PLENARY REMARKS:

NATURE'S TRUST: A LEGAL AND SACRED COVENANT TO PROTECT EARTH'S CLIMATE SYSTEM FOR FUTURE GENERATIONS

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We find ourselves alive on Earth at an unbelievable moment in time, facing ecological emergency on a planetary scale. In his landmark Encyclical, Pope Francis describes "the spiral of self destruction which currently engulfs us"¹ and he makes an "urgen[t] appeal . . . for a new dialogue"² to shape our future. I am very honored to be with you here as part of that dialogue to provide a perspective from the field of law.

I have taught environmental law for over 20 years. That field consists of statutes passed by Congress in the 1970s, such as the Clean Air Act, the Clean Water Act, the Endangered Species Act, and many others. America has no shortage of laws. Collectively, they consume many thousands of pages. And most lawyers look

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¹ Pope Francis, *Laudato Si'* [Encyclical Letter on Care for Our Common Home] sec. 163,

http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.

 $^{^{2}}$ *Id.* at sec. 14.

exclusively to these laws for a climate response. But had these laws worked, we would not be facing climate crisis today.

Throughout the Encyclical, Pope Francis describes the destructive "technocratic paradigm" under which our modern society operates. This paradigm, he writes, "is based on the lie that there is an infinite supply of the earth's goods, and this leads to the planet being squeezed dry beyond every limit."³ The Pope urges us to create, instead, an "ecological culture" that puts us in cooperation with Nature. And as part of that, he calls for a new legal framework that "can set clear boundaries."⁴

Our government's climate response under statutory law is very much a product of the technocratic worldview that lies at the root of our ecological crisis. In my time today, I will share thoughts on the dysfunction that plagues our current system of law. And I will describe a different legal paradigm called Nature's Trust, which invokes the ancient public trust principle and, I believe, can promote ecological culture in a way that our statutes fail to. And then I will describe how youth around the world are using this approach in pending lawsuits to force a climate response before it is too late.

I.

First, let us consider how we got into our current predicament. The existential threat that we now face did not just materialize out of nowhere. In fact, the prospect of wholesale climate disruption from fossil fuel use has been well known to our government for at least three decades.

Back in 1986, members of the Senate Environment and Public Works Committee wrote a letter to the U.S. Environmental Protection Agency recognizing, "[t]here is a very

 $^{^{3}}$ *Id.* at sec. 106.

⁴ *Id.* at sec. 53.

real possibility that man – through ignorance or indifference or both – is irreversibly altering the ability of our atmosphere to perform basic life support functions."⁵ The letter asked EPA to develop a "plan... to stabilize [the U.S.] share of greenhouse gas emissions...." EPA did develop such a plan, but it was ignored, and our leaders continued to promote the very fossil fuel regime that scientists warned would imperil our survival on this planet. Moreover, we now know that key corporate leaders in the fossil fuel industry were warned by their own scientists in the 1980s that their exploits would put our world in danger.⁶ Yet industry heads refused to own their problem. Instead, they launched a public relations campaign designed to confuse the American public to the threat of climate change; and they also paid hundreds of millions of dollars into political campaigns to purchase influence across government and thereby forestall any regulation. This strategy ensured that, for the next three decades, our government would continue to promote their fossil fuel regime by handing out massive subsidies, easing regulations, issuing permits, not enforcing violations, leasing public lands and offshore areas, and approving export proposals. The top fossil fuel producers have collectively reaped more than \$1 trillion in profits since just the new millennium, while the global damage and human death toll from climate chaos now escalates worldwide.⁷ A public trust lawsuit that I will later describe chronicles this ongoing government support of the fossil fuel

⁶ See generally Neela Banerjee, Exxon's Oil Industry Peers Knew About Climate Dangers in the 1970s Too, INSIDE CLIMATE NEWS (Dec. 22, 2015), <u>http://insideclimatenews.org/news/22122015/exxon-mobil-oil-industry-peers-knew-about-climate-change-dangers-1970s-american-petroleum-institute-api-shell-chevron-texaco;</u> NAOMI ORESKES & ERIK M. CONWAY, MERCHANTS OF DOUBT (2010).

⁵ Letter from U.S. S. Comm. on Env't & Pub. Works to Lee Thomas, Administrator, EPA (Sept. 12, 1986) (on file with EPA Office of Policy, Planning & Evaluation).

⁷ Bill McKibben, *Global Warming's Terrifying New Math*, ROLLING STONE, July 19, 2012, http://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719.

industry and asserts that government defendants "have acted with deliberate indifference to the peril they knowingly created."⁸

II.

With that history in mind, let us now turn to the reality we face. It is a reality not defined by our human made laws, but rather by the laws of Nature. Nature has certain requirements to keep planetary life systems in balance, and these laws also determine whether we survive or not. While this basic truth has informed indigenous thinking for thousands of years on this continent, it has been suppressed by our modern technocratic worldview.

Oren Lyons, a faith keeper of the Six Nations Iroquois Confederacy, explained the concept when he was describing a massive forest die-off in Canada caused by beetles that are now thriving in the warmer winters brought on by climate change. As Lyons put it, "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...."⁹

The most basic purpose of our environmental law is to keep us in compliance with these laws of Nature. If our environmental law fails to match the reality of Nature's laws, then it fails us. Now, if you ask most environmental lawyers whether the law is responding to climate crisis, they will take you on a deep dive into the Clean Air Act and talk about the President's recent Clean Power Plan. Instead, I would ask you first to define what our climate system needs to regain its energy balance. That is logical starting

⁸ Amended Complaint for Declaratory and Injunctive Relief at 3, *Juliana et al. v. U.S.*, No. 6:15-cv-01517-TC (D. Or. Sept. 10, 2015), *available at*

http://ourchildrenstrust.org/sites/default/files/YouthAmendedComplaintAgainstUS.pdf.

⁹ For quoted statements, *see* Oren Lyons, *The Ice Is Melting*, TWENTY-FOURTH ANNUAL E. F. SCHUMACHER LECTURES (New Economics Institute Oct. 2004); Tim Knauss, *Onondaga Faithkeeper Oren Lyons Speaks Out on the Environment: "Business as Usual Is Over*," POST-STANDARD (Feb. 9, 2008).

point – not what our law is doing, but what our climate system actually requires. Only after we define our reality can we then step back and ask whether our system of laws is meeting that reality. But this is not the approach we've taken in recent history. As Elizabeth Kolbert writes, "It may seem impossible to imagine that a technologically advanced society could choose, in essence, to destroy itself, but that is what we are now in the process of doing."¹⁰

To answer the question of what our climate system needs to regain its balance, we must turn to carbon math. Three years ago, the chief climate scientist at NASA, Dr. James Hansen, led a team of scientists to develop a prescription for the planet designed to restore climate balance at 350 parts per million (ppm) atmospheric carbon dioxide.¹¹ Three hundred and fifty ppm is widely thought to be the upper safe limit of pollution, but we are now well into the danger zone, as CO2 levels climb over 400 ppm.¹² The scientific team set a pathway of global emissions reduction amounting to 7% a year to get us back to 350 ppm.¹³ And, the team said this reduction must be coupled with reforestation and soil management to draw existing carbon out of the atmosphere.¹⁴

This 7% annual reduction is not a figure set by our politicians. I have yet to see President Obama or any official in this country ask what the climate system actually needs to restore balance. Instead, their starting point is what they think the politics will

¹¹ 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) [hereinafter Climate Prescription], http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081648. ¹² Doyle Rice, Carbon Dioxide in Atmosphere at Record Level, USA TODAY, May 2, 2014, http://www.usatoday.com/story/weather/2014/05/01/carbon-dioxide-400-ppm-mauna-loa/8575651.

¹³ See Climate Prescription, supra note 11, at 10. Notably, the prescription, developed in 2013, set a 6% annual reduction target, but the passage of time increased the figure to 7% by year 2015. ¹⁴ Id.

¹⁰ ELIZABETH KOLBERT, FIELD NOTES FROM A CATASTROPHE: MAN, NATURE, AND CLIMATE CHANGE 189 (Bloomsbury 2006).

yield. And that calculus is largely controlled by the very industry that has put us all in peril.

The carbon math I just presented is not static. It's math in a minute glass. The 7% number gets bigger, and therefore our energy descent steeper, every single day of delay. Had we started even back in 2005, scientists say we could have cut emissions just 3.5%/year in order to restore climate balance by the end of the century.¹⁵ In just 10 years of doing next to nothing, that 3.5% has climbed to 7% a year.¹⁶ If we delay reduction just five more years until 2020, scientists project that we would need to reduce emissions by 15%/year, and that may not be possible for global society to accomplish.¹⁷ We now face compounding interest on our ecological debt, if you will, such that further delay will foreclose all options other than geo-engineering, which is a truly terrifying prospect.

Nature's tipping points drive this timeframe. These are points of no return that would cause climate change to run completely out of our control.¹⁸ They exist because of several feedback loops in Nature, such as the carbon bomb ticking in the vast permafrost spanning Siberia and Alaska.¹⁹ Our pollution has already heated the planet enough to start this permafrost melting and forming ponds. If this melt really gets going, it would swamp our atmosphere with almost unfathomable amounts of greenhouse gases. The point scientists make is that, if we push the system too far, there is no coming back to safety, even if we subsequently slash our emissions to zero. There is just no way to sugar

¹⁵ Id.

¹⁶ *Id*.

¹⁷ Id.

¹⁸ See generally FRED PEARCE, WITH SPEED AND VIOLENCE: WHY SCIENTISTS FEAR TIPPING POINTS IN CLIMATE CHANGE xxiv–xxvi (2007) (describing "unstoppable planetary forces" and the end of climatic stability).

¹⁹ See Nafeez Ahmed, Seven Facts You Need to Know About the Arctic Methane Timebomb, THE GUARDIAN, Aug. 5, 2013, http://www.theguardian.com/environment/earth-insight/2013/aug/05/7-facts-need-to-know-arctic-methane-time-bomb.

coat this. Delay essentially locks the door on this planetary greenhouse we've created, and leaves our children their children trapped inside to suffer deadly consequences that are quite foreseeable today and in fact were foreseeable even 30 years ago. Dr. James Hansen has warned, "*failure to act with all deliberate speed* . . . *functionally becomes a decision to eliminate the option of preserving a habitable climate system*."²⁰

With many problems in society, it is advisable to take a slow, incremental approach and see what works and build from there. But with climate crisis, we have utterly run out of time. The crisis that has smoldered for decades has now erupted into mind-blowing urgency. Our legal approach must match the carbon math that Nature imposes. And if we fail to reduce our emissions enough, it won't matter that we tried very hard. A rescue rope that is too short is no good at all. As Winston Churchill famously said, "It is not enough that we do our best; sometimes we must do what is required."

The crisis requires rapid transition from fossil fuels to a fossil free economy powered by safe renewable energy. And this involves every sector of society. Analysts now call for an emergency mobilization matching the scale of WWII. Our government is well equipped to tackle this problem, but we cannot possibly bring about an energy revolution if our government remains idle.

Seventy years ago, this nation mobilized for war almost overnight. But today we still face the same barrier we have for the past three decades. As Pope Francis writes, "We lack leadership capable of striking out on new paths. . . ."²¹ The fact is, no political

²⁰ Brief for Dr. James Hansen as Amicus Curiae Supporting Plaintiffs–Appellants at 7–8, Alec L. v. Jackson, No. 4:11-cv-02203-EMC, 2011 WL 8583134 (N.D. Cal. Nov. 14, 2011), *available at* http://ourchildrenstrust.org/sites/default/files/Hansen%20Amicus%20.pdf.

²¹ Pope Francis, *Laudato Si'*, *supra* note 1, at sec. 53.

leader has yet stepped forward with a plan needed to accomplish what we must to avoid catastrophe. This is not surprising for a country steered by fossil fuel captains. So the next question is, if our broken politics won't work, can the law force change in time? I suggest it can, but not by using the same approaches that brought us this problem in the first place. Let me briefly describe the legal response to climate crisis so far, and then turn to an alternative approach underway that calls upon the courts to force action.

III.

First let us touch on international efforts. Back in 1992, the U.S. joined nearly all other nations of the world in signing a Convention that called for preventing "dangerous" climate change.²² Since that time, the world community has been trying to agree on binding greenhouse gas reductions. The Kyoto Protocol of 1997 made some progress, but the U.S. never signed it, and many nations that did sign on have not met their commitments. For two decades we have seen serial failures in international climate negotiations. Another round, as you all know, is coming up in Paris next month.

You might wonder why international law is such a failure. The most basic reason is that there is no superpower to define or enforce obligations.²³ So the treaty negotiations are just that – negotiations.²⁴ Domestic will has to be in place across the world before an international agreement can transpire.

²² United Nations Framework Convention on Climate Change art. 2, May 9, 1992, S. Treaty Doc. No. 102-38, 1771 U.N.T.S. 107, *available at* http://unfccc.int/essential_background/convention/items/6036.php.
²³ See, e.g., David Biello, *The Real Outcome of Global Warming Talks in Lima: A Future for Coal*, SCI. AM., Dec. 16, 2014, <u>http://blogs.scientificamerican.com/observations/2014/12/16/the- real-outcome-of-global-warming-talks-in-lima-a-future-for-coal/</u> (noting that even if nations pledge significant reductions in coal emissions, there is still no enforcement mechanism for each nation's pledge).

²⁴ See Coral Davenport, Obama Pursuing Climate Accord in Lieu of Treaty, N.Y. TIMES, Aug. 26, 2014, http://www.nytimes.com/2014/08/27/us/politics/obama-pursuing-climate-accord-in-lieu-of-treaty.html (detailing President Obama's "name and shame" approach to recent international negotiations on a climate change agreement as a response to congressional unwillingness to ratify treaties concerning climate change).

So, now let us turn to the domestic front in this country, where most officials are addressing climate crisis entirely within the structure of existing statutory law. For example, President Obama released a Clean Power Plan that will regulate coal-fired plants. There have been fuel mileage standards and other steps using existing statutes. If we begin to describe these efforts in any detail, I would drain the rest of my allocated time because these schemes are so complex. What you need to know is that they fail to add up to anything close to the carbon reduction scientists say is needed.

President Obama's energy regulation, even if implemented as designed, would yield less than a third of the necessary reduction. That is not to say that the Clean Power Plan is not important. But at this point, we need to do the carbon math. And in that vein, we can't just look at the regulatory side of the Obama energy policy and ignore the other side, which is aggressively pushing fossil fuels. The U.S. now produces more oil and gas than any other nation in the world.²⁵ President Obama has opened up public lands in the West for coal mining;²⁶ he has opened the Arctic and the Eastern seaboard for offshore oil exploration;²⁷ he promotes fracking all over the country;²⁸ and in the Pacific Northwest, his administration has pushed over a dozen major export projects to deliver

²⁷ See James Randerson, Obama's Approval of Arctic Drilling 'Undermines his Climate Message,' THE GUARDIAN (Sept. 1, 2015, 9:53 AM), http://www.theguardian.com/environment/2015/sep/01/obamas-approval-of-arctic-drilling-undermines-his-climate-message; Jason Dearen, Obama Opens East Coast to Oil Exploration for First Time in Decades Amid Wildlife Concerns, HUFFINGTON POST (last accessed Jan. 4, 2016), http://www.huffingtonpost.com/2014/07/18/east-coast-oil-exploration-_n_5599674.html.

²⁵ Lauren Carroll, *Obama: America is No. 1 Producer of Oil, Gas*, POLITIFACT (Jan. 21, 2015, 12:44 AM), http://www.politifact.com/truth-o-meter/statements/2015/jan/21/barack-obama/obama-america-no-1-producer-oil-gas/.

producer-oil-gas/. ²⁶ Rob Wile, *Obama Has Allowed More Coal to be Mined on Federal Land than Bush—and He May Not Be Done*, FUSION (May 29, 2015, 12:45 PM), http://fusion.net/story/141394/obama-has-allowed-more-coal-to-be-mined-on-federal-land-than-bush-and-he-may-not-be-

done/?utm_source=twitter&utm_medium=social&utm_campaign=thisisfusion&hootPostID=b41455a46fb6 9eab3d4c15e0a3624f65.

²⁸ Bill McKibben, *Bad News for Obama: Fracking May Be Worse Than Burning Coal*, MOTHER JONES (Sept. 8, 2014, 5:00 AM), http://www.motherjones.com/environment/2014/09/methane-fracking-obama-climate-change-bill-mckibben.

fossil fuels from our country to Asia.²⁹ As one reporter says, "[This] administration is . . . on a drill-baby-drill course to increase production in every way imaginable on US territory. . . .³⁰ So, while President Obama said in Alaska last month that our continued pollution "will condemn our children to a planet beyond their capacity to repair,"³¹ he is also taking a role in bringing about that very nightmare.

A few years ago, the President's top science advisor said, "The current situation of the world in relation to the climate problem is that we're in a car with bad brakes driving toward a cliff in the fog \dots "³² That was then. Now our government is pushing down hard on the gas pedal.

IV.

Richard Heinberg captures our situation when he writes, "The scale of what is at stake runs straight off the charts. The decisions that need to be made, and soon . . . may well determine whether civilization survives."³³ Before relying on our statutory law to pull us out of climate crisis, we should explore why these statutes have not worked to avert this crisis in the first place when the climate danger has been known for decades. Perhaps it is time to acknowledge that statutory law is sorely overrated. Let us briefly look at some of its dysfunction.

³⁰ Michael Klare, *How Obama Became the Oil President*, MOTHER JONES (Sept. 12, 2014, 5:05 AM), http://www.motherjones.com/environment/2014/09/how-obama-became-oil-president-gas-fracking-drill

²⁹ See, e.g., Tim Dickinson, *How the U.S. Exports Global Warming*, ROLLING STONE (Feb. 3, 2014), http://www.rollingstone.com/politics/news/how-the-u-s-exports-global-warming-20140203.

³¹ President Barack Obama, Remarks by the President at the GLACIER Conference – Anchorage, AK (Sept. 1, 2015) (transcript available at https://www.whitehouse.gov/the-press-office/2015/09/01/remarks-president-glacier-conference-anchorage-ak).

³² John Holdren, Assistant to the President for Science and Technology, and Director of the White House Office of Science and Technology Policy, in an interview recorded by Robyn Williams, *The Science Show* (Jan. 31, 2009), *transcript available at*

http://www.abc.net.au/radionational/programs/scienceshow/president-obamas-new-science-team/3181312#transcript.

³³ RICHARD HEINBERG, AFTERBURN: SOCIETY BEYOND FOSSIL FUELS 56 (2015).

First, our environmental laws are micro in nature.³⁴ They rarely focus agencies' attention on the big picture. They fail to deal with the fact that that, air, soil, water, and species are interconnected.³⁵ The statutes have forced agencies to operate in silos, and the view from those silos is dangerously myopic. Moreover, our statutes alone do not provide any sort of framework for an emergency response. Now that is not to say that a new Clean Air Act regulation would not get us far. It might. It provides one tool. But to become a zero-carbon society, we need a full climate recovery plan with initiatives in the transportation, energy, building, food, and waste sectors using all of the tools government has available. And we need a price on carbon to flip the economic switch between fossil fuels and renewable energy.

Second, we should recognize that, while the statutes held early promise, across the board, federal and state officials have turned environmental law inside out.³⁶ They have taken laws intended to prohibit harm and turned them into broad systems legalizing harm.³⁷ All of the fracking, offshore drilling, mountaintop removal, strip mining, and pollution spewing from smoke stacks has been made legal under environmental statutory law.

The current law gives agencies vast discretion to issue permits, and discretion acts like a magnet for political influence. It is well understood that after prolonged political

³⁴ For example, many pollution statutes are triggered by individual applications for a permit. *See, e.g.*, Clean Air Act, 42 U.S.C. § 7475 (2012) (requiring Prevention of Significant Deterioration permit for major new sources of air pollution in areas that have attained compliance with air quality standards). The full scope of the inquiry under those statutes is whether the individual permit will meet certain standards. ³⁵ See Mary Christina Wood, Nature's Trust: Environmental law for a New Ecological Age 168 (2014)

³⁶ See, e.g., Oliver A. Houck, The Endangered Species Act and Its Implementation by the U.S. Departments of Interior and Commerce, 64 U. COLO, L. REV. 277, 317 (1993) ("[T]he number of projects actually arrested by the ESA is nearly nonexistent."); JEFFREY A. ZINN & CLAUDIA COPELAND, CRS ISSUE BRIEF FOR CONGRESS: WETLAND ISSUES, at CRS-6 (2006) (Army Corps of Engineers denies less than 0.3% of the 85,000 CWA § 404 permit applications it receives each year). ³⁷ See WOOD, NATURE'S TRUST, *supra* note 35, Part I.

pressure, agencies become captured by the very industries they are supposed to regulate.³⁸ In a captured agency, government officials view the industry as a client they must serve. There are many good people working in agencies today, but even the most well-intentioned find themselves caught in this political cage. Moreover, within the political frame that now controls our environmental law, the burdens of pollution and resource damage fall disproportionately on the poor, those who have little or no voice in the dominant political system.³⁹ There are countless communities in this country, invisible to privileged society, that are engulfed by waste dumps and chemical plants. These are like modern death camps for powerless residents who are all but sentenced to cancer from daily toxic poisoning. The environmental agencies legalize all of this, and the political frame treats it all as a legitimate outcome.

A third shortcoming of the statutory system is that it is a statutory system. It fails to manifest fundamental constitutional rights. The statutes are created by Congress, and what Congress gives it can also take away. So the next election could roll back any progress made under statutory law. In order to hold legislatures accountable to the citizens rather than oil companies, our climate approach must have a constitutional underpinning.

A fourth deficiency is that our statutory system does nothing to address the consumption and waste that drives ecological damage. As Pope Francis writes in the Encyclical, society is gripped with the "disordered desire to consume more than what is

³⁸ For a full account of captured agency behavior across the major U.S. federal pollution programs, *see* CRAIG COLLINS, TOXIC LOOPHOLES: FAILURES AND FUTURE PROSPECTS FOR ENVIRONMENTAL LAW (Cambridge U. Press 2010).

³⁹ See, e.g., MICHAEL ASH ET AL., JUSTICE IN THE AIR: TRACKING TOXIC POLLUTION FROM AMERICA'S INDUSTRIES AND COMPANIES TO OUR STATES, CITIES, AND NEIGHBORHOODS (2009), *available at* http://www.peri.umass.edu/fileadmin/pdf/dpe/ctip/justice_in_the_air.pdf.

really necessary."40 The statutory laws of this country were born out of the technocratic state and reflect its assumptions. Rather than question industrial practices that drive society towards collapse, our statutes deal only with the symptoms of the economicindustrial age, primarily by requiring technology controls on pollution. These controls run a nuanced gamut from Best Control Technology, to Best Available Technology, to Best Available Control Technology, to Best Available Control Measures, Best Available Demonstrated Technology, Best Available Retrofit Technology, Best Demonstrated Achievable Technology, and many, many others.⁴¹ Do you see the obvious distinctions between those? And yet despite all of this technology, today, nearly all streams in our country are laced with mercury,⁴² and American babies are born polluted with a cocktail of toxins in their bloodstreams.⁴³ Fish advisories for toxic contamination are in effect for one in four rivers in the United States.⁴⁴ But rather than phase out permits to pollute, EPA's solution is to issue more and more fish advisories warning people not to eat fish. In fact, to remind you of the need to consult fish advisories before you eat your catch of the day, EPA offers a complimentary magnet for your refrigerator with a little blue fish that says with a smile, "Fish for your health." Then it warns, "Some fish may be high in contaminants. Use EPA's website to contact your health department about local fish advisories." So, the great family tradition of going out to fish has come down to an exercise in Googling toxins.

⁴¹ See U.S. ENVIRONMENTAL PROTECTION AGENCY, TERMS OF ENVIRONMENT: GLOSSARY, ABBREVIATIONS, AND ACRONYMS, *available at* http://www.epa.gov/glossary/aaad.html.

⁴³ See ENVIRONMENTAL WORKING GROUP, BODY BURDEN: THE POLLUTION IN NEWBORNS (2005), available at http://www.ewg.org/research/body-burden-pollution-newborns.

⁴⁰ Pope Francis, *Laudato Si'*, *supra* note 1, at sec. 123.

⁴² Dina Cappiello, *ALL Fish in Every Tested US Stream Have Mercury in Them, New Study Reveals*, HUFFINGTON POST, http://www.huffingtonpost.com/2009/08/19/all-fish-in-us-steams-hav_n_263334.html.

⁴⁴ DENNIS A. WENTZ ET AL., MERCURY IN THE NATION'S STREAMS: LEVELS, TRENDS, AND IMPLICATIONS iii (2014), *available at* http://pubs.usgs.gov/circ/1395/pdf/circ1395.pdf.

And a final shortcoming is that our statutory system has left the public behind by creating stifling complexity. Agencies use a vocabulary of acronyms that blather an alphabetic mix meaningless to the public. A mother protesting a toxic facility near her children's school, for example, might find herself having to speak in terms of ARARs, MCLs, NESHAPs, SIPs, MACT, BDCT, and BACT. Do you know what those mean? Few incoherencies impede democracy more so than the utter lack of accessible language by which citizens can hold their government officials accountable. And, these acronyms scour all moral implications from the law. Actions that might well be described as relentless assaults against a community, or reckless endangerment of innocent children all succumb to the antiseptic terminology of our technocratic regulatory system. For decades now, this dehumanizing jargon has sedated the public to the mounting threat of ecological collapse, to the extent that society's most destructive inclinations now gain acceptance as if they were normal.

Citizens are finally waking up to recognize our government's misuse of the statutes. Protests are growing all across this country, and, in my region, they are directed against the fossil fuel export proposals that stand to be permitted. Citizens have blocked railroad tracks and turned back oil trains, they have surrounded Shell Oil's drilling rigs with their kayaks on Puget Sound and in Portland Harbor. They have blocked huge trucks carrying mega-loads of equipment to the tar sands of Canada. This is not some fringe movement. This is a rising tide of citizens from mainstream society and from many faith communities as well that feel compelled to stand up against government policy that endangers their children.

V.

In my book, I describe statutory law as the "cane upon which Humanity leans as it walks the plank to its own destruction."⁴⁵ And yet, I want to be very clear. I am not suggesting that we throw out our environmental laws. These laws provide some of the tools we need to accomplish rapid carbon reduction. The problem lies with the larger frame in which these laws are administered. We have looked to statutory law as an endall solution. As Pope Francis urges, we need to recognize the root problems that push us towards destruction. This is a much bigger problem than environmental law. Our crisis mirrors an anthropocentric world-view, a corporate culture of sheer greed, and an individual code of conduct that walks through daily life oblivious to the consequences of consumption. The challenge is to create a full paradigm shift across all realms—legal, economic, social, and moral. Pope Francis calls for nothing less than a transformative "ecological culture," a "way of thinking, ... a lifestyle and a spirituality which together generate resistance to the assault of the technocratic paradigm.⁴⁶ So let us now turn our attention to a legal frame change that may help us answer this call. I call it Nature's Trust. As a concept, it starts with the law of Nature and works to develop a legal framework coherent with reality.

VI.

The paradigm of Nature's Trust builds from a principle called the public trust doctrine. That doctrine voices the universal wisdom essential to human survival and social stability. It requires governments to protect crucial natural resources for all present and future generations, as an enduring trust or perpetual endowment. This public trust

⁴⁵ WOOD, NATURE'S TRUST, *supra* note 35, at 7.

⁴⁶ Pope Francis, *Laudato Si'*, *supra* note 1, at sec. 111.

doctrine traces back through court cases to the beginning of our nation.⁴⁷ But its true origins reach far deeper. Professor Charles Wilkinson writes: "The real headwaters of the public trust doctrine . . . arise in rivulets from all reaches of the basin that holds the societies of the world."⁴⁸ This trust concept is manifest in indigenous systems worldwide, in the Roman Institutes of Justinian (535 AD),⁴⁹ and in the Magna Charta of England.⁵⁰ Many nations around the world embrace this doctrine as a central principle of their legal systems.

Moored in property law, not statutory law, the public trust affirms lasting community property rights in crucial natural resources. You might imagine all of the resources essential to our human welfare and survival – including the waters, wildlife, and air -- as being held together in one legal package that I call Nature's Trust. Through the ages, courts have said that the beneficiaries of this trust are all present and future generations of citizens. And because, as Pope Francis declared to the United Nations, "Any harm done to the environment . . . is harm done to humanity,"⁵¹ the beneficiaries of Nature's Trust must really be all species and their ecosystems. Government officials are trustees who must manage the public trust for the endurance of the nation -- and the natural world. They cannot use their power to allow one generation or its industry to consume the natural wealth needed by all the people now and to come.

⁴⁷ See Ill. Cent. R.R. Co. v. Ill., 146 U.S. 387 (1892); Geer v. Conn., 161 U.S. 519 (1896).

⁴⁸ Charles F. Wilkinson, *The Headwaters of the Public Trust: Some Thoughts on the Source of the Traditional Doctrine*, 19 ENVTL. L. 425, 431 (1989).

⁴⁹ JUSTINIAN, THE INSTITUTES, 1.2.1, 2.1.1 (T. Sandars trans. 1st Am. Ed. 1876) ("By the law of nature these things are common to mankind–the air, running water, the sea, and consequently the shores of the sea.").

⁵⁰ See John Cronin & Robert F. Kennedy, Jr., The Riverkeepers 139-42 (Touchstone 1999); see also Peter Linebaugh, The Magna Charta Manifesto: Liberties and Commons for All (U. Cal. Press 2008).

⁵¹ Pope Francis, Address to the United Nations General Assembly (Sept. 25, 2015), *available at* http://www.pbs.org/newshour/rundown/full-text-pope-francis-speech-united-nations/.

In its deepest sense, the trust is a restraint on government power. It is a human right born from the logic that citizens never give their government the power to destroy what is essential to their survival and prosperity. The lodestar case announcing the principle was *Illinois Central Railroad*, decided in 1872.⁵² There, the U.S. Supreme Court confronted a situation it had never seen before. 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 power to make that conveyance. Granting away such crucial resources, it said, would be "a grievance which never could be long borne by a free people."⁵³

The integral power of the trust is that it provides a new frame through which to assess whether government actions are legitimate. When agency officials act out of sheer self-interest to benefit their political allies, they violate the basic fiduciary duty of loyalty to which all trustees are held.⁵⁴ What is often viewed within government itself as the controlling "political reality" is exposed through the trust frame as extraordinary malfeasance.

Moreover, this principle of law resides at a much deeper level than statutory law. It has the constitutional force necessary to hold legislatures accountable. You should think of the trust as a yardstick against which our statutes are measured. By enforcing the trust, courts prevent any one set of legislators from wielding so much power over ecology

⁵² Ill. Cent. R.R. Co., 146 U.S. 387 (1892). ⁵³ Id. at 456.

⁵⁴ See Karen E. Boxx, Of Punctilios and Paybacks: The Duty of Loyalty Under the Uniform Trust Code, 67 Mo. L. Rev. 279, 279-80 (2002).

as to cripple future society.⁵⁵ The reasoning of the public trust puts it on par with the highest political liberties of citizens living in a free society. It wards off ecological tyranny.

Nearly two years ago, the Pennsylvania Supreme Court invoked the public trust to overturn a statute passed by the state legislature to promote fracking. Chief Justice Castille applied the public trust as a constitutional principle to protect the ecology supporting communities. He declared that citizens hold "inherent and indefeasible rights" that are "of such 'great and essential' quality as to be ensconced as 'inviolate."⁵⁶

The constitutional public trust imposes obligations on government that stand independent of the statutes.⁵⁷ Primarily, the government must protect the trust resource.⁵⁸ This is so basic -- you would not allow your trustee to bankrupt your trust.⁵⁹ Looking always to Nature's requirements, trustees must prevent "substantial impairment" to trust assets. Courts make very clear that this duty of protection is active, not passive.⁶⁰ Trustees cannot just sit idle and let the people's trust assets be destroyed on their watch, which basically sums up our government's approach to climate crisis.

⁵⁵ *Ill. Cent. R.R. Co.*, 146 U.S. at 460 ("The legislature could not give away nor sell the discretion of its successors.... Every legislature must, at the time of its existence, exercise the power of the State in the execution of the trust devolved upon it.").

⁵⁶ Robinson Twp v. Commonwealth of Pennsylvania, 623 Pa. 564, 640 (2013) (plurality opinion).

 ⁵⁷ See Lake Mich. Fed'n v. U.S. Army Corps of Eng'rs, 742 F. Supp. 441, 446 (N.D. Ill. 1990) ("The very purpose of the public trust doctrine is to police the legislature's disposition of public lands. If courts were to rubber stamp legislative decisions, . . . the doctrine would have no teeth. The legislature would have unfettered discretion to breach the public trust as long as it was able to articulate some gain to the public.").
⁵⁸ Geer v. Connecticut, 161 U.S. 519, 525–29 (1896) (detailing ancient and English common law principles of sovereign trust ownership of air, water, sea, shores, and wildlife and stating: "[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."); *Ill. Cent. R.R. Co. v. Illinois (Illinois Central)*, 146 U.S. 387, 455 (1892); see also Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 557–66 (1970); Harrison C. Dunning, *The Public Trust: A Fundamental Doctrine of American Property Law*, 19 ENVTL. L. 515, 515–16 (1989). See generally BLUMM & WOOD, *supra* note 11 (including a comprehensive table of cases and secondary material through 2013).

 ⁵⁹ See, e.g., U.S. v. White Mountain Apache Tribe, 537 U.S. 465, 475 (2002); GEORGE T. BOGERT, TRUSTS
§ 107 (5th ed. 1973); In re Permit Use Applications (Waiahole Ditch), 9 P.3d 409, 453 (Haw. 2000).
⁶⁰ U.S. v. White Mountain Apache Tribe, 537 U.S. 465, 475 (2002).

Unlike the statutory laws, which speak in techno-jargon, the trust frame situates the law in a broader moral dialogue by announcing a moral covenant that we have with our children and all future generations to protect the life-sustaining Earth Endowment. As Pope Francis writes, "the world we have received also belongs to those who will follow us."⁶¹ This trust principle in law promotes the understanding that our resource use affects the natural inheritance due to our own Posterity. In this way, the trust covenant promotes sobriety and care in daily consumption.

This trust principle also carries deep religious connotations. Surveys of Christianity, Buddhism, Hinduism, and Islam all suggest a *sacred trust* giving rise to holy covenants of obligation towards future generations and to all of Creation.⁶² A Jewish prayer, for example, iterates God's command to Adam: "This is the last world I shall make. I place it in your hands: hold it in trust."⁶³ Pope Francis described a sacred trust when he said, "Creation is not some possession that we can lord over for own pleasure; nor, even less, is it the property of only some people . . . : creation . . . is the marvelous gift that God has given us, so that we will take care of it and harness it for the benefit of all. . . ."⁶⁴ The legal paradigm of Nature's Trust falls uniquely into this processional of religious teaching. When the law's injunctions mirror religious and moral instruction,

⁶² See, e.g., Christopher G. Weeramantry, Buddhist Contribution to Environmental Protection, ASIAN TRIBUNE (June 20, 2007); Judge Weeramantry Focuses on Hindu Contribution to Environment Protection, ASIAN TRIBUNE (June 9, 2007) (abridged version of Justice Weeramantry's speech at World Future Council); RICHARD C. FOLTZ ET AL., ISLAM AND ECOLOGY: A BESTOWED TRUST 127 (Center for the Study of World Religions, 2003); Benedict XVI, If You Want to Cultivate Peace, Protect Creation: Message of His Holiness for the Celebration of World Day of Peace sec. 8 (Jan. 1, 2010).

⁶¹ Pope Francis, Laudato Si', supra note 1, at sec. 159.

⁶³ DONALD G. KAUFMAN & CECILIA M. FRANZ, BIOSPHERE 2000: PROTECTING OUR GLOBAL ENVIRONMENT 529 (3rd ed., Kendall Hunt Pub. Co. 2000).

⁶⁴ Pope Francis, Address to General Audience at St. Peter's Square (May 11, 2014), at sec. 3, *available at* http://w2.vatican.va/content/francesco/en/audiences/2014/documents/papa-francesco_20140521_udienza-generale.html.

society gains a powerful symbiosis and alignment -- a renewed steadiness in purpose. Judges, who hold the power of the pen, can once again breathe life into the law by expressing an unassailable moral foundation. By contrast, statutory technocratic commands catch the winds of greed that seem to blow incessantly through the living generations on Earth.

So while we should not think of any legal principle as a panacea for our crisis, the trust presents a powerful frame that summons transformation from both within and outside of the law. The trust approach calls for protection of ecology according to Nature's own requirements. It directly confronts the permit system that favors politically powerful interests. It presents Constitutional rights.⁶⁵ It makes a moral call to measure our own consumption against our children's just inheritance. And it holds the power of simplicity and logic that can stir the public once again to protect our "common home." You cannot suppress the galvanizing logic of the public trust. Its populist manifesto has surfaced at epic times through the lineage of humanity.

And on the international level, at a time when climate negotiations seem incapable of success, the public trust offers clear principles of reciprocal obligation that are recognizable to nations throughout the world.⁶⁶ The atmosphere is a planetary trust asset, held in common by all sovereign states, which must jointly act as co-trustees, each

⁶⁵ See Brief of Law Professors as Amici Curiae in Support of Plaintiff–Appellants Seeking Reversal at 13, *Alec L. ex rel. Loorz v. McCarthy*, 561 F. App'x 7 (D.C. Cir. 2014) (No. 13-5192), *available at* http://ourchildrenstrust.org/sites/default/files/FiledLawProfAmicus.pdf.

⁶⁶ Peter Sand, Sovereignty Bounded: Public Trusteeship for Common Pool Resources, 4 GLOBAL ENVTL. POL. 47, 57 (2004). For additional commentary, see Mary Turnipseed et al., Reinvigorating the Public Trust Doctrine: Expert Opinion on the Potential of a Public Trust Mandate in U.S. and International Environmental Law, ENVT. MAG. Sep.—Oct. 2010, at 6, 12; Edith Brown Weiss, The Planetary Trust: Conservation and Intergenerational Equity, 11 ECOLOGY L. Q. 495 (1984). subject to the mutual fiduciary obligation to protect our climate system.⁶⁷

So we do not have to make up something new to address our crisis – the premises are already there, but they have been utterly lost in our modern era of statutory law. I would like to end my remarks by describing a global legal campaign called Atmospheric Trust Litigation that invokes this public trust to force an urgent climate response.

VIII.

Atmospheric Trust Litigation was launched four years ago by the Eugene-based non-profit, Our Children's Trust. Lawsuits and petitions were filed in every state across this country,⁶⁸ and in other countries as well -- all of them on behalf of youth plaintiffs. This approach was born from the reality that the climate problem needs a macro response tied to the requirements of Nature. The idea is to push, through litigation, an integrated framework of carbon reduction before it is too late.

This litigation asserts a simple premise: that youth hold a constitutional public trust right to inherit a stable atmosphere necessary for their survival. And, trustees worldwide must prevent "substantial impairment" of the common trust property, the atmosphere. That duty boils down to carbon math – the 7% explained earlier. The cases all demand that the states and federal trustees produce carbon recovery plans that will carry out the 7% annual reduction in their jurisdiction. The courts are not asked to

⁶⁷ See PATRICIA W. BIRNIE ET AL., INTERNATIONAL LAW AND THE ENVIRONMENT 39 (Oxford U. Press 2009); Evan Fox-Decent, From Fiduciary States to joint Trusteeship of the Atmosphere: The Right to a Healthy Environment Through a Fiduciary Prism, chapter in FIDUCIARY DUTY AND THE ATMOSPHERIC TRUST 263 (Ken Coghill, Charles Sampford, Tim Smith, eds., Ashgate Press 2012); Mary Christina Wood, Atmospheric Trust Litigation, ADJUDICATING CLIMATE CHANGE: STATE, NATIONAL, AND INTERNATIONAL APPROACHES (William C.G. Burns & Hari M. Osofsky, eds., Cambridge U. Press 2009).

⁶⁸ See Sam Bliss, These Teens Are Taking Their Climate Lawsuit All the Way to the Supreme Court, GRIST, October 22, 2014, http://grist.org/climate-energy/these-teens-are-taking-their-climate-lawsuit-all-the-way-to-the-supreme-court/.

develop the plans – that is the trustees' job, after all. But courts can force the trustees to simply do their job and devise a plan and then implement it under the court's continuing supervision. This is not a usurping role for courts, but rather a supervisory role. Courts have played such a role many times throughout history.

You might wonder, why are the youth turning to the courts for help? Why not Congress? Remember, for decades the climate problem has been left to the legislatures and agencies. And those branches are still pursuing policies that would cook the planet. We have three branches of government, not two. The Founding Fathers created the third branch for a reason: to safeguard the fundamental rights of citizens. Courts are a last resort, but a resort nonetheless.

At this 11th hour, we need our full government to focus strategic attention on the climate emergency. Federal and state judges can order swift injunctive relief that brings such focus to the chaos of our political situation. But without such intervention, will our politicians take urgent action against the very corporations that fund them? We might recall that image of the car with bad brakes speeding towards a cliff in the fog. We really should imagine the world's children trapped in that car. Do we not want a police officer to stop that car before it plunges over the climate cliff? If we say that the courts have no role in this emergency, we must also be willing to take ownership of the conclusion that flows from that scenario.

The ATL cases are now moving through the legal system. NASA scientist Jim Hansen said that judicial relief in these cases "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."⁶⁹ But some of the early cases were dismissed by judges who said that climate crisis was a problem for the agencies and legislatures. Well, how right that is! The point is that those branches are shirking this duty. We cannot solve our climate crisis by continuing to treat it as a game of hot potato.

More recently, as the climate headlines worsen, judges are stepping into their role. Just two months ago, two landmark victories were handed down in different parts of the world within a day of each other in climate cases brought by citizens against their government. In the Netherlands, a court found that the Dutch government's climate action was wholly inadequate to meet the scale of the threat, and it ordered the government to slash emissions 25% within 5 years.⁷⁰ Five thousand miles away in Washington state, a judge handed a victory to eight youths who had sued their Governor for taking inadequate steps.⁷¹ And, in yet another case decided in Pakistan, the court ordered that government to take climate action according to timeframes set by the court and said that "the delay and lethargy of the State . . . offend[ed] the fundamental rights of the citizens."⁷²

Similar atmospheric trust cases are teed up all across the country and in several more countries as well. One was filed recently in Pennsylvania by the Widener Law

⁷¹ Press Release, Our Children's Trust, In Advance of Paris Climate Talks, Washington Court Recognizes Constitutional and Public Trust Rights and Announces Agency's Legal Duty to Protect Atmosphere for Present and Future Generations (Nov. 20, 2015) (*available at*

http://ourchildrenstrust.org/sites/default/files/15.11.20WADecisionPR.pdf); Foster v. Washington Department of Ecology, No 14-2-25295-1 SEA, 2015 WL 7721362 (Wash Super, Nov 19, 2015) (finding constitutional right to healthy climate and atmosphere).

⁶⁹ Brief for Amicus Curiae Dr. James Hansen Supporting Plaintiffs–Appellants at 7, *Alec. L. v. Jackson*, No. 4:11-cv-02203-EMC, 2011 U.S. Dist. LEXIS 140102 (N.D. Cal. Nov. 14, 2011), *available at* http://ourchildrenstrust.org/sites/default/files/Hansen%20Amicus%20.pdf.

⁷⁰ Arthur Neslen, *Dutch Government Ordered to Cut Carbon Emissions in Landmark Ruling*, THE GUARDIAN (June 24, 2015), http://www.theguardian.com/environment/2015/jun/24/dutch-government-ordered-cut-carbon-emissions-landmark-ruling.

⁷² Ashgar Leghari v. Federation of Pakistan, W.P. No. 25501/2015 (Sept. 4, 2015), available at http://edigest.elaw.org/sites/default/files/pk.leghari.090415.pdf.

School Clinic on behalf of six Pennsylvania youth against Governor Tom Wolf and several state agencies.⁷³ The youth of this world now need the judicial dominos to start falling in their favor, and fast enough to meet the deadlines set by Nature.

There is a huge and historic case against President Obama and multiple agencies now being briefed in the federal district court of Oregon.⁷⁴ The youth plaintiffs have asked the judge to order the administration to devise a plan to reduce greenhouse gas pollution in accordance with best available science. This is the very same thing members of Congress asked for when they wrote to EPA 30 years ago. The difference is that this time, a plan would be developed and implemented under the supervision of the third branch of government. A favorable ruling in this case could be an international gamechanger, because it would announce U.S. obligation in what is otherwise a free for all negotiation.

IX.

In these last few moments, let us reflect briefly on how religion can reinforce these legal efforts. While we have a formal separation of church and state in this country, religion in fact plays a crucial role in law by announcing moral behavior to society. Our Children's Trust uses the Encyclical message in its legal actions seeking climate protection. When religious leaders call upon us all to protect God's Creation as a sacred trust, and when that appeal parallels the secular duty engrained in public trust law, that powerful pairing may embolden judges to rise to their historic role. There has been a

⁷³ Press Release, Our Children's Trust, Pennsylvania Youth File Constitutional Climate Change Lawsuit Against Governor Tom Wolf and Six State Agencies (Sept. 16, 2015) (*available at* http://ourchildrenstrust.org/sites/default/files/2015.09.16PennsylvaniaClimateLawsuitPressRelease.pdf).

The lawsuit is part of the national litigation campaign coordinated by the nonprofit, Our Children's Trust.

⁷⁴ Megan Darby, Catholics Back Climate Change Lawsuit Against U.S. Government, CLIMATE HOME (Jan. 21, 2016), http://www.climatechangenews.com/2016/01/21/catholics-back-childrens-climate-lawsuit-against-us-government/.

groundswell of support for the atmospheric trust litigation campaign from Catholic organizations and individuals -- through amicus briefs, funding assistance, organizing, press support, and through inspired Catholic youth answering the call of the Encyclical by stepping forward as plaintiffs in the historic federal case now pending in Oregon.

But in the totality of things, we need to recognize that, while Atmospheric Trust Litigation may provide a catalyst for urgent climate action, legal movements need backing from a moral culture that inspires support and respect from the people. Any law trying to protect Nature stands to be devoured by our present culture of consumption. As Pope Francis observes, "We should not think that . . . the force of law will be sufficient . . . when the culture itself is corrupt . . ."⁷⁵ But if the Catholic people of this world, and other people of good will, answer the Pope's call for a true "ecological culture," and model the same frugal dignity that Pope Francis does in his daily life, they may just form that critical mass needed for society's great cultural transformation --before it is too late.

Х.

Let me summarize and close now by suggesting that the Pope's call for "a new and universal solidarity" among Earth's citizens summons the public trust principle from the field of law.⁷⁶ Not simply a righteous legal premise for the protection of ecology, its moral and religious voice speaks to fundamental purposes that have been lost in the modern era. Tapping a human understanding that remains instinctive, passion-bound, and deeply shared among citizens of distant cultures, the trust covenant lives in the hearts of all humanity. The same trust principles that flow through a judge's pen can be

⁷⁵ Pope Francis, *Laudato Si'*, *supra* note 1, at sec. 123.

⁷⁶ *Id.* at sec. 14.

preached from a pulpit or spoken as the last words from a grandmother to her grandchildren anywhere in the world – because the trust transcends all governments, cultures, and peoples on Earth.

Aligned with religious trust convictions, the public trust of law now must stir Humanity to confront the crisis of ecology. Nature's Trust sounds a clarion call in churches, mosques, temples, synagogues, and prayer lodges all over the world to save Creation. This call echoes in the blasted hollows of Appalachia; in the fracked communities of Pennsylvania; in the cancer alleys along the Mississippi corridor; and at the base of immortal mountains that weep their last glaciers into the sea. It summons people of faith everywhere to rise up and defend the holy sanctuary of Earth, and in unison, to assert not the power of life, but the trust of life. Thank you.