agency actions that would require them to reduce their greenhouse gas emissions or take other mitigation measures. For example, in a challenge to EPA’s decision granting California’s waiver request under the Clean Air Act’s vehicle emissions program, the D.C. Circuit held that the U.S. Chamber of Commerce and the National Automobile Dealers Association lacked standing, because they could not demonstrate they had suffered injury from having California’s vehicle emissions standards in place for the short time in which they were in effect. *See Chamber of Commerce v. EPA*, 642 F.3d 192 (D.C. Cir. 2011). Chapter 13 provides more detail about the complicated regulatory history that influenced the court’s ruling. In another challenge to EPA rules under the Clean Air Act, the D.C. Circuit held that regulated entities and states opposed to Clean Air Act regulation of greenhouse gases lacked standing to challenge rules that 1) delayed the date on which the rules would take effect and 2) raised the emissions thresholds that would trigger the duty to comply with the Clean Air Act’s Prevention of Significant Deterioration (PSD) rule. *Coalition for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102 (D.C. Cir. 2012). The court held that the petitioners could not show injury or redressability to challenge rules that lightened their regulatory burden. To show redressability, the petitioners had argued that vacatur of the rules “would result in astronomical costs and unleash chaos on permitting authorities,” and thus force Congress to act to mitigate their injuries, presumably by exempting facilities from the Clean Air Act. *Id.* at 146. The court rejected these arguments as pure speculation:

We have serious doubts as to whether, for standing purposes, it is ever “likely” that Congress will enact legislation at all. After all, a proposed bill must make it through committees in both the House of Representatives and the Senate and garner a majority of votes in both chambers — overcoming, perhaps, a filibuster in the Senate. If passed, the bill must then be signed into law by the President, or go back to Congress so that it may attempt to override his veto. As a generation of schoolchildren knows, “by that time, it’s very unlikely that [a bill will] become a law. It’s not easy to become a law.” *Schoolhouse Rock, I’m Just a Bill*, at 2:41, available at [http:// video. google. com/ videoplay? doc id= 7266360872 513258185#](http://video.google.com/videoplay?docid=7266360872513258185#) (last visited June 1, 2012).

Id. at 146–47. The court also rejected the petitioners’ alternative argument that EPA’s rules failed to adequately mitigate climate change, when the same petitioners had argued in their opening briefs that climate change was, in essence, a hoax. *Id.* at 148.

Article III standing will undoubtedly remain a significant issue of dispute in climate change litigation moving forward, particularly as the federal government enacts more laws aimed at mitigating climate change and regulating greenhouse gas emissions. Under the Clean Air Act, for example, the Environmental Protection Agency has enacted regulations designed specifically to reduce greenhouse gas emissions from regulated sources, and the statute expressly gives citizens the right to enforce violations of many of these regulations. At some point, it seems likely that courts will need to address whether citizens — which have the statutory right to sue violators of the Clean Air Act in federal court — have standing to sue to enforce these greenhouse gas

regulations. If the courts conclude that citizens lack standing even in those cases, this would represent a significant departure from Supreme Court precedent. But in the world of climate change, such an outcome appears entirely possible.

III. IS CLIMATE CHANGE A NONJUSTICIABLE POLITICAL QUESTION?

Like standing, the question of whether a particular dispute raises a nonjusticiable political question rests in Article III of the U.S. Constitution. As the Supreme Court has said, “The requirement that jurisdiction be established as a threshold matter ‘spring[s] from the nature and limits of the judicial power of the United States’ and is ‘inflexible and without exception.’” *Steel Co. v. Citizens for a Better Environment*, 523 U.S. 83, 94-95 (1998) (quoting *Mansfield, C. & L.M.R. Co. v. Swan*, 111 U.S. 379, 382 (1884)). “Either the absence of standing or the presence of a political question suffices to prevent the power of the federal judiciary from being invoked by the complaining party.” *Schlesinger v. Reservists Committee to Stop the War*, 418 U.S. 208, 215 (1974).

The complex and global nature of climate change has invited defendants to argue that climate change is not an issue falling within the limited jurisdiction of federal courts but rather the function of Congress and the Chief Executive. As Judge Preska declared in the states’ public nuisance action against major emitters of greenhouse gases:

The Framers based our Constitution on the idea that a separation of powers enables a system of checks and balances, allowing our Nation to thrive under a Legislature and Executive that are accountable to the People, subject to judicial review by an independent Judiciary. *See Federalist Paper* No. 47 (1788); U.S. Const. arts. I, II, III. While, at times, some judges have become involved with the most critical issues affecting America, political questions are not the proper domain of judges. *See, e.g., Baker v. Carr*, 369 U.S. 186 (1962); *Nixon v. United States*, 506 U.S. 224 (1993). Were judges to resolve political questions, there would be no check on their resolutions because the Judiciary is not accountable to any other branch or to the People. Thus, when cases present political questions, “judicial review would be inconsistent with the Framers’ insistence that our system be one of checks and balances.” *Nixon*, 506 U.S. at 234–35. As set out below, cases presenting political questions are consigned to the political branches that are accountable to the People, not to the Judiciary, and the Judiciary is without power to resolve them.

Connecticut v. American Electric Power Co., Inc., 406 F. Supp.2d 265, 267 (S.D. N.Y. 2005), *rev’d*, 582 F.3d 309 (2d Cir. 2009). Chief Justice Roberts described the issue more succinctly in *Massachusetts v. EPA*: “The constitutional role of the courts . . . is to decide concrete cases — not to serve as a convenient form for policy debates.” *Massachusetts*, 549 U.S. at 547 (dissenting).

The political question doctrine has presented significant hurdles for plaintiffs making public nuisance and other common law claims. The political question doctrine became a prevalent defense when parties sought to use litigation to compel mitigation action during the presidency of George W. Bush, whose Administration opposed domestic and international climate change mitigation efforts unless and until the United States could secure commitments from other countries, particularly China and India, to reduce their own emissions. Courts repeatedly concluded that judicial review of nuisance claims would interfere with U.S. domestic and foreign climate policy. When the Obama Administration changed and began passing regulations to mitigate climate change, some observers expected the political question doctrine to recede into the background. The *Connecticut* decision excerpted below bolstered these expectations. However, as the excerpt from the *Kivalina* decision indicates, some courts continue to view climate change mitigation as a political question reserved for the political branches of government.

CONNECTICUT V. AMERICAN ELECTRIC POWER COMPANY INC.

582 F.3d 309 (2d Cir. 2009)

III. The District Court’s Amended Opinion and Order

In district court, Defendants moved to dismiss both complaints on several grounds. They asserted that Plaintiffs failed to state a claim because: “(1) there is no recognized federal common law cause of action to abate greenhouse gas emissions that allegedly contribute to global warming; (2) separation of powers principles preclude this Court from adjudicating these actions; and (3) Congress had displaced any federal common law cause of action to address the issue of global warming.” *Am. Elec. Power Co.*, 406 F.Supp.2d at 270. * * *

In an Amended Opinion and Order, the district court dismissed the complaints, interpreting Defendants’ argument that “separation-of-powers principles foreclosed recognition of the unprecedented ‘nuisance’ action plaintiffs assert” as an argument that the case raised a non-justiciable political question. Drawing on *Baker v. Carr*, 369 U.S. 186, 198 (1962), in which the Supreme Court enumerated six factors that may indicate the existence of a non-justiciable political question, the district court stated that “[a]lthough several of these [*Baker v. Carr*] indicia have formed the basis for finding that Plaintiffs raise a non-justiciable political question, the third indicator is particularly pertinent to this case.” The court based its conclusion that the case was non-justiciable solely on that third Baker factor, finding that Plaintiffs’ causes of action were “‘impossib[le] [to] decid[e] without an initial policy determination of a kind clearly for nonjudicial discretion.’” In the court’s view, this factor counseled in favor of dismissal because it would not be able to balance those “‘interests seeking strict schemes to reduce pollution rapidly to eliminate its social costs” against “‘interests advancing the economic concern that strict schemes [will] retard industrial development with attendant social costs.’” The district court concluded that balancing those interests required an “‘initial policy determination’ first having been made by the

elected branches to which our system commits such policy decisions, viz., Congress and the President.”

In addition, the district court rejected Plaintiffs’ arguments that they were presenting “simple nuisance claim[s] of the kind courts have adjudicated in the past,” observing that none of the other public nuisance cases involving pollution “touched on so many areas of national and international policy.” According to the district court, the broad reach of the issues presented revealed the “transcendently legislative nature of this litigation.” If it were to grant the relief sought by Plaintiffs — capping carbon dioxide emissions — the court believed that it would be required, at a minimum, to: determine the appropriate level at which to cap the emissions and the appropriate percentage reduction; create a schedule to implement the reductions; balance the implications of such relief with the United States’ ongoing climate change negotiations with other nations; and assess and measure available alternative energy resources, “all without an ‘initial policy determination’ having been made by the elected branches.” The district court pointed to the “deliberate inactions of Congress and the Executive,” both in the domestic and international arena “in response to the issue of climate change,” and remonstrated Plaintiffs for seeking to impose by “judicial fiat” the kind of relief that Congress and the Executive had specifically refused to impose. That fact underscored for the court that the “initial policy determination addressing global climate change” was an undertaking for the political branches, which were charged with the “identification and balancing of economic, environmental, foreign policy, and national security interests.”

DISCUSSION

II. The Political Question Doctrine

A. Overview of the Political Question Doctrine

The political question doctrine is “primarily a function of the separation of powers,” *Baker v. Carr*, 369 U.S. 186, 210 (1962), “designed to restrain the Judiciary from inappropriate interference in the business of the other branches of Government,” where that other branch is better suited to resolve an issue. This limitation on the federal courts was recognized in *Marbury v. Madison*, 5 U.S. (1 Cranch) 137 (1803), in which Chief Justice Marshall wrote, “[q]uestions, in their nature political, or which are, by the constitution and laws, submitted to the executive, can never be made in this court.” *Id.* at 170. Consequently, “[o]ut of due respect for our coordinate branches and recognizing that a court is incompetent to make final resolution of certain matters, these political questions are deemed ‘nonjusticiable.’” *Lane ex rel. Lane v. Halliburton*, 529 F.3d 548, 557 (5th Cir.2008).

In an effort to “expose the attributes of the [political question] doctrine — attributes which, in various settings, diverge, combine, appear, and disappear in seeming disorderliness,” *Baker*, 369 U.S. at 210, the Court set out six “formulations” which “may describe a political question[.]” . . . *Baker* set a high bar for nonjusticiability: “Unless one of these formulations is *inextricable* from the case at bar, there should be no dismissal for non-justiciability on the ground of a political question’s presence.” *Id.* (emphasis added). In a recent pronouncement on the political

question doctrine, the Supreme Court noted that the *Baker* factors “are probably listed in descending order of both importance and certainty.” *Vieth v. Jubelirer*, 541 U.S. 267, 278 (2004). Notwithstanding ample litigation, the Supreme Court has only rarely found that a political question bars its adjudication of an issue. See Rachel E. Barkow, *More Supreme Than Court? The Fall of the Political Question Doctrine & the Rise of Judicial Supremacy*, 102 Colum. L. Rev. 237, 267–68 (2002) (“In fact, in the almost forty years since *Baker v. Carr* was decided, a majority of the Court has found only two issues to present political questions, and both involved strong textual anchors for finding that the constitutional decision rested with the political branches.”).

Defendants’ arguments touch upon the two most highly litigated areas of the political question doctrine: domestic controversies implicating constitutional issues and the conduct of foreign policy. In the first area, courts generally analyze the language of the Constitution to determine whether adjudication of a dispute is “textually committed” to the Executive or Legislative branches. See, e.g., *Nixon v. United States*, 506 U.S. 224, 228, 238 (1993) (finding political question in case where federal judge alleged that the Senate’s impeachment procedures violated the Constitution’s Impeachment Clause and the Senate, not the Court, had sole discretion to choose impeachment procedures); *Gilligan v. Morgan*, 413 U.S. 1, 7 (1973) (finding political question based on Article I, Section 8, Clause 16 of the U.S. Constitution in case where the relief sought by former Kent State University students over the training, weaponry, and orders of the Ohio National Guard “embrace[d] critical areas of responsibility vested by the Constitution in the Legislative and Executive branches of the Government”) . . .

However, not all cases touching upon constitutional issues that may also raise “an issue of great importance to the political branches” and have “motivated partisan and sectional debate,” present non-justiciable political questions. *U.S. Dep’t of Commerce v. Montana*, 503 U.S. 442, 458 (1992).

The second — and more frequently litigated— area where cases “might pose special questions concerning the judiciary’s proper role [is] when adjudication might have implications in the conduct of this nation’s foreign relations.” . . . *Baker* summarized the areas where federal courts have found non-justiciable political questions in foreign relations matters, such as “recognition of foreign governments,” “which nation has sovereignty over disputed territory,” “recognition of belligerency abroad,” determination of “a person’s status as representative of a foreign government,” and “[d]ates of duration of hostilities.”

In sum,

[t]he political question doctrine excludes from judicial review those controversies which revolve around policy choices and value determinations constitutionally committed for resolution to the halls of Congress or the confines of the Executive Branch. The Judiciary is particularly ill suited to make such decisions, as ‘courts are fundamentally underequipped to formulate national policies or develop standards for matters not legal in nature.’

Japan Whaling Ass'n v. Am. Cetacean Soc'y, 478 U.S. 221, 230 (1986). Nevertheless, “[t]he political question doctrine must be cautiously invoked,” and simply because an issue may have political implications does not make it non-justiciable, *see Baker*, 369 U.S. at 211, 217. * * *

B. Application of the Baker Factors

* * *

1. The First Baker Factor: Is There a Textually Demonstrable Constitutional Commitment of the Issue to a Coordinate Political Department?

This Court has described the first *Baker* factor as the “dominant consideration in any political question inquiry.”

Defendants define the issue in these two cases as “whether carbon dioxide emissions ... should be subject to mandatory limits and/or reductions” and argue that resolution of that issue is “textually committed to Congress by the Commerce Clause” as a matter of “high policy.” Beyond this cursory reference to “high policy,” Defendants fail to explain how the emissions issue is textually committed to the Commerce Clause. We find this position insufficiently argued and therefore consider it waived.

Next, Defendants argue that “permitting these and other plaintiffs to use an asserted federal common law nuisance cause of action to reduce domestic carbon dioxide emissions will impermissibly interfere with the President’s authority to manage foreign relations”; that “unilateral reductions of U.S. carbon dioxide emissions would interfere with the President’s efforts to induce other nations to reduce their emissions”; and the court’s interjection in this arena would usurp the President’s authority to “resolve fundamental policy questions” that he is seeking to solve through diplomatic means.

Again, Defendants make conclusory statements but provide no support for their argument in this section of their brief. They do, however, shed some light on these arguments in other parts of their brief. In their Statement of the Case, they note that the Senate urged President Clinton “not to sign any agreement that would result in serious harm to the economy or that did not include provisions limiting emissions by developing nations.” . . . Defendants conclude that “unilateral, mandatory emissions reductions . . . will undermine the nation’s multilateral strategy” and “reduce[] the bargaining leverage the President needs to implement a multilateral strategy by giving him less to offer in exchange for reductions by other nations.”

It cannot be gainsaid that global warming poses serious economic and ecological problems that have an impact on both domestic politics and international relations. Nevertheless, Defendants’ characterization of this lawsuit as implicating “complex, inter-related and far-reaching policy questions about the causes of global climate change and the most appropriate response to it” magnifies to the outer limits the discrete domestic nuisance issues actually presented. A result of this magnification is to misstate the issues Plaintiffs seek to litigate. Nowhere in their complaints do Plaintiffs ask the court to fashion a comprehensive and far-

reaching solution to global climate change, a task that arguably falls within the purview of the political branches. Instead, they seek to limit emissions from six domestic coal-fired electricity plants on the ground that such emissions constitute a public nuisance that they allege has caused, is causing, and will continue to cause them injury. * * *

In this common law nuisance case, “[t]he department to whom this issue has been ‘constitutionally committed’ is none other than our own — the Judiciary.” * * *

We find no textual commitment in the Constitution that grants the Executive or Legislative branches responsibility to resolve issues concerning carbon dioxide emissions or other forms of alleged nuisance. Accordingly, we hold that the first *Baker* factor does not apply.

2. *The Second Baker Factor: Is There a Lack of Judicially-Discoverable and Manageable Standards for Resolving This Case?*

“One of the most obvious limitations imposed by [Article III, Section 1 of the Constitution] is that judicial action must be governed by *standard*, by *rule*.” *Vieth v. Jubelirer*, 541 U.S. 267, 278 (2004) (plurality opinion). Defendants point to the complexities involved in pollution control cases and assert that such intricacies “pale in comparison to those presented here,” given the uncertainties surrounding the precise effect of greenhouse gas emissions on climate. Those uncertainties, Defendants argue, are “mere preludes to the unmanageable policy questions a court would then have to confront” in adjudicating Plaintiffs’ claim, including: How fast should emissions be reduced?; Should power plants or automobiles be required to reduce emissions?; Who should bear the cost of reduction?; and How are the impacts on jobs, the economy, and the nation’s security to be balanced against the risks of future harms? . . . Defendants assert that the “vague and indeterminate nuisance concepts and maxims of equity” gleaned from public nuisance cases or the Restatement (Second) of Torts § 821B (1979) provide no guidance for resolving these unmanageable issues.

Defendants’ argument is undermined by the fact that federal courts have successfully adjudicated complex common law public nuisance cases for over a century. * * *

These cases were among the first in a long line of federal common law of nuisance cases where federal courts employed familiar public nuisance precepts, grappled with complex scientific evidence, and resolved the issues presented, based on a fully developed record. * * *

Moreover, as a general matter, the Supreme Court and this Court have often turned to the Restatement (Second) of Torts for assistance in developing standards in a variety of tort cases. . . . Following the Restatement and common law tort principles is consistent with the exigencies of common law decision-making. . . .

Accordingly, we do not agree that there are no judicially discoverable and manageable standards for resolving this case. Well-settled principles of tort and public nuisance law provide appropriate guidance to the district court in assessing Plaintiffs’ claims and the federal courts are competent to deal with these issues. Defendants’ arguments to the contrary are overstated. As

noted above, Plaintiffs' complaints do not ask the district court to decide overarching policy questions[.] . . . The question presented here is discrete, focusing on Defendants' alleged public nuisance and Plaintiffs' alleged injuries. As the States eloquently put it, "[t]hat Plaintiffs' injuries are part of a worldwide problem does not mean Defendants' contribution to that problem cannot be addressed through principled adjudication." * * *

3. *The Third Baker Factor: Is It Impossible to Decide this Case Without an Initial Policy Determination of a Kind Clearly for Nonjudicial Discretion?*

The district court relied upon the third *Baker* factor in dismissing Plaintiffs' complaints. It concluded that a solution to the problems created by carbon dioxide emissions must be global in nature and based on domestic policy considerations--such as the need to balance relevant environmental and economic interests and the possible impact on national security--and held that only the political branches are empowered to act in such a context. On appeal, Defendants contend that the relevant policy decision is not, as Plaintiffs argue, abatement of a nuisance. Instead, "[t]he missing policy decision is whether to impose mandatory greenhouse gas emissions limits and, if so, on whom, in what manner and at what cost. No such ... decision can be found in statutes in which Congress has called for additional study but *declined* to impose such limits." Defendants argue that the "very nature of this phenomenon requires a comprehensive response."

The district court found it significant that the political branches had failed to supply an initial policy decision because they had refused to regulate carbon dioxide emissions. The court viewed the possibility of any regulation coming out of the courts as countering the political branches' refusal to act. The district court's reliance on a *refusal* to legislate results in a decision resting on particularly unstable ground. The Supreme Court has stated, in the context of displacement of federal common law, that "Congress's mere refusal to legislate . . . falls far short of an expression of legislative intent to supplant the existing common law in that area." *United States v. Texas*, 507 U.S. 529, 535 (1993). The district court's reasoning in this regard is inapposite in a case making a federal common law of nuisance claim where, if regulatory gaps exist, common law fills those interstices. * * *

It is also fair to say that the Executive branch and Congress have not indicated they favor *increasing* greenhouse gases. * * *

As other courts have found, where a case "appears to be an ordinary tort suit, there is no 'impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion.'" Such is the case here. Accordingly, the third *Baker* factor does not apply.

4. *The Fourth, Fifth, and Sixth Baker Factors: Will Adjudication of This Case Demonstrate "Lack of Respect" for the Political Branches, Contravene "An Unusual Need for Unquestioning Adherence to a Political Decision Already Made," or "Embarrass" the Nation as a Result of "Multifarious Pronouncements by Various Departments"?*

"The fourth through sixth *Baker* factors appear to be relevant only if judicial resolution of a

question would contradict prior decisions taken by a political branch in those limited contexts where such contradiction would seriously interfere with important governmental interests.” *Kadic*, 70 F.3d at 249. Defendants lump these final *Baker* factors together, arguing only that because “U.S. policy is manifestly not to engage in unilateral reductions of domestic emissions,” where Congress opted only to study the issue, a judicially imposed resolution enjoining domestic emissions through federal common law would demonstrate a “lack of respect” for the political branches, contravene a “political decision already made,” and create the potential for “embarrassment from multifarious pronouncements by various departments on one question.”

Lurking behind Defendants’ arguments is this salient question: What exactly *is* U.S. “policy” on greenhouse gas emissions? At one point in their briefs, Defendants acknowledge that this country’s official policy and Congress’s strategy is to reduce the generation of greenhouse gases. Elsewhere, they point to a policy of research as a prelude to formulating a coordinated, national policy. They also assert that U.S. policy is “*not* to engage in unilateral reduction of domestic emissions” (relating, in particular, to the international arena). These variegated pronouncements underscore the point that there really is no unified policy on greenhouse gas emissions.⁹ Allowing this litigation where there is a lack of a unified policy does not demonstrate any lack of respect for the political branches, contravene a relevant political decision already made, or result in multifarious pronouncements that would embarrass the nation.

At the same time, to the extent that Defendants claim U.S. emissions policy does not aim to reduce emissions, their argument is undermined by the legislation they cite in their brief, which supports a conclusion that U.S. emissions policy seeks to eventually achieve the “stabilization and eventual reduction in the generation of greenhouse gases,” Energy Policy Act of 1992, 42 U.S.C. § 13382(a)(2), (g), and to “limit mankind’s adverse effect on the global climate . . . ,” Global Climate Protection Act of 1987, § 1103(a)(3). In this respect, adjudication would certainly not contravene any political decision already made.

Certainly, the political implications of any decision involving possible limits on carbon emissions are important in the context of global warming, but not every case with political overtones is non-justiciable. It is error to equate a political question with a political case. * * *

Furthermore, given the nature of federal common law, where Congress may, by legislation, displace common law standards by its own statutory or regulatory standards and require courts to follow those standards, there is no need for the protections of the political question doctrine. * * *

In sum, we hold that the district court erred when it dismissed the complaints on the ground that they presented non-justiciable political questions.

NATIVE VILLAGE OF KIVALINA V. EXXONMOBIL

⁹ When Defendants briefed this argument, they were focusing on the greenhouse gas emissions policy of the former administration. Now that a new administration is in office, the emissions policy is changing.

CORPORATION

663 F. Supp.2d 863 (N.D. Cal. 2009)

Plaintiff Native Village of Kivalina (the Village) is the governing body of an Inupiat Eskimo village of approximately 400 people who reside in the City of Kivalina (Kivalina), which also is a plaintiff in this action. The Complaint alleges that as a result of global warming, the Arctic sea ice that protects the Kivalina coast from winter storms has diminished, and that the resulting erosion and destruction will require the relocation of Kivalina's residents. As defendants, the Village and Kivalina (collectively, Plaintiffs) have named twenty-four oil, energy and utility companies from whom they seek damages under a federal common law claim of nuisance, based on their alleged contribution to the excessive emission of carbon dioxide and other greenhouse gases which they claim are causing global warming. * * *

I. BACKGROUND

A. OVERVIEW

The Village is a self-governing, federally-recognized Tribe of Inupiat Eskimos established pursuant to the provisions of the Indian Reorganization Act of 1934, as amended in 1936. Members of the Village reside in Kivalina, which is a unified municipality incorporated under Alaska law in 1969 with a population of approximately 400 persons. Kivalina is located at the tip of a six-mile long barrier reef, approximately seventy miles north of the Arctic Circle, between the Chukchi Sea and the Kivalina and Wulik Rivers on the Northwest coast of Alaska.

The Kivalina coast is protected by Arctic sea ice that is present during the fall, winter and spring. The sea ice, which attaches to the Kivalina coast, acts as a barrier against the coastal storms and waves that affect the coast of the Chukchi Sea. As a result of global warming, however, the sea ice now attaches to the Kivalina coast later in the year and breaks up earlier and is thinner and less extensive than before, thus subjecting Kivalina to coastal storm waves and surges. The resulting erosion has now reached the point where Kivalina is becoming uninhabitable. Plaintiffs allege that as a result, the Village will have to be relocated, at a cost estimated to range from \$95 to \$400 million. * * *

III. DISCUSSION

A. THE POLITICAL QUESTION DOCTRINE

* * * The political question doctrine is a species of the separation of powers doctrine and provides that certain questions are political as opposed to legal, and thus, must be resolved by the political branches rather than by the judiciary. "The political question doctrine serves to prevent the federal courts from intruding unduly on certain policy choices and value judgments that are constitutionally committed to Congress or the executive branch." "A nonjusticiable political question exists when, to resolve a dispute, the court must make a policy judgment of a legislative nature, rather than resolving the dispute through legal and factual analysis."

In *Baker v. Carr*, 369 U.S. 186, 210 (1962), the Supreme Court set forth six independent factors, any one of which demonstrates the presence of a non-justiciable political question * * * “[T]he first three *Baker* factors focus on the constitutional limitations of a court’s jurisdiction, while the final three are ‘prudential considerations [that] counsel against judicial intervention.’”

The six *Baker* factors have been grouped into three general inquiries: “(i) Does the issue involve resolution of questions committed by the text of the Constitution to a coordinate branch of Government? (ii) Would resolution of the question demand that a court move beyond areas of judicial expertise? (iii) Do prudential considerations counsel against judicial intervention?” Under this distilled approach, the first inquiry covers *Baker* factor one; the second inquiry covers *Baker* factors two and three; and the third covers *Baker* factor four through six. Any one of the *Baker* factors may be dispositive. * * *

2. Scope of Judicial Expertise

“The second . . . factor lumps together the second and third *Baker* inquiries-whether there is ‘a lack of judicially discoverable and manageable standards’ and whether a decision is impossible ‘without an initial policy determination of a kind clearly for nonjudicial discretion.’”

a) Judicially Discoverable and Manageable Standards

[T]he Ninth Circuit explained that focus of the second *Baker* factor is “not whether the case is unmanageable in the sense of being large, complicated, or otherwise difficult to tackle from a logistical standpoint. Rather, courts must ask whether they have the legal tools to reach a ruling that is ‘principled, rational, and based upon reasoned distinctions.’” Thus . . . the relevant inquiry is whether the judiciary is *granting relief in a reasoned fashion* versus allowing the claims to proceed such that they “merely provide ‘hope’ without a substantive legal basis for a ruling.”

Plaintiffs contend that “[t]he judicially discoverable and manageable standards here are the same as they are in all nuisance cases.” * * *

A public nuisance is defined as an “unreasonable interference with a right common to the general public.” Restatement (Second) of Torts § 821(b)(1) (1979). Whether the interference is unreasonable turns on weighing “the gravity of the harm against the utility of the conduct.” *Id.* § 821 cmt. e. “The unreasonableness of a given interference represents a judgment reached by comparing the social utility of an activity against the gravity of the harm it inflicts, taking into account a handful of relevant factors.” * * *

Applying the above-discussed principles here, the factfinder will have to weigh, inter alia, the energy-producing alternatives that were available in the past and consider their respective impact on far ranging issues such as their reliability as an energy source, safety considerations and the impact of the different alternatives on consumers and business at every level. The factfinder would then have to weigh the benefits derived from those choices against the risk that increasing greenhouse gases would in turn increase the risk of causing flooding along the coast of a remote Alaskan locale. Plaintiffs ignore this aspect of their claim and otherwise fail to articulate any

particular judicially discoverable and manageable standards that would guide a factfinder in rendering a decision that is principled, rational, and based upon reasoned distinctions. * * *

The cases cited by Plaintiffs as well as the *AEP* court involved nuisance claims founded on environmental injuries far different than those alleged in the instant case. The common thread running through each of those cases is that they involved a discrete number of “polluters” that were identified as causing a specific injury to a specific area. Yet, Plaintiffs themselves concede that considerations involved in the emission of greenhouse gases and the resulting effects of global warming are “entirely different” than those germane to water or air pollution cases. While a water pollution claim typically involves a discrete, geographically definable waterway, Plaintiffs’ global warming claim is based on the emission of greenhouse gases from innumerable sources located throughout the world and *affecting the entire planet and its atmosphere*. * * *

b) Initial Policy Determination

Equally problematic for Plaintiffs is the third *Baker* factor, which requires the Court to determine whether it would be impossible for the judiciary to decide the case “without an initial policy determination of a kind clearly for nonjudicial discretion.” *Baker*, 369 U.S. at 217. A political question under this factor “exists when, to resolve a dispute, the court must make a policy judgment of a legislative nature, rather than resolving the dispute through legal and factual analysis.” * * *

Plaintiffs also fail to confront the fact that resolution of their nuisance claim requires the judiciary to make a policy decision about *who* should bear the cost of global warming. Though alleging that Defendants are responsible for a “substantial portion” of greenhouse gas emissions, Plaintiffs also acknowledge that virtually everyone on Earth is responsible on some level for contributing to such emissions. Yet, by pressing this lawsuit, Plaintiffs are in effect asking this Court to make a political judgment that the two dozen Defendants named in this action should be the only ones to bear the cost of contributing to global warming. Plaintiffs respond that Defendants *should be* the ones held responsible for damaging Kivalina allegedly because “they are responsible for more of the problem than anyone else in the nation. . . .” * * * The Court thus concludes that the third *Baker* factor also militates in favor of dismissal.

QUESTIONS AND DISCUSSION

1. Do you agree with the Second Circuit that resolution of the claims against AEP and the other power plants is like many other complicated, but justiciable, public nuisance cases that courts have adjudicated, or did the district court in the *Kivalina* case reach the right result? Should the global nature of climate change, and the complications associated with negotiating an international treaty, affect the court’s decision?

2. The underlying question in these cases is not whether climate change should be addressed but whether the judiciary is the appropriate forum for addressing climate change. Abating climate change requires the reduction of greenhouse gases from a wide variety of sources, each

with a different global warming potential and overall contribution to climate change. What then constitutes an unreasonable level of emissions for any of these gases? As in *Kivalina*, courts consider the resolution of that question beyond their expertise. This issue was also addressed prominently in *Comer*, where individuals claimed that the GHG emissions of nine oil companies, thirty-one coal companies, and four chemical companies constituted a public nuisance and contributed to Hurricane Katrina. This court, too, dismissed plaintiffs' claims as nonjusticiable pursuant to the political question doctrine: "Adjudication of the plaintiffs' claims in this case would necessitate the formulation of standards dictating, for example, the amount of greenhouse gas emissions that would be excessive and the scientific and policy reasons behind those standards." *Comer v. Murphy Oil USA, Inc.*, Civ. Action No. 1:05-CV-436-LG-RHW, Transcript of Hearing on Defendants' Motion to Dismiss at 40 (S.D. Miss. Aug. 30, 2007).

3. The *Comer* plaintiffs appealed the district court's dismissal, and the Fifth Circuit initially issued a decision aligned with the Second Circuit, concluding that the political question doctrine does not remove federal court jurisdiction over climate change nuisance claims. However, the litigation took a bizarre turn after the appellate panel issued its decision. The defendants sought *en banc* review, and the required number of judges on the Fifth Circuit agreed to hear the case *en banc*. However, after the court agreed to hear the case *en banc*, one of the judges who had voted for *en banc* review recused herself because she had financial interests (she held stock) in some of the defendant companies. The court no longer had a quorum to hear the case *en banc*, so the court dismissed the action. Bizarrely, the court then reinstated the district court's decision finding that the political question doctrine barred the case and that the plaintiffs lack standing. The court relied on its rules vacating the panel decision: since the grant of *en banc* review acted as a vacatur of the Fifth Circuit panel's decision, the court decided there was no panel decision to reinstate. As a result, even though the plaintiffs had convinced a panel of Fifth Circuit judges to overrule the district court's opinion, the district court opinion became the law of the case. *See Comer v. Murphy Oil Co.*, No. 07-60756 (5th Cir. May 28, 2010). The Supreme Court denied the plaintiffs' request for intervention. Ultimately, the plaintiffs were allowed to refile their case, but the district court again concluded the case involved a non-justiciable political question.

4. Many other types of public nuisance and tort actions involve pollutants that move in interstate and international commerce, yet courts have little difficulty applying principles of tort law to resolve the disputes. Shortly after the district court dismissed the plaintiffs' claims in *Connecticut*, defendants in a case involving the gasoline additive methyl tertiary butyl ether (MBTE) sought dismissal of a products liability and public nuisance action on "political question" grounds. *In re Methyl Tertiary Butyl Ether (MBTE) Products Liability Litigation*, 438 F.Supp.2d 291 (S.D. N.Y. 2006). The court rejected each of the defendants' arguments, noting that Congress' deliberations regarding MBTE — which had not resulted in any action — could not provide a basis for dismissing what was otherwise a typical tort action. *Id.* at 301. The court repeatedly referred to the MBTE as an ordinary or typical tort action and refused to allow the political question doctrine to serve as justification for dismissal. Why, in the context of climate change, did the courts reach a different result? Is it really that much easier to determine when odor from a pig farm or sulfur dioxide emissions from a smelter substantially interfere with a person's property (private nuisance) or the general public's interest in health, safety, and convenience (public nuisance)? Or is climate change truly different since, as the California

district court noted, we all ultimately contribute to climate change? Note at the beginning of the standing analysis in *Massachusetts*, the Supreme Court succinctly stated that a political question was not presented in that case. How should that factor into lower courts' analyses?

IV. ARE COMMON LAW CLAIMS DISPLACED OR PREEMPTED BY THE CLEAN AIR ACT?

When Congress exercises its constitutional authority, it may preempt states from enacting legislation concerning the same subject. The Supremacy Clause “invalidates state laws that ‘interfere with, or are contrary to,’ federal law.” *Gibbons v. Ogden*, 9 Wheat. 1, 211 (1824) (Marshall, C. J.). Federal statutes may also preempt federal and state common law claims. Preemption of state law and common law claims may be express or implied. Implied preemption has two forms: field preemption and conflict preemption. Field preemption occurs when “the depth and breadth of a congressional scheme” that occupies the legislative field is “so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it.” *Lorillard Tobacco Co. v. Reilly*, 533 U.S. 525, 541 (2001); *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947). Field preemption also occurs when the federal interest in a subject area that it regulates is “so dominant” that federal law “will be assumed to preclude enforcement of state laws on the same subject.” 331 U.S. at 230. Conflict preemption exists either when “compliance with both federal and state regulations is a physical impossibility,” *Florida Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 142-43 (1963), or where state law “stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.” *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941). When courts analyze preemption of state law, they typically apply a presumption against finding preemption. Federal common law preemption (also called “displacement”) analysis does not include a similar presumption; indeed, if anything, it seems to favor preemption of federal common law.

Given the history of using the common law, particularly nuisance law, to redress injuries resulting from air and water pollution, *see. e.g.*, *Georgia v. Tennessee Copper Co.*, 206 U.S. 230, 236 (1907), one could have expected Congress to speak clearly as to preemption of common law claims in modern environmental statutes. However, while Congress included an express preemption clause prohibiting states from enacting emissions standards for motor vehicles and other mobile sources, the clause does not mention state or federal common law claims. Nor did Congress indicate whether it intended the Clean Air Act to have a broader preemptive effect over state and federal common law claims as they apply to stationary sources. The Clean Air Act does state, “[n]othing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief.” 42 U.S.C. § 7604(e). However, courts have struggled to determine what Congress intended this provision to mean. In 2011, without discussing the savings clause, the Supreme Court decided the Clean Air Act completely displaced federal common law. The Supreme Court has yet to decide what role state common law may still play.

A. Federal Common Law Displacement

As noted above, in 2009, the Second Circuit held that it had jurisdiction under Article III to hear a public nuisance suit brought by several states and three private land trusts against utilities operating coal-fired power plants. *Connecticut*, 582 F.3d 309. To almost no one's surprise, the utilities filed a petition for *certiorari*, asking the Supreme Court to review the appellate court's decision. People were much more surprised, however, to learn that the Solicitor General had filed a brief on behalf of the Tennessee Valley Authority (TVA) asking the Supreme Court to find that the Clean Air Act displaces federal common law tort claims against the utilities. As the following case makes clear, the TVA's request carried the day.

**AMERICAN ELECTRIC POWER COMPANY, INC. V.
CONNECTICUT**
131 S. Ct. 2527 (2011)

JUSTICE GINSBURG delivered the opinion of the Court.

We address in this opinion the question whether the plaintiffs (several States, the city of New York, and three private land trusts) can maintain federal common law public nuisance claims against carbon-dioxide emitters (four private power companies and the federal Tennessee Valley Authority). As relief, the plaintiffs ask for a decree setting carbon-dioxide emissions for each defendant at an initial cap, to be further reduced annually. The Clean Air Act and the Environmental Protection Agency action the Act authorizes, we hold, displace the claims the plaintiffs seek to pursue.

I

In *Massachusetts v. EPA*, 549 U.S. 497 (2007), this Court held that the Clean Air Act, 42 U.S.C. § 7401 *et seq.*, authorizes federal regulation of emissions of carbon dioxide and other greenhouse gases. * * *

Responding to our decision in *Massachusetts*, EPA undertook greenhouse gas regulation. In December 2009, the agency concluded that greenhouse gas emissions from motor vehicles “cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare,” the Act’s regulatory trigger. * * *

EPA and the Department of Transportation subsequently issued a joint final rule regulating emissions from light-duty vehicles, and initiated a joint rulemaking covering medium- and heavy-duty vehicles. EPA also began phasing in requirements that new or modified “[m]ajor [greenhouse gas] emitting facilities” use the “best available control technology.” Finally, EPA commenced a rulemaking under § 111 of the Act, 42 U.S.C. § 7411, to set limits on greenhouse gas emissions from new, modified, and existing fossil-fuel fired power plants. Pursuant to a settlement finalized in March 2011, EPA has committed to issuing a proposed rule by July 2011, and a final rule by May 2012.

II

The lawsuits we consider here began well before EPA initiated the efforts to regulate greenhouse gases just described. In July 2004, two groups of plaintiffs filed separate complaints in the Southern District of New York against the same five major electric power companies. . . . Their collective annual emissions of 650 million tons constitute 25 percent of emissions from the domestic electric power sector, 10 percent of emissions from all domestic human activities, and 2.5 percent of all anthropogenic emissions worldwide.

By contributing to global warming, the plaintiffs asserted, the defendants' carbon-dioxide emissions created a "substantial and unreasonable interference with public rights," in violation of the federal common law of interstate nuisance, or, in the alternative, of state tort law. * * *

Turning to the merits, the Second Circuit held that all plaintiffs had stated a claim under the "federal common law of nuisance." For this determination, the court relied dominantly on a series of this Court's decisions holding that States may maintain suits to abate air and water pollution produced by other States or by out-of-state industry. *See, e.g., Illinois v. Milwaukee*, 406 U.S. 91, 93 (1972) (*Milwaukee I*) (recognizing right of Illinois to sue in federal district court to abate discharge of sewage into Lake Michigan).

The Court of Appeals further determined that the Clean Air Act did not "displace" federal common law. In *Milwaukee v. Illinois*, 451 U.S. 304, 316–319 (1981) (*Milwaukee II*), this Court held that Congress had displaced the federal common law right of action recognized in *Milwaukee I* by adopting amendments to the Clean Water Act, 33 U.S.C. § 1251 *et seq.* That legislation installed an all-encompassing regulatory program, supervised by an expert administrative agency, to deal comprehensively with interstate water pollution. The legislation itself prohibited the discharge of pollutants into the waters of the United States without a permit from a proper permitting authority. *Milwaukee II*, 451 U.S., at 310–311 (citing § 1311). At the time of the Second Circuit's decision, by contrast, EPA had not yet promulgated any rule regulating greenhouse gases, a fact the court thought dispositive. "Until EPA completes the rulemaking process," the court reasoned, "we cannot speculate as to whether the hypothetical regulation of greenhouse gases under the Clean Air Act would in fact 'speak[k] directly' to the 'particular issue' raised here by Plaintiffs." * * *

IV.B

"[W]hen Congress addresses a question previously governed by a decision rested on federal common law," the Court has explained, "the need for such an unusual exercise of law-making by federal courts disappears." *Milwaukee II*, 451 U.S. at 314, (holding that amendments to the Clean Water Act displaced the nuisance claim recognized in *Milwaukee I*). Legislative displacement of federal common law does not require the "same sort of evidence of a clear and manifest [congressional] purpose" demanded for preemption of state law. . . . The test for whether congressional legislation excludes the declaration of federal common law is simply whether the statute "speak[s] directly to [the] question" at issue.

We hold that the Clean Air Act and the EPA actions it authorizes displace any federal common law right to seek abatement of carbon-dioxide emissions from fossil-fuel fired power plants. *Massachusetts* made plain that emissions of carbon dioxide qualify as air pollution subject to regulation under the Act. And we think it equally plain that the Act “speaks directly” to emissions of carbon dioxide from the defendants’ plants.

Section 111 of the Act directs the EPA Administrator to list “categories of stationary sources” that “in [her] judgment . . . caus[e], or contribut[e] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.” § 7411(b)(1)(A). Once EPA lists a category, the agency must establish standards of performance for emission of pollutants from new or modified sources within that category. And, most relevant here, § 7411(d) then requires regulation of existing sources within the same category. For existing sources, EPA issues emissions guidelines; in compliance with those guidelines and subject to federal oversight, the States then issue performance standards for stationary sources within their jurisdiction.

The Act provides multiple avenues for enforcement. See *County of Oneida*, 470 U.S. at 237–239 (reach of remedial provisions is important to determination whether statute displaces federal common law). EPA may delegate implementation and enforcement authority to the States, but the agency retains the power to inspect and monitor regulated sources, to impose administrative penalties for noncompliance, and to commence civil actions against polluters in federal court. In specified circumstances, the Act imposes criminal penalties on any person who knowingly violates emissions standards issued under § 7411. And the Act provides for private enforcement. If States (or EPA) fail to enforce emissions limits against regulated sources, the Act permits “any person” to bring a civil enforcement action in federal court.

If EPA does not *set* emissions limits for a particular pollutant or source of pollution, States and private parties may petition for a rulemaking on the matter, and EPA’s response will be reviewable in federal court. As earlier noted, EPA is currently engaged in a § 7411 rulemaking to set standards for greenhouse gas emissions from fossil-fuel fired power plants. To settle litigation brought under § 7607(b) by a group that included the majority of the plaintiffs in this very case, the agency agreed to complete that rulemaking by May 2012. The Act itself thus provides a means to seek limits on emissions of carbon dioxide from domestic power plants — the same relief the plaintiffs seek by invoking federal common law. We see no room for a parallel track.

C

The plaintiffs argue, as the Second Circuit held, that federal common law is not displaced until EPA actually exercises its regulatory authority, *i.e.*, until it sets standards governing emissions from the defendants’ plants. We disagree.

* * * As *Milwaukee II* made clear . . . the relevant question for purposes of displacement is “whether the field has been occupied, not whether it has been occupied in a particular manner.” *Id.*, at 324. Of necessity, Congress selects different regulatory regimes to address different

problems. Congress could hardly preemptively prohibit every discharge of carbon dioxide unless covered by a permit. After all, we each emit carbon dioxide merely by breathing.

The Clean Air Act is no less an exercise of the legislature's "considered judgment" concerning the regulation of air pollution because it permits emissions *until* EPA acts. The critical point is that Congress delegated to EPA the decision whether and how to regulate carbon-dioxide emissions from power plants; the delegation is what displaces federal common law. Indeed, were EPA to decline to regulate carbon-dioxide emissions altogether at the conclusion of its ongoing § 7411 rulemaking, the federal courts would have no warrant to employ the federal common law of nuisance to upset the agency's expert determination.

EPA's judgment, we hasten to add, would not escape judicial review. . . . If the plaintiffs in this case are dissatisfied with the outcome of EPA's forthcoming rulemaking, their recourse under federal law is to seek Court of Appeals review, and, ultimately, to petition for certiorari in this Court.

Indeed, this prescribed order of decisionmaking — the first decider under the Act is the expert administrative agency, the second, federal judges — is yet another reason to resist setting emissions standards by judicial decree under federal tort law. The appropriate amount of regulation in any particular greenhouse gas-producing sector cannot be prescribed in a vacuum: as with other questions of national or international policy, informed assessment of competing interests is required. Along with the environmental benefit potentially achievable, our Nation's energy needs and the possibility of economic disruption must weigh in the balance.

The Clean Air Act entrusts such complex balancing to EPA in the first instance, in combination with state regulators. . . . It is altogether fitting that Congress designated an expert agency, here, EPA, as best suited to serve as primary regulator of greenhouse gas emissions. The expert agency is surely better equipped to do the job than individual district judges issuing ad hoc, case-by-case injunctions. Federal judges lack the scientific, economic, and technological resources an agency can utilize in coping with issues of this order. Judges may not commission scientific studies or convene groups of experts for advice, or issue rules under notice-and-comment procedures inviting input by any interested person, or seek the counsel of regulators in the States where the defendants are located. Rather, judges are confined by a record comprising the evidence the parties present. Moreover, federal district judges, sitting as sole adjudicators, lack authority to render precedential decisions binding other judges, even members of the same court.

Notwithstanding these disabilities, the plaintiffs propose that individual federal judges determine, in the first instance, what amount of carbon-dioxide emissions is "unreasonable," and then decide what level of reduction is "practical, feasible and economically viable." These determinations would be made for the defendants named in the two lawsuits launched by the plaintiffs. Similar suits could be mounted, counsel for the States and New York City estimated, against "thousands or hundreds or tens" of other defendants fitting the description "large contributors" to carbon-dioxide emissions.

The judgments the plaintiffs would commit to federal judges, in suits that could be filed in any federal district, cannot be reconciled with the decisionmaking scheme Congress enacted. The Second Circuit erred, we hold, in ruling that federal judges may set limits on greenhouse gas emissions in face of a law empowering EPA to set the same limits, subject to judicial review only to ensure against action “arbitrary, capricious, . . . or otherwise not in accordance with law.”

V

The plaintiffs also sought relief under state law, in particular, the law of each State where the defendants operate power plants. The Second Circuit did not reach the state law claims because it held that federal common law governed. In light of our holding that the Clean Air Act displaces federal common law, the availability *vel non* of a state lawsuit depends, *inter alia*, on the preemptive effect of the federal Act. None of the parties have briefed preemption or otherwise addressed the availability of a claim under state nuisance law. We therefore leave the matter open for consideration on remand.

QUESTIONS AND DISCUSSION

1. The Supreme Court’s decision has interesting implications for members of Congress, some of whom have proposed bills that would strip EPA of any authority to regulate greenhouse gas emissions under the Clean Air Act. The Court’s displacement analysis is premised on the authority EPA currently has to regulate under the Act; if Congress were to remove that authority, then it would seem that nothing under the Clean Air Act could displace federal common law nuisance claims. Of course, Congress could also pass a law that both stripped EPA’s regulatory powers and removed federal common law claims, but it is unclear whether such a law (or any law limiting EPA’s powers under the Clean Air Act) would pass both houses of Congress and get signed into law by the President.

2. In the *Kivalina* litigation, the Ninth Circuit found the Clean Air Act completely displaces “federal common law addressing domestic greenhouse gas emissions.” *Native Village of Kivalina v. ExxonMobile Corp.*, 696 F.3d 849, 858 (9th Cir. 2012). The displacement applied both to the public nuisance claims and claims alleging that energy producers had conspired to mislead the public about the science of global warming. Regarding the conspiracy claim, the court simply held, “the civil conspiracy claim falls within the substantive claim.” *Id.* Thus, since the Clean Air Act preempted the nuisance claim, it also preempted the dependent conspiracy claim.

3. The Supreme Court remanded the *Connecticut* case to the Second Circuit to determine whether the Clean Air Act preempts state common law claims as well. That decision was pending as of December 2012.

B. Are State Common Law Claims Preempted?

Whether state common law claims to abate climate change are preempted by a federal statute such as the Clean Air Act will be subject to the same type of analysis that applies to preemption of federal common law (e.g., express, field, or conflict preemption). However, the Supreme Court's analysis of preemption of state common law claims has evolved over time. In various cases, the Supreme Court has explained that state law preemption analysis "start[s] with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress." *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947). But this assumption does not apply "when the State regulates in an area where there has been a history of significant federal presence." *United States v. Locke*, 529 U.S. 89, 108 (2000). Thus, while it is more likely that a federal statute preempts federal common law than state law, the Court has often found state laws preempted by federal statutes. *See Milwaukee v. Illinois*, 451 U.S. 304, 317 (1981). Indeed, the Supreme Court has read the Clean Water Act to preempt most state common law claims. *International Paper Co. v. Ouellette*, 479 U.S. 481 (1987). However, like the Clean Air Act, the Clean Water Act has a savings clause that provides that "[n]othing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief." 33 U.S.C. § 1365(e). The Supreme Court concluded that, to give the Clean Water Act's savings clause effect, Congress must have intended some common law claims to be preserved. It therefore held that the common law of the state in which a source is located could continue to apply to sources regulated under the Clean Water Act. *Ouellette*, 479 U.S. at 497-98. Until relatively recently, most courts had not weighed in regarding the Clean Air Act's preemption of state common law claims. The following decision is one of the first to apply the *Ouellette* decision to the Clean Air Act. Note that it predates the Supreme Court's decision in *Connecticut*; do you think it is consistent with the Court's approach?

NORTH CAROLINA V. TENNESSEE VALLEY AUTHORITY
615 F.3d 291 (4th Cir. 2010)

The Tennessee Valley Authority (TVA) appeals an injunction requiring immediate installation of emissions controls at four TVA electricity generating plants in Alabama and Tennessee. The injunction was based on the district court's determination that the TVA plants' emissions constitute a public nuisance in North Carolina. As a result, the court imposed specific emissions caps and emissions control technologies that must be completed by 2013.

This ruling was flawed for several reasons. If allowed to stand, the injunction would encourage courts to use vague public nuisance standards to scuttle the nation's carefully created system for accommodating the need for energy production and the need for clean air. The result would be a balkanization of clean air regulations and a confused patchwork of standards, to the detriment of industry and the environment alike. Moreover, the injunction improperly applied home state law extraterritorially, in direct contradiction to the Supreme Court's decision in *International Paper Co. v. Ouellette*, 479 U.S. 481 (1987). Finally, even if it could be assumed that the North Carolina district court did apply Alabama and Tennessee law, it is difficult to

understand how an activity expressly permitted and extensively regulated by both federal and state government could somehow constitute a public nuisance. For these reasons, the judgment must be reversed.

I.

The Tennessee Valley Authority (TVA) is a federal executive branch agency, established in 1933 and tasked with promoting economic development in the Tennessee Valley region. One of TVA's "primary objectives" is to "produce, distribute, and sell electric power." As a result of this mandate, TVA provides electricity to citizens in parts of seven states. Much of this power is generated by eleven TVA owned and operated coal-fired power plants located in Tennessee, Alabama, and Kentucky.

As a natural byproduct of the power generation process, coal-fired power plants emit sulfur dioxide (SO₂) and nitrous oxides (NO_x). In the atmosphere, both compounds can transform into microscopic particles known as "fine particulate matter" or "PM_{2.5}" (particulate matter less than 2.5 micrometers in diameter) that cause health problems if inhaled. When exposed to sunlight, NO_x also assists in the creation of ozone, which is known to cause respiratory ailments.

SO₂, NO_x, PM_{2.5}, and ozone are among the air pollutants extensively regulated through the Clean Air Act . . .

In order to comply with requirements under the Clean Air Act, a number of controls can be fitted to coal-fired power plants to reduce the amounts of SO₂ and NO_x they emit and, by extension, the amounts of PM_{2.5} and ozone created. * * *

TVA has already installed numerous pollution controls at its coal-fired plants. * * *

Unlike TVA, power plants in North Carolina historically had not put sufficient controls on their emissions, choosing instead to purchase emissions allowances under an EPA cap and trade program implemented by Congress in 1990 to address acid rain. As a result, North Carolina decided to implement more stringent controls on in-state coal-fired plants as a matter of state law, as it is allowed to do under the Clean Air Act. * * *

Not all emissions are generated by in-state sources, however. Prevailing high pressure weather systems in the states where TVA operates tend to cause emissions to move eastward into North Carolina and other states. Although there are lengthy Clean Air Act provisions and regulations controlling such interstate emissions, North Carolina chose to bring a public nuisance suit against TVA in the Western District of North Carolina, seeking an injunction against all eleven of TVA's coal-fired power plants. * * *

Upon resolution of the interlocutory appeal, the district court held a bench trial, at the end of which it issued an injunction against four of the power plants. All of these plants were within 100 miles of the North Carolina border. The injunction required TVA to install and continuously operate [pollution control technology] at each of the plants by December 31, 2013. In addition to

these requirements, the district court also established a schedule of SO and NO emissions limits for each electric generation unit at the four plants, capping the emissions that each unit was allowed to release. Primarily because TVA's seven other plants are located farther from North Carolina, the district court concluded there was insufficient evidence that they contributed significantly to pollution in North Carolina. As a result, it did not rule that they were a public nuisance.

The cost of compliance with the district court's injunction against the four TVA plants is uncertain, but even North Carolina admits it will be over a billion dollars, while TVA estimates that the actual cost will be even higher. Regardless of the actual amount, there is no question that costs will be passed on in the form of rate increases to citizens who purchase power from TVA. . . .

II.

The desirability of reducing air pollution is widely acknowledged, but the most effective means of doing so remains, not surprisingly, a matter of dispute. The system of statutes and regulations addressing the problem represents decades of thought by legislative bodies and agencies and the vast array of interests seeking to press upon them a variety of air pollution policies. To say this regulatory and permitting regime is comprehensive would be an understatement. To say it embodies carefully wrought compromises states the obvious. But the framework is the work of many, many people, and it is in place.

The district court's well-meaning attempt to reduce air pollution cannot alter the fact that its decision threatens to scuttle the extensive system of anti-pollution mandates that promote clean air in this country. If courts across the nation were to use the vagaries of public nuisance doctrine to overturn the carefully enacted rules governing airborne emissions, it would be increasingly difficult for anyone to determine what standards govern. Energy policy cannot be set, and the environment cannot prosper, in this way.

A.

North Carolina attempts to frame this case in terms of protecting public health and saving the environment from dirty air. But the problem is not a neglected one. In fact, emissions have been extensively regulated nationwide by the Clean Air Act for four decades. The real question in this case is whether individual states will be allowed to supplant the cooperative federal-state framework that Congress through the EPA has refined over many years.

It is worth describing this system in some detail. The federal Clean Air Act is the primary mechanism under which emissions in the United States are managed. The Act makes the EPA responsible for developing acceptable levels of airborne emissions, known as National Ambient Air Quality Standards (NAAQS), "the attainment and maintenance of which . . . are requisite to protect the public health." 42 U.S.C. § 7409(b)(1). * * *

B.

While it establishes acceptable nationwide emissions levels, however, the EPA does not directly regulate actual sources of emissions. In light of the fact that Congress recognized “that air pollution prevention . . . and air pollution control at its source is the primary responsibility of States and local governments,” 42 U.S.C. § 7401(a)(3), decisions regarding how to meet NAAQS are left to individual states. 42 U.S.C. § 7410(a)(1). Pursuant to this goal, each state is required to create and submit to the EPA a State Implementation Plan (SIP) “which provides for implementation, maintenance, and enforcement of [NAAQS] . . . within such State.” *Id.* While states are responsible for promulgating SIPs, they must do so consistently with extensive EPA regulations governing preparation, adoption by the state, and submission to the EPA, and all SIPs must be submitted to the EPA for approval before they become final. Once a SIP is approved, however, “its requirements become federal law and are fully enforceable in federal court.”

States are accorded flexibility in determining how their SIPs are structured, but regardless of their choices, SIPs must “include enforceable emission limitations and other control measures, means, or techniques” to ensure that each state meets NAAQS. * * *

Critically for this case, each SIP must consider the impact of emissions within the state on the ability of other states to meet NAAQS. The Clean Air Act requires each state to ensure that its SIP “contain[s] adequate provisions prohibiting . . . any source . . . within the State from emitting any air pollutant in amounts which will contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard.” 42 U.S.C. § 7410(a)(2)(D), (D)(i), & (D)(i)(I) (internal section breaks omitted). This rule prevents states from essentially exporting most of their emissions to other regions by strategically positioning sources along an arbitrary border line.

In addition, before new construction or modifications of a source of emissions may begin, a SIP must provide for “written notice to all nearby States the air pollution levels of which may be affected by such source at least sixty days prior to the date on which commencement of construction is to be permitted.” 42 U.S.C. § 7426(a)(1). * * *

In addition to this framework, there are a number of checks built into the system to prevent abuses and to address concerns about emissions. As already noted, the EPA retains ultimate authority over NAAQS to determine what levels of emissions are acceptable and has the responsibility to modify those levels as necessary. The EPA also has the authority, through a procedure known as a SIP Call, to demand that states modify their SIPs if it believes they are inadequate to meet NAAQS. Finally, any state that believes that it is being subjected to interstate emissions may file what is known as a section 126 petition. Named after the original section of the Clean Air Act and codified at 42 U.S.C. § 7426(b), the section states that “[a]ny State or political subdivision may petition the Administrator [of the EPA] for a finding that any major source or group of stationary sources emits or would emit any air pollutant in violation of the prohibition of section 7410(a)(2)(D)([i]) of this title or this section.” As noted earlier, section 7410(a)(2)(D)(i)(I) prohibits states from allowing emissions that will interfere with other states’ attainment or maintenance of NAAQS air emission levels. Thus, section 126 provides an

important method for downwind states like North Carolina to address any concerns they have regarding the adequacy of an upwind state's regulation of airborne emissions.

III.

We have explained at some length the structure of the Clean Air Act in order to emphasize the comprehensiveness of its coverage. The fact that the process has been regulated in such detail has contributed to its inclusiveness and predictability. It was hardly unforeseeable that the aforementioned process and the plans and permits related to it would not meet with universal approbation. Litigation that amounts to “nothing more than a collateral attack” on the system, however, risks results that lack both clarity and legitimacy. *Palumbo v. Waste Techs. Indus.*, 989 F.2d 156, 159 (4th Cir. 1993).

Dissatisfied with the air quality standards authorized by Congress, established by the EPA, and implemented through Alabama and Tennessee permits, North Carolina has requested the federal courts to impose a different set of standards. The pitfalls of such an approach are all too evident. It ill behooves the judiciary to set aside a congressionally sanctioned scheme of many years' duration — a scheme, moreover, that reflects the extensive application of scientific expertise and that has set in motion reliance interests and expectations on the part of those states and enterprises that have complied with its requirements. To replace duly promulgated ambient air quality standards with standards whose content must await the uncertain twists and turns of litigation will leave whole states and industries at sea and potentially expose them to a welter of conflicting court orders across the country.

A.

The Supreme Court addressed this precise problem of multiplicity in *International Paper Co. v. Ouellette*, 479 U.S. 481 (1987). It emphasized that allowing “a number of different states to have independent and plenary regulatory authority over a single discharge would lead to chaotic confrontation between sovereign states.” *Id.* at 496–97. This problem is only exacerbated if state nuisance law is the mechanism used, because “nuisance standards often are vague and indeterminate.” *Id.* at 496. * * *

Thus, while public nuisance law doubtless encompasses environmental concerns, it does so at such a level of generality as to provide almost no standard of application. If we are to regulate smokestack emissions by the same principles we use to regulate prostitution, obstacles in highways, and bullfights, we will be hard pressed to derive any manageable criteria. . . .

The contrast between the defined standards of the Clean Air Act and an ill-defined omnibus tort of last resort could not be more stark. We are hardly at liberty to ignore the Supreme Court's concerns and the practical effects of having multiple and conflicting standards to guide emissions. These difficulties are heightened if we allow multiple courts in different states to determine whether a single source constitutes a nuisance. . . . An EPA-sanctioned state permit may set one standard, a judge in a nearby state another, and a judge in another state a third. Which standard is the hapless source to follow?

Indeed, a patchwork of nuisance injunctions could well lead to increased air pollution. Differing standards could create perverse incentives for power companies to increase utilization of plants in regions subject to less stringent judicial decrees. Similarly, rushed plant alterations triggered by injunctions are likely inferior to system-wide analysis of where changes will do the most good. Injunction-driven demand for such artificial changes could channel a limited pool of specialized construction expertise away from the plants most in need of pollution controls to those with the most pressing legal demands. * * *

B.

We need not hold flatly that Congress has entirely preempted the field of emissions regulation. We cannot anticipate every circumstance that may arise in every future nuisance action. . . . At the same time, however, the *Ouellette* Court was emphatic that a state law is preempted “if it interferes with the methods by which the federal statute was designed to reach [its] goal,” admonished against the “tolerat[ion]” of “common-law suits that have the potential to undermine [the] regulatory structure,” and singled out nuisance standards in particular as “vague” and “indeterminate.” The upshot of all this is that we cannot state categorically that the *Ouellette* Court intended a flat-out preemption of each and every conceivable suit under nuisance law. We can state, however, with assurance that *Ouellette* recognized the considerable potential mischief in those nuisance actions seeking to establish emissions standards different from federal and state regulatory law and created the strongest cautionary presumption against them.

* * * A field of state law, here public nuisance law, would be preempted if “a scheme of federal regulation . . . [is] so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it.” Here, of course, the role envisioned for the states has been made clear. Where Congress has chosen to grant states an extensive role in the Clean Air Act’s regulatory regime through the SIP and permitting process, field and conflict preemption principles caution at a minimum against according states a wholly different role and allowing state nuisance law to contradict joint federal-state rules so meticulously drafted.

It is true, as North Carolina argues, that the Clean Air Act’s savings clause states that “[n]othing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief.” 42 U.S.C. § 7604(e). * * *

Similarly, *Ouellette* held that the Clean Water Act’s savings clause, which is similar to the one found in the Clean Air Act, *compare* 33 U.S.C. § 1365(e) *with* 42 U.S.C. § 7604(e), did not preserve a broad right for states to “undermine this carefully drawn statute through a general savings clause.” *Ouellette*, 479 U.S. at 494. The Court indicated that the clause was ambiguous as to which state actions were preserved and noted that “if affected States were allowed to impose separate discharge standards on a single point source, the inevitable result would be a serious interference with the achievement of the ‘full purposes and objectives of Congress.’” We thus cannot allow non-source states to ascribe to a generic savings clause a meaning that the Supreme Court in *Ouellette* held Congress never intended. * * *

QUESTIONS AND DISCUSSION

1. The Fourth Circuit's concerns about disparate regulatory schemes for polluting sources mirrors the Supreme Court's underlying rationale in *Ouellette* for preempting common law claims under the Clean Water Act: it would be impractical and unfair to impose a variety of out-of-state standards on a single point source. In theory, courts could ignore this dynamic by imposing damages rather than issuing injunctions, but damages would not necessarily abate the harmful conduct and could become exorbitant. Do you think state common law claims should be available under the Clean Air Act and, if so, under what contexts? Should the source state public nuisance laws apply?

2. In a portion of the *North Carolina* decision not included above, the Fourth Circuit discussed how source-state common law principles could apply to the TVA facilities. The court noted that the TVA plants were operating in compliance with both federal and state Clean Air Act permit requirements, and thus concluded that under the source-state public nuisance law, the facilities could not be public nuisances:

An activity that is explicitly licensed and allowed by Tennessee law cannot be a public nuisance. . . . The only way that a permit-authorized activity can be enjoined under a nuisance theory is if it is operating negligently, a claim not before us in this case. Thus while it is technically accurate to state that an act that is not illegal can still be a nuisance, that proposition is simply not relevant in this case because TVA's Tennessee plants are expressly permitted to operate as they do.

615 F.3d at 310.

3. The pollutants at issue in *North Carolina* are regulated under several parts of the Clean Air Act, including the NAAQS. EPA has not set NAAQS for greenhouse gases, however, and seems very unlikely to do so. Moreover, while EPA has developed New Source Performance Standards (NSPS) applicable to the specific facilities and pollutants at issue in *North Carolina*, it has yet to develop NSPS for most source categories of greenhouse gases. Should this matter under state law preemption analysis?

4. A few district courts have issued decisions finding that the Clean Air Act preempts common law claims. In *Bell v. Cheswick Generating Station*, – F.Supp.2d –, 2012 U.S. Dist. LEXIS 147232 (W.D. Pa. Oct. 12, 2012), the court held that the Clean Air Act preempted plaintiffs' state common law claims arising from a coal plant depositing ash and particulate matter onto their properties. The court emphasized that the plant had a Clean Air Act permit and noted that plaintiffs' nuisance claims hinged on the plaintiffs proving violations of the permit itself. In effect, the plaintiffs sought tort remedies for violation of a statutory scheme. In *Comer*, the district court held that the Clean Air Act categorically preempts state common law. 839 F. Supp.2d at 865.

V. COULD COMMON LAW DOCTRINES APPLY TO CLIMATE CHANGE?

It may at first be difficult to think of climate change in terms of the common law. When we discuss mitigation measures through negotiation or legislation, we naturally tend to think of climate change as an environmental management or policy issue. But if a client walked in the door whose life-time investment in sugar maple trees was being threatened by changing climate, we as lawyers will be forced to think of climate change more as an infringement on someone's rights. Thus far, parties have sought to use two common law doctrines, public nuisance law and the public trust doctrine, to compel emissions reductions or force agencies to act. Their efforts thus far have failed. Nonetheless, many scholars have advocated for the use of the common law in climate change mitigation. The following materials briefly explore the role of common law and evaluate the merits of the common law claims.

A. Public Nuisance and Other Tort Claims

Several torts cases relating to climate change have already been brought in the United States, and it is possible that parties will file more torts cases in the future. First, climate change impacts will only become more pervasive, and more people are going to be hurt by climate change. If one reviews the climate impacts identified in Chapter 1, the potential categories of people who will be damaged are astounding: farmers affected by drought, coastal property owners who lose their homes to rising seas, and flood victims who lose their homes to hurricanes, to name just a few. Not only will the impacts of climate change increase, but the ability to attribute those damages to climate change — to show causation — will also increase. As science clarifies the impacts of climate change and demonstrates the causal link between specific harms and climate change, then the call for liability will grow louder.

At the same time, the objectives of tort law would seem to be met by attention to climate change. The purposes of torts liability are (1) to compensate those injured by the acts of others, (2) to deter socially dangerous or undesirable activities, and (3) to set the norms for socially desirable behavior. Take the case of the village of Kivalina as an example. One identifiable set of people (Inupiat villagers) are being forced to relocate their homes and businesses because their village is literally slipping into the ocean as warming temperatures melt the ice that formerly protected their coast from winter storms. The villagers have contributed negligibly, if anything at all, to global warming, but yet they are clearly injured. Assuming that they can prove their case — including causation — why should they not be compensated? Why should those responsible not pay? Isn't this exactly what torts is meant to do?

But is the old common law of torts appropriate for such a quintessentially modern problem? At first glance, the obstacles to bringing a tort claim seem insurmountable. Where almost everyone in the world is affected and thus is a potential plaintiff, why should anyone be compensated? Moreover, everyone (or at least everyone who drives a car or uses electricity from

fossil fuels) is partly responsible for climate change. The challenge for the tort system is how to assign liability when everyone is simultaneously a plaintiff and a defendant.

Thus, to some extent the debate over torts and climate change is a battle over how to characterize climate change. Is it just another form of nuisance where the behavior of one set of actors infringes on the rights of other property owners, or is it a broad, complex issue better left to legislatures and agencies to manage?

The majority of climate-related tort cases decided thus far suggest that those who would characterize climate change as a political question are prevailing. In addition, courts have demonstrated a willingness to apply preemption analysis broadly to preclude claims seeking damages or injunctions to mitigate climate change injuries. But torts cases are unlikely to go away soon, at least unless or until the Supreme Court weighs in on the preemptive effect, if any, of the Clean Air Act on state common law claims. Moreover, tort claims could become legally stronger as the ability to link anthropogenic climate change with real impacts on real people improves. Consider the analysis in the following article:

**DAVID A. GROSSMAN, WARMING UP TO A NOT-SO-RADICAL IDEA:
TORT-BASED CLIMATE CHANGE LITIGATION**

28 COLUM. J. ENVTL. L. 1, 3–7 (2003)

In evaluating whether a tort suit is an appropriate vehicle for addressing climate change, one must consider the central concerns and goals of tort law. Many of climate change's costs are harms to property produced at least partially as a result of human actions. Harm caused by human activity is a central concern of tort law. Further, because of the uneven nature and distribution of the effects of climate change, some localized groups (e.g., those living in coastal areas or at high latitudes) are bearing, and will continue to bear, the brunt of global warming's harms and costs. This existing allocation raises the question of whether we should leave these costs on the victims of climate change or should transfer them to those who arguably have contributed to creating the harm. Allocation of the costs of harms is another central tort concern.

In deciding who should bear the costs of global warming, it is helpful to look at two of tort law's basic goals: (1) reducing the costs of accidents, and (2) providing corrective justice. Consider first which allocation of costs will best reduce the costs of climate change "accidents." Leaving the costs of climate change on its victims ensures that climate-changing activities occur at higher than optimal levels, resulting in higher "accident" costs. This is true because victims and potential victims, for three principal reasons, cannot effectively organize to bargain with or to force producers of fossil fuels to reduce fossil fuel use. First, climate change has global effects, so in that regard, the transaction costs involved in organizing the vast numbers of potential victims are immense. Second, as noted, the effects of climate change are unevenly distributed. . . . Third, the lack of public knowledge about climate change, caused by the evolving and complicated science of climate change and compounded by some fossil fuel companies' efforts to encourage public uncertainty and inaction on global warming, further hinders fruitful organization and collective action. Lack of organization and imperfect

knowledge therefore enable producers to continue producing their climate-changing products at higher than optimal levels and to keep externalizing the costs of climate change. Fossil fuel prices thus do not accurately reflect climate change's costs when these costs are left on victims.

Unlike the consumer public, fossil fuel companies and some of the principal industries reliant on them have large amounts of resources with which they can acquire the expertise needed to assess information about climate change and its costs. With such information and resources, these entities are in a better position to carry out a cost-benefit analysis comparing increased consumption with the increased "accident costs" produced by that consumption, and then to act on that analysis by internalizing the costs of climate change into the price of fossil fuels. Internalizing the costs of climate change would raise the price of fossil fuels, making alternative energy sources and more efficient consumption of fossil fuels more desirable, thereby reducing the level of greenhouse gas emissions. Placing climate change "accident" costs on the fossil fuel companies would thus minimize these costs.

Consider now which allocation of the costs of climate change would best serve the principles of corrective justice. Some harms of climate change are more easily attributable and identifiable, such as damage caused by rising sea levels, while others may be harder to distinguish from background processes, such as damage due to more frequent and more severe storms. Either way, people are harmed by climate change who otherwise would not have been. Conceptions of equity and corrective justice suggest that those who have been harmed by others' negligent or morally dubious actions should be compensated in some way. Notions of corrective justice thus also seem to support shifting the costs of climate change onto these fossil fuel companies.

QUESTIONS AND DISCUSSION

1. Do you agree with Grossman's assessment of the applicability of torts law to a field like climate change? What other arguments would you make that climate change should not be the subject of a common law action? Are any of these arguments relevant for the person injured by climate change?

2. Before reading further, consider some of the basic causes of action in torts: intentional torts, negligence, nuisance, and public nuisance, and products liability. Which of these could apply to the climate change situation? How would you shape a case under each of these theories? What are the basic elements of each cause of action, and what evidence would you need to meet them? Is that evidence available with respect to climate change?

3. Tobacco tort cases suffered continual losses in the courts for more than a decade before finally prevailing through a combination of innovative lawyering, clearer scientific and health information, and the disclosure of important information from defendants. Many observers believe climate change tort cases may follow a similar trajectory. What major differences do you see in the case of climate change as compared to tobacco litigation? Or to litigation over hand guns? Or to other environmental torts such as litigation over asbestos or lead. *See, e.g.,* Timothy D. Lytton, *Using Tort Litigation to Enhance Regulatory Policymaking: Evaluating Climate*

Change Litigation in Light of Lessons from Gun Industry and Clergy Sexual Abuse Lawsuits, 86 Tex. L. Rev. (forthcoming); *Hamilton v. Accu-Tek*, 62 F. Supp.2d 802, 818 (E.E. N.Y.1999) (finding a duty to victims for negligent marketing and distribution of guns) *with* *Hamilton v. Beretta U.S.A. Corp.*, 96 N.Y.2d 222, 727 N.Y.S. 2d 7 (2001) (finding no duty was owed).

4. In international environmental law, the twin goals of torts — compensation and deterrence or accident prevention — are reflected in the “polluter pays principle” and the “pollution prevention principle,” respectively. In this way, tort liability can be seen as simply one approach for implementing these broader principles. Do these broad international environmental law principles, discussed in **Chapter 11, Section XX**, have any applicability to the tort context?

5. In *North Carolina*, the Fourth Circuit emphasized the expansive potential of public nuisance law:

[P]ublic nuisance is an all-purpose tort that encompasses a truly eclectic range of activities. It includes such broad-ranging offenses as:

interferences with the public health, as in the case of a hogpen, the keeping of diseased animals, or a malarial pond; with the public safety, as in the case of the storage of explosives, the shooting of fireworks in the streets, harboring a vicious dog, or the practice of medicine by one not qualified; with public morals, as in the case of houses of prostitution, illegal liquor establishments, gambling houses, indecent exhibitions, bullfights, unlicensed prize fights, or public profanity; with the public peace, as by loud and disturbing noises, or an opera performance which threatens to cause a riot; with the public comfort, as in the case of bad odors, smoke, dust and vibration; with public convenience, as by obstructing a highway or a navigable stream, or creating a condition which makes travel unsafe or highly disagreeable, or the collection of an inconvenient crowd; and in addition, such unclassified offenses as eavesdropping on a jury, or being a common scold.

615 F.3d at 302, quoting W. Page Keeton et al., *Prosser and Keeton on the Law of Torts* 643–45 (5th ed.1984). Should the breadth of the doctrine make courts hesitant to apply it to climate change?

The basic elements of a tort cause of action in negligence are the following: (1) the defendant must have breached a duty — i.e. behaved unreasonably towards the plaintiff; (2) that breach must have caused, both factually and legally (proximately), injury to the plaintiffs; and (3) the plaintiff must in fact have suffered harm. All of the climate-related tort actions brought thus far have included public nuisance claims under both federal and state common law as their primary claims. The basic elements of a public nuisance are that the defendant is contributing to a condition that unreasonably interferes with a public right. Although the elements of a public nuisance claim are different in important ways, such actions in most states require an inquiry into the reasonableness of the defendants’ actions, proof of causation, and a demonstration of damages. These elements are discussed generally below, but the section is meant to stimulate

your thinking about the applicability of torts generally to climate change. Given the status of the few cases brought thus far, this section presents more questions than answers in this regard.

1. Breach of Duty: The Reasonableness of Defendants' Actions

In negligence cases, the general standard of care is “to conform to the legal standard of reasonable conduct in the light of the apparent risk. What the defendant must do, or must not do, is a question of the standard of conduct required to satisfy the duty.” W. PAGE KEETON, ET AL., PROSSER AND KEETON ON THE LAW OF TORTS, §53 (W. Page Keeton ed., 5th ed. 1984). This simple formulation, of course, simply masks the complex and nuanced discussion of what standard of care in a particular circumstance — for example, with respect to the emissions of greenhouse gases — a particular defendant owes to a particular plaintiff. The following excerpt begins to explore the negligence standard of care in the context of climate change:

**DAVID HUNTER & JAMES SALZMAN,
NEGLIGENCE IN THE AIR: THE DUTY OF CARE IN
CLIMATE CHANGE LITIGATION
155 U. PA. L. REV. 1741, 1748–49; 1756–68 (2007)**

For negligence actions, the general level of the duty of care is well known — to act reasonably or not to act in such a way that creates an unreasonable risk of harm. Typically, as when Drunk drives into Bystander, we find that Drunk has violated her duty by acting unreasonably toward Bystander (i.e., driving drunk on the sidewalk). But how would we characterize the reasonableness of the behavior of energy utilities whose emissions contribute to an increase in temperature that reduces snowpack, or of a car company whose products do the same thing?

The duty of care analysis will be similar, although not identical, for tort actions based on theories other than negligence. . . . For nuisance, the obligation is not to interfere unreasonably or knowingly with the use and enjoyment of another's property, and for public nuisance it is not to contribute unreasonably or knowingly to an interference with the public's resources. In each case, the determination of a breach of duty can be analyzed in terms of the reasonableness of the defendant's conduct (or of its product design), which in turn can be analyzed through a risk-utility (i.e., cost-benefit) analysis of the underlying conduct (or product) and the foreseeable resulting harms. Also relevant to each of the tort actions is the availability of alternative approaches, technologies, or products that could reduce the foreseeable risk. * * *

One frequently used method for analyzing whether a defendant has acted negligently is to compare the costs of avoiding the negligent behavior with the likely damages caused by the activity. Judge Learned Hand's famous *BPL* formula, sometimes known as the “Calculus of Negligence,” provides the classic example of this approach in determining whether or not to impose a duty. In *United States v. Carroll Towing* [159 F.2d 169 (2d Cir. 1947)], Hand proposed that tort liability for negligence should be imposed when the burden of preventing injury is less than the product of the magnitude of the injury and its likelihood ($B < P \times L$). The main insight

of this heuristic is that the duty to prevent harm is dependent on comparing the costs of avoiding damage or preventing harm with the expected damages from the activity. * * *

In determining the reasonableness of a certain action, a defendant cannot emphasize only the costs she personally faces, but must also consider the external social costs of her activity. Where the costs of avoiding large amounts of potential damages would be reasonable, a defendant has a duty to incur those costs. Where such costs would be unreasonable in light of potential risk, the defendant is under no such duty. Under this view, a principle purpose of tort law is to maximize social utility, because where the costs of accidents exceed the costs of preventing them, the law will impose liability.

In the climate change context, scientific developments over the past decade have shifted, and continue to shift, each element of the *BPL* formula in the direction of liability. The identifiable risks of climate changes are becoming better understood and most of them have become more likely with greater consequences than was thought even a decade ago. In addition, new technologies are lowering the costs of pollution control equipment, carbon storage, fuel switching and renewable and other energy alternatives. * * *

1. The Likelihood (*P*) and Severity of the Damage (*L*)

[A]n emerging scientific consensus now broadly accepts that climate change is happening, is caused by human activities, and is resulting in specific injuries or will do so in the foreseeable future. * * *

What then are the global costs of climate change — the *L* in the *BPL* formula? Most analysts put the costs at somewhere between 0% and 3% of global GDP. Nordhaus, in a widely cited analysis, has estimated the global costs at approximately 2.4% of global GDP or approximately \$ 30 per ton of carbon. More recently, a study commissioned by the U.K. government — known as the *Stern Review* and released in October 2006 — based its estimates on more recent higher estimates of global temperature increases. The *Stern Review* places the costs of climate change under business-as-usual scenarios at 5% of global GDP, with more pessimistic assumptions putting the loss at 20% of GDP by the end of the century. Assuming a global GDP of roughly \$20 trillion, the estimated annual impacts range from \$ 500 billion to \$ 4 trillion. * * *

[U]nlike even a decade ago, today strong evidence links climate change to specific anticipated impacts at the local or state level. This understanding supports moving the debate over climate policy from general policy debates to case-specific adjudications over identifiable harms. As these types of regional impacts become better known and studied, and buttressed by the stronger consensus findings . . . reflected in the Fourth IPCC Assessment, the causal link between human activities, increased temperatures, changing climate, and specific impacts to identifiable litigants will be more clearly demonstrated. Put another way, the probability (and thus foreseeability) of specific damage caused by climate change is increasingly being documented. This will not only allow for stronger arguments on causation but will also satisfy two prongs of the *BPL* formula — the probability of harm (*P*) and the severity of the harm (*L*) — and, thus, will strengthen plaintiffs' cases for a breach of the duty of reasonable care.

2. *Burden or Cost of Avoiding Harm*

At the same time the probability of serious injury from climate change is increasing, the costs of reducing carbon emissions are also decreasing. Over time, the efficiency of the economy is increasing, as measured by the carbon intensity or amounts of carbon emitted per dollar of GDP produced. From 1990 to 2002, for example, carbon intensity was reduced 17% in the United States and 15% on average among the twenty-five countries with the highest emissions levels. Carbon intensity is dependent on fuel mix and energy-use efficiency. Particularly in the absence of regulatory mandates, declines in carbon intensity suggest that either through fuel switching, new methodologies, new technologies, or similar changes, the economy is becoming increasingly carbon efficient.

Related trends can be seen throughout the energy sector. The costs of alternative energy sources, such as wind and solar power, are dropping steadily and are becoming increasingly competitive. Costs of wind power have declined substantially - more than 80% over the past twenty years. Installed costs of solar power have dropped 5% per year over the past decade. Similarly, in the automobile industry, new technologies, such as hybrid vehicles, have increased efficiency at affordable costs. Fuel switching is also available to the transport system, with a growing percentage of road transport being run by natural gas (3%) or biofuels (0.5%).

Clearly, many efficient technologies now exist and are increasingly cost effective. One survey of seventy-four companies from eighteen sectors in eleven countries, for example, found GHG emission reductions of up to 60% with total gross cost savings of \$11.6 billion (mostly because of reduced energy costs). In fact, considerable progress on addressing climate change can be achieved simply through the dissemination and “scaling up” of technologies and practices that are already well known. * * *

What, then, are the costs of addressing climate change? Estimates have varied, although most put the costs of stabilizing GHG emissions at safe levels at up to 1% of the global economy. This is a staggering amount, except when it is compared to the estimated costs of climate change. As noted above, most estimates put the costs of climate change at roughly 3% of the global economy (three times as much), with more recent estimates ranging from 5% to 20%.

For purposes of analyzing a specific climate change claim, the *BPL* formula may be less about global costs and benefits and more about the costs and benefits present in the specific case. The complaints that have been filed thus far recognize this, focusing on the steps that are available to the specific defendants to reduce their climate impact. * * *

An incomplete, though instructive, back-of-the-envelope method to assess costs is to price the emissions reductions sought in the climate complaints. The Connecticut complaint, for example, seeks an injunction to require the utility companies to cap their emissions (allegedly 650 million tons per year) and then to reduce them by some set amount each year. If we assume reductions of 7% (arbitrarily set at the level of reduction to which the United States would have committed under the Kyoto Protocol), then companies would be asked to reduce their emissions

by 45 million tons each year. If one uses current carbon market prices in Europe and the United States, this would cost the utilities in total from \$ 180 to \$ 450 million per year (based on the oversimplified assumption that the current range of carbon costs — \$ 4 per ton in the Chicago Climate Exchange to \$ 18 per ton in the European Climate Exchange — would remain unchanged). If divided equally among the five Connecticut defendants, the cost per defendant would have been \$ 36 to \$ 162 million.. * * *

We should make clear that these estimates are based on several over-simple assumptions (e.g., market price of carbon will not change in the face of increased demand), but they do provide first-order estimates for the costs of avoiding the negligent behavior (i.e., emissions beyond Kyoto-level reductions). The point is not to develop a precise estimate of the compliance costs, but to show that a *BPL* inquiry is possible and that the likely costs of avoidance may in some cases be less than the likely damages from climate change. Under Hand's formula, the defendant's failure to take those steps could be considered a breach of her duty to act reasonably under the circumstances. * * *

QUESTIONS AND DISCUSSION

1. Do you agree with the analysis of the Hand formula above? Are all the trends moving toward liability?

2. Courts have come up with additional factors beyond the BPL formula for determining the reasonableness of an activity. For example, in *Vu v. Singer Co.*, 538 F.Supp. 26, 29 (N.D. Cal. 1981), the court held that the extent of the duty depended on what was reasonable under the circumstances, judged by the following standard:

- (1) foreseeability of harm to plaintiff;
- (2) degree of certainty that plaintiff suffered injury;
- (3) closeness of connection between defendant's conduct and injury suffered;
- (4) moral blame attached to defendant's conduct;
- (5) policy of preventing future harm;
- (6) extent of burden to the defendant and the consequences to the community of imposing a duty to exercise care with resulting liability for breach;
- (7) availability, cost, and prevalence of insurance for the risk involved.

Id. at 29. How would you analyze these factors in the context of climate change?

3. We often think that imposing liability on a defendant presupposes that they have been blameworthy in some respect. Indeed, this is one of the factors identified above in Note 2. What factors would be relevant to you in arguing that a defendant should be morally (and legally) blamed for its contribution to climate change? To some extent, this requires placing the defendant's specific conduct in the context of what was known or suspected about climate change at the time. Thus, a plan to expand oil development or coal-fired utilities or to market inefficient SUVs may not have been blameworthy or "unreasonable" in 1990. What about 2000? Or 2013? Given the emerging understanding of climate change, determining what an appropriate response should have been at any specific time is difficult, imprecise and un-scientific. It is in fact a subjective judgment about reasonableness — one that is often left in the tort context to juries. What about proposals today to build coal-fired power plants or expand natural gas production and use in the United States or to export coal or natural gas abroad? Are those plans reasonable?

4. Contributing to an analysis of the moral blameworthiness in many tort cases is the degree of defendant's recklessness or intention in undertaking the risky activity. But in the case of climate change, almost all of the potential corporate defendants are acting deliberately or intentionally in ways they now know contribute to climate change. Most utilities, energy companies, or automobile manufacturers have either made public pronouncements or taken policy steps that show they are aware of climate change threats and of their contribution to the problem. How does this affect their potential liability, if at all? If you were representing a fossil fuel-based company, what advice would you give them to lower their potential exposure to future climate change actions?

5. According to the Restatement's treatment of public nuisance, the following are "circumstances that may sustain a holding that an interference with a public right is unreasonable":

- (a) whether the conduct involves a significant interference with the public health, the public safety, the public peace, the public comfort or the public convenience, or
- (b) whether the conduct is proscribed by a statute, ordinance or administrative regulation, or
- (c) whether the conduct is of a continuing nature or has produced a permanent or long-lasting effect, and as the actor knows or has reason to know, has a significant effect upon the public right.

Restatement (Second) of Torts, §821B(2). Given the widespread, serious, and long-lasting impacts that are increasingly attributed to climate change, does it seem far-fetched to argue that climate change constitutes a "significant interference" with the public's welfare? See Matthew F. Pawa & Benjamin A. Krass, *Global Warming as a Public Nuisance: Connecticut v. American Electric Power*, 16 FORDHAM ENVTL. L. REV. 407 (2005); see also Bruce Ledewitz & Robert D. Taylor, *Law and the Coming Environmental Catastrophe*, 21 WM & MARY ENVTL. L. & POL'Y REV. 599, 614 (1997).

2. *Causation*

Just as difficult as demonstrating a breach of a legal duty for plaintiffs will be the challenges they face on causation. Causation is divided into two different elements: (1) cause in fact, where plaintiffs must prove that but for the breach of duty, injury would have occurred; and (2) proximate causation or legal causation where the court determines whether the injury was sufficiently foreseeable to allow for the imposition of liability. The following excerpt explores the difficult issues of causation that arise in the climate change context:

DAVID A. GROSSMAN, WARMING UP TO A NOT-SO-RADICAL IDEA

28 COLUM. J. ENVTL. L. at 22–25

In many toxic tort cases, as in a climate change case, the clear causal chains examined in first-year torts classes usually do not exist. Instead, plaintiffs must rely on more statistical or probabilistic means. In mass exposure cases such as Agent Orange, for instance, plaintiffs often had to rely on epidemiological studies to try to demonstrate the association between exposure to a substance and deleterious health effects. These studies attempt to establish generic causation--whether it can be said that the substance, as a general proposition, causes the sort of injuries afflicting the plaintiffs. In the climate change context, climate scientists use computer models to project the past and future course of Earth's climate and to demonstrate the probabilistic association between increased greenhouse gas emissions and climatic effects. Despite the uncertainties that remain in climate science, the studies and models such as those the IPCC relied upon provide a solid basis for arguing that a general causal link exists between greenhouse gas emissions, climate change, and effects such as sea-level rise, thawing permafrost, and melting sea ice — all probably beyond the “more likely than not” standard used in the legal arena.

Generally speaking, courts have not considered statistical associations like those produced by epidemiological studies to be adequate proof of specific causation — whether it can be said that the substance caused plaintiffs' particular injuries. This individual causation is often the most problematic for toxic tort plaintiffs. Determination of specific causation is complicated by the existence of background levels of the injuries and of other risk factors that may contribute to the victims' chances of developing the disease (“confounding factors”). These complications mean that even where it can be shown that the defendant is responsible for a significant proportion of the cases of harm, no single plaintiff can prove that he or she is one of those cases. . . . Many courts and scholars have concluded that plaintiffs who rely on epidemiological evidence must show that, more probably than not, their individual injuries were caused by the risk factor in question, as opposed to any other cause. This has sometimes been translated to a requirement of a relative risk of at least two.

Showing specific causation in the climate change context could be particularly difficult. First, climate change's effects involve shifts in climatic activity, such as more intense and more

frequent storms, not the creation of distinctive new phenomena, like the “signature diseases” of asbestosis in asbestos cases and clear cell adenocarcinoma in DES [diethylstilbestrol, a drug once prescribed during pregnancy to prevent miscarriages or premature deliveries, but which later was found to cause a rare form of cancer]. Unlike those cases, the complexity of the climate system means that several factors are involved in producing climatic phenomena, making it difficult to show the probability that defendants’ contributions to anthropogenic climate change caused any particular phenomenon. Second, unlike cancer or other typical toxic tort effects, the natural phenomena affected by climate change are subject to natural fluctuations in frequency and severity. The chaotic system underlying climatic effects makes it quite difficult to differentiate a particular pattern change in temperature or sea level caused by anthropogenic climate change from one caused by natural variability.

The obstacle posed by specific causation is mitigated, however, when governments as opposed to individuals are the plaintiffs. When states bring tort claims, the plaintiffs have almost infinite lifespans and cover large amounts of territory, allowing for an aggregation of effects over both space and time. The harms mentioned above--sea-level rise, temperature increases, thawing permafrost, and melting and thinning sea ice--are among the harms most clearly tied to climate change, asserted by the IPCC with high levels of confidence. The aggregation of these harms makes it easier to rule out confounding factors; one sinkhole in a road or one particular storm surge is more easily attributed to factors other than climate change than is a state full of damaged roads or with a lengthy and retreating shoreline. Natural fluxes and confounding factors still exist, since some portion of the harms within the aggregation would not actually be caused by global warming, but aggregation allows plaintiffs to better establish that some present harms from climate change exist in the broader geographic and temporal range.

QUESTIONS AND DISCUSSION

1. The above discussion of the aggregation of impacts in actions brought by states presaged the first climate change cases. The states in *Connecticut* did not premise their public nuisance claim on any one specific weather event, so they arguably would not have to show that climate change has resulted in a specific hurricane or drought — but just that generally over time climate change may have certain impacts (e.g., declines in snow pack, more intense storms, warmer temperatures, etc.). Contrast this to the *Comer* case, where the plaintiffs would have to show that Hurricane Katrina was at least exacerbated by the defendants’ contribution to climate change. Can you see why the state cases would appear to be stronger?

2. Under the plaintiffs’ theory of public nuisance, they would not have to prove that the injury was “more likely than not” *caused* by the defendants’ conduct, but rather simply that the defendants’ conduct *contributed* to the nuisance and thus the injury. In this way, the fact that the defendant utilities in *Connecticut* contribute only a fraction of global greenhouse gas emissions would not necessarily bar the suit.

3. ***Joint and Several Liability.*** Under plaintiffs’ public nuisance theory, defendants could arguably be held jointly and severally liable for the entire injury (even if their contribution alone

is insufficient to cause the damage). Under basic tort law theories, defendants that contribute to an indivisible harm or injury may be held jointly and severally liable. This is particularly true in nuisance and public nuisance cases. In this regard consider the following quote from an 1881 nuisance action brought by a downstream landowner against an upstream slaughterhouse:

It is no answer to a complaint of nuisance that a great many others are committing similar acts of nuisance upon the stream. Each and every one is liable to a separate action, and to be restrained.

The extent to which the appellee has contributed to the nuisance, may be slight and scarcely appreciable. Standing alone, it might well be that it would only, very slightly, if at all, prove a source of annoyance. And so it might be, as to each of the other numerous persons contributing to the nuisance. Each standing alone, might amount to little or nothing. But it is when all are united together, and contribute to a common result, that they become important as factors, in producing the mischief complained of. And it may only be after from year to year, the number of contributors to the injury has greatly increased, that sufficient disturbance of the appellant's rights has been caused to justify a complaint.

One drop of poison in a person's cup, may have no injurious effect. But when a dozen, or twenty, or fifty, each put in a drop, fatal results may follow. It would not do to say that neither was to be held responsible.

Woodyear v. Schaefer, 57 Md. 1, 9-10 (Md. 1881). Is there any reason that this approach should not apply 125 years later to global warming? For a further discussion of these and other issues raised by public nuisance climate cases, see Matthew F. Pawa & Benjamin A. Krass, *Global Warming as a Public Nuisance: Connecticut v. American Electric Power*, 16 FORDHAM ENVTL. L. REV. 407 (citing *California v. Gold Run Ditch & Mining Co.*, 4 Pac. 1152, 1157 (Cal. 1884) (“[I]n an action to abate a public or private nuisance, all persons engaged in the commission of the wrongful acts which constitute the nuisance may be enjoined, jointly or severally.”); *Lockwood Co. v. Lawrence*, 77 Me. 297 (Me. 1885) (holding that each of sixteen sawmill operators that were polluting a stream could be held jointly and several liable, notwithstanding that each defendant's contribution alone might have been harmless). Several jurisdictions have abolished joint and several liability, however, in which case each defendant would pay only its allocated share of damages.

4. The use of public nuisance theories is one possible way to circumvent the general rule that plaintiffs must prove that the defendants' actions were “more likely than not” the cause of their injuries. What other possible theories are available to plaintiffs, where, as in the case of climate change, not all of the parties who contributed to the injury will be before the court? Consider the famous case of *Sindell v. Abbott Laboratories*, 607 P.2d 924 (Cal.Sup. Ct. 1980), where the California Supreme Court imposed liability on five manufacturers of diethylstilbestrol (DES) based on their market share. Plaintiff recovered, although she could not know which of the manufacturers produced the DES that injured her and was thus unable to prove which of the five companies was more likely than not the one that caused her specific injuries. In what ways are

plaintiffs in a climate change case in a similar position? Would market share liability be an appropriate means of imposing and allocating liability? Could liability be imposed based on a company's historical greenhouse gas emissions? What advantages or disadvantages would you anticipate with such an approach?

5. The evidence for demonstrating causation seems to be increasing. The IPCC's Fourth Assessment clearly provides substantial weight for the general issues of causation — i.e. whether humans are causing climate change. But just as important have been developments in climate science that have led experts to attribute certain events at least partly to anthropogenic climate change. The science of attribution is gaining ground; one recent study, for example, found that the human contribution to the 2003 European heat wave, which contributed to the deaths of more than 30,000 people, increased the potential of risk of such weather from 4 to 10 times. *See, e.g.*, Myles Allen, et al, *Scientific Challenges in the Attribution of Harm to Human Influence on Climate*, 155 U. PA. L. REV. 1353 (2007); Myles Allen, *Liability for Climate Change*, *Nature*, vol. 421, 891-92 (Feb. 27, 2003); Peter Stott, et al, *Human Contribution to Europe Heat Wave of 2003*, *NATURE*, vol. 432, at 610 (Dec. 2, 2004); Simone Bastianoni, Federico M. Pulselli & Enzo Tiezzi, *The Problem of Assigning Responsibility for Greenhouse Gas Emissions*, 49 *ECOLOGICAL ECON.* 253 (2004) (discussing difficulties in assigning responsibility for greenhouse gas emissions). How will such studies shape future climate litigation strategies? Do you see any obstacles to using such studies in court?

6. **Admissibility of evidence.** Many corporate defense lawyers believed that testimony regarding climate change and its impacts would not be allowed into evidence under the Federal Rules of Evidence's criteria for expert testimony. In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), the Supreme Court announced a two-part test for the admissibility of expert testimony: (1) is the expert's testimony the product of "good science," reflecting scientific knowledge derived from the scientific method; and (2) whether the science is relevant to the legal question at hand. In the only case thus far to rule on a motion to dismiss expert testimony regarding climate change, the District Court in Vermont admitted affidavits from two climate change experts. *Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*, 508 F.Supp.2d 295, 316 (D.Vt. 2007) (finding that Hansen submitted "abundant data" to support his theories and that overall his affidavit was "based on sufficient facts and data and reliable methods, applied reliably to the facts"). As climate science gets even better able to attribute specific events or impacts to anthropogenic climate change, such rulings may even be easier for plaintiffs in the future.

3. Damages

To some extent, proving damages may be the most straightforward element in a climate-change tort case. In the *Connecticut* cases, the plaintiff states identified specific damage to their natural resources and economies that they alleged were caused by anthropogenic climate change. For example, the states alleged impacts that included declining snow pack and ice; increased loss of life and public health threats from heat-related illnesses and smog; impacts on coastal resources from storm surges and permanent sea-level rise; declining water levels and increasing temperatures in the Great Lakes; and rapid declines in forest resources, including New York's

Adirondack State Park. California (one of the state plaintiffs) also detailed costs that the state was already incurring to adapt to climate change, including, for example, the costs of rebuilding levees to prevent sea water infiltration and beach preservation efforts to reverse increased beach erosion from sea level rise.

Putting aside the question of causation (discussed above), whether damage has occurred or is likely to occur in the future can be readily demonstrated. There can be no doubt, for example, that the plaintiffs in *Comer* had suffered harm from Hurricane Katrina or that the Village of Kivalina is indeed subsiding into the ocean. In this regard, review the climate change impacts summarized in Chapter 1 and consider how many of those impacts could form the basis of damages to real plaintiffs in a lawsuit.

Not all damages from climate change may be eligible for a tort case, however. In public nuisance actions, for example, plaintiffs must demonstrate that their specific injuries are different in nature or degree than that suffered by the general public. Generally speaking, plaintiffs who have suffered only economic losses without any physical damage to a proprietary interest cannot recover in tort. In *State of Louisiana ex rel Guste v. M/V Testbank*, 752 F.2d 1019, *cert denied*, 477 U.S. 903 (1986), for example, the court addressed liability for a massive pentachlorophenol (PCP) spill in the Mississippi River Gulf outlet. The U.S. Coast Guard closed the outlet to navigation for nearly a month and temporarily suspended fishing, crabbing, shrimping, and other activities. The impacts of the spill rippled through the Louisiana economy, and a wide variety of affected parties filed suit. The court held that only those plaintiffs who suffered a direct, physical loss to their interests could maintain their suit, while plaintiffs with more indirect damages — for example, because they could not purchase fish for their restaurants — could not.

Just as in *Testbank*, the reverberations of climate change through local and regional economies are and will be, substantial. A severe drought that destroys the Great Plains wheat crop may impact breadmakers, restaurants, and truckers. Tort law would typically limit liability only to those whose economic losses resulted from a physical loss — in this example the wheat farmer — and not those whose economic loss arises only through contract, lost sales, or other financial relationships.

QUESTIONS AND DISCUSSION

1. Although limiting recovery only to those who suffered a physical deprivation of their interests may hinder some climate claims, do you think it may also help courts to view climate-related cases more positively? Given that so many people and interests are affected either directly or indirectly from climate change, this doctrine might provide a convenient and reasonable approach to setting limits on climate claims.

B. Atmospheric Trust Litigation

Environmental organizations have also endeavored to compel agencies to mitigate climate change through administrative processes and litigation arising under the public trust doctrine. The public trust doctrine is an ancient legal doctrine that “provides that certain resources inherently belong to the people and are to be administered by the state for their benefit.” Albert C. Lin, *Public Trust and Public Nuisance: Common Law Peas in a Pod?*, 45 U.C. DAVIS L. REV. 1075, 1077 (2012). The doctrine traditionally applied to tidal and navigable waters and their beds and banks, but courts have expanded it to apply to other public resources, such as parks and beaches. *Id.* at 1077. Climate change activists have sought to expand it further, to apply to the “atmospheric trust,” a term coined by Professor Mary Wood.

The public trust doctrine has typically served three dominant purposes in American law. First, it has prevented the privatization or authorized the regulation of property and resources that are considered essential to public well-being. Lin, *supra*, at 1079. Students who have read the famous *Illinois Central* case will recognize this application of the public trust doctrine in which the Court struck down the Illinois Legislature’s conveyance of submerged lands to a private developer. *See* Ill. Cent. R.R. v. Illinois, 146 U.S. 387, 452-55 (1892); *see also* Richard M. Frank, *The Public Trust Doctrine: Assessing its Recent Past and Charting its Likely Future*, 45 U.C. DAVIS L. REV. 665, 684 (2012). Second, governments have often invoked the public trust doctrine to defend their actions against claims that they have taken private property without just compensation, in violation of the Fourteenth and Fifth Amendments. In a seminal takings decision, *Lucas v. South Carolina Coastal Council*, the Supreme Court held that, even where a regulation would deprive a property of all economic value, a constitutional taking could not result if the regulation reflected a longstanding “background principle of the State’s law of property.” 505 U.S. 1003, 1029-30 (1992). States have successfully invoked the public trust doctrine as a “background principle” to defend against takings challenges regarding permit denials for proposed tideland and wetland development. *See* Esplanade Props. v. City of Seattle, 307 F.3d 978 (9th Cir. 2002); Palazzolo v. Rhode Island, 2005 WL 1645974 (R.I. Super. 2005), *on remand from* 533 U.S. 606 (2001); *see also* Michael C. Blumm & Lucus Ritchie, *Lucas’s Unlikely Legacy: The Rise of Background Principles As Categorical Takings Defenses*, 29 HARV. ENVTL. L. REV. 321 (2005). Third, some courts have held that the public trust doctrine imposes on states a duty of continuing management of the trust resources. *See* Michael C. Blumm & Rachel M. Guthrie, *Internationalizing the Public Trust Doctrine: Natural Law and Constitutional and Statutory Approaches to Fulfilling the Saxion Vision*, 45 U.C. DAVIS L. REV. 741, 758–59 (2012) (discussing the implications of the California Supreme Court’s decision in the Mono Lake case, *Nat’l Audubon Soc’y v. Superior Court*, 33 Cal. 3d 419 (1983), that states have a “continuous supervisory duty” over public trust resources). This last application of the public trust doctrine has captivated the interest of scholars and litigants in the climate change context and has provided the basis for the “atmospheric trust.”

Proponents of the atmospheric trust theory believe that it imposes a non-discretionary duty on states to mitigate climate change. In *Illinois Central*, the Supreme Court noted, “The state can no more abdicate its trust over property in which the whole people are interested . . . than it can abdicate its police powers in the administration of government and the preservation of the peace. . . .” 146 U.S. at 453. Thus, if courts recognize that a trust obligation extends to the atmosphere, proponents argue this will necessarily pave the way for state action.

This section begins with an excerpt from a law review article by Professor Mary Wood, who has argued for an expansion of the public trust doctrine to encompass climate change. It then briefly discusses the litigation efforts of Our Children’s Trust, an advocacy group that has embraced the atmospheric trust concept as a tool to compel governments to mitigate climate change.

1. The Atmospheric Trust Theory

The following article outlines how the public trust doctrine could apply in the climate change context and how application of trust principles could potentially force regulators to regulate greenhouse gases and otherwise protect the “atmospheric trust.”

MARY CHRISTINA WOOD, ADVANCING THE SOVEREIGN TRUST OF GOVERNMENT TO SAFEGUARD THE ENVIRONMENT FOR PRESENT AND FUTURE GENERATIONS (PART I): ECOLOGICAL REALISM AND THE NEED FOR A PARADIGM SHIFT

39 ENVTL. L. 43 (2009)

I. Introduction

* * * Deriving from the common law of property, the public trust doctrine is the original legal mechanism to ensure that government safeguards natural resources necessary for public welfare and survival. At the core of the doctrine is the antecedent principle that every sovereign government holds vital natural resources in “trust” for the public — present and future generations of citizen beneficiaries. A trust is a basic type of ownership whereby one manages property for the benefit of another. An ancient yet enduring legal principle, it underlies modern environmental statutory law. The doctrine invokes the sovereign’s property powers and obligations, distinct from the police powers of a state. * * *

V. Nature’s Trust

* * * The people, through their representative sovereign, have an interest in the ecosystem encompassed within the particular jurisdiction. The public trust represents a central dimension of the sovereign property interest. It simply means that the public owns in common certain property interests in natural resources and land within the territory, and that the government is the people’s designated trustee with the obligation to protect such property on behalf of the citizens. * * *

Drawing from the fundamental purpose underlying the public trust, this Article maps out an encompassing trust limitation on the powers of government — a limitation that characterizes government’s duty in natural resources management as holistic, organic, and obligatory. * * * This Article refers to this full fiduciary paradigm as Nature’s Trust.

A. Government as Trustee of Public Assets for Present and Future Generations

A trust bifurcates the property interest between the legal owner and the beneficial owner. The beneficiaries hold the beneficial title to all assets in the trust. The trustee holds legal title, encumbered with the responsibility to manage the trust strictly for the beneficiaries. This construct imposes a responsibility on government, as the trustee, to protect the assets (also called the res, or corpus) in the interests of the beneficiary class. In the case of the public trust, the beneficiaries are the citizens, both present and future generations. In a landmark trust opinion, *Geer v. Connecticut*, the Supreme Court said “the ownership is that of the people in their united sovereignty.”

The public trust is perpetual, designed by courts to secure the natural resources needed by both present and future generations. The concern for future citizens is the *raison d’etre* for the trust. As the Supreme Court said in *Geer*: “[I]t is the duty of the legislature to enact such laws as will best preserve the subject of the trust, and secure its beneficial use in the future to the people of the state.”

The core of the doctrine requires trust management for public benefit rather than private exploit. As the *Geer* Court stated: “[T]he power or control lodged in the State, resulting from this common ownership, is to be exercised, like all other powers of government, as a trust for the benefit of the people, and not as a prerogative for the advantage of the government, as distinct from the people, or for the benefit of private individuals as distinguished from the public good.” The lodestar public trust opinion is *Illinois Central Railroad Co. v. Illinois (Illinois Central)*, where the Supreme Court announced that the shoreline of Lake Michigan was held in public trust by the State of Illinois and could not be transferred out of public ownership to a private railroad corporation. In broad language encompassing the public’s fundamental right to natural resources, the Court stated:

[T]he decisions are numerous which declare that such property is held by the state, by virtue of its sovereignty, in trust for the public. The ownership of the navigable waters of the harbor, and of the lands under them, is a subject of public concern to the whole people of the state. The trust with which they are held, therefore, is governmental, and cannot be alienated . . .

The trust therefore serves as a fundamental limitation on government’s assertion of power to allow natural damage. While the current environmental laws give agencies control over natural systems and authority to allocate rights to private parties to pollute and destroy resources, the trust serves as a fundamental check on this authority. Simply stated, government trustees, who serve at the will of the public, may not allocate rights to destroy what the people legitimately own for themselves and for their posterity.

B. The Trust as an Inalienable Attribute of Sovereignty Derived from the People

The public trust obligation is the oldest expression of environmental law, dating back to Justinian times and Roman law. * * *

The abiding and unyielding self-interest of the people in their own survival, and that of their children, forms an inherent constraint on any government that gains its authority from the people. Because the people have a direct stake in the future, through their own life spans and those of the children born to their generation, the citizens' present beneficial interest inherently encompasses future concerns. And because generations are continually born, the trust beneficiary class is never subject to severance. . . . From this it can be surmised that any government deriving its authority from the people never gains delegated authority to manage resources in a way that jeopardizes present or future generations or diminishes the people's use of resources that have public benefit. The trust attribute of sovereignty, then, is fundamentally one of limitation, not power, organically comprised as a central principle of governance itself. * * *

D. The Trust as Applied to Each Branch of Government

While the public trust doctrine blankets all three branches, it manifests itself differently according to the unique constitutional role of each branch. The legislature is the trustee of the assets in its role as primary governing branch of the sovereign. The executive branch is by nature an "agent" of the legislature. Thus, on both the federal and state level, agencies are agents of the trustee, encumbered with the duty to carry out sovereign trust obligations. While modern agency officials rarely think of themselves as "trustees," in practice they have the most direct role in managing the trust because legislatures lack the capacity to engage in the details of environmental management.

The judicial branch remains the ultimate guardian of the trust. As craftsmen of the common law, judges define the contours of this obligation. * * *

Although common law generally yields to statutory expression, the public trust arena harbors a judicial "veto" of extraordinary scope, unparalleled in other areas of the law. Legislative acts inconsistent with the trust are subject to judicial invalidation. * * *

F. The People's Ecological Res

The natural resources subject to the public trust doctrine make up the "res" of the people's trust. These are the quantifiable assets in which the citizens hold a property interest, as carried out in trust form through their government officials for the benefit of present and future citizen beneficiaries. While the courts have traditionally focused on water and wildlife resources in applying the public trust, the new climate-altered world demands a far more encompassing definition of the public's natural res.

1. The Essential Trust Purpose

In defining the scope of the trust endowment, courts have looked to the needs of the public as the primary guiding factor. The most illuminating opinion in this regard is *Illinois Central*

... Describing the lakebed as “the whole property in which the public was interested,” it reasoned:

[I]t is a title different in character from that which the state holds in lands intended for sale. . . . It is a title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties. . . . A grant of all the lands under the navigable waters of a State has never been adjudged to be within the legislative power. . . . So with trusts connected with public property, or property of a special character, like lands under navigable waters, they cannot be placed entirely beyond the direction and control of the state. . . .

... The ownership of the navigable waters of the harbor and of the lands under them is a subject of public concern to the whole people of the State. The trust with which they are held, therefore, is governmental and cannot be alienated, except . . . when parcels can be disposed of without detriment to the public interest in the lands and waters remaining.

This follows necessarily from the public character of the property, being held by the whole people for purposes in which the whole people are interested.

* * *

2. Society’s Changing Needs

Obviously, the interests protected by the trust at the time of *Illinois Central* — fishing, commerce, and navigation — are certainly not the only interests requiring protection in today’s world. The people’s interest in preserving a stable atmosphere, in protecting water sources, protecting natural flood barriers, and in maintaining species habitat and food sources now rank centerfold in the scheme of public interests. . . .

The assets constituting the res of the public trust have been expanded by courts to meet society’s changing needs. The original cases focused on submersible lands, tidelands, and wildlife as trust assets. Over time, the doctrine reached new geographic areas including water, wetlands, dry sand beaches, and non-navigable waterways. The doctrine has also pushed beyond the original societal interests of fishing, navigation, and commerce to protect modern concerns such as biodiversity, wildlife habitat, aesthetics, and recreation. Courts have justified such expansion as being well within the function of common law to adapt to emerging societal needs. Nevertheless, the facts of public trust cases are most often tied to aquatic or wildlife resources.

* * *

[I]t is only logical that the public trust should protect the atmosphere and all other natural resources that are vital to the people and society at large. No one could seriously argue that the air is not a resource of “special character” that serves purposes “in which the whole people are

interested.” Atmospheric health is essential to all facets of civilization and human survival. The Roman origins of the public trust doctrine classified air — along with water, wildlife and the sea — as “res communes.” The *Geer v. Connecticut* decision relied on this ancient Roman classification of “res communes” in holding that the public trust doctrine incorporates wildlife. Courts today continue to trace the public trust doctrine to Roman origins, citing air in the group of assets that are “common to mankind.” Numerous state court decisions, constitutions, and codes have recognized air as part of the res of the public’s trust. * * *

VI. The Role of Sovereigns as Cotenant Trustees over Shared Assets

A. The Sovereign Cotenancy

Some assets, like oceans, air, some rivers, and many types of wildlife, are transboundary in nature, crossing several jurisdictions. An inherent limitation of statutory law is its confinement to jurisdictional boundaries. A notable strength of the trust doctrine’s property framework is that it creates logical rights to shared assets that are not confined within any one jurisdictional border. It is well established that, with respect to transboundary trust assets, all sovereigns with jurisdiction over the natural territory of the asset have legitimate property claims to the resource. States that share a waterway, for example, have correlative rights to the water. Similarly, states and tribes have coexisting property rights to share in the harvest of fish passing through their borders.

Such shared interests are best described as a sovereign cotenancy. * * *

B. The Cotenant’s Duty Not to Waste the Asset

Cotenants have duties toward the asset and towards one another. One tenant cannot appropriate the property of the other tenant by destroying the property to which both are equally entitled. They stand in a fiduciary relationship towards one another and share the obligation not to waste the common asset. Waste is the impairment of property so as to destroy permanently its value to the detriment of the cotenants. Whether applied to a shared fishery, a transboundary waterway, or the Earth’s atmosphere, the prohibition against waste is an important footing in the foundation of organized society. * * *

In addition to the duty against waste, a corollary duty requires each tenant to pay his share of the expenses proportionate to his interest in the property. These principles form a conceptual framework for assigning ecological responsibility to sovereigns sharing a natural resource. They have potentially forceful bearing in the international context, because they imply an organic obligation incumbent on each government that shares in the natural asset.

C. The Global Atmospheric Trust

Extrapolating from classic principles of sovereign trust law, the atmosphere can be characterized as a global asset belonging to all nations on Earth. The trust construct positions all such nations as sovereign cotenant trustees of this shared atmosphere. In addition to a fiduciary obligation owed to their own citizens to protect the atmosphere, all nations have duties to prevent

waste arising from their cotenancy relationship with one another. Citizens and courts are positioned to define these duties by tying them directly to scientific prescriptions for carbon reduction. This approach is quite opposite from the diplomatic stance taken by the United States in the climate arena--namely, that carbon reduction is a political choice. * * *

QUESTIONS AND DISCUSSION

1. The article by Professor Wood lays out an argument for how the public trust doctrine should apply in the climate change context and how basic trust principles could provide a framework for judicial action. In making these arguments, Professor Wood essentially tries to accomplish three overarching tasks. First, she argues public trust concepts are broad enough to expand beyond the doctrine's traditional application to water resources to encompass air quality. Second, she explains how defining these resources as a trust would impose a heightened burden on agencies and courts to protect them. Third, she explains how general trustee obligations might extend to climate protection. What do you think of each of these arguments?

2. Not surprisingly, not everybody agrees with Professor Wood's proposal that the public trust doctrine should readily extend to the air. For example, Richard O. Falk and John Gray argue that the doctrine should remain confined to its "traditional" scope, i.e., to submerged lands and the waters above them, groundwater, and parks. Richard O. Faulk & John Gray, *Texas State Court Judge Recognizes Potential Application of "Public Trust" Doctrine to Redress Climate Change*, 79 DEF. COUNS. J. 494, 495 (2012). Some courts also seem reluctant to apply the public trust doctrine to the air, as noted below. What do you think? Is there a reason to limit the public trust doctrine to hydrologic resources? The Supreme Court in *Geer v. Connecticut* placed wildlife in the category of *res communes*, or common property, subject to state regulation for the public good, "as a trust for the benefit of the people." 161 U.S. 519, 529 (1896). If wildlife resources are *res communes*, why isn't the air?

3. But if the air is a public trust resource, how far may, or must, state regulation extend? Even if Montana, for example, has a public trust obligation to manage air resources for the benefit of the public, does that obligation extend to greenhouse gases that cause indirect local injury? Assuming it does, this should mean that Montana must regulate, and perhaps prohibit, activities within its state boundaries to prevent emissions that will contribute to climate change. Might Montana also have an affirmative duty to demand that other states and the federal government restrict greenhouse gas emissions outside Montana's borders? How far do Montana's trust obligations extend?

4. As an underlying premise of her proposal, Professor Wood believes that a new framework must replace the environmental regulatory regime currently in place. Indeed, a second paper declared:

Modern environmental law has proved a colossal failure, despite the good intentions and the hard work of many citizens, lawyers, and government officials.

Notwithstanding the most extensive and complex set of legal mandates the world has ever known, government is driving runaway greenhouse gas emissions and resource depletion.

Mary Christina Wood, *Advancing the Sovereign Trust of Government to Safeguard the Environment for Present and Future Generations (Part II): Instilling a Fiduciary Obligation in Governance*, 39 ENVTL. L. 91, 139 (2009). She attributes the failure of environmental law to a number of factors, but focuses particularly on regulatory capture, the dynamic in which agencies become “captured” or unduly influenced by the entities they are supposed to regulate. She believes a public trust obligation would diminish the extent of regulatory capture, because of the fiduciary obligation a trustee owes its beneficiary. For example, trust obligations impose both substantive and procedural duties that could apply in the climate context. Substantively, trustees have a duty to protect the trust, maintain the value of the trust assets, and recoup monetary repayment for damaged or wasted natural resources. How might these duties apply in the climate change context? If states have a duty to restore the *res*, assuming it has been damaged, what powers would states have? Similarly, trustees have procedural duties, including a duty of loyalty and the obligation to provide an accounting of the trust assets. How might the duty of loyalty affect state discretion? Professor Wood argues the obligation to undertake an accounting could force states to develop carbon accounts. What benefit would that serve when the United States already prepares, consistent with the UNFCCC, comprehensive reports regarding U.S. emissions and removals? Would it be better to leave the duties under the public trust doctrine unspecified to provide courts and agencies more room to define the contours of the doctrine?

Do you think courts would enforce the public trust — if it indeed exists — in such a rigid way? If the obligation is so strong, why are so many submerged lands and wetlands degraded by economic and industrial activity? Would it be better to test Professor Wood’s arguments regarding the fiduciary duties on traditional public trust resources, rather than seek both a new application of the trust doctrine and a rigid interpretation of fiduciary responsibilities in the climate change context?

5. Professor Wood also argues the public trust doctrine is a constitutional mandate, rather than a pure common law doctrine subject to statutory preemption. The motivation behind that argument is clear: if the public trust doctrine is just another common law doctrine, a court would be more likely to find the Clean Air Act displaces or preempts it. However, if the doctrine implements a constitutional mandate, then statutory law cannot displace or preempt it. Recently, the Supreme Court seems to have reached the opposite conclusion as Professor Wood:

Unlike the equal-footing doctrine, however, which is the constitutional foundation for the navigability rule of riverbed title, the public trust doctrine remains a matter of state law, subject as well to the federal power to regulate vessels and navigation under the Commerce Clause and admiralty power. While equal-footing cases have noted that the State takes title to the navigable waters and their beds in trust for the public, the contours of that public trust do not depend upon the Constitution. Under accepted principles of federalism, the States retain residual

power to determine the scope of the public trust over waters within their borders, while federal law determines riverbed title under the equal-footing doctrine.

PPL Montana, LLC v. Montana, 565 U.S. —, 132 S.Ct. 1215, 1235 (2012). As noted below, the District Court of the District of Columbia relied in part on *PPL Montana* to find that the Clean Air Act displaces any potential federal public trust claims relating to climate change. While this may dispose of any argument that the U.S. Constitution forms the legal basis of the public trust doctrine, many states have made the public trust doctrine an element of their state constitutions.

2. Atmospheric Trust Litigation

Since 2011, a non-profit organization called Our Children's Trust has organized administrative petitions and litigation around the atmospheric trust concept in all 50 states. The atmospheric trust petitioners and litigants are typically children (and sometimes their parents) asking states and the federal government to perform their trust obligations by reducing greenhouse gases within specified time frames. In most states, petitioners are awaiting responses to the petitions to act. In a few cases, state governments have denied the petitions, resulting in litigation challenging the denials. Finally, in a few states, parties have filed actions directly in court seeking to enforce existing mandates to reduce greenhouse gases or otherwise meet specified climate change goals.

While many of the cases are still pending, the atmospheric trust litigants have received trial court rulings in some cases, with mixed results. Courts granted motions to dismiss filed by state defendants in a handful of cases on various grounds, including that plaintiffs' claims were non-justiciable and that plaintiffs filed their case in the wrong venue. In a couple of cases, the trial courts dismissed the cases without providing any rationale. Finally, at least two courts ruled on the merits, finding either that the public trust doctrine does not extend to the air (in Iowa) or that the state does not recognize the public trust doctrine (in Colorado). The Colorado ruling was quite explicit regarding the availability of the public trust doctrine to remedy climate change-related injuries:

Finally, the Public Trust Doctrine has never been recognized by the Colorado courts. Plaintiffs have failed to point to a single case. Even if this Court was to apply ancient law and assume that it carries through to Colorado today, Plaintiffs have been unable to point to any authority in which the government was required to protect the atmosphere. This Court is not inclined to create new law.

Martinez v. Colorado, 11-CV-4377, Order Re: Defendants and Intervenors' Motion to Dismiss at 4 (Colo. Dist. Ct. Nov. 7, 2011). The plaintiffs had, as of December 2012, appealed most of the trial court rulings in the different cases.

Two other trial courts, however, in Texas and New Mexico, recognized the potential for the public trust doctrine to extend to the atmosphere. In Texas, the trial court observed:

Defendant's conclusion that the public trust doctrine in Texas is exclusively limited to the conservation of the State's waters and does not extend to the conservation of the air and atmosphere is legally invalid. Rather, the public trust doctrine includes all natural resources of the State including the air and atmosphere. The public trust doctrine is not simply a common law doctrine but was incorporated into the Texas Constitution . . . which states: "The conservation and development of all the natural resources of this State, . . . and the preservation and conservation of all such natural resources of the State are each and all hereby declare public rights and duties. . . ."

Bonser-Lain v. Texas Comm'n on Env'tl. Quality, No. D-1-GN-11-002194, Final Judgment at 1-2 (201st Dist. Ct. Travis Cnty. Tex. Aug. 2, 2012). Nonetheless, the court granted the state's motion to dismiss on other grounds, finding that Texas had offered a legitimate rationale for its denial of the petition to act. Specifically, Texas had argued that pending litigation in another case regarding Texas's duty to regulate greenhouse gas emissions under the Clean Air Act would intersect with the atmospheric trust litigation, and that the state should be allowed to resolve the Clean Air Act litigation before taking other legal action to address climate change. The trial court agreed with the state's reasoning and dismissed the suit. In New Mexico, the state district court judge found that "Plaintiffs have made a substantive allegation that, notwithstanding statutes enacted by the New Mexico Legislature which enable the state to set air quality standards, the process has gone astray and the state is ignoring the atmosphere with respect to greenhouse gas emissions." Sanders-Reed v. Martinez, No. D-101-CV-2011-01514, Order Granting in Part and Denying in Part Defendants' Motion to Dismiss Plaintiffs' Amended Complaint at 2 (N.M. Dist. Ct. Jul. 14, 2012). The New Mexico case thus is poised to become the first in the country that may find the atmospheric trust theory compels state action to mitigate climate change.

QUESTIONS AND DISCUSSION

1. In states where atmospheric trust plaintiffs have not litigated, they are either waiting for responses to administrative petitions to act or else presumably believe their trust claims are weak. What do you think of the plaintiffs' strategy regarding the atmospheric trust? Is a 50-state (plus federal) strategy a good idea? What are the risks and benefits of pursuing actions in every state?

2. The atmospheric trust litigants also filed suit against the heads of several federal agencies, including the Environmental Protection Agency and the Departments of Defense, Energy, Agriculture, Commerce, and Interior, asserting they "have wasted and failed to preserve and protect the atmosphere Public Trust asset." Alec L. v. Jackson, 863 F.Supp.2d 11, 12 (D.D.C. 2012). The district court dismissed their case, concluding that the public trust doctrine is a creature of state law only. *Id.* at 15, citing *PPL Montana*, 132 S.Ct. at 1235. The court also concluded that, even if a federal public trust doctrine did exist, the Clean Air Act had displaced it. *Id.* at 16, citing *Connecticut*, — U.S. —, 131 S.Ct. at 2537 ("the Clean Air Act and the EPA actions it authorizes displace *any* federal common law . . .").