For two major reasons, let me thank Pope Francis for putting global climate change and related environmental issues front and center on our moral radar screen. First, he—more so than any of his papal predecessors who wrote on environmental matters—has made it virtually impossible not to be green if one is Catholic. While Popes John Paul II and Benedict XVI addressed environmental matters in papal allocations, and while a number of regional bishops’ conferences produced documents on the same topic, to date there have been no papal encyclicals outlining the Catholic Church’s position on environmental issues. Laudato Si incorporates a great deal of these preceding analyses, yet explores new avenues of theological inquiry that, in my opinion, represent a treasure trove of ideas that can be developed by commentators working in the field of Christian environmentalism. My guess is that Laudato Si represents a watershed moment in the Catholic Church that will occupy the attention of theologians and lay Catholics for decades to come.

Second, the timing of Laudato Si’s publication mere months before the Paris Climate Conference in December 2015 was critical for creating the political momentum necessary to forge a substantive international agreement on reducing greenhouse gas emissions—an agreement that was sorely needed! As commentators have noted, unless greenhouse gas emissions are curbed significantly and quickly, we will likely pass a critical point of no return beyond which the consequences of global climate change could be catastrophic and irreversible. As the leader of 1.2 billion Catholics worldwide, there is perhaps nobody as influential today in swaying worldwide public opinion on seminal moral issues than Pope Francis, and he used his bully pulpit to call people worldwide to a new environmental consciousness that could reap inestimable benefits to humans and planet earth.

After reading and digesting Laudato Si and teaching it to both my undergraduate and graduate students, I have to admit, however, that despite its many strengths there are some formidable flaws in it that limit its practical effectiveness and theological cogency. Indeed, upon reading Laudato Si for the first time, I found myself reacting to it in a way similar to how I respond to my two impetuous teenagers: grateful for all the abundant enthusiasm they represent and for the embodiments of goodness that they will become, but hoping that they mature and get over their adolescent angst and insecurities sooner rather than later. So, in the hope that I can play a small part in nudging the impetuous teenager Laudato Si into an adulthood of a viable and intellectually credible Catholic environmentalism, let me offer some critical comments, beginning with its successes.

Pope Francis begins Laudato Si with love language via his Franciscan spirituality (#1-12), and in my opinion, he is right on target. The progenitor of all that is good in our lives, all the love, the laughter, the friendship, the accomplishment, the kindness and compassion—planet earth and the larger universe, or what we call creation, makes us, our lives, and our participation in created goodness possible. Outside of God, there is perhaps nobody as influential today in swaying worldwide public opinion as the leader of 1.2 billion Catholics worldwide, there is perhaps nobody as influential today in swaying worldwide public opinion
that has dominated Christian environmental thought since the late 1960s. The essential theological elements of the stewardship paradigm are the following: a cosmology developed from the first creation account in Genesis, which distinguishes humans from the rest of creation as being the only creature made in the image and likeness of God; and the unique responsibility of “dominion” being given to humans as caretakers (or something similar) of creation (Genesis 1: 27-8). The stewardship paradigm almost invariably results in an anthropocentrism that regards something as valuable insofar as it benefits humans in some way. It also typically breeds a robust interventionism, for if creation is really ordered toward the satisfaction of human needs and desires, then something akin to the Baconian paradigm of manipulating and controlling natural processes for our benefit becomes almost second nature.

Given the dominance of the stewardship paradigm as the theological backdrop for contemporary Christian environmentalism, Francis’s love language is a breath of fresh air and a potential alternative cosmology and anthropology that could result in a qualitatively different environmental ethic. Yet in Laudato Si it is difficult to gauge the practical moral bite of this potential shift, as despite the love language at the beginning of the document, it trails off in the middle, so that by the time Francis takes up specific environmental issues near the end, it’s unclear whether his love language or the traditional stewardship paradigm is guiding his analysis.

Another new element contained in Laudato Si for which Francis should be applauded is making biodiversity a criterion for ethical deliberation and action (#32-42). The utter uniqueness of earth right now is that it’s the only place in the known universe where life exists (even though it is highly likely that life exists elsewhere). Over time, inanimate matter gives birth to one-celled organisms, which in turn evolve into multicellular creatures, and from there comes an explosion of evolutionary creativity in which diversity and complexity become more and more pronounced. If evolutionary patterns are any indication of God’s will, there is little doubt that biodiversity is part of divine creativity. Nor should this be surprising to those espousing a relational notion of God, as it would make sense for God to construct a universe in which not only life itself, but many forms of life capable of relating to God in distinct and diverse ways, come into existence.

A world of only cockroaches might be good in God’s mind, but oh how much better a world filled with rabbits, wolves, koalas, and humans, too—and whatever other life forms emerge over time!

Moreover, I think Francis’s caution about looking to technology to get us out of our environmental pickles is very sound advice (#102-114). Truth be told, most of us wallow in a fairly well-entrenched technophilia, and like gleeful little kids on Christmas morning waiting to open their presents, we, too, await the next technological gadget to come down the pipeline with a longing that is sometimes quasi-religious. I will readily concede that technology has consistently delivered the goods in terms of making human lives longer, more comfortable, safer, and—for the economic elite, at least—more exciting and filled with a steady supply of things to satisfy a wider range of human desires than ever before. Yet it is also necessary to acknowledge that lurking behind every formidable, long-term, large-scale environmental problem lie a number of so-called technological developments that helped us to create those environmental threats in the first place. So while we remain firmly psychologically wedded to the technological imperative and secretly hope that better technologies will somehow get us out of the formidable environmental problems we have created, we never really raise the question of technology as the problem, even as our technologies continue to undermine our survivability.
on planet earth and the sustainability of systems that provide life to so many other creatures. So what is really needed, as Francis recognizes, is an ethic of technology, which can not only generate criteria to distinguish between good and bad technologies, but also prompt the communal and individual psychological willpower to say “No!” to technologies that we ought to dismiss from our lives.

In addition, Francis, much to his credit, has the temerity to criticize the consumption levels of those in economically affluent nations (#43-52). Truth be told, if one examines virtually any large-scale environmental problem, from global climate change, to deforestation, to declining fisheries worldwide, to growing rates of environmental toxins invading our bodies—and even the bodies of unborn children—at some point we have to admit that they have one precipitating cause, namely, the consumptive lifestyles desired by the world’s economic elite. So, for instance, although less than 5 percent of the world’s population lives in the United States, we use roughly one-third of all fossil fuels consumed per year worldwide, and in terms of overall consumption, the consumer class in North America and Western Europe, while comprising 12 percent of the world’s population, is responsible for 60 percent of private consumption spending worldwide, while one-third of the world’s population living in South Asia and sub-Saharan Africa accounts for only a little over 3 percent.

Finally, Francis, for the first time in a papal document, raises the specter of a potential catastrophic outcome for humans and life on earth if environmental degradation is not reversed soon. Popes John Paul II and Benedict XVI had also issued warnings about the perils of ignoring environmental problems, but nothing in their writings suggest that they regard environmental ills as an imminent existential threat to our species, even though ongoing, large-scale, incremental environmental degradation was apparent to them. Each of them was optimistic that readily identifiable solutions to various environmental issues could be implemented successfully, given sufficient political will power. Francis, on the other hand, is quite somber and pessimistic about anything short of a dramatic environmental conversion and corresponding policy and behavior shifts being able to make a meaningful difference, stating that we are rapidly approaching a tipping point beyond which environmental catastrophes will be the order of the day (#61, #161), and that our only option to avoid such a perilous situation is to act decisively, here and now, to avoid apocalyptic, doomsday scenarios (#161). While Francis ought to be applauded for sounding the alarm bell with vigor, as I believe that his alarmism is very justified, I am also convinced that his recognition of the gravity of our situation dictates a very different kind of document with an alternative agenda in mind, a point to which I will return in a bit.

What is really needed...is an ethic of technology, which can...prompt the...willpower to say “No!” to technologies that we ought to dismiss from our lives.
every person living on this planet” (#3), then he goes on to produce a document containing 246 sections, and by the count of my hard copy, 106 pages—something akin to a seminary course, replete with technical theological language and concepts, which is not exactly a winning recipe for a broad and attentive readership. Furthermore, Francis certainly escalates the rhetoric and embraces a prophetic role in *Laudato Si*, claiming that our behavior is reducing earth to “an immense pile of filth” (#21) and that we are consistently disappointing God by our callousness (#60), but he also wants to engage in deliberate and reasoned policy analysis that considers the best institutional vehicles for implementing environmental change. Perhaps there is more unity and coherence to *Laudato Si* than I am perceiving, and perhaps the breadth of treatment to which Francis aspires necessarily includes concepts and ideas that are not harmonized easily outside of a more extensive treatment, but I still think that *Laudato Si* represents a level of meandering and a poorly defined agenda that makes it unnecessarily confusing. Is it a love letter to God in thanks for creation? Is it a requiem for a gift exploited and unappreciated? Is it a prophet roaring against injustices and oppression? Is it a position paper about the benefits and drawbacks of particular policy directives? Is it a document that falls under the umbrella of “Catholic social thought”? Second, and more foundationally, *Laudato Si* contains some glaring blind spots, the most pronounced of which is its rejection of the growing world population as a legitimate problem. Now I certainly understand Francis’s reasons for not wanting to acknowledge openly the growing world population as a “problem,” as discussions about artificial birth control and abortion are sure to follow such an admission, and these two are simply non-starters for the Catholic hierarchy today. Yet one needs to do some serious mental gymnastics to deny that the projected 3-5 billion people to be added to planet earth this century will not cause enormous stress on systems that provide basic needs for people. Francis’s disavowal of the population problem, however, seems to run deeper than the typical predilection of the Catholic hierarchy to avoid discussions of artificial contraception or abortion like the plague. This disavowal is based on his extreme skepticism concerning a biased elitist narrative, highly popular and influential in international governmental and policy circles, which blames the poor for the explosion of population growth in certain regions. In Francis’s mind, this is simply a way for the economic elite to deflect attention away from their rapacious consumptive habits and to avoid the uncomfortable reality that a just redistribution of resources would allow the addition of 3-5 billion people this century without undue burden. As Francis writes, “demographic growth is fully compatible with an integral and shared development. To blame population growth instead of an extreme and selective consumerism on the part of some, is one way of refusing to face the issues. It is an attempt to legitimize the present model of distribution” (#50). Francis, it seems, is ideologically committed to ruling out of court any discussion of the growing world population until the resource distribution issue is addressed and rectified.

While Francis might be correct in his perception of elitist agendas at work in the framing and treatment of the overpopulation issue, his refusal even to consider the addition of 3-5 billion people this century under the best of circumstances to be a problem is at best naive, and at worst dangerous. If Francis is going to have any appeal beyond the most conservative elements within Catholicism, he simply cannot continue to practice his policy of avoidance, as it does nothing but undermine his credibility among the constituencies to which he wants to appeal. Unfortunately, Francis seems so entrenched ideologically in his strategy of avoidance that he doesn’t even mention promising possibilities for curbing population growth that are entirely consistent with Catholic moral doctrine, such as educating girls in poor countries and disseminating
information about natural family planning.

Third, Francis is guilty of a certain lack of follow through with his evaluative moral criteria. Francis is quite adept at pinpointing salient environmental issues and framing them in a way consistent with mainstream Christian environmental ethics, but when it comes time to develop intelligible criteria by which to make normative moral statements on environmental issues, Francis is less than clear about how they should apply, or whether they should apply at all. So, for instance, he discusses the Sabbath and the Jubilee (#71), but never says whether, or in what way, they should be implemented in our context, whether directly or indirectly. He mentions a number of moral criteria, such as intergenerational justice (#159-62), the precautionary principle (#186), and the common good (#156-58), each of which is capable of generating specific moral guidance, without exploring the practical implications of these criteria. He raises the issue of genetically modified organisms (#130-35) and then calls for further discussion among stakeholders and a case-by-case analysis—a recommendation, I am sure, that was greeted with glee in Monsanto’s advertising department. He calls for coordinated action and policy, yet he is highly skeptical about the ability of international or national organizations to implement environmental changes effectively (#53-59). So despite the fact that Francis spends a great deal of space in Laudato Si developing and discussing evaluative criteria in environmental ethics, he never really indicates which ones are more foundational, or how they get extended practically into the realms of policy or behavior, or which ones actually provide the groundwork for the catalog of actions that he recommends to reduce our carbon footprint near the end of Laudato Si (#211).

Fourth, while I realize that papal encyclicals are traditionally intra-Catholic documents that are addressed to members of the ecclesial community and employ language and concepts that appeal to this particular constituency, I think it was unfortunate that Francis ignored virtually anyone outside of episcopal authorities in constructing Laudato Si. Other than Paul Ricoeur and Romano Guardini, neither of which to my knowledge had much to say directly on environmental matters, Francis writes as if the academic literature on non-Catholic religious or secular environmentalism didn’t even exist, or perhaps wasn’t worth incorporating into Laudato Si. Either way, such neglect, whether intentional or not, at the very least lends an aura of insularity to a document that professes to be quite broad in its intended readership, and at the worst is highly counterproductive, ignoring a very rich and diverse body of literature that could have sharpened its analyses considerably by being incorporated into Laudato Si.12

Finally, to return to a point I was making earlier, Francis should be applauded for sounding the warning bell about approaching environmental catastrophes. While some might be taken aback by the apparent extremity of his predictions, in my opinion, Francis is neither engaged in fear mongering nor overestimating the danger posed by environmental problems. In fact, I think that his dire predictions are right on target, and that absent a sustained, coordinated, and effective movement in the next couple of decades, we will almost certainly be facing an existential moment for our species, whether in the form of a significant, and quite painful, contraction of the human population on planet earth, or perhaps something close to an extinction event for us. In many ways, our situation is comparable to having two very large and foreboding asteroids headed on a direct collision course with planet earth.13 We know they are coming, they are headed...
right at us, and unless we do something to alter their trajectory, the collisions will be devastating. My guess is that if this scenario were ever really to occur and governments were to call upon their citizens to embrace austerity measures—even extreme measures—in order to divert needed resources to research projects and technologies intended to knock these asteroids off their collision course with planet earth, most people would do so willingly, maybe even happily, which makes perfect sense. Life is good, and when it comes to existential risks, it is better to do with less than to flirt with disaster.

The environmental equivalent of the aforementioned asteroids are overpopulation and global climate change, each of which, when considered in isolation, represents a formidable threat to humans as a species. However, the fact that they are occurring in tandem makes their disruptive potential even nastier. As stated earlier, the United Nations projects that 3-5 billion people will be added this century to a planet already teeming with 7.3 billion humans, which probably represents the carrying capacity of humans on planet earth. In order to feed these additional humans and to compensate for people transitioning to meat-based diets, the United Nations estimates that grain production worldwide will have to increase by 70 percent this century—a staggering number that is almost unimaginable. Given this herculean task awaiting us, the best thing for our worldwide agricultural system is stability, predictability, and highly favorable growing conditions in order to create a wide margin for error.

Global climate change, however, if it continues unabated, assures that the opposite conditions will obtain, with system-wide unpredictability and rapidly changing and unforeseeable situations becoming the order of the day. These will multiply exponentially the natural vicissitudes with which farmers already have to contend. One needs only modest predictive abilities to see the likely outcome for agriculture: adverse growing conditions, crop failures, food shortages, more chronic hunger, violent conflict over scarce food resources, and starvation.

Outside of the agricultural sphere, global climate change, absent significant reductions in greenhouse gas emissions, is likely to bring about a number of system-wide changes to planet earth that are ominous: extreme biodiversity loss due to species extinctions; acidification of the oceans and the death of coral reefs, our planet’s aquatic nurseries; the potential shutdown of thermohaline circulation in the world’s oceans, which would be catastrophic for marine life; loss of glaciers and polar ice caps; rising sea levels that could displace tens of millions of the poorest people worldwide; an increase in the frequency and severity of extreme weather events; diminishing fresh water supplies in certain regions; and health issues that affect the young and old disproportionately, among many others.

So Pope Francis is exactly right. We are at a crossroads, the stakes are enormously high, and the potential consequences catastrophic and irreversible. Given this context, let me suggest that Laudato Si is not the ideal document for the task at hand, even though its strengths in attempting to engender a new ecological awareness are commendable in many ways. Since Francis has ruled out of court any discussion of population growth as a “problem,” the best chance for him to bring about the beneficial, long-term environmental change that he articulates in Laudato Si is to convince Catholics worldwide to combat global climate change. Especially given the momentum generated by the recent Paris Agreement, which includes 195 signatory countries, including the major polluters—the most comprehensive agreement on reducing greenhouse gasses ever—it is clear that public opinion on global climate change has shifted and that the possibility exists now, unlike ever before, to implement meaningful changes that will be effective. While this represents an enormously positive development, the danger is that the window of opportunity to reach the targets set by...
the Paris Agreement is rapidly closing, and this could realistically be our last chance to make a meaningful difference before the more dire predictions about the negative effects of global climate change become almost inevitable.

With this in mind, my hope is that Francis will soon publish a follow-up document to *Laudato Si*, one that will be much shorter and focus on one (and only one) issue, global climate change. Other environmental problems are certainly worthy of our attention and action, but global climate change dwarfs them all in terms of its potential to be an existential threat, and unlike the overpopulation issue, no ideological commitments prevent an effective response to it. A brief, focused document would not only garner a wider readership, which is critical if Francis’s appeal is genuinely to reach beyond a Catholic audience, but it would clearly prioritize attention and resources and signal a genuine institutional commitment to combatting it.

Moreover, the document should be unabashedly prophetic, and it should label as sinful those structures, policies, and actions that exacerbate climate change. I am well aware that sin language can be biased and that it has the potential to oppress unjustly, but I also think that if global climate change and its precipitating causes cannot be labeled as sinful, then sin language has lost its function in religious ethics; for how can an existential threat to humans and indeed most of life on planet earth—a threat has been caused principally by the world’s economic elite and has been known about for quite some time—not be regarded as sinful?

Finally, Pope Francis should mandate carbon neutrality for all Catholic dioceses worldwide, including all Catholic institutions within their boundaries, and he should also require a timetable for Catholic dioceses to construct a specific plan for achieving carbon neutrality. Of course, the end goal here is actually to reduce greenhouse gas emissions. Yet outside the realm of effectiveness, such a dramatic move by the leader of 1.2 billion Catholics worldwide could be the beginnings of a moral revolution that would be a beacon of light to countries and governments and could, in the end, not only prevent an untold amount of suffering, but also lay the groundwork for a broader experiment in sustainability, which is precisely what is needed right now.

As we pray that the international determination and willpower represented by the Paris Agreement will achieve actual long-term success, let us not underestimate the ability of moral leadership to effect large-scale practical change. As history has shown, while governments and political leaders can sometimes be effective in inducing needed change, often their ability to persuade is limited. Charismatic religious leaders, on the other hand, typically are not encumbered by similar limitations and can induce widespread moral conversion by calling people to live up to the best and most foundational elements of their religious traditions. My hope is that regardless of the particular measures implemented to reduce greenhouse gas emissions by each of the Paris Agreement’s signatory nations, Francis will sharpen his message, issue a terse and prophetic follow up to *Laudato Si*, and use his bully pulpit to call us to a moral conversion—a conversion that results not only in a firm resolve to make combatting global climate change a top priority for Catholics worldwide, but also engenders a boldness and creativity that enables us to imagine new ways of fashioning our institutions, technologies, and individual lives that are far more environmentally benign. If Francis can do this, he might very well go down in history as the impetus behind the most compassionate movement the world has ever witnessed—a noble feat quite consistent with the best of the Gospel message.

“Life is good, and when it comes to existential risks, it is better to do with less than to flirt with disaster.”
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NOTES


3. Pope Francis is drawing on Franciscan spirituality for this language of intimacy, but Thomas Berry has probably been the most influential figure popularizing such an attitude toward creation. See his The Dream of the Earth (San Francisco, CA: Sierra Club Books, 1988) for such an exposition.

4. This dominance is a result of the publication of Lynn White, Jr.’s, seminal “The Historical Roots of Our Ecological Crisis,” Science 155 (1967): 1203-7, which sent shockwaves through the Christian theological community as it claimed a causal link between environmental degradation in advanced industrial societies and Christianity’s robust anthropocentrism based on the first creation account in Genesis.


11. I make a case that in the agricultural context in the United States, a literal reinstitution of either the Sabbath or the Jubilee would be counterproductive and would probably create the conditions they were trying to prevent in the first place. See M. Graham, Sustainable Agriculture: A Christian Ethic of Gratitude (Cleveland, OH: The Pilgrim Press, 2005), 35-37.

12. As Francis writes, “I wish to address every person living on this planet” (#3).

13. My thanks to Peter Wicks of the Elm Institute for his insights on the limits of my asteroid metaphor as applied to the overpopulation issue.

