Pope Francis fulfilled the promise of his chosen papal name with the publication of *Laudato Si’*, his encyclical on care of the environment. Environmental protection is not a new theme in papal messages, but Francis’ encyclical brought renewed emphasis on the duty of all — especially believers — to care for creation, for everyone to participate and play a constructive role in protecting our planet. It proposes the principle of integral ecology, which might be described as an integrated, holistic worldview grounded in faith, suggesting the environmental public health paradigm. Environmental public health studies and addresses all elements of the natural and built environment that affect human health; this holistic framework embraces public health and environmental protection. The encyclical thus possesses features that have potential application to Catholic health care.

**A CATHOLIC, HOLISTIC VISION**

*Laudato Si’* weaves together ancient truths with contemporary religious ethical practice. In 1979, St. John Paul II named St. Francis of Assisi the patron saint of ecological spirituality, giving the medieval saint renewed attention as a model for contemporary Christians.

Pope Francis repeatedly has referenced St. Francis of Assisi and the saint’s love of God, the church, the poor and creation. An eloquent expression of that love is “The Canticle of the Creatures,” which he composed in 1225. In it, the saint sings of all creation as brother and sister, an interdependent family of God.

Although the encyclical does not precisely define integral ecology, it introduces the term to the Catholic lexicon. Integral ecology proposes a common framework of God-humanity-nature and living a good life in loving response to this relational reality, with St. Francis as an example. It is a faith-inspired vision of creation and the actual relationships between creatures themselves and with God.

Ecology is a science of relationships; by modifying the term with integral, Pope Francis invokes the original meaning of catholic: holistic or universal. The first chapter of *Laudato Si’* is a primer on environmental science and ethics, but it moves on to incorporate social analysis and social ethics into its argument, underscoring the interdependence of all created reality. As the most Franciscan of any modern papal encyclical, it references St. Francis, Franciscan themes, Franciscan theology and a Franciscan approach to moral reasoning.

*Laudato Si’* represents a milestone in religious environmental consciousness. Pope Francis issued a moral, religious appeal to everyone to protect our common home. The status quo is ethically unacceptable, he says, and we must change course. He poses a dual challenge: to protect our planet while helping the poor exit poverty. These problems must be addressed within an ethical framework, a holistic vision of the common good, he says.

Pope Francis is comfortable talking about conventional environmentalism, but he challenges all...
people — and in a particular way, Catholics — to view the Earth through the eyes of faith, to read the “book of nature.” He draws on Scripture, the sacraments and salvation history to underscore the importance of creation to God and to the practice of faith. He draws from the ancient monastic tradition of working cooperatively with creation and from medieval philosophies of nature. The encyclical teaches that believers have the responsibility to exercise an ethic of care for creation, which encompasses poor and vulnerable people, and that these duties to God, rooted in faith, are even greater than the duties of conventional environmentalists.

Integral ecology differs from conventional environmentalism in that it explicitly includes human beings in society. Thus, integral ecology draws upon the Catholic tradition of care for the poor and vulnerable, “updated” by including the environmental context for human beings. Integral ecology includes human beings and all creation.

There are three topics of concern that run through Laudato Si’: farming, cities and the energy/climate nexus. Pope Francis repeatedly draws attention to the importance of agriculture, sustainable practices and protecting small farmers while conserving biodiversity. In more than a dozen passages, the pope describes the importance of cities, enhancing their livability while respecting the environment. He touches on themes of housing, transportation, architecture, land-use planning and cultural history. The climate is presented as a common good for all humanity, and coordinated international action is required to transition energy systems from fossil fuels to renewable sources.

ENVIRONMENTAL PUBLIC HEALTH
Laudato Si’ thus builds upon Catholic social thought but extends its application to environmental themes so that it becomes more contemporary, more integral, more catholic and more ecological. In so doing, Pope Francis harkens to an important forerunner of the contemporary environmental movement in the United States: “sanitary science.”

In 19th-century America, gaining access to clean water and disposing of sewage and garbage were assumed to be personal responsibilities. U.S. cities burgeoned with new immigrants from Europe, many of them poor and living in crowded, dirty housing, and infectious diseases such as cholera and influenza spread.

Most of the advocates for addressing urban health and environmental conditions at that time were social reformers, often evangelical Christians who opposed slavery and were forerunners of the progressive movement. In the decades after the Civil War, the “sanitary movement” shaped government policy, and gave rise to such public health institutions as building codes, drinking water infrastructure, sewers and waste disposal.

Today, the public health framework, urban planning and the environmental movement trace their history to these efforts.1

Public health brings a different perspective to combating morbidity relative to clinical medicine. The former assumes one must engage whole communities and understand the multiple factors that shape health outcomes, while the latter generally attempts to control for scientific variables to diagnose and treat health conditions. Both are essential for human dignity and flourishing, and rather then choosing between them, we need to recognize their complementary value.

The principle of integral ecology recommends the environmental public health paradigm and may suggest insights for Catholic health care institutions as they seek to apply the lessons of Laudato Si’. A public health approach seeks to address environmental conditions that affect people where they live, work and play. It is fully compatible with the principles of the environmental justice movement, which for decades has advanced a vision of social justice and environmental protection.

The environmental justice movement arose because the conventional environmental movement historically had ignored low-income communities and communities of color, both of which are disproportionately burdened by the effects of pesticides, toxic industries and hazardous waste.2 The U.S. Catholic bishops have recommended environmental justice as a frame-
work for action. This approach reflects a Franciscan sensibility: to integrate care for the poor with care for the Earth.

The global environmental justice movement has expanded its framework to include equitable access to resources as a human right. Laudato Si’ paragraphs #28–30 describe the problems of water pollution, and the justice dimension of this when the poor are unable to access drinking water. Paragraph #29 describes the health implications of water poverty, and #30 frames water access as a human right:

Even as the quality of available water is constantly diminishing, in some places there is a growing tendency, despite its scarcity, to privatize this resource, turning it into a commodity subject to the laws of the market. Yet access to safe drinkable water is a basic and universal human right, since it is essential to human survival and, as such, is a condition for the exercise of other human rights. (emphasis original).

Lest one assume that the scarcity of clean drinking water afflicts only the developing world, consider the news of high levels of lead in the Flint, Michigan water system and the resulting health consequences for that community.

Public health is organized around health interventions, strategic efforts to change environmental conditions and human behavior to enhance health outcomes. To advance public health requires leaving the confines of medical institutions, and this is analogous to Pope Francis’ call to members of the Catholic Church. In Evangelii Gaudium and many public presentations, he has called for the church and its members to go to the margins, to commune with those excluded from society, to preferentially favor the poor. He has advanced an image of the church as “field hospital.” Faith is not to be practiced only within churches, but also out in public.

**PUBLIC HEALTH, DOMESTIC AND GLOBAL**

The teaching and example of Pope Francis invite us to view environmental public health through a comprehensive lens and to support interventions for justice. Globally, the most significant source of indoor air pollution is dirty cooking technologies. Various forms of raw biomass used for fuels and simple structures that serve as stoves (for example, three large stones or carved-out holes in the earth) result in terribly inefficient combustion. Nearly 3 billion people eat food cooked on dirty stoves. About one-third of the human family lives in energy poverty, defined as lacking access to modern energy for heating, lighting and cooking.

Household cooking fuels across the developing world such as kerosene, dung or raw wood are dirty, dangerous, unreliable and unhealthy. The problem also has a gender dimension: By cultural norms, women generally are expected to gather wood or dung as fuel, and women are disproportionately affected by breathing the toxic smoke from such fires because they are the ones doing the cooking. Along with the health implications, dirty cookstoves have a twofold environmental impact: Forests are depleted by gathering wood for fuel, and the inefficient stoves release pollutants such as black carbon and methane that contribute to climate disruption. Thus, an ordinary domestic practice has far-reaching health, environmental and gender justice implications.

Miller Center for Social Entrepreneurship at Santa Clara University in California has partnered with the Global Alliance for Clean Cookstoves (GACC) to design and conduct a series of interventions. Miller Center provides capacity development training programs — adult learning workshops and multimonth training programs for social enterprises, defined as organizations using business and market-creation strategies to address social and environmental problems.

There are scores of highly efficient, cleaner cookstoves available that, when adopted, address all three dimensions of this problem. These stoves remain but potential solutions until they are actually used by individuals, however. Miller Center and GACC partnered to provide training workshops for helping more than 100 small and medium-sized social enterprises in six developing nations to enhance their business operations and market these cookstoves. The enterprises wanted to communi-
cate the health benefits to potential customers and offer various forms of innovative financing to help customers pay for them. The workshops helped clean cookstove manufacturers and retailers hone their distribution and marketing strategies, expand their reach to more customers, better communicate to customers the multidimensional value of clean cookstoves and prompt shifts in social behavior that enhance health outcomes. Grounded in social entrepreneurship, this kind of intervention creates socioeconomic incentives for transitions in social behavior, which is critical to make the kind of positive changes outlined in *Laudato Si’*.

Pope Francis was accused, wrongly, of holding anti-technology views. In actuality, *Laudato Si’* expresses nuanced perspectives on technology. For example:

> We have the freedom needed to limit and direct technology; we can put it at the service of another type of progress, one which is healthier, more human, more social, more integral. Liberation from the dominant technocratic paradigm does in fact happen sometimes, for example, when cooperatives of small producers adopt less polluting means of production and opt for a non-consumerist model of life, recreation and community. Or when technology is directed primarily to resolving people’s concrete problems, truly helping them live with more dignity and less suffering.5

The social entrepreneurship-based intervention for cleaner cookstoves illustrates how the right kind of technology can fulfill the common good and make a measurable improvement in the lives and health of millions of people. It also illustrates an innovative approach to addressing greenhouse gas emissions and global climate disruption, a major public health issue that disproportionately impacts women. In the case of cookstoves, these issues must be addressed in some kind of integrated fashion. The principle of integral ecology suggests the value of integrated interventions that simultaneously advance public health and environmental protection, local and global.

*Laudato Si’* does not offer policy prescriptions, but, rather, it recommends a holistic moral framework for addressing the global climate crisis. The need for action has a particular bite in the U. S. The rich countries have a special moral obligation to dramatically reduce their greenhouse gas emissions, and Americans have a special obligation to transform their energy systems: generation, transmission and consumption. It is a matter of justice, health and environmental stewardship.

**MOVING THE CONVERSATION FORWARD**

The first papal encyclical dedicated to the environment invites all of us to take stock of our common humanity and deepen our understanding of our dependence upon the Earth’s life-support systems. The practical need to protect our planet’s climate is very real, but so too is the moral outrage we should feel about billions of human beings denied access to the goods needed for healthy and dignified lives.

Pope Francis has broadly endorsed the environmental movement and its goals, and he challenges us to take a much more holistic view of human flourishing. The integral ecology framework challenges us to deepen and broaden our compassion and to care for creation and the poor in our neighborhoods, nations and world.


**NOTES**

5. Francis, *Laudato Si’*, paragraph 112.