

Article



# Planetary Moral Economy and Creaturely Redemption in Laudato Si'

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#### **Abstract**

In Laudato Si', Pope Francis indicates that climate change, and other kinds of ecological destruction, are moral wrongs because they deny the fruits of the earth to the poor and to future generations, and they fail to honor the place of other creatures in Christ's redemption of creation. LS sets climate change and the environmental crisis firmly in the context of two established features of Catholic social teaching: the dignity of poor and indigenous people and the intrinsic value of creatures to the Creator and their inclusion in the redemption of all things in Christ.

#### **Keywords**

climate change, distributive justice, economy, ecological debt, environmental governmentality, markets, the poor, poverty, redemption

he first encyclical on the environment, *Laudato Si': On Care for Our Common Home*, was greeted warmly by many Catholics and Christians around the world, and by environmental philosophers, political leaders, and scientists. Pope Francis's intervention in the global conversation on climate change, and the ecological crisis more broadly, was said to be prophetic and timely, published as it was

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Pope Francis, Laudato Si': On Care For Our Common Home (May 24, 2015) (hereafter cited in text as LS), http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco 20150524 enciclica-laudato-si.html.

just six months before the conference in Paris at which a new global agreement on limiting greenhouse gas emissions was negotiated in December 2015.<sup>2</sup> It was argued the encyclical had the potential to enhance global commitment to concerted action on climate change, and on environmental problems more broadly, given the influence of papal teaching among more than one billion Catholics around the world. But the encyclical also drew much criticism, especially in the United States: critics argued that Pope Francis had strayed into areas that are not part of the expertise of the Church, and in particular the economics of climate change. Jeb Bush, Republican governor of Florida, commented, "I don't get economic policy from my bishops or my cardinals or my Pope."<sup>3</sup>

In this essay I will argue that in LS Francis introduces two developments into Catholic social teaching which significantly revise the account of human duties towards the divine creation as enunciated in the Catholic catechism and elsewhere in the magisterium. In LS Francis describes the human response to the "ecological crisis" and the protection of "our common home" from climate change as creating new moral duties for rich people to restrain their consumption in order to preserve the law-like functions and stability of ecosystems and of the earth's climate. These duties arise first and foremost from a virtue ethics perspective consistent with traditional Catholic moral theology since Thomas Aguinas. For Francis, how humans treat the nonhuman world, including indirectly through their consumption behaviors, is indicative of their moral virtue and the moral and spiritual quality of their relationships with God and other persons. Greed and excessive consumption are human vices that reflect spiritual poverty. And they are moral wrongs because the earth is not humanity's private property but ultimately belongs to God, and was created by God for the good of all peoples, and creatures. Excess consumption, and forms of production that neglect the law-like nature of ecosystems, are morally wrong because they destroy ecological habitats, and in so doing they destroy the homes and livelihoods of poor and indigenous peoples. This is because, unlike the rich, the poor who, the Pope indicates, primarily reside in the global South, are still primarily dependent for their livelihood on land, plants, rainwater, and sunlight to grow food in

See for example Marcia MacNutt, "The Beyond-Two-Degree Inferno," Science 349 (2015) 7243, doi:10.1126/science.aac8698; "Editorial: Hope from the Pope," Nature 522 (2015) 391, doi:10.1038/522391a; Holmes Rolston, "An Ecological Pope Challenges the Anthropocene Epoch," in For Our Common Home: Process—Relational Responses to Laudato Si', ed. John B. Cobb, Jr. and Ignacio Castuera (Anoka, MN: Process Century, 2015) 52–57; Joseph DiMento, "Laudato Si'," in Environment: Science and Policy for Sustainable Development 57 (2015) 9–11, doi:10.1080/00139157.2015.1089136; John Nagle, "Pope Francis, Environmental Anthropologist," Regent University Law Review 28 (2016), http://scholarship.law.nd.edu/law\_faculty\_scholarship/1227/.

<sup>3.</sup> JebBush quoted in James Conca, "Pope Francis Talks Climate Change, Shocks Conservatives," *Forbes*, June 18, 2015, http://www.forbes.com/sites/jamesconca/2015/06/18/pope-francis-talks-climate-change-shocks-conservatives/; Samuel Gregg, "*Laudato Si*": Well Intentioned, Economically Flawed," *Policy: A Journal of Public Policy and Ideas* 31 (2015), http://search.informit.com.au/documentSummary;dn=545353933200729;res=IELHSS.

their local environment. Droughts or floods caused by climate change, and other kinds of humanly created environmental change, deprive poor and indigenous people of their ability to provide for their own families. Overuse of the environment by wealthier nations, corporations, and individuals has social and ecological costs for others who are thereby deprived of safe and secure use of their own environments.

The second development concerns the moral and salvific status of nonhuman creatures and the "common home" of the planet as a whole. The long-standing position of most Christian theologians is that only human beings have an ultimate place in the divine plan of redemption. The *Catechism* declares that "animals are by nature destined for the common good of past, present, and future humanity." They are not included in the *Catechism*'s account of the "redemption wrought by Christ" which is for all the "human race" (*LS* 360). Francis argues that all creatures, and not only persons, have "intrinsic value" (*LS* 140), and that all creatures are redirected by the Christ events toward the "end of time" when "the Son will deliver all things to the Father," and thus "the risen one is mysteriously holding them to himself and directing them towards fullness as their end" (*LS* 100). The implication is that creatures, and not only persons, have a role in the future consummation of all things and this salvific status of creatures is the appropriate way for Catholics to honor the worth of animals and plants, rivers and forests, oceans and the atmosphere. These are not only valuable for their instrumental uses to humans.

Laudato Si' is addressed not only to Catholics but to all people of good will, and to "every person living on this planet." This highly inclusive mode of address raises important questions about the status of faith-based ethical and political claims in the modern public square. These questions have particular significance given the growing attention being paid to the interactions of religious faith with public and political responses to climate change science, and with political economy more broadly. As Bill Cavanaugh argues, the invocation by the pope of religious language in discussing putatively secular concerns, such as the economy, indicates a notable feature of this new papal voice. It represents a rejection of the post-Vatican II narrative of secularization, in which the church had assumed, along with social scientists, that the social-shaping role of religious discourses and practices was on the wane in the late twentieth century. Instead Francis is in agreement with a growing number of scholars, as well as his predecessor Benedict XVI, in arguing, against the conventional secularization thesis, that belief and religion remain significant influences on public, political, and

Catechism of the Catholic Church 2415, http://www.vatican.va/archive/ENG0015/\_\_P8B. HTM.

<sup>5.</sup> There is evidence for example that fundamentalists—both Christian and Muslim—disbelieve climate science because climate science assumes that life on earth is billions rather than thousands of years old. David Morrison, "Science Denialism: Evolution and Climate Change," *Reports of the National Center for Science Education* 31 (2011), http://reports.ncse.com/index.php/rncse/article/view/71.

William T. Cavanaugh, "Return of the Golden Calf: Economy, Idolatry, and Secularization since *Gaudium et Spes*," *Theological Studies* 76 (2015) 698–717, doi:10.1177/0040563915605254.

social life in the twenty-first century.<sup>7</sup> The gravest danger to what Francis, with Benedict, calls our "common home" arises from the fact that secular technological and economic power over the planet have grown immensely in the last hundred years without a correlative growth in moral and spiritual responsibility. On the contrary, technologically driven consumption has fostered moral and spiritual neglect of the purpose of God's creation, which is to provide a common home for all people, and species, and not only to provide resources to sustain the lifestyles of wealthy humans.

# Pope Francis and the Planetary Moral Economy

Pope Francis is not a futurologist. For him it is not necessary to look into a computer model to estimate the damaging costs to future generations of ongoing fossil-fueled economic growth without regard for terrestrial limits. Instead he quotes the New Zealand Catholic Bishops conference when they connect the commandment "thou shalt not kill" with the observation that "twenty percent of the world's population consumes resources at a rate that robs the poor nations and future generations of what they need to survive" (LS 95). For Francis, the clearest sign that "our common home is falling into serious disrepair" and is already "reaching a breaking point" (LS 61) is the contemporary migration crisis which is characterized by a "tragic rise in the number of migrants" fleeing "growing poverty caused by environmental degradation" (LS 25). Francis's Italian ancestors were immigrants to Argentina, and he acknowledged the plight of refugees as a central concern of his papacy when he made his first pastoral visit as pope to the tiny Italian Island of Lampedusa off the coast of Tunisia: tens of thousands of refugees annually transit in small barks from the nearby coast of North Africa to Lampedusa. Francis threw a floral wreath into the sea as a sign of mourning for the refugees who had drowned in the Mediterranean, and held a Mass, using the symbolism of an upturned boat as an altar, with inhabitants and refugees on the island.8

The United Nations High Commission for Refugees recognizes that environmental damage, especially from climate change-related extreme weather events, is now the leading cause of human migration, giving rise to an average of 26 million displaced persons per year since 2008, with the great majority from least developed countries. The Syrian Civil War, the largest single source of migrants in 2012–16, was provoked by a serious and long-standing drought which led to internal migration. This exacerbated existing social tensions in Syrian cities, and it led to conflict over water sources and licenses to drill wells for water for crop irrigation in farming communities. <sup>10</sup>

Jose Casanova, Public Religions in the Modern World (Chicago: Chicago University, 1994).

 <sup>&</sup>quot;Pope Francis visits Italy's migrant island of Lampedusa," BBC News, July 8, 2013, http://www.bbc.co.uk/news/world-europe-23224010.

<sup>9.</sup> UN Human Rights Commission, *UNHRC*, *The Environment and Climate Change* (Geneva: UNHRC, 2015), http://www.unhcr.org/540854f49.pdf.

<sup>10.</sup> Colin P. Kelleya et al., "Climate Change in the Fertile Crescent and Implications of the Recent Syrian Drought," *Proceedings of the National Academy of Sciences* 112 (2015) 3241–3246, doi:10.1073/pnas.1421533112.

Francis observes that international conventions on refugees do not recognize environmental damage and disasters as legitimate causes of being a refugee, and hence environmentally displaced persons have no legal protection: there is instead "widespread indifference to such suffering" and this reflects the "loss of that sense of responsibility for our fellow men and women upon which all civil society is founded" (*LS* 25). This loss of responsibility is particularly evident among those who "possess more resources and economic and political power" when they refuse to reduce the "negative impacts of climate change," preferring to mask the symptoms and "continue with current models of production and consumption" (*LS* 26).

For Francis the indifference of the powerful and wealthy to the human suffering environmental damage causes is not merely a political failing but reflects instead "a spirituality which forgets God as all-powerful and Creator" and that idolatrously worships "earthly powers" (LS 75). This underwrites the mistaken belief that humans have "absolute dominion over the earth" and so can "impose their own laws and interests on reality" (LS 75). For Francis the path of ecological restoration is first a spiritual one, and requires that people learn "to speak once more of the figure of a Father who creates and alone owns the world" (LS. 75). Only then will people recall that "the earth is essentially a shared inheritance whose fruits are meant to benefit everyone" (LS 93). When the "universal destination of goods" is acknowledged it becomes clear that "every ecological approach needs to incorporate a social perspective which takes into account the fundamental rights of the poor and the underprivileged" and subordinates "private property to the universal designation of goods" and "the right of everyone to their use": a "golden rule of social conduct" founded on the Christian tradition which has "never recognised private property as absolute or inviolable" (LS 93).

Francis refutes the modern secularizing division between economics and ethics, civility and spirituality, manufacture and virtue, that "ruthless capitalism" and vacuous consumerism promote. This strong critique highlights a deep ambiguity. *Laudato Si'* is addressed to all people of good will. But Francis argues that collective failure to restrain ecological damage is explained by moral indifference to the suffering of the poor and other creatures, which is rooted in the *spiritual* disease of idolatry, and the related refusal to honor God's purposes in creation. This means that the division between economics and spirituality, adopted not only by secular liberals but by many Christians, including Catholics, must also be refused. As Cavanaugh also argues, in designating the economic sphere as one which is characterized by false worship, or idolatry, Francis refuses to accept that there is a secular economy which is independent

<sup>11.</sup> See the earlier published views on the economy in Jorge Bergoglio and Abraham Skorka, On Heaven and Earth: Pope Francis on Faith, Family, and the Church in the Twenty-First Century, trans. Alejandro Bermudez and Howard Goodman (London: Bloomsbury, 2013). For a fuller discussion of the conflict between the guiding assumptions of economic liberalism and the need to mitigate human pollution of the atmosphere, see Michael S. Northcott, "Climate Economics," chap. 4, in A Moral Climate: The Ethics of Global Warming (Maryknoll, NY: Orbis, 2007).

of the spiritual, or a spiritual sphere set apart from ethics and politics. 12 Here Francis is closest to his immediate predecessor Benedict XVI who not only coined the term "common home" for creation, but also argued that promotion of a damaging sort of "superdevelopment"—manifested in ecological destruction, wasteful consumerism, and growing inequalities between rich and poor—is a consequence of "practical atheism." 13 For Benedict, there is a growing misrecognition in Europe and America that the inherited forms of Western civility and ethics-including the rule of law, the practices of universal healthcare and education, and the protection of the weak-emanate from Christian charity, "which is at the heart of the Church's social doctrine" (CV 1). Human society ought to be ordered towards an "economy of charity" which is "the personal yet public dimension of faith in the God of the Bible, who is both Agape and Logos: Charity and Truth" (CV 2). Without recognizing the grounding of the human in the underlying divine ontology of love, there is a constant risk that human development, and the global environment, become merely subject to technical forces and the "real economy" is characterized by "badly managed speculative financial dealing," "the unregulated exploitation of the earth's resources," and "large-scale migration of peoples" (CV 21).

Francis's criticism of contemporary economic governance as a form of false religion underwrites his criticism of the marketization of raw materials and environmental goods, such as clean water and air, as theft by the rich from the poor of their fundamental rights to derive a living from the fruits of the earth. Francis singles out for criticism the privatization of water which denies that "access to safe drinking water is a basic and universal human right, since it is essential to human survival" (*LS* 30). Francis is critical of global markets in raw materials primarily for use in the industrialized North which cause harm in the South, including, for example, "mercury pollution in gold mining, or sulphur dioxide pollution in copper mining," and he is critical of the dumping of toxic wastes in developing countries (*LS* 51). He argues that the appropriation of the space of the atmosphere by pollution from "huge consumption on the part of some rich countries has repercussions on the poorest areas of the world, especially Africa, where a rise in temperature, together with drought, has proved devastating for farming," and notes that these problems are associated with differential standards by multinational companies between their operations in developed and developing countries.

<sup>12.</sup> Cavanaugh, "Return of the Golden Calf." Criticism of economic forms of governance as false religion or idolatry is a feature of Latin American liberation theology and clearly an influence on Laudato Si'; see for example Argentinian theologian Enrique Dussell, A History of the Church in Latin America: Colonialism to Liberation (1492–1979), trans. A. Neely (Grand Rapids, MI: Eerdmans, 1981) 8; Franz Josef Hinkelammert, The Ideological Weapons of Death: A Theological Critique of Capitalism, trans. Philip Berryman (Maryknoll, NY: Orbis, 1986). Critique of contemporary economic materialism as idolatry is also a feature of Catholic Bishops conference reports in the Americas: see for example United States Catholic Bishops, Economic Justice for All: Pastoral Letter on Catholic Social Teaching and the U.S. Economy (November 1986), http://www.usccb.org/upload/economic justice for all.pdf.

<sup>13.</sup> Pope Benedict XVI, *Caritas in Veritate* (June 29, 2009) 22, 29 (hereafter cited in text as *CV*), http://w2.vatican.va/content/benedict-xvi/en/encyclicals/documents/hf\_ben-xvi\_enc 20090629 caritas-in-veritate.html.

These observations lead to the argument that there is an "ecological debt" owed to developing nations by developed nations which is analogous to the foreign monetary debts which developed countries use to control the developing nations. This ecological debt arises from the fact that, despite the end of colonialism,

the developing countries, where the most important reserves of the biosphere are found, continue to fuel the development of richer countries at the cost of their own present and future. The land of the southern poor is rich and mostly unpolluted, yet access to ownership of goods and resources for meeting vital needs is inhibited by a system of commercial relations and ownership which is structurally perverse. 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 programs of sustainable development. (LS 52)

Francis therefore lends papal authority to the claim of the United Nations Framework Convention on Climate Change that there are differentiated responsibilities for climate change, and its mitigation, between developed and developing countries. This is because the former, as the Bolivian bishops also state, "have benefited from a high degree of industrialization at the cost of enormous emissions of greenhouse gases" and hence they "have a greater responsibility for providing solutions to the problems they have caused" (*LS* 170).

Francis's observations on the differential responsibilities of rich nations also extend to comments on rich individuals, and here he is wiser than the rather blunt instrument of the UNFCCC. Francis here also resists the dependency theory adopted by liberation theologians when they argued that the advancement of the peoples of the developing world was restrained by the economic and political domination of the developed world. Francis notes that rich, high-carbon-emitting individuals now dwell in developing as well as developed countries. French economists Chancel and Pickety have added detail to this picture in a global study that reveals that 45 percent of global greenhouse gas emissions emanate from the actions and consumption of just 10 percent of wealthy individuals, one third of whom live in "emerging" or less developed countries.<sup>14</sup> Fifty percent of individuals in the world contribute collectively just 13 percent to greenhouse gas emissions. It is no longer sufficient to divide the nations into two groups: heavy and light emitters. There are so-called "High Net Worth Individuals" whose multiple properties, vehicles, investments, stocks, luxury consumption, and air travel make massively disproportionate contributions to global pollution and habitat destruction; whether these are confined to the symbolic "one percent" of the Occupy Movement is a moot point, but they are certainly no longer confined to the capitals of Europe and North America. If the resources of these individuals are factored in to the resources of developing countries, these countries do have resources that could be devoted to the development of non-fossil fuel energy, especially solar energy (LS 172).

<sup>14.</sup> Lucas Chancel and Thomas Picketty, Carbon Inequality: From Kyoto To Paris; Trends in the Global Inequality of Carbon Emissions (1998–2013) & Prospects for an Equitable Adaptation Fund (Paris: Ecole D'Economie de Paris, 2015), http://piketty.pse.ens.fr/files/ChancelPiketty2015.pdf.

Francis notes that instead of legally restraining excess and wasteful consumption—including greenhouse gas pollution—by the wealthy, the international regulation of climate change has relied on market mechanisms, such as markets in "carbon credits," which have not reduced emissions but have created a "new form of speculation" (*LS* 171). Francis rejects markets as the preferred neoliberal form of climate and ecological governance when he criticizes the "magical conception of the market" according to which environmental problems can be "solved simply by an increase in the profits of companies and individuals" (*LS* 190).

Francis clearly attempts in *Laudato Si'* to set Catholic social teaching against the influential ecological modernization argument that continuous economic growth can be sustained globally, provided markets include potential ecological scarcities, such as atmospheric space for greenhouse gas emissions, in pricing mechanisms.<sup>15</sup> This approach was influentially reflected in the advocacy by the United States during the negotiations that led to the Kyoto Protocol that it is more "efficient" for investments in low-carbon technologies to be made in the developing world, and to then be used as offsets for continued fossil-fueled production and consumption in the developed world, than it is to restrain growth, and install low-carbon technologies in the developed world.<sup>16</sup> Francis is not alone in rejecting carbon-emissions trading as a solution to climate change.<sup>17</sup> But it is remarkable to see a pope intervening at this level of detail in climate economics, and he has been particularly criticized for this.<sup>18</sup> Given the continuing failure of carbon-emissions trading to restrain global emissions, and the enormous amount of money and of human ingenuity devoted to this form of governmentality, it is reasonable for the pope to intervene in this way.<sup>19</sup>

For an early account of ecological modernization theory see Maarten A. Hajer, *The Politics of Environmental Discourse: Ecological Modernisation and the Policy Process* (Oxford: Clarendon, 1995).

A. Denny Ellerman and Barbara K. Buchner, "The European Union Emissions Trading Scheme: Origins, Allocation, and Early Results," *Review of Environmental Economics and Policy* 1 (2007) 66–87, doi:10.1093/reep/rem003.

See for example William H. Schlesinger, "Carbon Trading," *Science* 314 (2006) 1217, doi:10.1126/science.1137177; Michael S. Northcott, "The Concealments of Carbon Markets and the Publicity of Love in a Time of Climate Change," *International Journal of Public Theology* 4 (2010) 294–313, doi:10.1163/156973210x510866.

<sup>18.</sup> William D. Nordhaus, "The Pope and the Market," review of *Laudato Si: On Care for Our Common Home*, by Pope Francis, *New York Review of Books*, October 8, 2015, http://www.nybooks.com/articles/2015/10/08/pope-and-market/.

<sup>19.</sup> The term governmentality originates in Michel Foucault's lectures at the College de France, 1977–78, in which he argued that the modern state originated in the post-Reformation Christian pastorate and the "government of souls": hence the primary task of the modern state has turned from the "old ethical-juridical function," and the exercise of sovereignty within a defined territory, into the regulation of human activities such as growing food and building houses, and the disciplining of citizens; hence government becomes less a matter of ethical judgment and political deliberation, and more of regulating the psychological "mentality" and practices of the individual self. Michel Foucault, Security, Territory,

Laudato Si' does not, however, dismiss what Foucault calls the "government of self," and this is hardly surprising since, as Foucault argues, the modern neoliberal preference for the interior "government of self" over public ethical judgment and lawful regulation by sovereign power originates in the Christian pastorate and what Gregory of Nazianzus called the oikonomia psychōn—the "economy of souls." <sup>20</sup> Francis calls in Laudato Si' for the virtues of temperance and justice by individuals in their consumption behaviors in order to conserve the threatened biodiversity of the earth, as well as a stable climate, for present and future generations. Francis observes, with Romano Guardini, that contemporary humans acquired greatly increased powers, through science and technology, in their interactions with each other and with nature. But these increased powers have "not been accompanied by a development in human responsibility, values and conscience," but instead an ideology of technological progress as necessity directs these new powers towards the goals of utility and security (LS 105). The market underwrites the poverty of theses goals because it promotes "compulsive consumerism," which underwrites the mass conformity of individuals to the "techno-economic paradigm" (LS 203). The illusion of freedom is sustained by the idea of freedom as consumer choice, but in reality "those really free are the minority who wield economic and financial power" (LS 203). The outcome is "collective selfishness" underwritten by greed and the emptiness of people's hearts. This leads to the refusal that "there are limits imposed by reality" and the disappearance of the horizon of the common good (LS 204). Ultimately this will lead not only to more extreme weather but to catastrophic social unrest (LS 204), a statement which, given the more than one million refugees who turned up on the borders of Europe just a few months after this was published, already looks quite prophetic. For Francis there is a need for individuals and businesses to respond to divine grace, and to the signs of the times, and voluntarily to change their lifestyles, reduce their environmental footprint, and demonstrate "a new ecological sensitivity" while cultivating sound virtues and using heating or air conditioning less, buying less stuff, and using plastic, paper, water, electricity, and cars much less: "there is a nobility in the duty to care for creation through little daily actions" and it is wrong "to think that these efforts are not going to change the world" (LS 211).

Francis's program for ecological reform of capitalism and consumerism is not, however, confined to appeals to individual consciences, moral and ecological education, and lifestyle change. He also calls many times in *Laudato Si'* for lawful restraint, redirection, and transformation of the collective organization of human work and creativity by businesses, and especially larger and more powerful businesses in order to reduce inequality, as well as ecological harms from business activities:

Population: Lectures at the College de France 1977–1978, ed. Michel Senellart, trans. G. Burchell (New York: Palgrave Macmillan, 2007). Foucault's analysis finds an echo in Oliver O'Donovan's restatement of the authority of government as residing in the function of ethical judgement—rewarding the just and punishing the evil—in his *The Ways of Judgment: The Bampton Lectures 2003* (Grand Rapids, MI: Eerdmans, 2005).

<sup>20.</sup> Foucault, Security, Territory, Population 196.

Civil authorities have the right and duty to adopt clear and firm measures in support of small producers and differentiated production. To ensure economic freedom from which all can effectively benefit, restraints occasionally have to be imposed on those possessing greater resources and financial power. To claim economic freedom while real conditions bar many people from actual access to it, and while possibilities for employment continue to shrink, is to practice a doublespeak which brings politics into disrepute. Business is a noble vocation, directed to producing wealth and improving our world. It can be a fruitful source of prosperity for the areas in which it operates, especially if it sees the creation of jobs as an essential part of its service to the common good. (LS 130)

In emphasizing the legitimate role of law in addressing species loss, habitat destruction, and atmospheric and water pollution, Francis underwrites the role of government as lawful authority, exercising the traditional juridico-ethical function of government which neoliberal governmentality has tended to suppress. Instead of market mechanisms, "global regulatory norms" are required which, while respecting national sovereignty, also acknowledge that the cause of disasters in one region may be failure to restrain "powerful companies or countries" who continue to pollute the atmosphere without regard for climate change, or even actively dump contaminated waste or polluting industries in other countries (*LS* 173).

Francis resists pricing environmental damages internationally as the main device for addressing environmental problems because he argues this will discriminate against poorer countries, and poorer individuals (LS 170). Yet it is the poor who suffer the most from extreme weather events and other damages caused by climate change. If the most effective means economists and politicians have at their disposal to reduce damages from future climate change is environmental taxation, and more especially energy taxation, according to its social cost—as many economists, business people, and scientists now argue—then it would seem prudent to endorse this approach, while also underlining that poorer nations and households should be compensated for the resultant higher prices in energy.<sup>21</sup> The significance of this last point should not be underestimated, however. It is notable that the Paris Accord creates in admittedly veiled language of its preamble an equation between the costs to poorer nations and poorer people of extreme climate change—which costs many regions are already experiencing, as Francis notes in Laudato Si'—and the costs to developed nations which have an in-built long-term dependency on fossil fuels.<sup>22</sup> United States economists have long pushed back against international treaties which impose costs on

<sup>21.</sup> It is reasonable to argue that environmental taxes are closer to the biblical tithe than taxation of income and enterprise, since environmental taxes tax the possession and gain from such possession of the earth itself: tithes were paid on the usufruct of the land in the Old Testament because the land was sacred: see further the discussion of land taxation in Michael S. Northcott, *The Environment and Christian Ethics* (Cambridge: Cambridge University, 1996) 288–90.

<sup>22.</sup> United Nations Framework Convention on Climate Change (FCCC), Agenda item 4(b), "Adoption of the Paris Agreement," December 12, 2015, http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf.

historic climate polluters, arguing that advantages gained from historic pollution of the climate are offset by greater costs of reducing fossil fuel dependency in developed nations. That this equation now appears in the language of the Paris Accord is a notable achievement of US climate diplomacy. The lack of recognition of historic pollution, or what the pope calls "ecological debt," is central to the Paris Accord, and the associated roster of Intended National Determined Contributions. It is strongly criticized in a review by civil society groups, including Christian Aid and Oxfam, which note the failure of the rich nations to contribute resources commensurate with the damage their historic emissions are doing to the global climate.<sup>23</sup>

Laudato Si' criticizes the refusal of developed countries to contribute their fair share of the costs of mitigation and adaptation in relation to their cumulative climate-damaging emissions. Laudato Si' argues for the recognition of moral and ecological interconnections between peoples on the home planet that modern forms of global economic exchange have created. Since the global North has enriched itself at the cost of the global South, Laudato Si' argues it is incumbent on the North to make charitable financial transfers to the South. Some will argue that in calling for international charity between rich and poor peoples to redress historic and ongoing imbalances in access to the earth's resources, Francis unjustifiably multiplies traditionally recognized Christian moral duties. But it was in the New Testament that the apostle Paul made the first appeal in human history for international aid, between wealthy Gentile Christians at Corinth and poor and persecuted Jewish Christians experiencing famine in Judea (2 Cor 5). In a similar vein, Francis in *Laudato Si'* calls on those who have polluted much, and over many decades or even centuries, to provide support to those who have polluted least but are already bearing much of the cost of humanly induced climate change. Francis is calling for recognition that in a technologically enabled global economy in which the wealthy consume goods and resources harvested or made in other peoples' lands at the cost of despoiling their environments, Christians, and all people, should recognize that this is a situation which invokes the traditional understanding of Christian neighbor-love. If the global economy is also to be a moral economy, then peoples whose lives are connected by trade and technology should recognize that they are now living in the same moral neighborhood. Just as the Samaritan rescued the man who was caught among thieves on the road from Jerusalem to Jericho that they all were using, so Christians, and all people of good will, should seek to restrain such harms in the future, and to help those who are still suffering from them in the present.

# Pope Francis and Thomas Aquinas on the Redemption of Creatures

A second major theme from *Laudato Si'* which makes a distinctive contribution to Catholic social teaching concerns the intrinsic value of other life to God as creator

<sup>23.</sup> Climate Equity Reference Project and Stockholm Environment Institute, *Fair Shares: A Civil Society Equity Review of INDCS* (November 2015), http://civilsocietyreview.org/wp-content/uploads/2015/11/CSO FullReport.pdf.

and redeemer of all things. Francis notes that the Genesis account of creation depicts human life as "grounded in three fundamental and closely intertwined relationships: with God, with our neighbor and with the earth itself" (LS 66). The "original harmony" of these relationships was broken by the "rupture of sin," whose essence is "our presuming to take the place of God and refusing to acknowledge our creaturely limitations" (LS 66). Sin "distorted our mandate to 'have dominion' over the earth (cf. Gen 1:28), to 'till it and keep it' (Gen 2:15)." The resultant conflict between humanity and nature has been deepened by a misreading of Scripture in which Christians have at times misinterpreted the dominion mandate as encouraging "unbridled exploitation of nature" and "absolute domination over other creatures." Against this view Francis underlines the Christian belief that "the earth was here before us and it has been given to us" and humans therefore should "receive the earth as gift from God." This also means that there exists a "mutual responsibility between human beings and nature" and that "each community can take from the bounty of the earth whatever it needs for subsistence, but it also has the duty to protect the earth and to ensure its fruitfulness for coming generations," since "the earth is the Lord's" (Ps 24:1). God rejects "every claim to absolute ownership" since as Leviticus has it, "The land shall not be sold in perpetuity for the land is mine; for you are strangers and sojourners with me' (Lev 25:3)" (LS 67).

Redemption from sin therefore involves not only a healing of the rupture between God and humans, but between humans and all other creatures: "It is significant that the harmony which Saint Francis of Assisi experienced with all creatures was seen as a healing of that rupture. Saint Bonaventure held that, through universal reconciliation with every creature, Saint Francis in some way returned to the state of original innocence" (LS 66). St. Francis was inspired by the smallest of animals to burst into song, and the Franciscan theologian Bonaventure said that "each creature bears in itself a specifically Trinitarian structure" (LS 239). The "Trinitarian dynamism of God" is reflected in all persons and creatures which are "created according to the divine model" and hence everything in creation is connected in "a web of relationships" (LS 240). God's presence in all creatures means that we should not look on plant and animal species merely as "'resources' to be exploited" but instead "they have value in themselves" (LS 33). Hence we should be particularly concerned that contemporary human activities are driving many species into extinction. Human development therefore needs to take account of scientific research into environmental impacts on ecosystems since it reveals "how different creatures relate to one another":

We take these systems into account not only to determine how best to use them, but also because they have an intrinsic value independent of their usefulness. Each organism, as a creature of God, is good and admirable in itself; the same is true of the harmonious ensemble of organisms existing in a defined space and functioning as a system. (*LS* 140)

Francis indicates that the failure of humanity in driving species to extinction and degrading ecosystems is a product of the atheistic belief that human beings are merely "one being among others, the product of chance or physical determinism" (*LS* 118).

Biocentrism cannot therefore repair a misguided anthropocentrism. The recovery of human responsibility for nature depends upon the recovery of a *theological* anthropology which underwrites the claim that humans have divinely imbued and "unique capacities of knowledge, will, freedom and responsibility" (*LS* 118). The ecological crisis is a manifestation of a larger "ethical, cultural, and spiritual crisis of modernity" which can only be addressed when humans rediscover their unique capacities for knowledge, love, and dialogue with God and with other persons (*LS* 119). The loss of this transcendent conception of human life and interrelatedness results in a "misguided anthropocentrism which leads to a misguided lifestyle" and to a "practical relativism" which results in the omnipresence of a "technocratic paradigm," "the cult of unlimited human power": this drives people to "treat others as mere objects" and allows the "invisible forces of the market to regulate their economy" without regard for the collateral damage on society and nature (*LS* 123).

Scientific understanding of humanity's dependence on ecosystems for their own survival helps "many people realize that we live and act on the basis of a reality which has previously been given to us, which precedes our existence and our abilities" (*LS* 140). But science alone cannot repair what drives humanity to damage the regenerative capacities of ecosystems and the earth. For Francis, recognition of the "intrinsic value" of species is grounded in the redemptive presence of God in all things, which is reaffirmed in a world marred by sin in the revelation of the healing and reconciliation of all things in Christ. In becoming flesh, "One Person of the Trinity entered into the created cosmos" and consequently, through the Incarnation, "the mystery of Christ is at work in a hidden manner in the natural world as a whole, without thereby impinging on its autonomy" (*LS* 99):

The New Testament does not only tell us of the earthly Jesus and his tangible and loving relationship with the world. It also shows him risen and glorious, present throughout creation by his universal Lordship: "For in him all the fullness of God was pleased to dwell, and through him to reconcile to himself all things, whether on earth or in heaven, making peace by the blood of his cross" (Col 1:19–20). This leads us to direct our gaze to the end of time, when the Son will deliver all things to the Father, so that "God may be everything to every one" (1 Cor 15:28). Thus, the creatures of this world no longer appear to us under merely natural guise because the risen One is mysteriously holding them to himself and directing them towards fullness as their end. (LS 100)

In this theologically highly significant passage Francis argues for the inclusion of all life, all creatures, in the divine plan of redemption, and here arguably he makes his boldest intervention in the church's response to the ecological crisis. For five hundred years the Latin Church, taking its lead from Thomas Aquinas, argued that the purpose of creation, and species, was an instrumental one, which is to serve and facilitate the redemption of human souls.<sup>24</sup> For Aquinas animals and plants are not perfectible but

Francisco Benzoni, "Thomas Aquinas and Environmental Ethics: A Reconsideration of Providence and Salvation," *Journal of Religion* 85 (2005) 446–76, doi:10.1086/429574.

mutable since they lack "intellective souls": they have no place in the state of the renewal of the universe "since they are not capable thereof." Creatures are designed by God for human use. Their instrumental use by humans is appropriate so long as it is not excessively cruel: cruelty to animals is a moral hazard not because God cares for them, or because they have intrinsic value, but because it misshapes a person's moral character and hence puts them at risk of "bravery in committing sin." <sup>26</sup>

Aquinas was consistent with the teaching of the earlier fathers of the church when he said that the first purpose of creation is to provide for the needs of all peoples and so to serve their souls. And indeed in calling the earth "our common home," *Laudato Si* underlines this recognition. But there was also a recognition among many of the church fathers—for example, St. Irenaeus and St. Basil—that the creation serves God and not only humans by reflecting God's glory. Hence for Irenaeus the recapitulation of creation which was begun in the resurrected body of Christ, and which will reach its final consummation on the day of his second coming, included all creatures and not only intellective souls.<sup>27</sup> But for most Western theologians since Aquinas, creatures are not implicated in the salvation of the world that the crucified Christ inaugurated: instead the focus of salvation is exclusively the human soul. This position on the salvation of creatures was a clear departure from the belief in early Christianity, which persisted in Byzantium, that all of creation, all creatures, were reconciled in Christ, and hence that all creatures were redirected toward their ultimate redemption in God by the Christ events.

The transition from the early cosmic view of redemption, as including all creation, to a view which only included human souls, is well illustrated by contrasting depictions of nature in Christian art and architecture in the early centuries, and in the baroque period in the city of Rome. The fourth-century mausoleum built by Constantine I for members of his family as an extension to the earlier Basilica of Saint Agnes on Via Nomentana, a mile northeast from the old Roman wall.<sup>28</sup> The mausoleum was first used for a celebration of the Mass by Pope Nicholas 1 in 865, and formally converted into the church of Santa Costanza in 1265, though it is now recognized that Santa Costanza is an apocryphal figure. The building survived the collapse of Rome intact, and some well-preserved frescos on its interior depict a range of natural imagery which show both Roman artistic motifs and more specifically Christian subjects and styles. The earliest artwork is on the barrel-vaulted ceiling of the round aisle, or ambulatory, which surrounds what is now an altar.<sup>29</sup> This depicts Christian and Roman imagery, while excluding heroic pagan images of hunting, predation, violence, and war. Peacocks, which symbolized rebirth, are shown in one panel. Other panels depict dolphins and octopi, flowers, fruits, and birds. Two

<sup>25.</sup> Aquinas, *Summa Theologiae* III XP (supplement), q. 91, a. 5, trans. Fathers of the English Dominican Province (New York: Benzinger Bros, 1947) 6644.

<sup>26.</sup> Ibid. II-I, q. 102, a. 6, 2443.

<sup>27.</sup> For a fuller account of the Irenaean doctrine of creation see Northcott, *Environment and Christian Ethics* 79–82.

David J. Stanley, "New Discoveries at Santa Costanza," Dumbarton Oak Papers 48 (1994) 257–61.

<sup>29.</sup> Gillian Mackie, "A New Look at the Patronage of Santa Costanza, Rome," *Byzantion* 67 (1997) 383–406.

depict grapes being trodden in a winepress and another depicts carts bringing wine to Rome, symbolizing the death and resurrection of Christ. A later fresco of Christ as the Good Shepherd includes four sheep, and two palm plants behind Saints Peter and Paul, and is fringed with figs, fig leaves, grapes, and vine leaves. Much of the rest of the art work is of more recent origin and reveals changing conceptions of creation and salvation in Latin theology. The most striking change is illustrated in the contrast between the original fresco on the ceiling of the central dome, paintings and drawings of which were made in the fifteenth century, and the faded eighteenth-century baroque painting now on the ceiling. The original fresco depicted Old and New Testament scenes which were fringed with depictions of an extensive array of species, including birds, fish, and octopi. The eighteenth-century baroque painting which replaced it shows Christ ascending on a cloud, and scenes from the lives of Saints Constanza, Agnes, and Emerentiana. It is surrounded by a large fringe which depicts scenes from the Gospels. Nonhuman creatures, other than clouds and a now very faded blue sky, are completely absent from this image, as is characteristic of baroque art from the sixteenth century onwards.

The most striking baroque ceiling in the city of Rome is in the sixteenth-century titular church of the Gesù, at Piazza del Gesù near the center of the city. Built as the mother church of the Jesuit Order, its famous ceiling, entitled *The Triumph of the Holy* Name, was painted by Giovanni Battista Gaulli. It is said to be the finest extant example of baroque art and provides a striking contrast to the early Christian depictions of creation at Santa Costanza and elsewhere. Using a remarkable three-dimensional trompe l'oeil of painting and sculpture which flows from the ceiling onto the walls, Gaulli depicted the triumph of the holy name of Jesus in the form of an epiphanic and incandescent image of the Jesuit monogram IHS beneath an empty golden cross. Kneeling before the name are the three wise men holding gifts. Behind it, at the eastern end, bright light pours from heaven towards the monogram like a lava flow. At the west end two creatures represent vices—the serpent for Heresy and the peacock for Vanity—which oppose recognition of the name of Jesus, while tempted and damned souls are depicted being cast into hell. The dark clouds which surround the realm of temptation and the damned are depicted as overshadowing the world below, and the shadows, in a superb piece of baroque artistic theatre, overlap the ceiling onto the walls below. Nature here serves merely as a backdrop for the fleshly bodies, angelic, divine, sinful, and demonic, and the struggle for the triumph of the Holy Name over all earthly and demonic powers. The artist depicts no trees, sea creatures, grapes, or palm branches, and two symbolic species—the serpent and the peacock—now both represent evil. Blue sky and light are the dominant creational motifs, the majority of the imagery being of clothed and unclothed human or humanoid bodies.<sup>30</sup>

The emphasis on the heavenly triumph of Christ over earthly powers, and on the salvation of souls as the exclusive focus of the work of grace and hope of glory, has been a

<sup>30.</sup> See further Michael S. Northcott, "Lynn White Jr. Right and Wrong: The Anti-Ecological Character of Latin Christianity, and the Pro-Ecological Turn of Protestantism," in Todd le Vasseur and Anna Peterson, eds., *Religion and Ecological Crisis: The "Lynn White Thesis" at 50* (New York: Routledge, 2016) 61–74.

feature of Latin Christianity since the sixteenth century and may reasonably be said to be the origin of the ecological complaint against Christianity which achieved prominence in Lynn White Jr's essay, "The Historic Roots of Our Ecological Crisis." As I argue more fully elsewhere, creation drops out of the post-Tridentine depiction of salvation, and earthly creatures and powers when they do appear in the main symbolize evil and temptation. This helps explain the relatively more exploitative attitude to animals in Catholic than Protestant countries, which is evidenced in the reluctance of Catholic countries in Europe to adopt Europe-wide regulations on improving animal welfare in factory farms.<sup>32</sup>

While St. Francis pressed for a change in increasingly instrumental attitudes to animals and nature more broadly in the late Middle Ages, it was Protestant reformers, and especially Calvin, who influentially made the case that creation, even after the Fall, remained the "theatre of God's glory" and that God's presence and saving grace were more evident in the unsullied works of God in creation than in the works of sinful humanity in cities and towns. This emphasis on the enduring ability of creation as the second "book of God" to reveal God's nature and power to humanity resulted in a culture of affective identification with nature which was reflected in the rise of the Romantic movement and in the birth of the environmental movement in Protestant cultures.<sup>33</sup> This same affective dimension was a defining feature of the theological and spiritual reforms begun by St. Francis of Assisi, for whom also there was a close relationship between care for God's creatures and justice for the poor. But it is not until the publication of an encyclical on the protection of creation, by the first pope to name himself after St. Francis, that this minority position takes a more central stage in Catholic theology, although it had been argued for by other twentieth-century Catholic theologians, including Teilhard de Chardin, Thomas Berry, and Leonardo Boff.

As Pope Francis said in his inaugural homily as pope, St. Francis set at the core of the Christian vocation the duty of protection of Christ, other persons, and other creatures and this means

protecting all creation, the beauty of the created world, as the Book of Genesis tells us and as Saint Francis of Assisi showed us. It means respecting each of God's creatures and respecting the environment in which we live. It means protecting people, showing loving concern for each and every person, especially children, the elderly, those in need, who are often the last we think about.<sup>34</sup>

<sup>31.</sup> Lynn White Jr., "The Historical Roots of Our Ecologic Crisis," Science 155 (1967) 1203–7.

<sup>32.</sup> See further Northcott, "Lynn White Jr. Right and Wrong."

<sup>33.</sup> For well-documented historical studies of the close links between Protestantism and nature conservation, see Belden C. Lane, *Ravished by Beauty: The Surprising Legacy of Reformed Spirituality* (Oxford: Oxford University, 2011); Mark Stoll, *Inherit the Holy Mountain: Religion and the Rise of American Environmentalism* (Oxford: Oxford University, 2015); and Evan Berry, *Devoted to Nature: The Religious Roots of American Environmentalism* (Oakland: University of California, 2015).

<sup>34.</sup> Pope Francis, "Homily at the Inaugural Mass of the Petrine Ministry" (Saint Peter's Square, Vatican City, March 19, 2013), https://w2.vatican.va/content/francesco/en/homilies/2013/documents/papa-francesco 20130319 omelia-inizio-pontificato.html.

In *Laudato Si'* Pope Francis adopts St. Francis's affective approach to nature, but he sets this affective dimension in theological recognition of the origin of creation in the love of God, and in the relationship between God and each individual:

The entire material universe speaks of God's love, his boundless affection for us. Soil, water, mountains: everything is, as it were, a caress of God. The history of our friendship with God is always linked to particular places which take on an intensely personal meaning; we all remember places, and revisiting those memories does us much good. Anyone who has grown up in the hills or used to sit by the spring to drink, or played outdoors in the neighborhood square; going back to these places is a chance to recover something of their true selves. (*LS* 84)

On December 8, 2015, the Holy See marked the beginning of the Vatican Jubilee Year with an opening ceremony in Saint Peter's Square in Rome of a very special kind. The day fell as the final negotiations of the twenty-first Conference of the Parties to the UNFCCC were taking place in Paris, and the ceremony included a spectacular light show, called *Fiat Lux (Let There Be Light): Illuminating Our Common Home* in which pictures by five leading environmental photographers were projected onto the walls of Saint Peter's. Photographs of an adult male lion, a leopard, a giant panda, butterflies, a gorilla, hornbills, dolphins, a rainforest, and an indigenous tribe were interspersed with images of polluted air, parched farmland, plastic in the ocean, and spreading deserts. The images were accompanied by sounds of the earth including strong wind, rainfall, birdsong, animal voices, and long periods of silence. This multi-media display was clearly designed to have multi-sensory and affective appeal for the pilgrims who saw it.

The Jubilee Year is a holy year in which Catholic pilgrims to Rome are offered indulgences from sins, which confer time off purgatory, by walking through specially erected holy doors in the Basilica of Saint Peter. The influence of Aquinas's theology of sin, penance, and his account of the "treasury of the church" from which indulgences are conferred on the faithful—and which were key progenitors of the Reformation—is still evident in the practices surrounding the holy year. But in the opening ceremony, as in *Laudato Si'*, it is possible to discern hints of an ecumenical rapprochement between Catholic theology and theologies of creation in Reformation and Orthodox Churches in which creation is included in the divine intention to redeem all things in Christ.

It is also possible to see in *Fiat Lux* and in *Laudato Si'* that the affective dimension of the human encounter with nature, which pioneering nature conservationists from John Ruskin and John Muir to Rachel Carson embraced, is central to the turn towards care for creation which Francis urges humanity to make in response to the ecological crisis. Francis's call to recognize and repair the ecological crisis is deeply rooted in the affective dimension of love for God, which includes love for all God's creatures. Francis again calls on the spirituality of his namesake as the affective origin of the repair that is needed in human consciousness: "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 'Praised be you my Lord with all your creatures'" (*LS* 87). Contemplating each creature in the "entirety of God's plan" will enable us to grasp the deep truth that ecological science also teaches which is that "everything is connected"

and from the smallest creatures to the greatest if we neglect these connections we will fail to observe that there are limits to our sustainable use of nature:

If we approach nature and the environment without this openness to awe and wonder, if we no longer speak the language of fraternity and beauty in our relationship with the world, our attitude will be that of masters, consumers, ruthless exploiters, unable to set limits on their immediate needs. By contrast, if we feel intimately united with all that exists, then sobriety and care will well up spontaneously. The poverty and austerity of Saint Francis were no mere veneer of asceticism, but something much more radical: a refusal to turn reality into an object simply to be used and controlled. (LS 11)

Nature piety of this kind has long been associated with the conservation and environmental movements in Britain and North America, going back at least as far as the essays of conservation pioneers such as the Anglican clergyman Gilbert White, and Muir, the son of a Scots Presbyterian minister.<sup>35</sup> Yet that nature piety is now commended by a pope, and love of endangered species has become a major theme associated with the launch of a holy year. That the pope now also wishes to revise Aquinas's view that species have no ultimate place in the divine plan of the redemption of all things, augurs well for a new association between the church and the global struggle to conserve the endangered species of the planet for future generations.

There are voices in the Catholic world who argue that *Laudato Si'* is a misguided encyclical, or that climate science is true, but that it will have no enduring influence on the magisterium.<sup>36</sup> There are voices in the Catholic world who argue that *Laudato Si'* is a misguided encyclical, that it is not possible to sin against Mother Earth, that climate science is misguided, and that the encyclical will have no enduring influence on the Magisterium. This is unsurprising. The tenacity of the Latin Christian rejection of the intrinsic value of nonhuman creatures, apart from their use to humans, is deep and enduring precisely because it is rooted in the theology of the most influential Catholic teacher of the second millennium, Thomas Aquinas. I do not doubt that the pope has a struggle on his hands to turn those to whom this encyclical is addressed towards recognition of creation care as a part of the salvific mission of the church.<sup>37</sup> Intriguingly

<sup>35.</sup> Gilbert White was an Anglican clergyman, and the son of a clergyman, and his extensive natural observations are contained in his *The Natural History and Antiquities of Selborne in the County of Southampton to which are added The Naturalist's Calendar; Observations on Various Parts of Nature; and Poems* (London: White, Cochrane and Co., 1813). John Muir's nature piety is better known, as for example in his most widely read journal of his life as a part-time shepherd in the mountains of Northern California: *My First Summer in the Sierra* (New York: Houghton and Mifflin, 1911).

<sup>36.</sup> See "A Sober Reflection on *Laudato Si'*: An Encyclical Lacking in Authority," *Boston Catholic Journal*, 2015, http://www.boston-catholic-journal.com/sober-reflection-on-pope-francis's-defective-encyclical-laudato-si.htm.

<sup>37.</sup> The Dominican priest, academic, and self-styled "geologian" Thomas Berry tried to do this for sixty years in the United States and, while he got many religious on board, he found great resistance, and was sometimes dismissed, as was Teilhard de Chardin more formally, as a heretic.

the contribution of Teilhard de Chardin is quietly praised in footnote 53 of *Laudato Si'*, attached to a sentence in which Francis says that the "ultimate destiny of the universe" involves the "maturity of all things" (*LS* 83), by which he clearly intends more than just human souls.

## **Author Biography**

Michael Northcott is Professor of Ethics in the School of Divinity in the University of Edinburgh. He is author of *A Moral Climate: The Ethics of Global Warming* (Orbis 2007), *A Political Theology of Climate Change* (Eerdmans 2014) and *Place, Ecology, and the Sacred: The Moral Geography of Sustainable Communities* (Bloomsbury 2015) and co-editor with Peter Scott of *Systematic Theology and Climate Change* (Routledge 2015). He has been visiting professor at Claremont School of Theology, Dartmouth College, Duke University, Flinders University and the University of Malaya. He is also a priest in the Scottish Episcopal Church.