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THE PLANET ON THE DOCKET: ATMOSPHERIC TRUST LITIGATION TO PROTECT EARTH'S CLIMATE SYSTEM AND HABITABILITY

*Adapted from a Keynote Address by
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In October, 2013, a brief was filed in a case pending in the D.C. Circuit Court of Appeals. It was filed on behalf of youth plaintiffs in this country who stand for themselves and future generations. The brief asserted: “If Government does not act immediately to rapidly reduce carbon emissions and protect and restore the balance of the atmosphere, Youth will face irrevocable harm: the collapse of natural resource systems and a largely uninhabitable Nation.”¹

I.

Sometimes the world encounters situations that have never before been contemplated in the law, situations that previous lawyers have never litigated and that past judges have never ruled on. These test the basic agility of our legal system. But even more, they may test whether law remains relevant at all. Climate crisis presents such a situation. It requires judges to draw compelling logic from the precedent that exists and apply it to the unregulated carbon dioxide spewing from sources across our country—pollution that threatens irreparable

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1. Opening Brief of Petitioner-Appellant at 6-7, *Alec L. v. McCarthy*, no. 13-5192 (D.C. Cir., Oct. 22, 2013), available at [http://ourchildrenstrust.org/sites/default/files/Filed OpeningBrief.pdf](http://ourchildrenstrust.org/sites/default/files/Filed%20OpeningBrief.pdf).

damage to our planet's atmosphere. In these remarks, I will describe a global legal campaign known as Atmospheric Trust Litigation that invokes the public trust doctrine to hold federal and state governments in the United States responsible for reducing this carbon pollution. Atmospheric Trust Litigation (ATL) suits or administrative petitions have been brought by youth against every single state in this country, and against the federal government as well.² An appeal of the federal lawsuit is now pending in the D.C. Circuit against the Obama Administration.³

II.

In 1892, the U.S. Supreme Court decided a case called *Illinois Central Railroad v. Illinois*, in which it set forth the public trust doctrine as foundational law.⁴ In *Illinois Central*, the Court confronted a situation it had never before seen. The Illinois legislature had conveyed the entire Chicago shoreline of Lake Michigan to a private railroad company. This was shoreline that the citizens needed for fishing, navigation, and commerce. The Court held that the legislature simply did not have the power to make that conveyance. It declared:

We cannot, it is true, cite any authority where a grant of this kind has been held invalid, for we believe that no instance exists where the harbor of a great city . . . [has] been allowed to pass into the control of any private corporation. But the decisions are numerous which declare that such property is held by the State, by virtue of its sovereignty, in trust for the public.⁵

Conveyance of crucial resources, it said, would be “a grievance which never could be long borne by a free people.”⁶

The public trust principle has resided at the core of our sovereign understanding since the beginning of this nation. This understanding came twin-born with democracy itself: that citizens

2. The lawsuits and petitions are part of a coordinated, unprecedented legal campaign designed to present a unified approach to climate crisis in face of stalemated international treaty negotiations and an inadequate domestic response. Each petition and lawsuit asserts the same public trust rights on behalf of youth to force carbon reduction necessary to restore a stable atmosphere. The non-profit organization, Our Children's Trust, launched the campaign and coordinates the ongoing litigation and administrative actions. Legal documents, press, and updates are available on the website of Our Children's Trust, <http://ourchildrenstrust.org/>.

3. See Opening Brief of Petitioner-Appellant, *supra* note 1, for procedural background.

4. Ill. Cent. R.R. Co. v. Illinois, 146 U.S. 387 (1892).

5. *Id.* at 455.

6. *Id.* at 456 (quoting *Martin v. Lessee of Waddell*, 41 U.S. 367, 420 (1842)).

never confer to their government the power to substantially impair resources crucial to their survival and welfare.⁷ Such resources form a perpetual trust to sustain future generations of citizens.⁸ By enforcing a trust over crucial resources, courts prevent any one set of legislatures from wielding so much power over ecology as to cripple future legislatures in meeting their citizens' needs.⁹ The public trust has often been explained as an attribute of sovereignty that government cannot shed.¹⁰ As the *Illinois Central* Court declared, "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" ¹¹ Professor Gerald Torres describes the trust as the slate upon which "all constitutions and laws are written."¹² Because the trust embraces the inherent and inalienable rights of citizens as reserved though their social contract with government, this judicially-crafted law holds constitutional force.¹³

7. See *id.* at 452 (allowing grants of public trust resources only when doing so promotes the purpose of the trust and when such grants "do not substantially impair the public interest in the lands and waters remaining . . .").

8. For cases and materials on the public trust doctrine, see generally MICHAEL C. BLUMM & MARY CHRISTINA WOOD, *THE PUBLIC TRUST DOCTRINE IN ENVIRONMENTAL AND NATURAL RESOURCES LAW* (2013).

9. See *Ill. Cent.*, 146 U.S. at 455 (declaring that an approach allowing privatization of shoreline "would place every harbor in the country at the mercy of a majority of the legislature of the State in which the harbor is situated.")

10. See, e.g., *Geer v. State of Connecticut*, 161 U.S. 519, 525-28 (1896) (describing the wildlife trust as an attribute of sovereignty and tracing it back "through all vicissitudes of government"); *In re Water Use Permit Applications*, 9 P.3d 409, 443 (Haw. 2000) (often called the *Waiāhole Ditch* case) (noting that "history and precedent have established the public trust as an inherent attribute of sovereign[ty]. . ."); *United States v. 1.58 Acres of Land*, 523 F. Supp. 120, 124 (D. Mass. 1981) (explaining that the trust "can only be destroyed by the destruction of the sovereign."); Karl S. Coplan, *Public Trust Limits on Greenhouse Gas Trading Schemes: A Sustainable Middle Ground?* 35 COLUM. J. ENVTL. L. 287, 311 (2010) ("The idea that public trust limits and powers inhere in the very nature of sovereignty is one consistent thread in public trust cases. . . . Public trust principles have been described as an essential attribute of sovereignty across cultures and across millennia."). For discussion, see MARY CHRISTINA WOOD, *NATURE'S TRUST: ENVIRONMENTAL LAW FOR A NEW ECOLOGICAL AGE* 127-33 (2013).

11. *Ill. Cent.*, 146 U.S. at 453.

12. See WOOD, *NATURE'S TRUST*, *supra* note 10, at 129 (quoting Gerald Torres, *The Public Trust: The Law's DNA*, Keynote Address at the University of Oregon School of Law (Feb. 23, 2012)).

13. Thirty-three law professors submitted a brief in the ATL case pending before the D.C. Circuit explaining the federal constitutional underpinnings of the public trust as it relates to Atmospheric Trust Litigation. See Brief for Law Professors as Amici Curiae Supporting Petitioner-Appellants at 13, *Alec L. v. McCarthy*, No. 13-5192 (D.C. Cir. Dec. 11, 2013), available at <http://ourchildrenstrust.org/US/Federal-Lawsuit> ("The Nation's public trust over these resources remains an attribute of sovereignty that government cannot shed. The constitutional reserved powers doctrine in conjunction with the public trust prevents any one legislature from depriving a future legislature of the natural resources

In a recent landmark opinion on the public trust doctrine, *Robinson v. Commonwealth*, Chief Justice Castille of the Pennsylvania Supreme Court described the “Applicable Constitutional Paradigm” securing such environmental rights reserved by the people.¹⁴ Overturning sections of a statute passed by the Pennsylvania legislature to promote fracking, Justice Castille wrote for a plurality of three judges finding that the statute violated the constitutional public trust. While the Pennsylvania Constitution contains a specific provision setting forth the public trust,¹⁵ Justice Castille’s opinion explicitly lodges environmental rights in the fundamental constitutional structure that reserves the “inherent and inalienable rights” of citizens.¹⁶ These rights, Justice Castille emphasized, arise from the social contract between people and their government. Such rights are “of such ‘general, great and essential’ quality as to be ensconced as ‘inviolable.’”¹⁷ The opinion makes clear that the 1971 Environmental Rights Amendment (art. I, § 27) did not create new rights, but rather enumerated the pre-existing rights that the people had reserved to themselves in creating government.¹⁸ The historic *Robinson* opinion holds significance for the ATL cases pending in several states, because many other state constitutions include the same, or similar, declarations of inherent rights forming the constitutional paradigm upon which the plurality opinion

necessary to provide for the well-being and survival of its citizens. . . . Through the [public trust doctrine], the Constitution governs for the perpetual preservation of the Nation.”); see also JOHN EDWARD DAVIDSON, ET AL., DRAFT ATMOSPHERIC TRUST LITIGATION AMICUS BRIEF (2013), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2361780 (providing more in-depth analysis of the constitutional federal trust framework).

14. *Robinson v. Commonwealth*, 83 A.3d 901, 946-48 (Pa. 2013) (plurality opinion).

15. PA. CONST. art. I, § 27.

16. See PA CONST. art. I, § 1 (setting forth “Inherent Rights of Mankind” to include “certain inherent and inalienable rights”); *Robinson*, 83 A.3d at 946-47 (plurality opinion).

17. *Id.* at 947-48 (“Article I is the Commonwealth’s Declaration of Rights, which delineates the terms of the social contract between government and the people that are of such ‘general, great and essential’ quality as to be ensconced as ‘inviolable.’” (citing PA. CONST. art. I, pmbl. and PA. CONST. art. I, §25).

18. See *id.* at 948-49 (“Among the inherent rights of the people of Pennsylvania are those enumerated in Section 27”); *id.* at 948 n.36 (“The concept that certain rights are inherent to mankind, and thus are secured rather than bestowed by the Constitution, has a long pedigree in Pennsylvania that goes back at least to the founding of the Republic,” (citing *Driscoll v. Corbett*, 69 A.3d 197 (Pa. 2013)); *id.* at 947 n.35 (explaining that Article I, § 27 “merely recites the ‘inherent and independent rights’ of mankind relative to the environment which are ‘recognized and unalterably established’ by Article I, Section 1 of the Pennsylvania Constitution.”) (citing *Commonwealth v. Nat’l Gettysburg Battlefield Tower, Inc.*, 311 A.2d 588, 595 (Pa. 1973)); *id.* at 952 (“The corollary of the people’s Section 27 reservation of right to an environment of quality is an obligation on the government’s behalf to refrain from unduly infringing upon or violating the right, including by legislative enactment or executive action.”) (emphasis added).

in *Robinson* relies.¹⁹ Indeed, such inalienable reserved rights rank fundamental to the democratic understandings underlying all state and federal government authority in the United States. As Professor Joseph Sax once said, the public trust demarcates a society of “citizens rather than of serfs.”²⁰

The conception of environmental rights as inherent rights reserved by the people when forming their government was similarly articulated in an internationally renowned public trust decision issued by the Philippines Supreme Court in 1993.²¹ In *Oposa v. Factoran*, the Court declared that the “right to a balanced and healthful ecology . . . may even be said to predate all governments and constitutions”²² The Court made clear that “these basic rights need not even be written in the Constitution for they are assumed to exist from the inception of mankind.”²³ Both the *Oposa* decision and the *Robinson* plurality opinion describe the environmental rights as on par with political rights guaranteed by the respective constitutions.²⁴

These public trust rights protect the citizens’ core interest in survival. In *Oposa*, the Court declared: “[T]he right to a balanced and

19. See, e.g., OR. CONST. art. I § 1 (entitled “Natural rights inherent in people,” declaring “that all power is inherent in the people, and all free governments are founded on their authority, and instituted for their peace, safety, and happiness”). The Oregon ATL case was argued before the Oregon Court of Appeals on January 16, 2013, and the oral arguments included discussion of the constitutional basis of the trust as expounded in *Robinson*. See Press Release, Our Children’s Trust, *Oregon Court of Appeals Heard Arguments for Oregon Youths’ Climate Change Case Before Hundreds of People at the University of Oregon School of Law* (Jan. 16, 2014), <http://www.ourchildrenstrust.org/press-releases>. For examples of other state constitutions expressing inherent reserved rights, see CAL. CONST. art. I § 1 (“All people are by nature free and independent and have inalienable rights.”); HAW. CONST. art. I § 2 (“Rights of Individuals. All persons are free by nature and are equal in their inherent and inalienable rights.”); KAN. CONST. Bill of Rights § 1 (“Equal Rights. All men are possessed of equal and inalienable natural rights. . . .”); N.D. CONST. art. I § 1 (“All individuals are by nature equally free and independent and have certain inalienable rights, among which are those of enjoying and defending life and liberty. . . .”). For an analysis of the *Robinson* decision as it pertains to ATL cases, see Nate Bellinger, *Robinson Township v. Commonwealth of Pennsylvania: A Landmark Public Trust Case* (May 24, 2014) (unpublished manuscript).

20. Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 484 (1970).

21. *Oposa v. Factoran*, G.R. No. 101083 (S.C., July 30, 1993) (Phil.), available at http://www.lawphil.net/judjuris/juri1993/jul1993/gr_101083_1993.html, excerpted in JAN G. LAITOS, SANDI ZELLMER, MARY CHRISTINA WOOD, & DANIEL COLE, *NATURAL RESOURCES LAW* 441–44 (Thompson West 2006).

22. *Id.*

23. *Id.*

24. See *id.* (noting that the environmental right is not “less important than any of the civil and political rights enumerated” in the Philippine constitution); *Robinson*, 83 A.3d at 960.

healthful ecology . . . concerns nothing less than self-preservation and self-perpetuation . . .” In words that would prove prescient, the Court said that, without this right, “the day would not be too far when all else would be lost not only for the present generation, but also for those to come—*generations which stand to inherit nothing but parched earth incapable of sustaining life.*”²⁵ Atmospheric Trust Litigation squarely presents that prospect to the judicial branch.

Climate crisis threatens the paramount interest in human survival. Dr. James Hansen, one of the world’s leading climate scientists and the former head of NASA’s Goddard Institute for Space Studies, submitted an amicus brief in the federal lawsuit in which he said, “failure to act with all deliberate speed in the face of the clear scientific evidence of damage functionally becomes a decision to eliminate the option of preserving a habitable climate system.”²⁶ It is no longer possible to assume that severe climate impacts are postponed for future generations. A recent report of the U.S. Global Climate Change Research Program says unequivocally, “Climate change, once considered an issue for a distant future, has moved firmly into the present. . . . Precipitation patterns are changing, sea level is rising, the oceans are becoming more acidic, and the frequency and intensity of some extreme weather events are increasing.”²⁷ Gus Speth, the former Dean of the Yale School of Forestry, warns that, if Business as Usual continues, the world “won’t be fit to live in” by mid-century.²⁸ Consider that bombshell. Do most American youth and their parents expect a world fit to live in 37 years from now?

Nature’s tipping points pose unprecedented urgency. Scientists warn that continued carbon pollution will trigger feedbacks that would launch a path of irreversible, uncontrollable heating.²⁹ The narrow

25. *Oposa*, excerpted in Laitos et al., *supra* note 21.

26. Brief for James Hansen as Amicus Curiae Supporting Plaintiffs-Appellants at 7, *Alec L. v. McCarthy*, no. 3:11-cv-02203-EMC (Dist. D.C. Nov. 14, 2011), available at <http://ourchildrenstrust.org/sites/default/files/Hansen%20Amicus%20.pdf>; see also Brief for Scientists Amicus Group as Amici Curiae Supporting Plaintiffs-Appellants at 16, *Alec L. v. McCarthy*, No. 13-5192 (D.C. Cir. Nov. 12, 2013) (“Effective action remains possible, but delay in undertaking sharp reductions in emissions will undermine any realistic chance of preserving a habitable climate system, which is needed by future generations no less than by prior generations.”), available at <http://ourchildrenstrust.org/sites/default/files/FiledScienceAmicus.pdf>.

27. U.S. GLOBAL CHANGE RESEARCH PROGRAM, U.S. NAT’L CLIMATE ASSESSMENT, CLIMATE CHANGE IMPACTS IN THE UNITED STATES 1 (2014), available at <http://nca2014.globalchange.gov/downloads>.

28. JAMES GUSTAVE SPETH, *THE BRIDGE AT THE EDGE OF THE WORLD: CAPITALISM, THE ENVIRONMENT, AND CROSSING FROM CRISIS TO SUSTAINABILITY* x (2008).

29. See Nafeez Ahmed, *James Hansen: Fossil Fuel Addiction Could Trigger Runaway Global Warming*, EARTH INSIGHT (July 10, 2013), <http://www.theguardian.com/environment/>

window of opportunity to slash carbon pollution is closing fast. In 2007, the head of the United Nations climate panel told the world, “*What we do in the next two to three years will determine our future. This is the defining moment.*”³⁰

A concerted federal response to this national threat becomes imperative. But not only is there no comprehensive federal regulation of carbon dioxide—despite a recent Obama regulatory initiative directed to existing coal-fired plants,³¹ the Obama Administration continues to push through fossil fuel projects such as natural gas fracking, off-shore oil drilling, and massive strip mining of coal.³² John Holdren, President Obama’s top science advisor, told reporters a few years ago that the climate problem was akin to being “in a car with bad brakes driving toward a cliff in the fog.”³³ Today, ever closer to that climate cliff, government now seems to be stepping down hard on the gas pedal of domestic fossil fuel development.

If the law is relevant at all, one would expect that it would protect the rights of citizens against governmental policies driving the planet towards catastrophe. Reading the *Illinois Central* opinion, one senses that this would have been an easy case for those Justices, and that they would have had no hesitation to hold government accountable under the very same public trust doctrine that they invoked to protect the Chicago shoreline. The Justices back then said, “It would not be listened to that the control and management of the harbor of that great city—a subject of concern to the whole people of the State—

earth-insight/2013/jul/10/james-hansen-fossil-fuels-runaway-global-warming. For explanation of tipping points, see FRED PEARCE, *WITH SPEED AND VIOLENCE* (Beacon Press 2008) (2007).

30. Elisabeth Rosenthal, *U.N. Chief Seeks More Climate Change Leadership*, N.Y. TIMES (Nov. 18, 2007), <http://www.nytimes.com/2007/11/18/science/earth/18climatenew.html?pagewanted=all> (quoting Rajendra Pachauri, head of the United Nations Intergovernmental Panel on Climate Change) (emphasis added).

31. See rule discussion *infra* notes 37-41 and accompanying text.

32. See, e.g., Sean Cockerham, *U.S. Predicted to Become World’s Largest Oil Producer in 2015*, SEATTLE TIMES (Nov. 12, 2013), http://seattletimes.com/html/nationworld/2022245001_shaleoilxml.html; Jeff Feely, *Powder River Basin Coal-Mining Lease Upheld by Appeals Court*, BLOOMBERG BUSINESSWEEK (Dec. 24, 2013), <http://www.businessweek.com/news/2013-12-24/powder-river-basin-coal-mining-lease-upheld-by-appeals-court-1>; Elizabeth Kuhr, *To Drill Or Not to Drill—Debate Over Offshore Testing and Drilling in the Atlantic*, TIME (Jan. 14, 2014), <http://science.time.com/2014/01/14/to-drill-or-not-to-drill-debate-over-offshore-testing-and-drilling-in-the-atlantic/#ixzz2qyuvzVqP>; Matthew Daly, *Natural Gas Exports: Slow Walk or ‘Danger Zone’?*, ASSOCIATED PRESS (Jan. 8, 2014), available at <http://abcnews.go.com/Politics/wireStory/natural-gas-exports-slow-walk-danger-zone-21457377>.

33. “*Geoengineering*” to Fight Global Warming? CBS NEWS (April 8, 2009), <http://www.cbsnews.com/news/geoengineering-to-fight-global-warming/> (quoting John Holdren, White House science advisor).

should thus be placed elsewhere than the State itself” into the hands of a private corporation.³⁴ You can practically hear those Justices saying today, “It would not be listened to” that government would let fossil fuel profiteers pollute our air and heat up our atmosphere, threatening the future of this Nation and all people on Earth.

III.

To restore climate stability, the world must launch an all-out atmospheric defense effort geared towards full de-carbonization. Commentators describe the necessary scale of effort as surpassing even WWII.³⁵ Needless to say, individuals must do their part to change lifestyles and reduce consumption. But government must also exercise leadership. This is precisely the purpose of government—to take on massive, collective problems. Yet across the country, many states sit idle, and the Environmental Protection Agency (EPA) still moves at a snail’s pace. Eight years have passed since the U.S. Supreme Court told EPA that it could not make a political choice refusing to regulate carbon.³⁶ Now well into President Obama’s second term, the nation still lacks comprehensive regulation of carbon dioxide emissions. True, there have been some significant initiatives. There are new automobile standards and some renewable energy incentives.³⁷ In June, 2014, Obama took his boldest step yet by proposing regulations to cut emissions from existing coal-fired plants.³⁸ But while seemingly far-reaching, the approach poses significant risk of delay and gaping enforcement pitfalls.³⁹ But most notably, these initiatives remain

34. *Ill. Cent.*, 146 U.S. at 455.

35. See Lester Brown, *We Need Climate Action on the Scope of the WWII Mobilization*, GRIST (Dec. 4, 2008), <http://grist.org/article/a-wartime-mobilization>.

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

37. See, e.g., EPA, *Press Release: Obama Administration Finalizes Historic 54.5 mpg Fuel Efficiency Standards/ Consumer Savings Comparable to Lowering Price of Gasoline by \$1 Per Gallon by 2025* (Aug. 28, 2012), available at <http://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceec8525735900400c27/13f44fb4e2c2d39d85257a68005d0154!OpenDocument>.

38. For a summary, see EPA, *Press Release: EPA Proposes First Guidelines to Cut Carbon Pollution from Existing Power Plants* (June 2, 2014), available at <http://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceec8525735900400c27/5bb6d20668b9a18485257ceb00490c98!OpenDocument>.

39. Several factors may undermine the effectiveness of this regulation. First, the rule may not prove durable. It remains to be seen whether a new president will attack it. Second, even if the rule remains law, some states will likely try to subvert it in the implementation phase. The rule opts for an individualized state-by-state approach, and calls upon states to develop plans to reduce emissions using a variety of options. *Id.* This flexibility, while beneficial in many ways, may provide room for states to thwart key aspects

piecemeal and incremental.⁴⁰ They are not at all geared to the level of carbon emissions reduction that the scientists deem necessary—rather, they are rough calibrations of what the politics of the day will tolerate.⁴¹

We must recognize that, on matters involving the climate system, humans remain under the supreme jurisdiction of nature's laws. Oren Lyons, a leader and faithkeeper of the Onondaga Nation, described this point well when referring to a massive beetle kill that

of the rule. Third, some states may opt for reducing emissions from coal-fired plants by switching to natural gas to meet energy needs, raising the potential of increased emissions of methane, a potent greenhouse gas. Fourth, it is unclear how the rule will be enforced against individual operating facilities, or how carbon emissions reduction will be tracked. And finally, there is an enormous delay in actual on-the-ground results, as state plans need not be developed until June 30, 2016. For analysis of the proposed rule, see Ben Adler, *Obama's Proposed Power Plant Rules Fall Slightly Short of Environmentalists' Hopes*, GRIST (June 1, 2014), <http://grist.org/climate-energy/obamas-proposed-power-plant-rules-fall-slightly-short-of-environmentalists-hopes/>.

40. The proposed coal fired plant regulations affect one-third of the nation's greenhouse gas emissions. See EPA, *supra* note 38. While the President has offered an overall climate action "plan," the document is more thematic than quantitative, and does not offer tangible reduction goals linked to a scientific prescription. See OFFICE OF THE PRESIDENT, THE PRESIDENT'S CLIMATE ACTION PLAN (2013), available at <http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf>. For discussion of the inadequacy of President Obama's declared targets, see WOOD, NATURE'S TRUST, *supra* note 10, at 46. Moreover, the regulatory initiatives to reduce carbon are undercut by efforts to increase domestic fossil fuel production. See Dana Milbank, *EPA Chief's Honesty a Breath of Fresh Air*, THE REGISTER-GUARD (June 4, 2014) ("President Obama's energy policy is inherently contradictory because he proposes carbon reduction while simultaneously pursuing record carbon production.").

41. See discussion of the scientific prescription describing necessary emissions cuts *infra* note 52 and accompanying text. The power plant rules, and Obama's overall climate approach in general, are tied to his goals stated during the 2009 Copenhagen climate conference—reducing emissions 17% below 2005 levels by 2020. See CLIMATE ACTION PLAN, *supra* note 40, at 4. Those goals were politically defined by the President as targets that Congress would endorse. They were never calibrated to the scientific parameters of what cuts are necessary to restore atmospheric balance. For discussion see WOOD, *supra* note 10, at 46; see also Justin Gillis & Henry Fountain, *Trying to Reclaim Leadership on Climate Change*, THE NEW YORK TIMES (June 1, 2014), available at http://www.nytimes.com/2014/06/02/us/politics/obama-tries-to-reclaim-leadership-on-climate-change.html?_r=0 ("[T]he president's plan will barely nudge the global emissions that scientists say are threatening the welfare of future generations. . . . The new rule alone offers little hope that the United States and other nations can achieve cuts on a scale required to meet the internationally agreed limit on global warming."). Moreover, the actual power plant rules, as one analyst points out, are not calibrated to a national target. See Dave Hawkin, *Unpacking EPA's Carbon Pollution Proposal*, NRDC SWITCHBOARD (June 5, 2014), available at http://switchboard.nrdc.org/blogs/dhawkins/unpacking_epas_carbon_pollutio.html?utm_source=twitterfeed&utm_medium=twitter ("EPA did not develop the state targets to achieve any preconceived national reduction target. EPA developed the state targets by taking each state's power system as it operated in 2012 and then used a common toolbox of pollution-reduction measures to assess how much of a cleanup each state could achieve by 2020, with additional cleanup from 2020 to 2030.").

wiped out Canadian forests as a consequence of warmer winters brought on by climate change. He said,

You can't negotiate with a beetle. You are now dealing with natural law. . . . The thing that you have to understand about nature and natural law is, there's no mercy. . . . There's only law. . . . Whether you agree with it, understand it, comprehend it, it doesn't make any difference. You're going to suffer the consequence⁴²

In other words, to avoid the worst consequences of a heating planet, carbon policy must add up to nature's carbon math. As UCLA Professor Daniela Cusack stated when releasing a report on measures to curb global warming, "We have to cut down the amount of emissions we're putting into the atmosphere if, in the future, we want to have anything like the Earth we have now."⁴³

The United States certainly has no lack of bureaucrats or technical resources to move society rapidly towards zero emissions. This nation has more environmental agencies than any other country in the world. Such agencies hold enormous resources, expertise, and authority. But their record of success remains dismal. All too many environmental agencies have fallen captive to the very industries they regulate and, as a result, have turned environmental law inside out. They regularly use their ample discretion to allow damage to the nation's natural resources, including the atmosphere.⁴⁴ Agencies rarely say no to permits, and two-thirds of the greenhouse gas pollution in this country is emitted pursuant to government permits.⁴⁵ Viewed in this light, these agencies played a large part in delivering global warming and extreme resource scarcity to our doorstep.

With bold leadership, however, the vast potential of U.S. agencies could be harnessed towards an epic, global life-sustaining effort. History holds ample precedent for responding urgently to a collective threat. Seventy years ago, the nation mounted a heroic World War II effort almost overnight. But a glaring difference stands between then and now: at the outset of WWII, American leaders showed undivided loyalty to U.S. citizens and future generations.

42. See WOOD, NATURE'S TRUST *supra* note 10, at 3 (quoting Oren Lyons).

43. Jenna Iacurci, *Cutting Carbon Emissions Best Way to Combat Global Warming, Study Says*, NATURE WORLD NEWS (June 2, 2014), available at <http://www.natureworldnews.com/articles/7357/20140602/cutting-carbon-emissions-best-way-to-combat-global-warming-study-says.htm>.

44. See WOOD, NATURE'S TRUST, *supra* note 10, at Part I, pp. 3-120 for a discussion of the failure of environmental law and the institutional unwillingness to deny permits.

45. See Laura H. Kosloff & Mark C. Trexler, *Consideration of Climate Change in Facility Permitting*, in GLOBAL CLIMATE CHANGE 259, 259 (Michael B. Gerrard ed., 2007).

Today's climate politics manifest betrayal. As a result of sustained campaign financing by oil, gas, and coal companies, many U.S. leaders on both the state and federal levels find themselves bound in a dangerous alliance with fossil fuel corporations, beholden to promote the interests of the very industry whose core enterprise poses a grave threat to the future of the nation.⁴⁶ As author Bill McKibben explains, this industry proclaims an amount of reserves (fossil fuels that lie below-ground but remain economically "above-ground") that would pollute the atmosphere with *five times* the amount of carbon dioxide capable of triggering catastrophic and irreversible climate change. McKibben writes: "[T]his industry, and this industry alone, holds the power to change the physics and chemistry of our planet, and they're planning to use it."⁴⁷ The fossil fuel industry's stranglehold on the U.S. political system has caused American leaders to hold back the nation's vast resources and expertise that could be used to mount an all-out atmospheric defense effort—an undertaking that necessarily would leave fossil fuels in the ground. Professor Cusack states, "We have the technology and we know how to do it. . . . It's just that there doesn't seem to be political support for reducing emissions."⁴⁸ McKibben minces no words. He calls the fossil fuel industry "Public Enemy Number One to the survival of our planetary civilization."⁴⁹

In the face of a political system entangled in widespread conflict of interest that imperils the youth and future generations of this nation, the law must repudiate breaches of fiduciary loyalty and impose clear responsibility for achieving the carbon reduction necessary to stave off national and global catastrophe. Carbon emissions reduction must occur in virtually all states and across the federal government: no sovereign can be left on the sidelines, because even one government's failure to take carbon responsibility creates an "orphan share" of pollution that leaves a deficit in the reduction needed. The situation cries out for a macro approach that imposes an organic, quantifiable, and enforceable obligation on every sovereign.⁵⁰

46. See, e.g., Eric Lipton & Clifford Krauss, *Fossil Fuel Industry Ads Dominate TV Campaign*, N.Y. TIMES (Sept. 13, 2012), <http://www.nytimes.com/2012/09/14/us/politics/fossil-fuel-industry-opens-wallet-to-defeat-obama.html?pagewanted=1> (reporting that President Obama received \$950,000 from the fossil fuel industry, and the fossil fuel industry contributed over \$153 million for campaign advertising during the 2012 election cycle).

47. Bill McKibben, *Global Warming's Terrifying New Math*, ROLLING STONE (July 19, 2012).

48. Iacurci, *supra* note 43.

49. McKibben, *supra* note 47.

50. For more detailed discussion of the atmospheric trust approach, see WOOD, NATURE'S TRUST, *supra* note 10, at 220-29; Mary Christina Wood, *Atmospheric Trust*

Before describing ATL as such a strategy, it is worth asking why statutory law remains deficient. A primary reason lies in the fact that the environmental statutes are inherently narrow in their focus and largely procedural. The sheer magnitude of the climate crisis has eclipsed the scope of the statutes. That is not to minimize the importance of regulation under the Clean Air Act. If EPA would use its full authority, it could address a substantial amount of carbon pollution.⁵¹ But to become a zero-carbon society, the nation needs an integrated and coherent strategy comprised of federal, state, and local initiatives across the transportation, energy, building, food, and waste sectors. Government will need to use all of the tools it has at its disposal, many falling well outside existing environmental statutes. These tools include subsidies, tax policies, infrastructure projects, shifts in uses of public property, and public education. Such efforts must all add up to achieve the amount of carbon reduction that scientists believe will preserve the functional requirements of the atmosphere and climate system—before the planet passes irrevocable tipping points. Embarking on scattered measures and simply hoping that they will all add up in time cannot manage the task at hand. Instead, the situation calls for a macro approach with reduction milestones tied to specific timeframes, accompanied by a consistent carbon accounting showing sustained and quantifiable progress.

Atmospheric Trust Litigation presents such an approach. First, it advances a legal duty requiring government to protect the atmosphere. Second, it calibrates that duty to the functional requirements of the atmosphere. Third, it creates an integral scheme of domestic and international responsibility to share the burdens of carbon dioxide reduction.

IV.

Atmospheric Trust Litigation presents the planet's atmosphere as a single public trust asset in its entirety. It characterizes all nations on Earth, and all states in this nation, as co-trustees of that atmosphere, bound together in a property-based framework of mutual responsibilities. Trustees have the core fiduciary obligation to protect

Litigation Around the World, in FIDUCIARY DUTY AND THE ATMOSPHERIC TRUST 99 (Ken Coghill, Charles Sampford & Tim Smith, eds. Ashgate Publ. 2012), available at <http://law.uoregon.edu/faculty/mwood/publications/>.

51. For example, the Obama-proposed rule targets existing coal-fired plants, which account for roughly 30% of the nation's carbon emissions. See *supra* note 41 and sources cited therein.

the assets of the trust they manage. This fiduciary obligation runs precisely opposite to the assumption driving today's climate policy: that our leaders enjoy political discretion whether or not to assume climate responsibility.

ATL draws upon best available science to quantify government's fiduciary obligation to restore atmospheric health. Leading scientists have developed a pathway of emissions reduction which, when combined with massive soil and reforestation measures, is designed to restore atmospheric equilibrium and limit planetary heating to 1.5 degrees Celsius. This pathway requires a 6% global annual reduction of carbon dioxide, starting in 2013.⁵² Such 6% annual reduction defines the minimum federal and state fiduciary obligation to protect the atmospheric trust.

ATL suits seek a tangible judicial remedy calling for government actors to produce carbon recovery plans that will be adequate to implement this 6% annual reduction.⁵³ Climate analysts have offered a robust portfolio of policy measures, each carrying a specific amount of carbon reduction. Courts will not tell the government trustees which measures to select to bring down carbon—that is the trustees' job, after all. But courts can force the trustees to develop a climate recovery plan and submit regular carbon accountings to the court to make sure that the emissions reduction actually occurs, under continuing judicial supervision. This is not a radical new measure. In fact, many states have already developed plans to reduce carbon dioxide emissions within their borders, but most have not been implemented. Judicial oversight through regular accountings becomes particularly essential to monitor actual progress under the Obama initiatives. Too often, lofty regulatory goals fail in their actual implementation. These failures often take years to surface, much less undergo correction. The luxury of time for dealing with climate crisis has long since vanished, as society now confronts looming catastrophic tipping points.

The longer society delays measures, the steeper the trajectory becomes to salvage a habitable planet. Scientists estimate that, had concerted action started in 2005, emissions reduction of just 3.5% a year could have restored equilibrium by the end of the century. In just

52. James Hansen et al., *Assessing "Dangerous Climate Change": Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature*, PLOS ONE (Dec. 3, 2013), <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081648>. A greater (than 6%) emissions reduction will be necessary, according to the authors, if government delays further in reducing carbon emissions. See *infra* note 54 and accompanying text.

53. See Opening Brief of Petitioner-Appellant, *supra* note 1, at 20-21.

eight years, that figure has climbed to 6% a year. In other words, the fiduciary transgressions of elected leaders have already delivered a huge penalty, and one that increases with every day that passes. Scientists project that, if emissions reduction is delayed until 2020, society would need to reduce emissions 15% a year.⁵⁴ At some point, the necessary cuts become too big for global society to feasibly accomplish. At that point, the window of opportunity slams shut, essentially leaving the world's youth trapped inside the heating greenhouse we have created.

ATL calls upon the courts to intervene in this crisis, because only courts can enforce a macro response with the urgency necessary to protect the atmospheric trust. The remedy sought in ATL cases takes a page from other broad institutional litigation such as those cases involving school bussing, prison reform, and treaty rights. In such cases, courts have stepped in to supervise recalcitrant government actors, often maintaining their jurisdiction for years or even decades.⁵⁵

V.

ATL presents a supreme chance for synergy between the judicial and political branches, because a judicially supervised carbon accounting could provide durability and transparency to the carbon recovery plans that the political branches devise. When the political branches implement measures in the carbon portfolio they design, whether it is carbon tax, cap and trade, regulation, new infrastructure, or other steps, they will be required to report the reduction achieved as part of the carbon accounting supervised by the court. In this fashion, Atmospheric Trust Litigation does not displace ongoing or future legislative or regulatory initiatives, but rather demands a showing of actual carbon pollution reduction accomplished by such measures. The remedy sought in ATL cases preserves the separation of power between the branches of government, while enabling the judiciary to protect the essential constitutional balance of power through appropriate enforcement of inalienable public trust rights held by citizen beneficiaries.

54. See Hansen et al., *supra* note 52 (“These results emphasize the urgency of initiating emissions reduction. As discussed above, keeping global climate close to the Holocene range requires a long-term atmospheric CO₂ level of about 350 ppm or less, with other climate forcings similar to today’s levels. If emissions reduction had begun in 2005, reduction at 3.5%/year would have achieved 350 ppm at 2100. Now the requirement is at least 6% per year. Delay of emissions reductions until 2020 requires a reduction rate of 15% per year to achieve 350 ppm in 2100.”).

55. See WOOD, NATURE’S TRUST, *supra* note 10, Chapter 11, at 230-255.

Government attorneys should problem-solve to help structure a court-supervised emissions reduction plan.⁵⁶ But instead, they have opted to pursue a classic litigious role, defending the do-little position of their client agencies. Government attorneys mount two major arguments against this litigation. First, they contend that, because the old cases involved navigable waters, the public trust doctrine is necessarily limited to that context.⁵⁷ That is not how judge-made law works. Judges regularly apply the core rationale of foundational doctrines to new circumstances. Courts have repeatedly said that the public trust must evolve with changing values, needs, and problems of society, and they have applied the trust to many resources outside of navigable waters. Several state court judges have already concluded that air is a trust asset.⁵⁸

The second primary defense asserted by government attorneys is that climate response is best suited for the executive and legislative branches.⁵⁹ And how right that is! But those branches have not acted responsibly, even in the face of the gravest scientific warnings. The public trust presents inalienable rights held by citizens in life-sustaining ecology. Defining the constitutional limits of the legislative and executive branches over that ecology has never been deemed a political question appropriate for those same branches.⁶⁰ A court has never let any trustee be the sole judge of his own performance—that would be called a tyranny, not a trust. The fundamental pillar of any trust is judicial redress for trustee malfeasance. As the Hawaii Supreme Court emphasized, it is decidedly the role of courts to prevent

56. Government attorneys could enter into consent decrees that allow for continuing judicial supervision. Such decrees have proven effective in complex environmental litigation involving other resources. For discussion, see WOOD, NATURE'S TRUST, *supra* note 10, at 252-3.

57. See Response Brief of Appellees at 12, 17, *Alec L. v. McCarthy*, No. 13-5192 (D.C. Cir. Dec. 23, 2013) (disclaiming any federal trust responsibility over air and atmosphere); *Glori Dei Filippone v. Iowa Dep't. of Natural Res.*, 829 N.W.2d 589 (Iowa Ct. App. 2013) (adopting government's view of public trust as not extending to the atmosphere).

58. See *Robinson*, 83 A.3d at 955 ("At present, the concept of public natural resources includes not only state-owned lands, waterways, and mineral reserves, but also resources that implicate the public interest, such as ambient air, surface and ground water, wild flora, and fauna (including fish) that are outside the scope of purely private property."); *Bonser-Lain v. Tex. Comm'n on Env'tl. Quality*, No. D-1-GN-11-002194, 2012 WL 2946041 (Tex. Dist. Ct. 2012), available at <http://ourchildrenstrust.org/sites/default/files/TexasFinalJudgment.pdf>; *Wild Earth Guardians v. Martinez*, No. D-101-CV-2011-1514 ((N.M. Dist. Ct. July 14, 2012), available at http://ourchildrenstrust.org/sites/default/files/NM_Order_MTD.pdf; *Filippone*, 829 N.W.2d at *3-4 (Doyle, J., concurring). See generally BLUMM & WOOD *supra* note 8, at 349-65 (discussing decisions and excerpting portions).

59. See Response Brief of Appellees, *supra* note 57, at 2.

60. See *Robinson*, 83 A.3d at 925-30 (plurality opinion) (dismissing political question doctrine defense raised by state).

“improvident dissipation of an irreplaceable *res*” held in public trust.⁶¹ Nevertheless, some trial judges in ATL cases that have dismissed the youth’s claims have done so on the basis that they believe it is not their job to step into climate crisis.⁶²

These cases are now on appeal. Frankly, it would be hard for any of the appellate judges to read the amicus briefs submitted by leading climate scientists and not realize that they have the planet on their docket. In the current appeal pending before the D.C. Circuit Court of Appeals, the amicus scientists stated unequivocally that a judicial order “may be the best, the last, and, at this late stage, the only real chance to preserve a habitable planet for young people and future generations.”⁶³ When one considers the impacts of climate crisis—the severity, the duration, the tipping points, and the fact that uncontrollable heating would leave our nation largely uninhabitable—it becomes clear that this case sits in a different league than any of these judges has ever seen before. It might well call for a heavier dose of judicial commitment and creativity in managing the remedy. But perhaps we would be deluding ourselves if we did not recognize that what this largely comes down to is judicial courage.

Let us for a moment indulge the U.S. Department of Justice attorneys who have joined squarely with industry interveners to attack this public trust litigation in the D.C. Circuit. Consider the prospects if they prevail. Virtually no other statutes or lawsuits have been presented to force comprehensive carbon reduction on the federal and state levels with the urgency needed. Do these government attorneys really seek the result that they so strenuously argue for, a crisis left entirely to the whims of an erratic political process caught in the throes of fossil fuel industry influence? Do they really seek increased prospects of runaway climate change?

We should wonder how law professors would explain such an impotent outcome of our legal system. Do we tell our students and other young people, “Sorry, but the entire body of law that has served this country for over 200 years has no principled way of imposing responsibility to abate the pollution that will bring intensifying disasters across the planet during your lifespan? That the legal system is now too brittle for judges to apply with any impact—even though they were presented with a logical remedy structure that could force a rapid re-

61. *In re* Water Use Permit Applications, 9 P.3d 409, 455 (Haw. 2000).

62. *See, e.g.*, *Alec L. v. Jackson*, 863 F. Supp. 2d 11 (D.D.C. 2012).

63. Brief for Scientists Amicus Group, *supra* note 26.

sponse in time?” We should at least follow such an explanation with our deepest condolences for their future.

But let us instead focus on the unparalleled potential of the American judiciary. Throughout history, judges have decided transformative cases when moved by the deepest notions of justice. Climate justice aims to protect innocent children and youth—and in turn, their children—from all-out catastrophe that is still preventable now. The first judges to declare an atmospheric trust responsibility will undoubtedly stand as heroes to the world’s youth and future generations. Their descendants will surely view them as on the right side of history. But just as certain, there will be no avoiding a question years from now asked by young people as they confront the climate punishment already set in motion and gaining momentum as we speak. They will ask us all: “Why did it take so long for you to act? When you knew back then of the horrific consequences to those of us in the future—the floods, the food shortages, the heat waves, the fires, the super-storms, the spread of disease, the rising seas, the vanishing species—why did it take you so long to act?” We become so immersed in our immediate lives and challenges that we may fail to step outside of our own thinking and travel the spectrum of time. But we need to make that mental journey while we still have options to act. Perhaps the most compelling words come not from any legal precedent, but from author Terry Tempest Williams, who writes, “The Eyes of the Future are looking back at us and they are praying for us to see beyond our own time. They are kneeling with hands clasped that we might act with restraint, that we might leave room for the life that is destined to come.”⁶⁴

Postscript: On June 5, 2014, the D.C. Circuit Court of Appeals denied the youth’s appeal asserting a trust obligation against the federal government.⁶⁵ The youth plaintiffs filed a petition for certiorari before the Supreme Court, supported by an amicus brief signed by more than 50 law professors representing more than 1,100 years of teaching experience.⁶⁶ The petition was denied,⁶⁷ but the youth plaintiffs “vowed ‘to advance their climate claims in lower federal courts

64. TERRY TEMPEST WILLIAMS, *RED: PASSION AND PATIENCE IN THE DESERT* 229 (2001).

65. *Alec L. v. McCarthy*, No. 13-5192 (D.C. Cir. June 5, 2014). The cursory, unpublished judgment stated there was no federal trust obligation per *PPL Mont., LLC v. Montana*, 132 S. Ct. 1215, 1235 (2012). That case involved state title to streambeds under the equal footing doctrine and did not involve any public trust issue, but in passing dicta, Justice Stevens described the public trust as a state law doctrine.

66. See Amicus Curiae Brief of Law Professors in Support of Granting Writ of Certiorari, *Alec L. ex rel. Loorz v. McCarthy*, 2014 WL 5841697 (No. 14-405), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2518260.

67. *Alec L. ex rel. Loorz v. McCarthy*, 135 S. Ct. 774 (mem.) (2014).

until the federal government is ordered to take immediate action on human-made climate change.”⁶⁸

68. Cole Mellino, *Teens Sue Government for Failing to Address Climate Change for Future Generations*, ECOWATCH (Feb. 23, 2015).