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POPE FRANCIS, ENVIRONMENTAL ANTHROPOLOGIST

*John Copeland Nagle**

INTRODUCTION

Giovanni di Pietro di Bernardone was born in Italy around 1181. His father was a wealthy silk merchant, and Giovanni relished his status as the wealthy son.¹ But then he had a vision that changed his life and his name.² The christened Francis lived in poverty, joined the poor in begging at St. Peter's Basilica, and began preaching in his hometown of Assisi. Later, he founded a religious order, traveled to Egypt in an attempt to convert the Sultan and end the Crusades, and arranged the first known Christmas nativity scene.³ Two years after his death in 1226, he became Saint Francis, the patron saint of animals and the environment.⁴

The story of Saint Francis inspired Jorge Mario Bergoglio to take the name of Pope Francis when he assumed the papacy in 2013.⁵ He took that name to honor "the man of poverty, the man of peace, the man who loves and protects creation."⁶ Saint Francis, the Pope explained, "invites us to see nature as a magnificent book in which God speaks to us and grants us a glimpse of his infinite beauty and goodness."⁷ Pope Francis cited Saint Francis as "the example par excellence of care for the vulnerable and of an integral ecology lived out joyfully and authentically."⁸ He described Saint Francis as "the patron saint of all who study and work in the area of ecology," who was "particularly concerned for God's creation and for the poor and outcast," one who is "much loved by non-Christians," and one

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¹ Anna Kirkwood Graham, *Francis of Assisi (1181/1182–1226)*, in 2 *ICONS OF THE MIDDLE AGES: RULERS, WRITERS, REBELS, AND SAINTS* 323, 327 (Lister M. Matheson ed., 2012).

² *Id.* at 342.

³ *Id.* at 324, 333–35, 339–40.

⁴ *Id.* at 324; *Francis of Assisi, Saint*, KEY FIGURES IN MEDIEVAL EUROPE: AN ENCYCLOPEDIA 225 (Richard K. Emmerson ed., 2006) (stating that Pope Gregory IX officially proclaimed Francis's sainthood in July of 1228).

⁵ Pope Francis, Audience to Representatives of the Communications Media (Mar. 16, 2013) (transcript and translation available at http://w2.vatican.va/content/francesco/en/speeches/2013/march/documents/papa-francesco_20130320_delegati-fraterni.html).

⁶ *Id.*

⁷ Pope Francis, Encyclical Letter, *Laudato Si'* para. 12 (2015) [hereinafter *Laudato Si'*], http://w2.vatican.va/content/dam/francesco/pdf/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si_en.pdf.

⁸ *Id.* at para. 10.

“who lived in simplicity and in wonderful harmony with God, with others, with nature and with himself.”⁹

It was within this context that in June 2015—after much anticipation—Pope Francis released his encyclical entitled *Laudato Si’: On Care for Our Common Home*.¹⁰ “Laudato si” means “praise be to you,” a phrase that appears repeatedly in Saint Francis’s poem *Canticle of the Sun*.¹¹ Praise is an uncommon feature of environmental debates.¹² To the contrary, most discussions of environmental policy emphasize the dire status of the natural world around us.¹³ The rhetoric often takes an apocalyptic turn, suggesting that the world on which we depend is in such dire straits that we must take fundamental, immediate action to avert an ecological catastrophe.¹⁴ Such warnings are typically accompanied by evidence of how bygone civilizations collapsed because of their abuse of the environment.¹⁵

Francis adopts such an approach in his encyclical. He warns of “global environmental deterioration.”¹⁶ More specifically, in a chapter on “What is Happening to Our Common Home?” Francis laments the rise of pollution, waste, and the throwaway culture, the declining quality and quantity of water, the loss of biodiversity, and the unhealthy aspects of many of the world’s growing cities.¹⁷ At other points, he worries about

⁹ *Id.*

¹⁰ *Laudato Si’, supra* note 7; Sylvia Poggioli, *Will Pope’s Much-Anticipated Encyclical Be A Clarion Call On Climate Change?*, NPR (June 16, 2015, 5:07 AM), <http://www.npr.org/sections/parallels/2015/06/16/414666357/popes-missive-on-environment-poverty-could-affect-habits-of-millions>.

¹¹ SAINT FRANCIS OF ASSISI, THE WRITINGS OF SAINT FRANCIS OF ASSISI 83–84 (Paschal Robinson trans., The Dolphin Press 1906).

¹² See Kirsten Powers, *New Green Pope’s Encyclical Colors Climate Change Debate*, USA TODAY (June 16, 2015, 3:59 PM), www.usatoday.com/story/opinion/2015/06/16/pope-encyclical-environment-credibility-science-column/28799109/ (noting the uniqueness of Pope Francis’ contribution to the debate); Taylor Wofford, *Can Pope Francis Save the Planet?*, NEWSWEEK (May 22, 2015, 1:38 PM), www.newsweek.com/can-pope-francis-save-planet-345586 (arguing that Pope Francis’ approach offers people an opportunity to think about climate change as a moral issue instead of purely scientific or political).

¹³ See JARED M. DIAMOND, *COLLAPSE: HOW SOCIETIES CHOOSE TO FAIL OR SUCCEED* 516–517, 523 (2005) (arguing that societal collapse and political disasters are imminent due to problems of environmental devastation).

¹⁴ See *id.* at 521 (arguing that the world will face a declining standard of living within the next few decades if environmental issues are not successfully solved).

¹⁵ See generally *id.* at x (listing several ancient societies discussed in the book).

¹⁶ *Laudato Si’, supra* note 7, at para. 3.

¹⁷ *Id.* at para. 21 (“[T]he elderly lament that once beautiful landscapes are now covered with rubbish.”); *id.* at para. 33 (“Because of us, thousands of species will no longer give glory to God by their very existence, nor convey their message to us. We have no such right.”); *id.* at para. 44 (“We were not meant to be inundated by cement, asphalt, glass, and

global inequality,¹⁸ the possible harms of genetically modified organisms,¹⁹ and the fact that the “[l]ack of housing is a grave problem in many parts of the world.”²⁰ According to Francis, these unprecedented ailments are the result of our careless actions.²¹ Thus, proclaims Francis, “[d]oomsday predictions can no longer be met with irony or disdain.”²²

So where is the praise? “Rather than a problem to be solved,” Francis observes, “the world is a joyful mystery to be contemplated with gladness and praise.”²³ That is the way it should be, and it gets better. Francis quotes *Psalms* 148: “Praise him, sun and moon, praise him, all you shining stars! Praise him, you highest heavens, and you waters above the heavens! Let them praise the name of the Lord, for he commanded and they were created.”²⁴ Francis insists that such praise is irresistible:

When we can see God reflected in all that exists, our hearts are moved to praise the Lord for all his creatures and to worship him in union with them. This sentiment finds magnificent expression in the hymn of Saint Francis of Assisi: “Praise be you, my Lord, with all your creatures . . .”²⁵

This is not typical twenty-first century environmental discourse. And yet, the Encyclical itself has been widely praised and widely reported, far more than one would expect from an explicitly religious document.²⁶ The Encyclical is breathtakingly ambitious. Much of it is addressed to “every person living on this planet,”²⁷ while some parts speak specifically to Catholics and others to religious believers generally.²⁸ It surveys a

metal, and deprived of physical contact with nature.”); *id.* at para. 45 (“[T]he privatization of certain spaces has restricted people’s access to places of particular beauty.”).

¹⁸ *Id.* at para. 48.

¹⁹ *Id.* at paras. 133–34.

²⁰ *Id.* at para. 152.

²¹ See *id.* at para. 53 (contending that “[n]ever have we so hurt and mistreated our common home as we have in the last two hundred years”); *id.* at para. 165 (insisting that “the post-industrial period may well be remembered as one of the most irresponsible in history”).

²² *Id.* at para. 161. Francis adds,

We may well be leaving to coming generations debris, desolation and filth. The pace of consumption, waste and environmental change has so stretched the planet’s capacity that our contemporary lifestyle, unsustainable as it is, can only precipitate catastrophes, such as those which even now periodically occur in different areas of the world.

Id.

²³ *Id.* at para. 12.

²⁴ *Id.* at para. 72 (quoting *Psalms* 148:3–5).

²⁵ *Id.* at para. 87 (quoting ASSISI, *supra* note 11).

²⁶ Jena McGregor, *World Leaders React to Pope Francis’s Call for Action on Climate Change*, WASH. POST (June 19, 2015), <http://www.washingtonpost.com/news/on-leadership/wp/2015/06/19/the-reaction-to-pope-franciss-call-for-action-on-climate-change/>.

²⁷ *Laudato Si’*, *supra* note 7, at para. 3.

²⁸ See, e.g., *id.* at paras. 62–64.

sweeping range of environmental and social problems.²⁹ Along the way, it relies on anthropology, theology, science, economics, politics, law, and other disciplines.³⁰

Especially anthropology. Many observers described *Laudato Si'* as a "climate change" encyclical.³¹ It's not—only 5 of the 180 pages specifically address climate change, which is about the same length as the discussion on the factors that affect the "ecology of daily life."³² *Laudato Si'* is not really even an environmental encyclical in that the natural environment does not play the starring role. Rather, it is an encyclical about humanity. Francis contends that the natural environment suffers because we misunderstand humanity.³³

Indeed, a proper view of our environmental challenges depends on a proper view of ourselves. Or, as others have put it, a proper view of creation depends on a proper view of the Creator.³⁴ Francis stresses the relational character of environmental issues that turn on the relationship between the natural world, human cultures, humanity, and God. Environmental harm, in turn, results when we misunderstand or abuse those relationships.³⁵

The most powerful parts of the Encyclical proceed from the Pope's moral claims. That is not surprising, for in those claims he draws on the unique resources of his religious authorities. The Encyclical is at its strongest when Pope Francis describes how the poor and the natural world suffer together when people view themselves as the most important creatures in the world.³⁶ Here, Francis rightly condemns how sin distorts our understanding of ourselves and the world in which we live.

That understanding appears unevenly throughout the Encyclical. Generally, Francis exaggerates both the uniqueness of current environmental challenges and our ability to solve them.³⁷ At the same

²⁹ See, e.g., *id.* at paras. 17–52 (discussing water issues, loss of biodiversity, and societal breakdown).

³⁰ See, e.g., *id.* at paras. 62–67, 124–29, 166–69 (discussing the role of faith, employment, and technology in the environmental conversation). The Encyclical especially relies on anthropology. *Id.* at paras. 16–21.

³¹ See, e.g., Statement by the President on Pope Francis's Encyclical, 2015 DAILY COMP. PRES. DOC. 201500441 (June 18, 2015).

³² Compare *Laudato Si'*, *supra* note 7, at paras. 23–26 (discussing the "climate as a common good"), with *id.* at paras. 147–55 (discussing the "ecology of daily life").

³³ *Id.* at paras. 115–17.

³⁴ Andy Lewis, *Environmental Stewardship: A Theological Model for the Environment*, ETHICS & RELIGIOUS LIBERTY COMMISSION (Aug. 12, 2005), <https://erlc.com/article/environmental-stewardship-a-theological-model-for-the-environment>.

³⁵ *Laudato Si'*, *supra* note 7, at paras. 93–95.

³⁶ See *infra* Part IV.

³⁷ See *infra* Parts V.B–D.

time, he underestimates the long history of environmental degradation, the value of human improvements, and the obstacles to producing the ecological conversion today.³⁸ That makes the balance of the Encyclical valuable, but not as powerful as its theological and moral critique. The scientific arguments regarding environmental harm repeat arguments written elsewhere and are disconnected from the Encyclical's cautionary insights into the role of science and technology.³⁹ The critique of Western capitalism has provoked a counterargument from economists, and the Encyclical lacks a comparable assessment of other economic models.⁴⁰ Most of the political and legal analysis is modest in amount and in the recognition of its limits.

This Article examines the Encyclical from the perspective of Christian environmental thought more generally than the Encyclical. It begins by outlining the development of such thought and then turns to the contributions of the Encyclical with respect to environmental anthropology, environmental connectedness, environmental morality, and environmental governance. As I will explain, Pope Francis is a powerful advocate for a Christian environmental morality but a less convincing advocate for specific regulatory reforms. His greatest contribution is to encourage more people, religious believers and non-believers alike, to engage in a respectful dialogue about how we can better fulfill our responsibilities to each other and the natural world that we share.

I. CHRISTIAN TEACHING AND THE ENVIRONMENT

Francis begins chapter two of his Encyclical with this question: "Why should this document, addressed to all people of good will, include a chapter dealing with the convictions of believers?"⁴¹ Francis acknowledges,

[I]n the areas of politics and philosophy there are those who firmly reject the idea of a Creator, or consider it irrelevant, and consequently dismiss as irrational the rich contribution which religions can make towards an integral ecology and the full development of humanity. Others view religions simply as a subculture to be tolerated.⁴²

Francis responds that "[i]f we are truly concerned to develop an ecology capable of remedying the damage we have done, no branch of the sciences and no form of wisdom can be left out, and that includes religion and the

³⁸ See *infra* Part I.

³⁹ See *infra* Part III.

⁴⁰ See *infra* Part V.A.

⁴¹ *Laudato Si'*, *supra* note 7, at para. 62.

⁴² *Id.*

language particular to it.”⁴³ He also points out that “[t]he majority of people living on our planet profess to be believers. This should spur religions to dialogue among themselves for the sake of protecting nature, defending the poor, and building networks of respect and fraternity.”⁴⁴

Francis draws on a rich collection of sources to support his claims. He begins his environmental history in 1971 by citing the remarks of Pope Paul VI, and he credits his immediate predecessors John Paul II and Benedict XVI for emphasizing environmental concerns during their papacies.⁴⁵ But the Encyclical reads as if the concern about environmental issues began in 1971 because few sources cited precede that year.

To be sure, many others have pointed to 1970 as the pivotal year in the emergence of modern environmental policy. On the very first day of 1970, President Richard Nixon signed the National Environmental Policy Act (NEPA),⁴⁶ one of the first of the canonical federal environmental statutes that still govern us today.⁴⁷ Congress enacted the Clean Air Act (CAA) in December 1970.⁴⁸ The first Earth Day was held on April 22, 1970.⁴⁹

This federal environmental law canon emerged without significant influence from Christian teaching. While “[h]undreds, perhaps thousands,”⁵⁰ of ministers preached about environmental issues on the Sunday before Earth Day in April 1970, and a Unitarian leader testified at the only congressional hearing on NEPA,⁵¹ the real value of Christian

⁴³ *Id.* at para. 63. Pope Francis also notes that “science and religion, with their distinctive approaches to understanding reality, can enter into an intense dialogue fruitful for both.” *Id.* at para 62.

⁴⁴ *Laudato Si’*, *supra* note 7, at para. 201.

⁴⁵ *Id.* at paras. 4–6. For a deeper discussion on this aspect of Pope Francis’s predecessors, see Lucia A. Silecchia, *Discerning the Environmental Perspective of Pope Benedict XVI*, 4 J. CATH. SOC. THOUGHT 227, 227–28, 235–38 (2007) (describing the extensive environmental reflections of Pope John Paul II and Pope Benedict XVI).

⁴⁶ National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (codified as amended at 42 U.S.C. §§ 4321, 4331–4335, 4341–4347 (2012)).

⁴⁷ See, e.g., Endangered Species Act of 1973, Pub. L. No. 94-325, 90 Stat. 724 (codified as amended at 16 U.S.C. §§ 1531–1542 (2012)); Clean Water Act of 1977, Pub. L. No. 96-148, 93 Stat. 1088 (codified as amended at 33 U.S.C. §§ 1251–1387 (2012)).

⁴⁸ Clean Air Act of 1970, Pub. L. No. 91-604, 81 Stat. 1676 (codified as amended at 42 U.S.C. §§ 7401–7626 (2012)).

⁴⁹ *The First Earth Day*, LIBR. OF CONGRESS, http://www.americaslibrary.gov/jb/modern/jb_modern_earthday_1.html (last visited Oct. 6, 2015).

⁵⁰ ADAM ROME, *GENIUS OF EARTH DAY: HOW A 1970 TEACH-IN UNEXPECTEDLY MADE THE FIRST GREEN GENERATION* 175 (2013).

⁵¹ *National Environmental Policy: Hearing on S. 1075, S. 237, and S. 1752 Before the S. Comm. on Interior & Insular Affairs*, 91st Cong. 159 (1969) (statement of John Corrado, Reverend, Davies Memorial Unitarian Church).

teaching for environmental law arises from what has happened since Congress enacted the enduring statutes of the 1970s.

By the 1960s, some blamed Christian teaching for the environmental harms that resulted from environmental improvement projects.⁵² Most famously, on the day after Christmas in 1966, a medieval historian named Lynn White presented a paper to the Washington meeting of the American Association for the Advancement of Science entitled *The Historical Roots of Our Ecologic Crisis*.⁵³ White faulted Christianity for encouraging a system of thought in which scientific progress without regard to its consequences for the natural environment was possible. "Especially in its Western form," White wrote, "Christianity is the most anthropocentric religion the world has seen."⁵⁴ Moreover, "[b]y destroying pagan animism, Christianity made it possible to exploit nature in a mood of indifference to the feelings of natural objects."⁵⁵ Thus, White concluded that "we shall continue to have a worsening ecologic crisis until we reject the Christian axiom that nature has no reason for existence save to serve man."⁵⁶

Chastened, a trickle of Christian writers pondered White's conclusion, and that trickle soon swelled into a flood of writing that sought to address environmental issues from a Christian perspective in the modern era. As Oxford theologian Alister McGrath later explained, "[a] scapegoat had to be found for the ecological crisis, and this article conveniently provided one" for those who were sympathetic to the idea that religion presents a societal problem, not a solution.⁵⁷ But for Christian scholars, White's thesis demanded closer attention to whether their faith was to blame for the undeniable problems that they observed. They approach the topic from the many perspectives within Christian theology: mainline Protestantism,⁵⁸ ecofeminism,⁵⁹ Catholicism,⁶⁰

⁵² See Lynn White, Jr., *The Historical Roots of Our Ecological Crisis*, 155 SCI. 1203, 1206–07 (1967) (discussing Christianity's contribution to the environmental crisis).

⁵³ *Id.* at 1203. The journal *Science* published White's speech in 1967. *Id.*

⁵⁴ *Id.* at 1205.

⁵⁵ *Id.*

⁵⁶ *Id.* at 1207.

⁵⁷ ALISTER MCGRATH, *THE REENCHANTMENT OF NATURE: THE DENIAL OF RELIGION AND THE ECOLOGICAL CRISIS* xv (2002).

⁵⁸ See ROBERT B. FOWLER, *THE GREENING OF PROTESTANT THOUGHT*, at vii (1995) (discussing the environmental crisis from a Protestant perspective and addressing critics of its approach).

⁵⁹ See ROSEMARY R. RUETHER, *GAIA & GOD: AN ECONFEMINIST THEOLOGY OF EARTH HEALING* 1 (1992) (arguing that the Earth's healing, which includes the healing of human relationships, can only be achieved through recognizing and transforming Western culture's justification of domination).

⁶⁰ See JOHN L. ALLEN, JR., *THE FUTURE CHURCH: HOW TEN TRENDS ARE REVOLUTIONIZING THE CATHOLIC CHURCH* 299–300 (2009) (discussing the reflections of Pope John Paul II and Pope Benedict XVI on man's role in the environmental crisis).

Reformed Protestantism,⁶¹ Orthodoxy,⁶² liberation theology,⁶³ etc. One scholar groups these disparate ideas into three general eco-theologies: (1) Christian stewardship based on an evangelical understanding of biblical teaching about caring for the earth; (2) an eco-justice ethic that connects environmental concerns to other social justice problems; and (3) a creation spirituality that situates humanity “as one part of a larger, panentheistic creation.”⁶⁴ The prescription that Christian writers offer for responding to environmental ailments often differs, but they all share a skepticism about White’s diagnosis.⁶⁵

In his encyclical, Pope Francis does not address White nor the debate he provoked. Francis does cite countless documents that have been produced by many Catholic thinkers and other religious leaders in recent years.⁶⁶ Those sources add to the depth of analysis contained throughout the Encyclical. What is missing from the Encyclical, and what has been missing from much of recent Christian environmental literature, is an appreciation of what happened *before* 1970.

Two books published about the same time as the Encyclical begin to tell that story. In *Inherit the Holy Mountain: Religion and the Rise of American Environmentalism*, Mark Stoll argues that “[a] high proportion of leading figures in environmental history had religious childhoods.”⁶⁷ More specifically, “[e]specially before the 1960s, a very large majority of the figures of the standard histories of environmentalism grew up in just two denominations, Congregationalism and Presbyterianism, both in the

⁶¹ See MARK R. STOLL, *INHERIT THE HOLY MOUNTAIN: RELIGION AND THE RISE OF AMERICAN ENVIRONMENTALISM* 6, 8–9 (2015) (discussing Calvinism’s role in America’s environmental history).

⁶² See John Chryssavgis & Bruce V. Foltz, *The Sweetness of Heaven Overflows Onto the Earth: Orthodox Christianity and Environmental Thought*, in *TOWARD AN ECOLOGY OF TRANSFIGURATION: ORTHODOX CHRISTIAN PERSPECTIVES ON ENVIRONMENT, NATURE, AND CREATION* 1, 3–6 (John Chryssavgis & Bruce V. Foltz eds., 2013) (“[S]olely on these very [Christian Orthodox] principles] we can . . . articulate a spirituality that is adequate to the environmental tasks awaiting us.”).

⁶³ See STEVEN BOUMA-PREDIGER, *THE GREENING OF THEOLOGY* 12–13 (1995) (incorporating a liberation theological perspective into a discussion of theological approaches to the environmental crisis).

⁶⁴ Laurel Kearns, *Saving the Creation: Christian Environmentalism in the United States*, 57 *SOC. OF RELIGION* 55, 55–57 (1996).

⁶⁵ See, e.g., STEVEN BOUMA-PREDIGER, *FOR THE BEAUTY OF THE EARTH* 67 (2001) (“[W]hile extremely influential, the Lynn White thesis is not as plausible as many believe. In fact, there are compelling reasons to reject it.”); Chryssavgis & Foltz, *supra* note 62, at 3 (“White’s understanding . . . is far from flawless.”).

⁶⁶ See, e.g., *Laudato Si’*, *supra* note 7, at paras. 4–6 nn.2–11 (citing encyclical from 1979 and 1991 as well as a Catechesis from 2001 among others sources).

⁶⁷ STOLL, *supra* note 61, at 2.

Calvinist tradition.”⁶⁸ Stoll describes the parallel Christian and environmental thinking of a diverse collection of luminaries, including the theologian Jonathan Edwards, landscape artists Thomas Cole and Frederick Edwin Church, Forest Service head Gifford Pinchot, as well as Park Service founder (and Cotton Mather descendant) Stephen Mather.⁶⁹ His claim is that Reformed Protestant ideas guided their environmental thinking, regardless of whether they remained observant believers themselves.⁷⁰

The second book, Evan Berry’s *The Religious Roots of American Environmentalism*, agrees “that modern American environmental thought is deeply shaped by its relationship with Christian theological tradition.”⁷¹ Berry traces Christian thought about nature back to the middle ages, and in doing so counters White’s thesis that Christian teaching was uniformly hostile to the world around us.⁷² Berry follows the trail in thinking to the United States in the early twentieth century, and specifically to the Mountaineers Club based in Seattle.⁷³ That organization “played an instrumental role in the development of Mount Rainier National Park and the establishment of both North Cascades and Olympic National Parks.”⁷⁴ In doing so, “its leaders framed their purposes in religious terms, not because such terms were merely convenient or persuasive but because their project grew from fertile religious soil and always bore traces of its origins.”⁷⁵ Berry sifts through the hymnals used by the Club during its expeditions to show how devoutly they conceived their relationship to God and all He had created.⁷⁶

The recent and ongoing efforts to recapture history show that Christian ideas have influenced western environmental thinking long before 1970 or *Laudato Si’*. Other research into environmental history calls into question the Encyclical’s assumption that the environmental

⁶⁸ *Id.* Stoll describes himself as “a lapsed Presbyterian environmentalist.” *Id.* I characterize myself as an evangelical Presbyterian, though the denominational shifts of the early twenty-first century complicate any such label.

⁶⁹ See *id.* at 7 (discussing Pinchot); *id.* at 25 (examining Edwards); *id.* at 54 (considering Cole & Church); *id.* at 102 (describing Mather).

⁷⁰ See *id.* at 267 (concluding that Presbyterianism fostered the principles for later environmental movements).

⁷¹ EVAN BERRY, *DEVOTED TO NATURE: THE RELIGIOUS ROOTS OF AMERICAN ENVIRONMENTALISM*, at viii (2015).

⁷² See *id.* at 48–49 (“Christians [over the centuries] . . . beg[a]n to look to the natural world as a means to knowledge of God . . .”).

⁷³ *Id.* at 84–85.

⁷⁴ *Id.* at 86.

⁷⁵ *Id.*

⁷⁶ *Id.* at 97–98.

problems we experience today are greater than those that our ancestors experienced before us.⁷⁷ Francis asserts:

Men and women have constantly intervened in nature, but for a long time this meant being in tune with and respecting the possibilities offered by the things themselves. . . . Now, by contrast, we are the ones to lay our hands on things, attempting to extract everything possible from them while frequently ignoring or forgetting the reality in front of us.⁷⁸

Francis does not identify when that past age of “being in tune” with nature occurred. Actually, human history, in many ways, is a story of efforts to “extract everything possible” from the natural environment, or to redirect watercourses, cut entire forests, and otherwise fundamentally manipulate the world to serve our interests. We were no more restrained then than we are now.

II. ENVIRONMENTAL ANTHROPOLOGY

“There can be no ecology without an adequate anthropology,” writes Francis.⁷⁹ The Encyclical’s claim is unfamiliar in today’s environmental debates.⁸⁰ But it correctly notes that anthropology explains a fundamental divide in our understanding of human interactions with the natural environment.⁸¹ There are different ideas of what it means to be human, and those contrasting ideas yield different ideas of appropriate environmental policy.⁸² Francis rejects both an anthropocentric view that

⁷⁷ See Joseph Stromberg, *Air Pollution Has Been a Problem Since the Days of Ancient Rome*, SMITHSONIAN MAG. (Feb. 2013), <http://www.smithsonianmag.com/history/air-pollution-has-been-a-problem-since-the-days-of-ancient-rome-3950678/?no-ist> (“[A]s far back as the . . . Roman Empire, human activities emitted enough methane gas to have had an impact on . . . the entire atmosphere.”).

⁷⁸ *Laudato Si'*, *supra* note 7, at para. 106.

⁷⁹ *Id.* at para. 118.

⁸⁰ Other topics, such as economics, are more typical. See, e.g., *National Center for Environmental Economics*, EPA, <http://yosemite.epa.gov/ee/epa/eed.nsf/webpages/homepage> (last visited Sept. 18, 2015) (using economics to evaluate the effectiveness of environmental policy).

⁸¹ See *Laudato Si'*, *supra* note 7, at para. 119 (“[W]e cannot presume to heal our relationship with nature and the environment without healing all fundamental human relationships.”).

⁸² Compare Robert L. Ehrlich, Jr., *One Size Does Not Fit All: Governor Robert L. Ehrlich, Jr.’s Perspective on Command-and-Control Versus Market Driven Approaches to Environmental Policy and Lawmaking*, 13 U. BALT. J. ENVTL. L. 95, 97 (2005) (arguing that a command-and-control approach by governments that incentivizes compliance and punishes violations is essential for enforcing environmental regulation), with E. Calvin Beisner et al., *A Biblical Perspective on Environmental Stewardship*, ACTON INST., <http://www.acton.org/public-policy/environmental-stewardship/theology-e/biblical-perspective-environmental-stewardship> (last visited Sept. 26, 2015) (arguing that a biblically mandated private property approach operates to hold people accountable for individual actions).

accepts all human desires and a misanthropic view that wishes people would disappear.⁸³ Instead, he promotes the idea that people are unique among God's creatures, but such uniqueness demands care for the rest of God's creation as well.⁸⁴

White charged that Christianity was "the most anthropocentric religion the world" has ever known.⁸⁵ Francis disagrees. In the Encyclical, he writes, "the Bible has no place for a tyrannical anthropocentrism unconcerned for other creatures."⁸⁶ He repeatedly rails against humanity's tendency to think of ourselves as the only thing that matters:

Modernity has been marked by an excessive anthropocentrism which today, under another guise, continues to stand in the way of shared understanding and of any effort to strengthen social bonds. The time has come to pay renewed attention to reality and the limits it imposes; this in turn is the condition for a more sound and fruitful development of individuals and society. An inadequate presentation of Christian anthropology gave rise to a wrong understanding of the relationship between human beings and the world. Often, what was handed on was a Promethean vision of mastery over the world, which gave the impression that the protection of nature was something that only the faint-hearted cared about.⁸⁷

But he does not stop there; Francis also explains how to remedy such misplaced anthropocentrism. He argues that "speak[ing] once more of the figure of a Father who creates and who alone owns the world" is the best means for restoring mankind to its proper place in the world, which would also end mankind's claim to absolute dominion on earth.⁸⁸ Francis further condemns the individualism which constitutes a focused version of anthropocentrism, and he decries the modern tendency to see ourselves as the ultimate measure of what is right and good.⁸⁹

At the same time, Pope Francis is equally concerned about placing too low a value on people. "At the other extreme are those who view men

⁸³ *Laudato Si'*, *supra* note 7, at para. 122.

⁸⁴ *Id.* at para. 115 ("Not only has God given the earth to man . . . but, man too is God's gift to man. He must therefore respect the natural and moral structure with which he has been endowed.").

⁸⁵ White, *supra* note 52, at 1205.

⁸⁶ *Laudato Si'*, *supra* note 7, at para. 68.

⁸⁷ *Id.* at para. 116. Pope Francis further argued that "[a] misguided anthropocentrism leads to a misguided lifestyle. . . . When human beings place themselves at the centre, they give absolute priority to immediate convenience and all else becomes relative," *id.* at para. 122, and he noted that "it would also be mistaken to view other living beings as mere objects subjected to arbitrary human domination," *id.* at para. 82.

⁸⁸ *Id.* at para. 75.

⁸⁹ See *id.* at para. 122–23 (explaining that in an age of relativism, people place themselves in the center, only considering what is most convenient to them in determining their actions).

and women and all their interventions as no more than a threat, jeopardizing the global ecosystem, and consequently the presence of human beings on the planet should be reduced and all forms of intervention prohibited.”⁹⁰ He specifically rejects the biocentric view that many environmentalists adopt to replace anthropocentrism. According to Francis, “[a] misguided anthropocentrism need not necessarily yield to ‘biocentrism’, for that would entail adding yet another imbalance, failing to solve present problems and adding new ones.”⁹¹

Francis is especially worried about sacrificing the most vulnerable groups of humanity in our zeal to care for the environment. “It is clearly inconsistent to combat trafficking in endangered species,” he writes, “while remaining completely indifferent to human trafficking, unconcerned about the poor, or undertaking to destroy another human being deemed unwanted. This compromises the very meaning of our struggle for the sake of the environment.”⁹² This contrast was vividly illustrated a couple of months after Francis released his Encyclical by the juxtaposition of two stories that dominated the news. One was the story of an American dentist who had brutally killed a lion that was a favorite of a local African community and that had been lured away from its protected reserve.⁹³ The other was the release of videos showing the indifference of Planned Parenthood officials to the tiny human bodies that

⁹⁰ *Id.* at para. 60.

⁹¹ *Id.* at para. 118.

⁹² *Id.* at para. 91. Francis repeats his concern on multiple occasions. See *id.* at para. 50 (arguing that the focus on overpopulation “is one way of refusing to face the issues” of “extreme and selective consumerism on the part of some”); *id.* at para. 90 (“At times we see an obsession with denying any pre-eminence to the human person; more zeal is shown in protecting other species than in defending the dignity which all human beings share in equal measure. Certainly, we should be concerned lest other living beings be treated irresponsibly. But we should be particularly indignant at the enormous inequalities in our midst, whereby we continue to tolerate some considering themselves more worthy than others.”); *id.* at para. 120 (“Since everything is interrelated, concern for the protection of nature is also incompatible with the justification of abortion. How can we genuinely teach the importance of concern for other vulnerable beings, however troublesome or inconvenient they may be, if we fail to protect a human embryo, even when its presence is uncomfortable and creates difficulties?”); *id.* at para. 155 (“[T]hinking that we enjoy absolute power over our own bodies turns, often subtly, into thinking that we enjoy absolute power over creation. Learning to accept our body, to care for it and to respect its fullest meaning, is an essential element of any genuine human ecology. Also, valuing one’s own body in its femininity or masculinity is necessary if I am going to be able to recognize myself in an encounter with someone who is different. In this way we can joyfully accept the specific gifts of another man or woman, the work of God the Creator, and find mutual enrichment.”).

⁹³ Katie Rodgers, *After Cecil the Lion’s Killing, U.S. and U.N. Look to take Action*, N.Y. TIMES (July 22, 2015), <http://www.nytimes.com/2015/07/31/world/africa/after-cecil-the-lions-killing-us-and-un-look-to-take-action.html?emc=eta1>.

were killed during abortions.⁹⁴ The popular discourse often featured commentators who raged about the death of the lion while remaining silent about the aborted babies, and vice versa.⁹⁵ Francis sees both episodes as connected to the same callous indifference for both defenseless human and animal life.⁹⁶

The correct anthropology, Francis argues, views humanity as special and the rest of creation as deserving respect and care. "Christian thought sees human beings as possessing a particular dignity above other creatures," writes Francis, and "it thus inculcates esteem for each person and respect for others."⁹⁷ Christian teaching insists that humans are indeed different from other creatures, but also similar in that humans are still created beings. It suggests a hierarchy descending from God to humanity to the rest of creation.⁹⁸ Yet Christian teaching also supports a bifurcated view of the world that simply distinguishes between the Creator (God) and all creatures (humanity, animals, plants, and the rest of creation alike). As one writer explains, "the human race has a dual position in creation. Although *Homo sapiens* are one of countless millions of created life forms, we are unique and special to God."⁹⁹ The scriptural text most cited to support that claim is *Genesis* 1, which says that God created humanity alone "in our image."¹⁰⁰ The challenge is to synthesize humanity's unique status in God's image and humanity's common created status with all other creatures. "The vertical," one Bible scholar explains, "does not cancel the horizontal."¹⁰¹

⁹⁴ Jackie Calmes, *With Planned Parenthood Videos, Activist Ignites Abortion Issue*, N.Y. TIMES (July 21, 2015), <http://www.nytimes.com/2015/07/22/us/with-planned-parenthood-videos-activist-ignites-abortion-issue.html>.

⁹⁵ Charles Camosy, *Outraged over Cecil the lion? It may help you understand the rage over Planned Parenthood*, L.A. TIMES (July 30, 2015, 2:35 PM), <http://www.latimes.com/opinion/op-ed/la-oe-0730-camosy-cecil-the-lion-planned-parenthood-20150730-story.html>.

⁹⁶ See *Laudato Si'*, *supra* note 7, at para. 92 (arguing that an indifferent and cruel attitude to animals eventually affects a person's attitude towards human life).

⁹⁷ *Id.* at para. 119.

⁹⁸ John C. Bergstrom, *What the Bible Says About the Environment*, APOLOGETICS RESOURCE CTR. (Nov. 14, 2014), <http://arcapologetics.org/culture/subdue-earth-bible-says-environment/>.

⁹⁹ DAN STORY, SHOULD CHRISTIANS BE ENVIRONMENTALISTS? 82 (2012); see also *An Examination of the Views of Religious Organizations Regarding Global Warming: Hearing Before the S. Comm. on Env't and Pub. Works*, 110th Cong. 206 (2007) [hereinafter *Religious Leaders & Climate Change Hearing*] (testimony of David Barton, author and historian) ("In general, conservative people of faith view the creation in *Genesis* as moving upward in an ascending spiritual hierarchy, beginning with the creation of the lowest (the inanimate) and moving toward highest (the animate), with the creation of man and woman being the capstone of God's work.").

¹⁰⁰ *Genesis* 1:26.

¹⁰¹ RICHARD BAUCKHAM, LIVING WITH OTHER CREATURES: GREEN EXEGESIS AND THEOLOGY 4 (2011).

Of course, such views are controversial in many quarters outside of Christian circles, and even among different parts of the Christian church. A biblical understanding of humanity's place in creation is a common justification for Christians' leering toward environmental concerns unrelated to the health and welfare of humanity. Focus on the Family, for example, has expressed its refusal to support any issue that places environmental issues above human beings.¹⁰² Supporters of a hierarchical view of creation sometimes neglect God's place above humanity. For instance, former senator and presidential candidate Rick Santorum chastised "a lot of radical environmentalists" for "hav[ing] it upside down."¹⁰³ He stated that man is the objective, rather than the Earth.¹⁰⁴ This too is a distortion of the scriptural teaching, for man is not the objective. Rather, our objective is to glorify God.

The Christian environmental literature thus rejects White's charge that Christianity is "the most anthropocentric religion the world has seen."¹⁰⁵ Christianity is more likely to embrace theocentrism, not anthropocentrism or biocentrism. As one scholar, Steven Bouma-Prediger, wrote, *Genesis* 1 "shows that humans are distinct in some important sense" and "unique among all the creatures to come from God's hand."¹⁰⁶ He further argued that "it is a non sequitur to claim that a necessary condition for equality between women and men is that all hierarchy between humans and nonhumans, or humans and God, be abolished."¹⁰⁷ Or, as Abraham Kuyper put it, "[o]nly in man does the creation reach its consummation."¹⁰⁸

Perhaps the best way of explaining the view of humanity advocated by Pope Francis is by contrasting the leading environmental justice with the leading environmental saint. Justice William O. Douglas left his Presbyterian upbringing behind once he left his home state of Washington, but he took his love of nature with him. Justice Douglas was

¹⁰² See Michael Luo, *Evangelicals Debate the Meaning of 'Evangelical'*, N.Y. TIMES (Apr. 16 2006), http://www.nytimes.com/2006/04/16/weekinreview/16luo.html?pagewanted=print&_r=1& (noting Dr. James Dobson, head of Focus on the Family, refused to support an evangelical group calling for action against climate change because he believed it prioritized animals and plants above people).

¹⁰³ Leigh A. Caldwell, *Santorum: Obama's Worldview Upside-Down*, CBS NEWS (Feb. 19, 2012, 1:37 PM), <http://www.cbsnews.com/news/santorum-obamas-worldview-upside-down/>.

¹⁰⁴ *Id.*

¹⁰⁵ White, *supra* note 52, at 1205.

¹⁰⁶ BOUMA-PREDIGER, *supra* note 65, at 73.

¹⁰⁷ *Id.* at 169 (arguing that proper care of the environment does not require that God is recognized as an existing being).

¹⁰⁸ ABRAHAM KUYPER, *TO BE NEAR UNTO GOD* 270 (John Hendrik de Vries trans., Baker Book House 1979) (1925).

once described as “a lover of humanity who did not like *people*.”¹⁰⁹ Saint Francis was exactly the opposite—as G.K. Chesterton described him, Francis loved people but not humanity.¹¹⁰ The dual understanding of humanity’s tendency to make bad choices, while loving the individual people who make those choices, seems best suited to respond to our environmental challenges.

Francis and other defenders of such a hierarchical understanding emphasize that humanity has a responsibility to care for the rest of creation. As Bouma-Prediger argued, “[h]uman uniqueness is not a license for exploitation but a call to service.”¹¹¹ The Encyclical describes the ideal relationship as one of harmony between people and the rest of creation.¹¹² Harmony means that each part of creation can live for its intended purpose. Using a broad understanding of what constitutes harm and who can be harmed, harmony does not happen when the environment is harmed; disharmony occurs as a result of human sin and ignorance.¹¹³ Harmony does not expect, though, that each person and animal will always enjoy an environment that is ideal for their purposes. Harmony recognizes that the environment is dynamic.¹¹⁴ The role of the law, therefore, is to constrain human actions that result in disharmony while facilitating those actions that cultivate harmony even in a changing environment.¹¹⁵

III. ENVIRONMENTAL CONNECTEDNESS

“Everything is connected,” proclaims Francis.¹¹⁶ That is an ecological truism which will not surprise anyone who is familiar with debates about environmental policy. But he means more than that; when Francis says that “everything” is connected, he refers to more than hydrology or

¹⁰⁹ BERNARD SCHWARTZ, *THE ASCENT OF PRAGMATISM: THE BURGER COURT IN ACTION* 19 (1990).

¹¹⁰ G.K. CHESTERTON, *ST. FRANCIS OF ASSISI* 15 (1990) (“[A]s St. Francis did not love humanity but men, so he did not love Christianity but Christ.”).

¹¹¹ BOUMA-PREDIGER, *supra* note 65, at 177.

¹¹² See *Laudato Si'*, *supra* note 7, at para. 66 (describing the original relationship between people and nature as harmonious before it was broken when humans tried acting as God).

¹¹³ *Id.*

¹¹⁴ *Id.* at para. 144.

¹¹⁵ See *id.* at para. 177 (observing that the law’s purpose is to prevent harmful occurrences as well as to promote helpful behavior).

¹¹⁶ *Id.* at para. 91.

ecosystems or the world's climate.¹¹⁷ Francis sees all ecological systems as connected with cultural institutions.¹¹⁸

Quoting Pope Benedict XVI, Pope Francis contends that "[t]he book of nature is one and indivisible," and includes the environment, life, sexuality, the family, social relations, and so forth. It follows that "the deterioration of nature is closely connected to the culture which shapes human coexistence."¹¹⁹ Emphasizing an "integral ecology" which accounts for the relationship between nature and society, Francis argues that there is a correlation between the cure for environmental harm and social harm.¹²⁰ Using a poignant illustration of this connection, Pope Francis states that "[w]hen we fail to acknowledge as part of reality the worth of a poor person, a human embryo, a person with disabilities . . . it becomes difficult to hear the cry of nature itself; everything is connected."¹²¹

Francis also refers to "cultural ecology," which he defines as "a part of the shared identity of each place and a foundation upon which to build a habitable city."¹²² He emphasizes the "need to incorporate the history, culture and architecture of each place, thus preserving its original identity. Ecology . . . involves protecting the cultural treasures of humanity in the broadest sense."¹²³ The cultural ecology suffers from many of the same actions as the natural ecology, such as environmental exploitation and degradation. This cost exhausts physical resources along with undoing social structures shaping cultural identity.¹²⁴ And Francis sees the consequences as dire: "The disappearance of a culture can be just as serious, or even more serious, than the disappearance of a species of plant or animal. The imposition of a dominant lifestyle linked to a single form of production can be just as harmful as the altering of ecosystems."¹²⁵

That is why it is a mistake to characterize the document as a climate change encyclical. Of course, climate change is addressed, but so are other environmental problems such as air pollution, water pollution, and the

¹¹⁷ See *id.* at paras. 141–42 (referring to the connection between economics and social contexts such as in the home, urban settings, and work environment).

¹¹⁸ See *id.* at para. 48 ("The human environment and the natural environment deteriorate together.").

¹¹⁹ *Id.* at para. 6.

¹²⁰ *Id.* at para. 139. Elsewhere, Pope Francis states that "[s]ince everything is closely interrelated, and today's problems call for a vision capable of taking into account every aspect of the global crisis, . . . suggest[s] that we now consider some elements of an *integral ecology*, one which clearly respects its human and social dimensions." *Id.* at para. 137.

¹²¹ *Id.* at para. 117.

¹²² *Id.* at para. 143.

¹²³ *Id.*

¹²⁴ *Id.* at para. 145.

¹²⁵ *Id.*

loss of biodiversity.¹²⁶ Beyond those environmental problems, the Encyclical also targets a similarly broad range of social problems, such as overcrowded cities, flawed transportation systems, and the need to protect labor.¹²⁷ Climate change is featured in many of those discrete environmental and social issues, but the same could be said of how those other issues feature in climate change.

While struggling to fully grasp what Francis describes, United States environmental law does show some recognition of interconnectedness. For example, federal protection of wetlands under the Clean Water Act (CWA) depends on the threshold determination that an affected area constitutes “waters of the United States.”¹²⁸ To establish such a showing, the Environmental Protection Agency (EPA) and the Army Corps of Engineers commissioned a hydrologic study that demonstrated the many ways in which waters are connected, and thus how seemingly insignificant and remote bodies of water are nonetheless connected to the lakes and rivers that everyone acknowledges are “waters of the United States.”¹²⁹ The Agency then promulgated a regulation that claims federal jurisdiction over all such waters based on their connectedness.¹³⁰

The Endangered Species Act (ESA)¹³¹ offers other examples. Under the Commerce Clause of the United States Constitution, the federal government has the authority to regulate interstate commerce. However, the federal government’s ability to regulate species that live in only one state and otherwise fail to affect interstate commerce depends on the aggregation of all such species and the ecosystems on which they depend.¹³² In other words, the connectedness inherent in an ecosystem justifies federal regulation at each of its components. A similar approach arises under the ESA’s prohibition on actions that “harm” a listed species.

¹²⁶ See *id.* at paras. 20–24, 28–29, 32 (examining air pollution, water quality, and the loss of biodiversity respectively).

¹²⁷ See *id.* at paras. 125–29, 149–52, 153–54 (considering employment protection, overcrowding, and transportation respectively).

¹²⁸ Definition of “Waters of the United States” Under the Clean Water Act, 79 Fed. Reg. 22188, 22195 (proposed Apr. 21, 2014) (to be codified at 33 C.F.R. pt. 328).

¹²⁹ *Id.* at 22195–98.

¹³⁰ See Clean Water Rule: Definition of “Waters of the United States,” 80 Fed. Reg. 37054, 37056–57 (June 29, 2015) (to be codified at 33 C.F.R. pt. 328) (describing the standards used to determine whether bodies of water are connected to waters of the United States).

¹³¹ Endangered Species Act of 1973, Pub. L. No. 94-325, 90 Stat. 724 (codified as amended at 16 U.S.C. §§ 1531–1542 (2012)).

¹³² See, e.g., *Gibbs v. Babbitt*, 214 F.3d 483, 492–94 (4th Cir. 2000) (noting the aggregate impact of taking North Carolina red wolves while upholding the regulation); *People for the Ethical Treatment of Prop. Owners v. U.S. Fish & Wildlife Serv.*, 57 F. Supp. 3d 1337, 1346–47 (D. Utah 2014) (declining to rely on aggregation to authorize the regulation of the Utah prairie dog).

For instance, leading environmental groups have argued that the harm prohibition applies to a coal-fired power plant in, say, Texas that emits greenhouse gases that contribute to climate change and thus threaten the survival of polar bears in Alaska.¹³³ That connectedness is true as a matter of atmospheric science, but the Supreme Court has blocked such a move by reading the ESA to contain a proximate cause limitation on harms resulting from a remote action.¹³⁴

The Encyclical also struggles with the full implications of ecological connectedness. Although Pope Francis noted that “[t]he establishment of a legal framework which can set clear boundaries and ensure the protection of ecosystems has become indispensable,”¹³⁵ such boundaries necessarily interfere with some ecological and social connections.¹³⁶ Additionally, Francis is skeptical of private property rights,¹³⁷ which function as the most obvious way of establishing clear boundaries. “The Christian tradition has never recognized the right to private property as absolute or inviolable,” he contends, “and has stressed the social purpose of all forms of private property.”¹³⁸

Likewise, the Encyclical fails to grasp the ways in which interconnectedness means that the activities praised result in their own environmental harms. For example, Francis writes, “We read in the Gospel that Jesus says of the birds of the air that ‘not one of them is forgotten before God.’ How then can we possibly mistreat them or cause them harm?”¹³⁹ And yet, Francis praises renewable energy without acknowledging the hundreds of thousands of birds that wind turbines and

¹³³ Kim Murphy, *U.S. Suggests No Emissions Limits to Protect Polar Bears*, L.A. TIMES (Apr. 17, 2012), <http://articles.latimes.com/2012/apr/17/nation/la-na-nn-polar-bears-greenhouse-gases-20120417>.

¹³⁴ See *Babbitt v. Sweet Home Chapter of Cmty. for a Great Or.*, 515 U.S. 687, 700 n.13 (1995) (explaining that the ESA’s reach is limited by the requirements of proximate cause and foreseeability); see also Michael C. Blumm & Kya B. Marienfeld, *Endangered Species Act Listings and Climate Change: Avoiding the Elephant in the Room*, 20 ANIMAL L. 277, 289 (2014) (describing the limits on the application of the ESA’s take prohibition to species affected by climate change).

¹³⁵ *Laudato Si’*, *supra* note 7, at para. 53.

¹³⁶ See, e.g., Neil D. Hamilton, *Trends in Environmental Regulation of Agriculture*, in INCREASING UNDERSTANDING OF PUBLIC PROBLEMS AND POLICIES 108, 112–14 (1994) (describing the tension between farmers and non-farmers that is created by environmental laws because certain agricultural uses are considered damaging and environmental laws will restrict the farmers’ use of land); Carmen G. Gonzalez, *Environmental Justice, Human Rights, and the Global South*, 13 SANTA CLARA J. INT’L L. 151, 154 (2015) (explaining the divide and conflict of interests between the countries in the north, which produce the majority of the pollution, and the countries in the south, which suffer from that pollution).

¹³⁷ See, e.g., *Laudato Si’*, *supra* note 7, at paras. 67, 93–95.

¹³⁸ *Id.* at para. 93.

¹³⁹ *Id.* at para. 221 (quoting *Luke* 12:6).

solar facilities kill.¹⁴⁰ That is not meant to say that it is wrong to promote renewable energy; rather, environmental interconnectedness means that one cannot make that decision simply by promising to avoid “harm.” For example, the Fish and Wildlife Service (FWS) may be sued because it has failed to protect larks—a favorite bird of Saint Francis—from ordinary agricultural practices.¹⁴¹ Again, the interconnectedness is undisputed, but the appropriate legal response remains contested.

IV. ENVIRONMENTAL MORALITY

The Encyclical is at its strongest when it makes moral arguments. Among the moral claims, the concern for the poor is most prominent. Francis goes to great lengths to explain how a degraded environment harms the poor.¹⁴²

The Encyclical builds on a robust literature.¹⁴³ Furthermore, the Bible repeatedly emphasizes the duty to care for the elderly, the sick, and the disabled.¹⁴⁴ Solomon declared that God “will deliver the needy who cry

¹⁴⁰ *Id.* at paras. 26, 164–65, 179; Rebecca Solnit, *Are We Missing the Big Picture on Climate Change?*, N.Y. TIMES (Dec. 2, 2014), http://www.nytimes.com/2014/12/07/magazine/are-we-missing-the-big-picture-on-climate-change.html?_r=0 (discussing the quantity of waterfowl killed by the world’s largest solar thermal plant as well as bird deaths by wind farms).

¹⁴¹ Letter from Tanya Sanerib, Senior Attorney, Ctr. for Biological Diversity, to Daniel Ashe, Dir., U.S. Fish & Wildlife Serv. et al. (Aug. 5, 2015), http://www.biologicaldiversity.org/species/birds/pdfs/Streaked_horned_lark_NOI.pdf (writing to the FWS informing of an intent to sue for not listing the lark as an endangered species).

¹⁴² See *Laudato Si'*, *supra* note 7, at para. 25 (describing the effects of climate change on the poor); *id.* at para. 29 (“[T]he quality of water available to the poor” is a “particularly serious problem.”); *id.* at para. 51 (“A true ‘ecological debt’ exists, particularly between the global north and south, connected to commercial imbalances with effects on the environment, and the disproportionate use of natural resources by certain countries over long periods of time.”); *id.* at para. 52 (“The developed countries ought to help pay this debt by significantly limiting their consumption of non-renewable energy and by assisting poorer countries to support policies and programmes of sustainable development.”); *id.* at para. 90 (“We fail to see that some are mired in desperate and degrading poverty, with no way out, while others have not the faintest idea of what to do with their possessions, vainly showing off their supposed superiority and leaving behind them so much waste which, if it were the case everywhere, would destroy the planet. In practice, we continue to tolerate that some consider themselves more human than others, as if they had been born with greater rights.”); *id.* at para. 149 (“The extreme poverty experienced in areas lacking harmony, open spaces or potential for integration, can lead to incidents of brutality and to exploitation by criminal organizations. In the unstable neighbourhoods of mega-cities, the daily experience of overcrowding and social anonymity can create a sense of uprootedness which spawns antisocial behaviour and violence.”).

¹⁴³ See, e.g., Lucia A. Silecchia, *The “Preferential Option for the Poor”: An Opportunity and a Challenge for Environmental Decision-Making*, 5 U. ST. THOMAS L.J. 87, 100–08 (2008) (describing the Bible’s emphasis on supporting particularly the poor in society).

¹⁴⁴ See, e.g., *Deuteronomy* 15:10–11; *Proverbs* 14:21, 31, 19:17, 22:9, 28:27; *Matthew* 19:21; *Luke* 14:12–14, 12:33–34; *1 Timothy* 5:8.

out, the afflicted who have no one to help. He will take pity on the weak and the needy and save the needy from death.”¹⁴⁵ The writer of *Proverbs* instructed his readers to “defend the rights of the poor and needy.”¹⁴⁶

Poverty is closely associated with the experience of environmental harm.¹⁴⁷ Those who are poor are much more likely to live near polluting factories and landfills.¹⁴⁸ The poor who live in urban environments are less likely to experience the beauties and wonders of nature simply because of a lack of access. Overseas, the poorest nations are typically those that are prone to droughts or flooding, whose land cannot support crops or livestock, and who are most likely to experience the first and worst effects of climate change.¹⁴⁹

Environmental law offers some solicitude for the needs of the poor in the United States. The CAA directs the EPA to establish pollution standards according to the lesser tolerance of the most vulnerable groups: children, the elderly, those suffering from various asthmatic ailments.¹⁵⁰ The environmental threats toward the poor should be of special concern to Christians; and this concern grows as the communities near hazardous waste facilities and landfills prove to mainly be the home of minorities.¹⁵¹ In the 1990s, this environmental racism and the desire for justice became one of the leading environmental issues,¹⁵² but the law on the issue has

¹⁴⁵ *Psalms* 72:12–13.

¹⁴⁶ *Proverbs* 31:9; see also CRY JUSTICE 27–76 (Ronald J. Sider ed., 1980) (listing similar passages).

¹⁴⁷ Andrew C. Revkin, *Poor Nations to Bear Brunt as World Warms*, N.Y. TIMES (Apr. 1, 2007), <http://www.nytimes.com/2007/04/01/science/earth/01climate.html?ex=>.

¹⁴⁸ Clarence Page, *Environment Getting On Board: Many Hues Blend with Green*, L.A. TIMES (Apr. 20, 1990), http://articles.latimes.com/1990-04-20/local/me-1257_1_minority-communities.

¹⁴⁹ See, e.g., *A Bad Climate for Development*, THE ECONOMIST (Sept. 17, 2009), <http://www.economist.com/node/14447171> (examining the impact of climate change on poor countries because they are not able to cope with the change in weather, which causes flooding from rising sea levels and hurricanes); M. Alimullah Miyan, *Droughts in Asian Least Developed Countries: Vulnerability and Sustainability*, 7 WEATHER & CLIMATE EXTREMES 8, 8 (2015), http://ac.els-cdn.com/S2212094714000632/1-s2.0-S2212094714000632main.pdf?_tid=61bba0d2-609b-11e5-a206-00000aach362&acdnat=1442865798_7066da881d8a6b5b526c132cb35207fa (stating that least developed countries suffer the most from droughts and famines compared to developed countries); Revkin, *supra* note 147 (identifying the disparity of climate change impact between rich and poor countries).

¹⁵⁰ See WILLIAM H. RODGERS, JR., ENVIRONMENTAL LAW 156–58 (2d ed. 1994) (explaining that the Clean Air Act’s legislative history reveals that air quality standards are to be calculated based on the health of particularly sensitive individuals).

¹⁵¹ Robert D. Bullard & Glenn S. Johnson, *Environmental Justice: Grassroots Activism and Its Impact on Public Policy Decision Making*, 56 J. SOC. ISSUES 555, 556 (2000) (discussing studies that revealed landfills were much more likely to be near minority communities).

¹⁵² *Id.* at 556–57, 561–62.

been slower to develop than academic literature.¹⁵³ Moreover, despite the actions of neighborhood associations filing lawsuits intended to protect poor and minority communities from environmental harms, most of the lawsuits have failed.¹⁵⁴ To combat the issue federally, an executive order, issued by President William Jefferson Clinton in 1994, instructed agencies to address the disproportionate effects of their programs on minority populations.¹⁵⁵ While that order does not give rise to any rights in court, the order has been used to challenge the actions of federal agencies as a violation of NEPA.¹⁵⁶

Consider, for example, the Federal Highway Administration's (FHA) decision to build a new bridge from Detroit to Canada through the Delray neighborhood of Detroit.¹⁵⁷ The stated purpose of the bridge is to "provide safe, efficient and secure movement of people and goods across the U.S.-Canadian border in the Detroit River area to support the economies of Michigan, Ontario, Canada and the United States."¹⁵⁸ A group representing Hispanics in southwest Detroit alleged that the FHA violated environmental justice principles, NEPA, and other federal laws "by failing to give a 'hard look'" at other bridge crossings that would not have a negative impact on the Delray neighborhood.¹⁵⁹ Delray "is one of the most diverse communities in the City of Detroit," with a population almost evenly divided between African-Americans, Hispanics, and

¹⁵³ John C. Nagle, *Christianity and Environmental Law*, in CHRISTIAN PERSPECTIVES ON LEGAL THOUGHT 435, 450 (Michael W. McConnell et al. eds., 2001).

¹⁵⁴ See, e.g., *Rozar v. Mullis*, 85 F.3d 556, 558–59 (11th Cir. 1996) (rejecting equal protection and Title VI challenges to discrimination in permitting a landfill in a neighborhood where most residents were African-American). But see Bradford C. Mank, *Is There a Private Cause of Action Under EPA's Title VI Regulations?: The Need to Empower Environmental Justice Plaintiffs*, 24 COLUM. J. ENVTL. L. 1, 37–53 (1999) (discussing cases that argue an implied private cause of action to enforce the prohibition on racial discrimination in federal grant applications).

¹⁵⁵ Exec. Order No. 12,898, 59 Fed. Reg. 7629, 7629 (Feb. 16, 1994), *reprinted as amended* in 42 U.S.C. § 4321 (1995).

¹⁵⁶ See, e.g., *Coliseum Square Ass'n v. Jackson*, 465 F.3d 215, 231–33 (5th Cir. 2006) (holding that the executive order did not create a private right of action and would be reviewed with an arbitrary and capricious standard); *Sur Contra la Contaminación v. EPA*, 202 F.3d 443, 449 (1st Cir. 2000) (refusing to revoke permit on the basis that the executive order was meant for the improvement of internal management and not for the creation of legal rights).

¹⁵⁷ Environmental Impact Statement: Wayne County, MI, 73 Fed. Reg. 74,226 (Dec. 5, 2008).

¹⁵⁸ *Id.*

¹⁵⁹ *Latin Americans for Soc. & Econ. Dev. v. Adm'r of Fed. Highway Admin.*, 756 F.3d 447, 453 (6th Cir. 2014), *cert. denied sub nom. Detroit Int'l Bridge Co. v. Nadeau*, 135 S. Ct. 1411 (2015).

whites.¹⁶⁰ In an environmental impact statement (EIS) for the project prepared pursuant to NEPA, the FHA acknowledged that constructing the proposed international bridge would have a “disproportionately high and adverse effect on minority and low-income population groups,” resulting in displacements, lost jobs, changed traffic patterns, and rerouted bus lines.¹⁶¹ The transportation impacts were “particularly important because the population affected has relatively low access to an automobile.”¹⁶² Even after the project was modified to reduce its effects on the community, it would displace 257 housing units, 43 businesses, and 5 churches.¹⁶³

One of those churches was the St. Paul African Methodist Episcopal Church, built in 1928 and “the lone surviving structure associated with early African-American settlement in Delray.”¹⁶⁴ The EIS found that “[t]he hallmark of the African American community in Delray has historically been the church.”¹⁶⁵ As the church’s congregation shrank from 350 members to about 100 over two decades, its pastor observed that “[s]o many families and individuals in the community feel hopeless because of the blight, the conditions of the community. It’s a real challenge.”¹⁶⁶ He further commented that many families in the church have left Delray but they return “to worship at the church their ancestors built, because they feel a connection to the community.”¹⁶⁷ In spite of these community connections, every proposed configuration of the bridge would place the church in the middle of the project, and none of the alternatives to avoid the church were deemed practical.¹⁶⁸ Still, the pastor supported the construction of the bridge.¹⁶⁹ Community advocates called on the city to use the \$1.4 million collected from selling 301 city-owned properties for the project in Delray to clean up and improve the neighborhood.¹⁷⁰ “Some may have less money than those benefited by the bridge, some may speak a different language, some may struggle to find and keep a job, some are

¹⁶⁰ U.S. DEP’T OF TRANSP. ET AL., FINAL ENVIRONMENTAL IMPACT STATEMENT & FINAL SECTION 4(F) EVALUATION: THE DETROIT INTERNATIONAL CROSSING STUDY 3-33 (Feb. 2008), http://www.partnershipborderstudy.com/reports_us.asp#feis.

¹⁶¹ *Id.* at 3-37.

¹⁶² *Id.*

¹⁶³ *Id.* at 3-38, tbl. 3-6D.

¹⁶⁴ *Id.* at 5-11 to 5-13.

¹⁶⁵ *Id.* at 5-13.

¹⁶⁶ Pat Batcheller, *Hard-Hit Delray Still Feels Like A Community to Those Who Live Here: The Detroit Agenda*, WDET NEWS (June 9, 2014), <http://archives.wdet.org/news/story/060914-Detroit-Agenda-Delray/>.

¹⁶⁷ *Id.*

¹⁶⁸ U.S. DEP’T OF TRANSP., *supra* note 160, at 3-157, 3-158, 5-2 tbl.5-1, 5-23.

¹⁶⁹ *Id.* at 5-27.

¹⁷⁰ See Joe Guillen, *Delray wants \$1.4M from land sale to be reinvested in neighborhood*, DETROIT FREE-PRESS, Sept. 14, 2014, at A4.

sick with asthma and cancer from the pollution,” the pastor explained, “but they are citizens of the Detroit that you serve.”¹⁷¹

The environmental justice challenge to the bridge failed.¹⁷² The court noted that the FHA selected the route for the bridge “[a]fter exhaustive study and consideration of environmental justice issues.”¹⁷³ The EIS itself boasted that the public outreach to address environmental justice concerns included facilitating “[a]lmost 100 public meetings, hearings, and workshops,” sending mail to “[a]pproximately 10,000 residences and businesses,” and delivering “over a thousand fliers . . . door-to-door in Delray and along the I-75 service drive north of the freeway.”¹⁷⁴ Nonetheless, the group challenging the decision contended that the “predominantly affluent white neighborhoods west of Detroit . . . were improperly eliminated due to political pressures.”¹⁷⁵ The court, however, agreed that other site options “were not considered practical alternatives for a variety of reasons, including the presence of old mining sites, poor performance in regional mobility rankings, and significant community impacts on both sides of the river.”¹⁷⁶ Ultimately, the court emphasized that “[e]nvironmental impacts and environmental justice issues are a consideration in agency decision making, but are not controlling.”¹⁷⁷

Whether the law should take the further step of providing poor communities, such as Delray, with special protections against environmentally harmful activities presents a harder question. It may be difficult to know what is best for such communities. In Delray, doing nothing (not building the bridge) could “cause businesses and homes to be left vacant as jobs and related income are lost.”¹⁷⁸ The Bible does not contain many examples of legal commands that are inapplicable to the poor and oppressed; in fact, some passages explicitly reject such treatment. Three chapters after the Ten Commandments appear in *Exodus*, God further commands “do not show favoritism to the poor in a lawsuit.”¹⁷⁹ The consistent message of the Bible demands that laws designed to apply equally to all should be enforced without favoritism

¹⁷¹ *Id.* (quoting Rev. Jeffrey Baker).

¹⁷² *Latin Ams. for Soc. & Econ. Dev. v. Adm’r of Fed. Highway Admin.*, 756 F.3d 447, 451 (6th Cir. 2014), *cert. denied sub nom. Detroit Int’l Bridge Co. v. Nadeau*, 135 S. Ct. 1411 (2015).

¹⁷³ *Id.* at 477.

¹⁷⁴ U.S. DEP’T OF TRANSP., *supra* note 160, at 6-1.

¹⁷⁵ *Latin Americans for Soc. & Econ. Dev.*, 756 F.3d at 475-76.

¹⁷⁶ *Id.* at 476.

¹⁷⁷ *Id.* at 477.

¹⁷⁸ U.S. DEP’T OF TRANSP., *supra* note 160, at 3-221 tbl.3-31A.

¹⁷⁹ *Exodus* 23:3.

towards the wealthy and the powerful.¹⁸⁰ However, the increased frequency of environmentally-harmful landfills and industries in low income and minority communities demonstrates how the biblical command to protect the poor and the vulnerable has not been satisfied. Perhaps, then, remedial action to protect those communities from the introduction of further harms would be appropriate.¹⁸¹

The modest obligation to “address” these issues, which is contained in President Clinton’s environmental justice executive order, may offer the wisest approach at this time. The order offers a way to level the playing field when the concerns of local residents, who already confront a disproportionate share of environmental harms, are in danger of being overwhelmed by economic development; but the order’s existence recognizes that sometimes even the local residents are ambivalent.¹⁸² To forbid certain kinds of economic development in poor and minority areas would communicate to the residents of those communities that they must not place a higher value on creating more jobs than on preserving the environment. A legal regime that acknowledges each of these perspectives without prejudging any of them fits well with Christian teachings because it requires the question to be addressed while empowering the affected communities to decide how to answer it.¹⁸³

Climate change poses a special conundrum on which there is a robust debate, especially within the evangelical community,¹⁸⁴ about whether climate change or climate change law poses a greater threat to the poor.¹⁸⁵ Christian world relief organizations are on the front lines in many parts of the developing world where the effects of a changing climate are

¹⁸⁰ See, e.g., *Leviticus* 19:15; *Acts* 10:34; *James* 2:1–9.

¹⁸¹ NAT’L ENVTL. JUST. ADVISORY COUNCIL, ENSURING RISK REDUCTION IN COMMUNITIES WITH MULTIPLE STRESSORS: ENVIRONMENTAL JUSTICE AND CUMULATIVE RISKS/IMPACTS 36 (2004) (concluding remedial measures are necessary to aid pollution-burdened communities).

¹⁸² See *supra* note 155 and accompanying text.

¹⁸³ See Nora Jacobson, *Dignity and Health: A Review*, 64 SOC. SCI. & MED. 292, 293, 296–97 (2007) (describing that dignity in Christianity comes from human’s unique relationship to God and that dignity is often a foundational principle that is upheld by legal systems).

¹⁸⁴ See John Copeland Nagle, *The Evangelical Debate Over Climate Change*, 5 U. ST. THOMAS L.J. 53, 62–64, 77, 81–82 (2008) (discussing the major points in the evangelical climate change debate).

¹⁸⁵ See David Jackson, *Obama Cites Public Health in Urging Climate Change Laws*, USA TODAY (June 23, 2015, 2:28 PM), <http://www.usatoday.com/story/news/nation/2015/06/23/obama-summit-on-climate-change-and-health/29153495/> (describing Obama’s conflict with a Republican Congress over the legitimacy and effects of climate change).

exacerbating already poor environmental conditions.¹⁸⁶ The U.S. Catholic bishops have testified that “[t]he real inconvenient truth is that those who contributed least to climate change will be affected the most . . . and have the least capacity to cope or escape [and that] their lives, homes, children and work are most at risk.”¹⁸⁷

At the same time, climate change *law* can hurt the poor. Most climate change mitigation policies seek to increase the cost of energy generated from polluting sources, but that increased energy cost has a disproportionate effect on those who can least afford it.¹⁸⁸ The head of Catholic Charities in Cleveland told a congressional committee that raising the cost of energy would force the children in his city living in poverty to “suffer further loss of basic needs as their moms are forced to make choices as to whether to pay the rent or live in a shelter; pay the heating bill or see their child freeze; buy food or risk the availability of a hunger center.”¹⁸⁹ The debate over the effect of the Obama Administration’s Clean Power Plan illustrates the contested nature of climate change regulations on the poor.¹⁹⁰

The dilemma is even more acute for those in the least developed countries. The poorest parts of the world also have the most energy poverty.¹⁹¹ Many people in these countries still do not have access to

¹⁸⁶ See *Religious Leaders & Climate Change Hearing*, *supra* note 99, at 105–06 (statement of John L. Carr, Secretary, Dep’t of Social Dev. and World Peace, U.S. Conference of Catholic Bishops) (discussing the effort of the Catholic Church in this area).

¹⁸⁷ *Id.* at 103. Russell Moore, Dean of Dallas Baptist Theological Seminary, also testified asking how climate change regulations would affect “the economic development of poor countries to providing electrification, water purification, and sanitation to the world’s poor.” *Id.* at 124 (statement of Russell Moore, Dean, Dallas Baptist Theological Seminary).

¹⁸⁸ See Bjørn Lomborg, *How Green Policies Hurt the Poor*, THE SPECTATOR (Apr. 5, 2014), <http://www.spectator.co.uk/features/9176251/let-them-eat-carbon-credits/> (discussing the impact of “green taxes” and energy options on the poor).

¹⁸⁹ *Clean Power Act: Hearings on S. 556 Before the Subcomm. on Clean Air, Wetlands, and Climate Change & the Comm. on Env’t and Public Works*, 107th Cong. 758 (2002) (statement of J. Thomas Mullen, President and CEO, Catholic Charities Health and Human Services).

¹⁹⁰ Compare 161 CONG. REC. S6,213 (daily ed. Aug. 3, 2015) (statement of Sen. McConnell) (asserting that the Clean Power Plan will “likely result in higher energy bills for those who can least afford them”), with President Obama’s Remarks Announcing the Environmental Protection Agency’s Clean Power Plan, 2015 DAILY COMP. PRES. DOC. 201500546 (Aug. 3, 2015) (“Even more cynical, we’ve got critics of this plan who are actually claiming that this will harm minority and low-income communities, even though climate change hurts those Americans the most, who are the most vulnerable.”).

¹⁹¹ See Marianne Lavelle, *Five Surprising Facts About Energy Poverty*, NATIONAL GEOGRAPHIC (May 30, 2013), <http://news.nationalgeographic.com/news/energy/2013/05/130529-surprising-facts-about-energy-poverty/> (recognizing India, China, and Nigeria among nations that struggle most with energy poverty).

electricity,¹⁹² though providing access to electricity and energy is one of the Millennium Development Goals.¹⁹³ Yet the production of energy can have serious environmental consequences including, but not limited to, climate change.¹⁹⁴ Therein is the dilemma. Efforts to eliminate energy poverty by promoting the use of coal and other fossil fuels could counteract efforts to mitigate climate change, while efforts to mitigate climate change could perpetuate energy poverty by making energy too expensive for those who can least afford it.¹⁹⁵

In *Laudato Si'*, Pope Francis explains that poor countries must promote social development:

For poor countries, the priorities must be to eliminate extreme poverty and to promote the social development of their people. At the same time, they need to acknowledge the scandalous level of consumption in some privileged sectors of their population and to combat corruption more effectively. They are likewise bound to develop less polluting forms of energy production, but to do so they require the help of countries which have experienced great growth at the cost of the ongoing pollution of the planet.¹⁹⁶

The development of renewable energy can help avoid the dilemma of choosing between energy poverty and environmental harms, even though most of the world's electricity is produced from fossil fuels (especially coal).¹⁹⁷

V. ENVIRONMENTAL GOVERNANCE

Inevitably, Pope Francis addresses the solutions to the problems that he catalogs in the Encyclical.¹⁹⁸ Here, he is more cautious than in his moral claims, recognizing that “[t]here are no uniform recipes, because each country or region has its own problems and limitations.”¹⁹⁹ At several points he acknowledges the significant progress that has been made and is being made to achieve environmental improvement goals.²⁰⁰

¹⁹² *Id.*

¹⁹³ VIJAY MODI ET AL., ENERGY SERVICES FOR THE MILLENNIUM DEVELOPMENT GOALS: ACHIEVING THE MILLENNIUM DEVELOPMENT GOALS 2–4 (2005).

¹⁹⁴ *Climate Impacts on Energy*, EPA.COM, <http://www.epa.gov/climatechange/impacts-adaptation/energy.html> (last visited Sept. 15, 2015).

¹⁹⁵ See 161 CONG. REC. S6, 213–14 (daily ed. Aug. 3, 2015) (statement of Sen. McConnell) (arguing that proposed regulations will outsource energy production to countries with poor environmental records).

¹⁹⁶ *Laudato Si'*, *supra* note 7, at para. 172.

¹⁹⁷ UNITED NATIONS DEV. PROGRAMME, WORLD ENERGY ASSESSMENT: ENERGY AND THE CHALLENGE OF SUSTAINABILITY 147, 396–98 (2000).

¹⁹⁸ See, e.g., *Laudato Si'*, *supra* note 7, at paras. 202–12.

¹⁹⁹ *Id.* at para. 180.

²⁰⁰ See *id.* at para. 37 (noting the significant progress in establishing wildlife sanctuaries); *id.* at para. 55 (“Some countries are gradually making significant progress,

Overall, the Encyclical is far less powerful in its explication of the proper solutions to our environmental problems than it is in its diagnosis of those problems. This is not surprising, because Francis is much more of an expert on theology and morality than he is on jurisprudence, political science, and administrative theory. But what is surprising is the Encyclical's inconsistent anthropology when it addresses the response to environmental challenges. As I will explain below, the Encyclical presumes that we are willing and able to change our individual lifestyles, and to advocate effective regulatory restraints, even though both the historical evidence and Christian anthropology suggest otherwise.

A. Economic Structures & Economic Individuals

Francis reserves much of his greatest scorn for how the global market economy facilitates environmental harm. His criticism of cap-and-trade systems shows that he even opposes the use of the marketplace to respond to environmental harms.²⁰¹ Corporations are the villain in the Encyclical, both because they destroy the environment and because they block efforts to protect the environment.²⁰² For example, he attacks how, during the economic crisis of 2008, the world focused on "[s]aving banks at any cost, making the public pay the price," and failing to rethink "the outdated criteria which continue to rule the world."²⁰³

The structural indictment against abusive corporate environmental actions is important, but it ignores other forces and tells only part of the story. Michael Vandenberg has shown that individuals are responsible

developing more effective controls and working to combat corruption."); *id.* at para. 58 ("In some countries, there are positive examples of environmental improvement: rivers, polluted for decades, have been cleaned up; native woodlands have been restored; landscapes have been beautified thanks to environmental renewal projects; beautiful buildings have been erected; advances have been made in the production of non-polluting energy and in the improvement of public transportation. These achievements do not solve global problems, but they do show that men and women are still capable of intervening positively. For all our limitations, gestures of generosity, solidarity and care cannot but well up within us, since we were made for love.").

²⁰¹ *Id.* at para. 171 (asserting that carbon credits "can lead to a new form of speculation which would not help reduce the emission of polluting gases worldwide").

²⁰² See, e.g., *id.* at para. 38. Douglas Kysar made many of the same points when he spoke on a panel addressing the impending Encyclical. See Douglas Kysar, A Price on Carbon, Panel Address on Pope Francis and the Environment: Yale Examines Historic Climate Encyclical (Apr. 8, 2015) (transcript available at http://fore.yale.edu/files/Papal_Panel_Transcript.pdf) (blaming "economic interests that are capable of investing not only in traditional capital, but also in the capture of laws and institutions that are intended to regulate capital" for the stalemate in global climate change agreements, and suggesting that climate change "may also be our best opportunity to address underlying economic, political, and cultural diseases that give climate change its appearance of inevitability").

²⁰³ *Laudato Si'*, *supra* note 7, at para. 189.

for more environmental harms than businesses in the United States.²⁰⁴ We are all polluters. Of course, the Encyclical recognizes that individuals often make poor environmental decisions: "People may well have a growing ecological sensitivity but it has not succeeded in changing their harmful habits of consumption which, rather than decreasing, appear to be growing all the more."²⁰⁵ Overconsumption by wealthy western societies is the micro corollary to the macro role played by multinational corporations. Francis even emphasizes that it is overconsumption, not overpopulation, which deserves more blame for environmental destruction.²⁰⁶

The Encyclical offers a strange example of unnecessary consumption. "A simple example," Francis states, "is the increasing use and power of air-conditioning. The markets, which immediately benefit from sales, stimulate ever greater demand. An outsider looking at our world would be amazed at such behaviour, which at times appears self-destructive."²⁰⁷ The increased availability of air conditioning has decreased deaths resulting from heat during the summer.²⁰⁸ Heating during the winter pollutes more than cooling during the summer;²⁰⁹ yet the Encyclical faults the latter while ignoring the former.²¹⁰ Cooler temperatures increase workplace productivity²¹¹ and air conditioning has transformed previously uninhabitable regions. Some observers have pointed out the hypocrisy of the Vatican employing air conditioning to protect its archival records and to allow the Sistine Chapel to remain open to large crowds of tourists.²¹²

²⁰⁴ See Michael P. Vandenbergh, *From Smokestack to SUV: The Individual as Regulated Entity in the New Era of Environmental Law*, 57 VAND. L. REV. 515, 517–18 (2004) (arguing that an aggregation of individuals contributes greater pollution to the environment than industrial corporations).

²⁰⁵ *Laudato Si'*, *supra* note 7, at para. 55.

²⁰⁶ *Id.* at para. 50 ("To blame population growth instead of extreme and selective consumerism on the part of some, is one way of refusing to face the issues.").

²⁰⁷ *Id.* at para. 55.

²⁰⁸ Juliet Eilperin, *Study: Home Air Conditioning Cut Premature Deaths on Hot Days 80 Percent Since 1960*, WASH. POST (Dec. 22, 2012), https://www.washingtonpost.com/national/health-science/study-home-air-conditioning-cut-premature-deaths-on-hot-days-80-percent-since-1960/2012/12/22/5b57f3ac-4abf-11e2-b709-667035ff9029_story.html (noting that air conditioning has reduced the number of heat-related deaths in recent decades).

²⁰⁹ Daniel Engber, *Don't Sweat It*, SLATE (August 1, 2012, 3:44 AM), http://www.slate.com/articles/health_and_science/science/2012/08/air_conditioning_haters_it_s_not_as_bad_for_the_environment_as_heating_.html (observing that heating systems produce more pollution than air conditioners).

²¹⁰ *Laudato Si'*, *supra* note 7, at para. 55.

²¹¹ Shubhankar Chhokra, *Pope Francis is Wrong about Air Conditioning*, NAT'L REV. (June 18, 2015, 6:56 PM), <http://www.nationalreview.com/article/420011/pope-francis-wrong-about-air-conditioning-shubhankar-chhokra>.

²¹² *Id.*

Air conditioning, in short, is an odd example of an unnecessary use of energy.

The condemnation of air conditioning becomes even more peculiar when it is compared to the list of technological advances that Francis applauds. “We are the beneficiaries of two centuries of enormous waves of change: steam engines, railways, the telegraph, electricity, automobiles, aeroplanes, chemical industries, modern medicine, information technology and, more recently, the digital revolution, robotics, biotechnologies and nanotechnologies.”²¹³ Looking at that list, Francis writes that “[i]t is right to rejoice in these advances and to be excited by the immense possibilities which they continue to open up before us, for ‘science and technology are wonderful products of a God-given human creativity.’”²¹⁴ Yet he fails to offer an explanation for which advances are worthy of celebration and the advances that surrender to rampant consumerism. Indeed, perhaps the harshest criticism of the Encyclical came from Michael Shellenberger, the environmental activist who tweeted: “It is blasphemous to call our ancestors, who were trying to improve lives for their children & themselves greedy thieves.”²¹⁵ Shellenberger added that “humans appreciated nature more as consumption grew.”²¹⁶ Conversely, “Benedictine monks led the process of deforestation for agricultural expansion in 7th/8th centuries,”²¹⁷ but they did so not “out of greed but rather desire to improve lives.”²¹⁸

Francis’s opposition to the unfettered economic marketplace also overlooks the extent of current regulation. While some countries complain that environmental regulations are too strict, others contend that they are inadequate.²¹⁹ Francis recognizes those regulatory developments, but

²¹³ *Laudato Si'*, *supra* note 7, at para. 102.

²¹⁴ *Id.* (quoting John Paul II, Address to Scientists and Representatives of the United Nations University (Feb. 25, 1981) (transcript available at https://w2.vatican.va/content/john-paul-ii/en/speeches/1981/february/documents/hf_jp-ii_spe_19810225_giappone-hiroshima-scienziati-univ.html)).

²¹⁵ Mike Shellenberger (@MichaelBTI), TWITTER (June 16, 2015, 3:37 AM), <https://twitter.com/michaelbti/status/610758009149595648>.

²¹⁶ Mike Shellenberger (@MichaelBTI), TWITTER (June 16, 2015, 3:41 AM), <https://twitter.com/michaelbti/status/610758009149595648>.

²¹⁷ Mike Shellenberger (@MichaelBTI), TWITTER (June 16, 2015, 3:49 AM), <https://twitter.com/michaelbti/status/610758009149595648>.

²¹⁸ Mike Shellenberger (@MichaelBTI), TWITTER (June 18, 2015, 1:32 PM), <https://twitter.com/michaelbti/status/610758009149595648>.

²¹⁹ Compare Edward Wong, *As Pollution Worsens in China, Solutions Succumb to Infighting*, N.Y. TIMES, Mar. 22, 2013, at A8 (reporting the strict regulations in China implemented after record air pollution levels), with Matthew Daly, *EPA Tightens Limits on Oil Refineries as Agency Prepares for Fight over New Smog Standard*, ASSOCIATED PRESS (Sept. 29, 2015, 4:43 PM), <http://www.usnews.com/news/business/articles/2015/09/29/epa->

desires more progress.²²⁰ Governments are also omitted from the Encyclical's account of environmentally irresponsible actors. The only governmental entities mentioned in the Encyclical are those that fail to control environmentally harmful corporations.²²¹ The Encyclical entirely neglects the destructive role of socialist and totalitarian governments in producing their own environmental catastrophes. Much has been written about the environmental devastation wrought in the Soviet Union,²²² but Pope Francis leaves the issue unaddressed. His predecessor Pope John Paul II, a native of Poland,²²³ would not have made that mistake.²²⁴ Francis also does not say anything about China, where the government has exercised control over some of the greatest environmental disasters in human history.²²⁵ In short, there are many other structures that facilitate environmental harm besides multinational corporations.²²⁶

B. Democratic Governance

Democratic and republican government presumes that it is humble to defer to the people's values. The basic theory is simple: "Legislatures

set-to-tighten-smog-limits-as-business-gears-for-fight (covering the desire for stronger air pollution standards in the United States).

²²⁰ *Laudato Si'*, *supra* note 7, at para. 166 ("Worldwide, the ecological movement has made significant advances, thanks also to the efforts of many organizations of civil society. It is impossible here to mention them all, or to review the history of their contributions. But thanks to their efforts, environmental questions have increasingly found a place on public agendas and encouraged more far-sighted approaches. This notwithstanding, recent World Summits on the environment have not lived up to expectations because, due to lack of political will, they were unable to reach truly meaningful and effective global agreements on the environment.").

²²¹ *Id.* at paras. 174–75.

²²² See e.g., BORIS KOMAROV, *THE GEOGRAPHY OF SURVIVAL: ECOLOGY IN THE POST-SOVIET ERA* 5 (1994) (stating that almost all of the countries in the former USSR failed to protect their environments); MARIE-LOUISE LARSSON, *THE LAW OF ENVIRONMENTAL DAMAGE: LIABILITY AND REPARATION* 192–93 (1999) (reporting the Soviet Union compensation claim for an oil spill from one of its tankers in the Baltic Sea); *THE FORMER SOVIET UNION IN TRANSITION* 575 (Richard F. Kaufman & John P. Hard eds., 1993) (listing toxic pesticide contamination and water pollution among the Soviet Union's environmental challenges).

²²³ *The Life and Ministry of Saint John Paul II*, U.S. CONFERENCE OF CATHOLIC BISHOPS, <http://www.usccb.org/about/leadership/holy-see/john-paul-ii/index.cfm> (last visited Sept. 17, 2015).

²²⁴ Jozef Tischner, *A View from the Ruins*, in *A NEW WORLDLY ORDER: JOHN PAUL II AND HUMAN FREEDOM* 165, 166 (George Weigel et al. eds., 1992) (arguing that Pope John Paul II fully realized and worked to expose the devastation of Communism).

²²⁵ See Tom Phillips, *China Facing "Extremely Grave" Environmental Crisis*, *THE TELEGRAPH* (Jan. 6, 2013, 4:16 PM), <http://www.telegraph.co.uk/news/worldnews/asia/china/9783784/China-facing-extremely-grave-environmental-crisis.html> (detailing the government's role in environmental disasters such as blight, pollution, and chemical leaks).

²²⁶ See, e.g., Vandenbergh, *supra* note 204, at 517–18.

are, generally speaking, elective and accountable bodies,” explains Jeremy Waldron, and “[t]heir members are elected as legislators and they can be replaced at regular intervals if their constituents dislike what they or their political party are doing in the legislature. This gives their lawmaking a legitimacy that lawmaking by judges lacks.”²²⁷ Waldron emphasized that “legislation embodies a commitment to explicit lawmaking—a principled commitment to the idea that on the whole it is good, if law is to be made or changed, that it should be made or changed in a process publicly dedicated to that task.”²²⁸ He grounds the argument for legislation in a respect for the multiplicity of popular values that echoes the call for humility:

Different people bring different perspectives to bear on the issues under discussion and the more people there are the greater the richness and diversity of viewpoints are going to be. When the diverse perspectives are brought together in a collective decision-making process, that process will be informed by much greater informational resources than those that attend the decision-making of any single individual.²²⁹

Numerous writers champion the virtues of democracy for environmental law.²³⁰ Jedediah Purdy, for example, argues that “[t]he ultimate political challenge is to limit, together and legitimately, the scope of human appetites, so that we do not exhaust and undo the living world.”²³¹ As Purdy explains:

A democracy open to post-human encounters with the living world would be more likely to find ways to restrain its demands and stop short of exhausting the planet. The history of environmental lawmaking suggests that people are best able to change their ways when they find two things at once in nature: something to fear, a threat they must avoid, and also something to love, a quality they can admire or respect, and which they can do their best to honor. The first impulse, of fear, can be rendered in purely human-centered terms, as a matter of avoiding environmental crisis. The second impulse, of love, engages animist intuitions, and carries us toward post-humanism, which is perhaps just another name for an enriched humanism. Either impulse can stay the human hand, but the first stops it just short of being burnt or broken. The second keeps the hand poised, extended in greeting or in an offer of peace. This gesture is the beginning of collaboration, among people but also beyond us, in building our next home.²³²

²²⁷ Jeremy Waldron, *Representative Lawmaking*, 89 B.U. L. REV. 335, 335 (2009).

²²⁸ *Id.* at 339.

²²⁹ *Id.* at 343.

²³⁰ See, e.g., Douglas R. Williams, *Environmental Law and Democratic Legitimacy*, 4 DUKE ENVTL. L. & POLY F. 1, 1–2 (1994) (arguing that concerns about environmental protection should be resolved by citizens in a democratic fashion).

²³¹ JEDEDIAH PURDY, *AFTER NATURE: A POLITICS FOR THE ANTHROPOCENE* 268 (2015).

²³² *Id.* at 288.

Reliance on the democratic process to implement popular values lends popular legitimacy to environmental law. The nearly decade-long struggle to enact the Wilderness Act in 1964 illustrates the process.²³³ As John Leshy explains, “The grassroots organizing and lobbying that pushed the Act across the finish line helped forge similar efforts to protect not only landscapes, but the nation’s air and water quality and its biological resources.”²³⁴ The Wilderness Act that emerged from the congressional process was “shot through with political concessions,” but those compromises were both necessary to get the law passed and ultimately not harmful to the cause of wilderness preservation.²³⁵ Soon after Congress enacted the Wilderness Act, it moved on to enact the NEPA,²³⁶ the CAA,²³⁷ the CWA,²³⁸ the ESA,²³⁹ and other leading environmental statutes. Leshy affirms that the Wilderness Act “plowed the ground so that the seeds of these statutes could germinate.”²⁴⁰ The Wilderness Act also guaranteed the ongoing importance of popular support.²⁴¹ Originally, wilderness supporters had wanted to empower federal agencies to designate new wilderness areas, but they heeded the objections of those who demanded that only Congress have the authority to designate the areas.²⁴² Each new wilderness area now requires a concerted public campaign.²⁴³ This is why the Sierra Club’s Brock Evans proclaimed that “[t]he essence of the politics of the creation of wilderness is local—the grassroots.”²⁴⁴ He observed that new wilderness areas “can rarely be created unless there is substantial local support for it in the congressional district, or at least in the state where the area is to be

²³³ See John Copeland Nagle, *Wilderness Exceptions*, 44 ENVTL. L. 373, 375 (2014) (describing the history of the Act).

²³⁴ John D. Leshy, *Legal Wilderness: Its Past and Some Speculations on Its Future*, 44 ENVTL. L. REV. 549, 569–70 (2014).

²³⁵ *Id.* at 565.

²³⁶ National Environmental Policy Act of 1969, Pub. L. 91-190, 83 Stat. 852 (codified at 42 U.S.C. §§ 4321, 4331–4335, 4341–4347 (2012)).

²³⁷ Clean Air Act of 1970, Pub. L. No. 91-604, 81 Stat. 1676 (codified at 42 U.S.C. §§ 7401–7626 (2012)).

²³⁸ Clean Water Act of 1977, Pub. L. No. 96-148, 93 Stat. 1088 (codified as amended at 33 U.S.C. §§ 1251–1387 (2012)).

²³⁹ Endangered Species Act of 1973, Pub. L. No. 94-325, 90 Stat. 724 (codified as amended at 16 U.S.C. §§ 1531–1542 (2012)).

²⁴⁰ Leshy, *supra* note 234, at 570.

²⁴¹ See *id.* at 566 (explaining that the language of the Act allows supporters to interpret into it their own preferences).

²⁴² *Id.* at 568.

²⁴³ *Id.* at 568–69.

²⁴⁴ Brock Evans, *The Wilderness Idea as a Moving Force in American Cultural and Political History*, 16 IDAHO L. REV. 389, 400 (1980).

found.”²⁴⁵ Similarly, a study of Idaho Senator Frank Church’s efforts to establish wilderness areas praised “Church’s coalition-building, one-wilderness-at-a-time paradigm, which incorporates the best of local collaboration.”²⁴⁶ Senator Church “was fond of quoting the irascible Edward Abbey line that ‘wilderness needs no defense—only more defenders.’”²⁴⁷

For its part, the Encyclical offers a schizophrenic view of representative government. On the one hand, Pope Francis laments the choices that popular governance produces. “In response to electoral interests,” he frets that “governments are reluctant to upset the public with measures which could affect the level of consumption or create risks for foreign investment. The myopia of power politics delays the inclusion of a far-sighted environmental agenda within the overall agenda of governments.”²⁴⁸ That would appear to suggest that expert, bureaucratic officials should be entrusted with the difficult responsibility of resisting popular demands and making environmentally wise decisions. But Francis also stresses the importance of citizens controlling government decision making: “Unless citizens control political power—national, regional and municipal—it will not be possible to control damage to the environment.”²⁴⁹

Francis envisions a world in which enlightened citizens will make the necessary decisions to preserve the natural world around them. He writes, “The local population should have a special place at the table; they are concerned about their own future and that of their children, and can consider goals transcending immediate economic interest.”²⁵⁰ But what if they don’t? Francis is far too optimistic about human nature. The very notion of environmental *law* presumes that sometimes people will not do the environmentally right thing. Still, law plays a modest role in Francis’s vision of environmental issues:

One authoritative source of oversight and coordination is the law, which lays down rules for admissible conduct in the light of the common good. The limits which a healthy, mature and sovereign society must impose are those related to foresight and security, regulatory norms, timely enforcement, the elimination of corruption, effective responses to undesired side-effects of production processes, and appropriate intervention where potential or uncertain risks are involved. There is a

²⁴⁵ *Id.* at 401.

²⁴⁶ Sara Dant, *Making Wilderness Work: Frank Church and the American Wilderness Movement*, 77 PAC. HIST. REV. 237, 271 (2008).

²⁴⁷ *Id.* at 271–72.

²⁴⁸ *Laudato Si’*, *supra* note 7, at para. 178.

²⁴⁹ *Id.* at para. 179.

²⁵⁰ *Id.* at para. 183.

growing jurisprudence dealing with the reduction of pollution by business activities. But political and institutional frameworks do not exist simply to avoid bad practice, but also to promote best practice, to stimulate creativity in seeking new solutions and to encourage individual or group initiatives.²⁵¹

At another point Francis opines,

The existence of laws and regulations is insufficient in the long run to curb bad conduct, even when effective means of enforcement are present. If the laws are to bring about significant, long-lasting effects, the majority of the members of society must be adequately motivated to accept them, and personally transformed to respond. Only by cultivating sound virtues will people be able to make a selfless ecological commitment.²⁵²

The Encyclical expresses a particular affinity for local environmental laws. The claim of subsidiarity is that laws should be made by the government that is closest to the people that can successfully address the problem at hand, and one cannot get any closer to the people than their municipal representatives.²⁵³ Subsidiarity is a Catholic innovation,²⁵⁴ which makes it surprising that Francis pays relatively little attention to it in the Encyclical.²⁵⁵ Some of the first American environmental statutes heeded the subsidiary instruction.²⁵⁶ During the end of the nineteenth century and the beginning of the twentieth century, numerous municipalities enacted "smoke ordinances" designed to address the growing problem of air pollution. "Ordinances relating to the emission of smoke have been enacted in nearly every city and village," according to one court reviewing such an ordinance in 1910.²⁵⁷ Cities acted because the problem was viewed as being one of aesthetic impairment and thus uniquely local, for the worst of the smoke did not stray far from its

²⁵¹ *Id.* at para. 177.

²⁵² *Id.* at para. 211.

²⁵³ Robert K. Vischer, *Subsidiarity as a Principle of Governance: Beyond Devolution*, 35 IND. L. REV. 103, 103 (2001).

²⁵⁴ *Id.* at 108.

²⁵⁵ See *Laudato Si'*, *supra* note 7, at paras. 157, 196 (mentioning the principle of solidarity only twice, and even then with brevity, in the entire Encyclical). Much more has been said about subsidiarity in the context of environmental law, yet the Encyclical does not engage those discussions.

²⁵⁶ See e.g., Air Quality Act of 1967, Pub. L. 90-148, 81 Stat. 485 (codified as amended in scattered sections of 42 U.S.C.) ("[T]he Secretary shall encourage cooperative activities by the States and Local governments for the prevention . . . of air pollution . . ."); Clean Water Restoration Act of 1966, Pub. L. 89-753, 80 Stat. 1246 § 6(a) (codified as amended in scattered sections of 33 U.S.C.) (authorizing the Secretary to make grants to any state or municipality agency for methods of enforcement).

²⁵⁷ *City of Rochester v. Macauley-Fien Milling Co.*, 92 N.E. 641, 643 (N.Y. 1910).

sources.²⁵⁸ Eventually, though, state laws began to address air and water pollution, followed by initial federal forays into the area beginning in the 1940s, and finally leading to the federal pollution control laws that are so familiar today.²⁵⁹

The problem with local environmental laws is that local residents often prioritize their economic well-being over the environmental well-being.²⁶⁰ That, in summary, is why most environmental law in the United States is now federal, not local or even state.²⁶¹ While some municipalities may seek greater environmental protections, others may seek more relaxed rules that accommodate more economic activity, even if it is more environmentally destructive.²⁶² Some local governments champion fracking.²⁶³ Many local governments in western states chafe at federal environmental regulations that interfere with land use within their borders. For example, Kane County, Utah, may actually succeed in its effort to lift wilderness protections on some federal lands because of roads that predated the wilderness designation.²⁶⁴ Colton, California, blames the Federal ESA for stymying economic development and has championed legislation to remove the federal protection of the offending endangered fly.²⁶⁵ Alternatively, local governments may try to block projects that are promoted as environmentally beneficial. Several counties have tried to exclude wind farms because they interfere with the area's pastoral setting, notwithstanding the environmental benefits associated with renewable

²⁵⁸ See David Stradling & Peter Thorsheim, *The Smoke of Great Cities: British and American Efforts to Control Air Pollution, 1860–1914*, 4 ENVTL. HIST. 6, 8 (1999) (explaining that the absence of wind or rain permitted the smoke to accumulate, and once settled would turn everything from the flowers to bridges black).

²⁵⁹ See *supra* notes 47, 236–39 and accompanying text.

²⁶⁰ See Barry G. Rabe, *The Eclipse of Health Departments and Local Governments in American Environmental Regulation*, 9 J. PUB. HEALTH POL'Y 376, 379, 381 (1988) (explaining that local governments are more apt to protect productive industries that contribute to the economy than enforce environmental regulation that could threaten the economy's well-being).

²⁶¹ See *id.* at 376–77 (explaining that environmental regulation was run at a local and state level, but now is “dominated aggressively by federal and state ‘super’ environmental agencies”).

²⁶² See Charles Davis & Katherine Hoffer, *Federalizing Energy? Agenda Change and the Politics of Fracking*, 45 J. POL'Y SCI. 221, 223 (2012) (discussing that some states avoid federal environmental regulations in the production of gas and oil to increase their economic growth).

²⁶³ *Id.*

²⁶⁴ *Kane Cnty. v. United States*, 934 F. Supp. 2d 1344, 1347–48 (D. Utah 2013).

²⁶⁵ For a more thorough description of the saga of Colton and the Delhi Sands Flower-Loving Fly, see generally JOHN COPELAND NAGLE, *LAW'S ENVIRONMENT: HOW THE LAW SHAPES THE PLACES WE LIVE* (2010).

energy.²⁶⁶ In the desert southwest, local environmental activists are likely to oppose solar energy projects that national environmental groups support.²⁶⁷

C. Global Solutions

“Interdependence obliges us to think of one world with a common plan,” Francis urges.²⁶⁸ Thinking of the world in that way encourages him to insist that “[e]nforceable international agreements are urgently needed” and “[g]lobal regulatory norms are needed to impose obligations and prevent unacceptable actions.”²⁶⁹ The Encyclical thus adopts what can fairly be described as a Catholic view of international governance, which befits an institution that commands global authority.

But such calls for global solutions have fared poorly in the context of climate change. In June 2009, the House of Representatives passed the American Clean Energy and Security Act, whose stated purpose was “[t]o create clean energy jobs, achieve energy independence, reduce global warming pollution and transition to a clean energy economy.”²⁷⁰ And in December 2009, the world’s leaders met in Copenhagen to negotiate a new international treaty that would build on the Kyoto Protocol establishing a binding commitment for each nation to reduce its greenhouse gas emissions and contribute to programs needed to facilitate adaptation to unavoidable climate change.²⁷¹ With the rising importance of environmental issues and the gathering of so many nations, some had described the role of the Copenhagen meeting as a time when world

²⁶⁶ See, e.g., Sarah Favot, *L.A. County Supervisors to Ban Large Wind Turbines in Unincorporated Areas*, L.A. DAILY NEWS (July 14, 2015), <http://www.dailynews.com/government-and-politics/20150714/la-county-supervisors-to-ban-large-wind-turbines-in-unincorporated-areas> (stating that although generating renewable energy is important to Antelope Valley residents, residents are concerned that the wind turbines would “destroy their vistas,” and “create fugitive dust and noise” in the community).

²⁶⁷ See John Copeland Nagle, *Green Projects and Green Harms*, 27 NOTRE DAME J.L. ETHICS & PUB. POL’Y 59, 68–69 (2013) (explaining that the shiny, metallic structures used in wind farms create an undesirable industrial landscape in the community where the facilities are located).

²⁶⁸ *Laudato Si’*, *supra* note 7, at para. 164 (emphasis omitted).

²⁶⁹ *Id.* at para. 173. Francis advocates for global regulatory norms on multiple occasions. See, e.g., *id.* at paras. 54, 174.

²⁷⁰ American Clean Energy and Security Act, H.R. 2454, 111th Cong. (enacted 2009).

²⁷¹ See Framework Convention on Climate Change, Draft Decision Copenhagen Accord to Heads of State, Heads of Government, Ministers, and other heads of delegation present at the United States Climate Change Conference 2009, at 1–2, U.N. Doc. FCCC/CP/2009/L.7 (Dec. 18, 2009), <http://unfccc.int/resource/docs/2009/cop15/eng/l07.pdf> (listing the principles guiding the Copenhagen summit, including that all participants agree that “climate change is one of the greatest challenges of our time,” and that cutting global emissions is required to resolve this problem).

leaders would “decide the fate of the world.”²⁷² Despite the dramatic rhetoric, there was a real expectation that world leaders would rise to the occasion and Copenhagen became “Hopenhagen” for those who eagerly anticipated the result of the meeting there.²⁷³

It did not turn out that way. There was no binding international agreement reached at Copenhagen.²⁷⁴ In Congress, the House bill was dead-on-arrival in the Senate, and the Senate failed to approve an alternative of its own.²⁷⁵

The year 2009 feels like much more than six years ago. Both presidential candidates avoided saying much about climate change in 2012.²⁷⁶ The House has been more likely to repeal existing climate change regulations than to adopt new ones.²⁷⁷ The international community keeps looking to the future for the next realistic date for a new international agreement.²⁷⁸ We will not be seeing “the solution” to climate change any time soon.

And that’s a good thing. Not because climate change is a hoax or beyond our control—we need to respond to climate change, and the law needs to play a prominent role in that response. But the pursuit of a single, comprehensive federal statute or international treaty that is intended to solve the climate change problem is misguided. Instead, we should encourage a broad range of incremental and temporary efforts that allow us to address the discrete causes and effects of climate change and to adapt to our evolving scientific and social understandings of the problem. Such an incremental approach allows us to learn from the experience of employing novel legal tools and is less likely to result in the unintended consequences that result from much lawmaking.

²⁷² Bryan Walsh, *How Denmark Sees the World in 2012*, TIME (Aug. 4, 2008), <http://content.time.com/time/health/article/0,8599,1828874,00.html>.

²⁷³ See Daniel Bodansky, *The Copenhagen Climate Change Conference: A Postmortem*, 104 AM. J. INT’L L. 230, 230 (2010) (discussing the summit attendees expectations of passing binding international environmental regulations).

²⁷⁴ John Vidal & Allegra Stratton, *Low Targets, Goals Dropped: Copenhagen Ends in Failure*, THE GUARDIAN (Dec. 18, 2009, 7:47 PM), <http://www.theguardian.com/environment/2009/dec/18/copenhagen-deal>.

²⁷⁵ Daniel J. Weiss, *Anatomy of a Senate Climate Bill Death*, CTR. FOR AM. PROGRESS (Oct. 12, 2010), <http://science.time.com/2010/07/26/why-the-climate-bill-died/>.

²⁷⁶ John M. Broader, *Both Romney and Obama Avoid Talk of Climate Change*, N.Y. TIMES (Oct. 25, 2012), http://www.nytimes.com/2012/10/26/us/politics/climate-change-nearly-absent-in-the-campaign.html?_r=0.

²⁷⁷ STAFF OF H. COMM. ON ENERGY & COMMERCE, 112TH CONG., ON THE ANTI-ENVIRONMENT RECORD OF THE U.S. HOUSE OF REPRESENTATIVES (Comm. Print 2012).

²⁷⁸ See *The 2015 International Agreement*, EUROPEAN COMMISSION, http://ec.europa.eu/clima/policies/international/negotiations/future/index_en.htm (last visited Sept. 19, 2015) (“U.N. negotiations are under way to develop a new international climate change agreement that will cover all countries.”).

D. Permanent Solutions

Francis also presumes that environmental regulations should remain unchanged once they are adopted. He argues that “continuity is essential, because policies related to climate change and environmental protection cannot be altered with every change of government. Results take time and demand immediate outlays which may not produce tangible effects within any one government’s term.”²⁷⁹ This ignores the dynamic nature of environmental problems which demand dynamic solutions.

Environmental law shares the broader legal experience of retaining statutes that date from an altogether different era. Why should we still be governed by laws produced during the Nixon Administration, especially when those laws produce consequences unimaginable to their authors? Thomas Jefferson wrote to James Madison that “[t]he earth belongs always to the living generation.”²⁸⁰ Justice William O. Douglas extended that argument to administrative law when he advised President Franklin D. Roosevelt “over and over again that every agency he created should be abolished in ten years” because they were “likely to become a prisoner of bureaucracy and of . . . inertia.”²⁸¹ This continued reliance on statutes dating from past generations presents an additional challenge for environmental laws that rely on, and seek to respond to, changing understandings of the natural world and our effects on it.

Temporary environmental regulations are the better alternative in many instances. They are surprisingly common, flexible, and effective. And they are all about humility. Temporary laws reflect the limits of our current knowledge and the possibility of evolving environmental values. They offer an opportunity to experiment with different legal tools to determine which ones are best equipped to achieve our desired results. Finally, they are especially respectful of future generations that want to decide their own governing environmental policies.

CONCLUSION

Pope Francis deserves great credit for encouraging greater attention to the environmental challenges that we confront. His moral assertions are more powerful than his regulatory prescriptions, but the lasting legacy of the Encyclical will be the former rather than the latter. Most of all, Francis should be commended for beginning a dialogue. “I would like to

²⁷⁹ *Laudato Si'*, *supra* note 7, at para. 181.

²⁸⁰ Letter from Thomas Jefferson to James Madison (Sept. 6, 1789), in THOMAS JEFFERSON: WRITINGS 963 (1984).

²⁸¹ WILLIAM O. DOUGLAS, GO EAST, YOUNG MAN, THE EARLY YEARS: THE AUTOBIOGRAPHY OF WILLIAM O. DOUGLAS 297 (1974).

enter into dialogue with all people about our common home,”²⁸² he says at the beginning of the Encyclical, and that dialogue is already well underway.

Francis should also be applauded for his humility: “On many concrete questions, the Church has no reason to offer a definitive opinion; she knows that honest debate must be encouraged among experts, while respecting divergent views.”²⁸³ That winsome approach is far more likely to earn a respectful hearing than a papal decree of what must be done. This humble attitude is especially valuable because, as I have explained elsewhere, humility provides the best lens for understanding our current environmental debates.

The lesson of *environmental* humility is that we need to restrain ourselves in order to minimize unacceptable impacts on the environment. We do not fully understand the world in which we live, which often causes us to underappreciate its value and to underestimate our impacts on it. The tremendous value of nature—in God’s eyes, for the Christian and people of other faiths; or intrinsically, from the perspective of numerous theories of animal rights and nature—should remind us not to act as if the rest of the world does not matter. We need to cultivate “the willingness to leave places alone and to allow them to be maintained and modified by the people who live in them.”²⁸⁴ Humility tells us “not to make excessive demands of any kind upon [nature], not only those to sustain ever-increasing consumption but even those which express our ‘love’ for it.”²⁸⁵ To be environmentally humble is to live knowing both our own limits and the value of the natural world.

But the need for humility is not limited to environmental humility. The lesson of *legal* humility then is that we should not exaggerate our ability to identify and achieve our desired societal goals. We do not always know enough about a problem, its causes, and the effects of various solutions to produce the results that we seek. Even if we are able to design and implement a law that achieves our goals, that law may also produce unintended consequences that create distinct (and sometimes worse) problems than we sought to solve.²⁸⁶ Our values may conflict, which can cause unstable laws that depend on fleeting lawmaking majorities. On the

²⁸² *Laudato Si'*, *supra* note 7, at para. 3.

²⁸³ *Id.* at para. 61.

²⁸⁴ EDWARD RELPH, RATIONAL LANDSCAPES AND HUMANISTIC GEOGRAPHY 162 (1981).

²⁸⁵ Keekok Lee, *Awe and Humility: Intrinsic Value in Nature. Beyond an Earthbound Environmental Ethics*, in PHILOSOPHY AND THE NATURAL ENVIRONMENT 89, 94–95 (Robin Attfield & Andrew Belsey eds., 1994).

²⁸⁶ See, e.g., Ann Carlson, *Unintended Consequences and Environmental Policy*, LEGAL PLANET (Apr. 16, 2010), <http://legal-planet.org/2010/04/16/unintended-consequences-and-environmental-policy/> (arguing that designers of watering programs in L.A. did not anticipate catastrophic results of the initiative).

other hand, sometimes we are able to employ the law to do exactly what we hoped. Legal humility reminds us to be alert for the possibility of either result.

Humility thus offers seemingly contradictory lessons for environmental law. Humility toward the *environment* emphasizes the need for restraint and for care given our lack of knowledge about the environmental impacts of our action. Humility toward the *law* cautions against exaggerated understandings of our ability to create and implement legal tools that will achieve our intended results. Taken together, these two understandings of humility can ensure that we are equally careful in how we approach both the effects of our actions on the natural environment and the effects of our laws.

Finally, the Encyclical does not say enough about God. That may be an odd claim about a papal encyclical, and it may reflect my own reformed Protestant perspective, but the parts of the Encyclical addressed to Christians fail to prioritize the overriding idea that God is at work in the world. Instead, the Encyclical sometimes sounds far too optimistic about our ability to do the right thing of our own accord: "Human beings . . . are also capable of rising above themselves, choosing again what is good, and making a new start, despite their mental and social conditioning. We are able to take an honest look at ourselves, to acknowledge our deep dissatisfaction, and to embark on new paths to authentic freedom."²⁸⁷ But the Christian message questions our ability to do all of those good things left to our own devices. Francis hints toward this when he writes that "what they all need is an 'ecological conversion,' whereby the effects of their encounter with Jesus Christ become evident in their relationship with the world around them."²⁸⁸ More powerfully still, Francis writes:

A spirituality which forgets God as all-powerful and Creator is not acceptable. That is how we end up worshipping earthly powers, or ourselves usurping the place of God, even to the point of claiming an unlimited right to trample his creation underfoot. The best way to restore men and women to their rightful place, putting an end to their claim to absolute dominion over the earth, is to speak once more of the figure of a Father who creates and who alone owns the world.²⁸⁹

Fittingly, the Encyclical ends with two prayers. The first, "[a] prayer for our earth," encourages us to ask God "that we may sow beauty, not pollution and destruction."²⁹⁰ The second, "[a] Christian prayer in union with creation," beseeches God "for the coming of your Kingdom of justice,

²⁸⁷ *Laudato Si'*, *supra* note 7, at para. 205.

²⁸⁸ *Id.* at para. 217.

²⁸⁹ *Id.* at para. 75.

²⁹⁰ *Id.* at para. 246.

peace, love and beauty.”²⁹¹ It is God, after all, who created this world and who promises to redeem it—that is why the Encyclical concludes: “Praise be to you!”²⁹²

²⁹¹ *Id.*

²⁹² *Id.*

