



BOOK REVIEWS

Three Global Sustainability Leaders: Pope Francis, Jeffrey Sachs, and Nicholas Stern

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Global temperatures are rising, along with droughts, floods, storms, wildfires, and melting of glaciers and tundra. Concern about climate change and sustainable development is necessarily growing. Three of the most important recent books and reports are reviewed here, as an introduction to major thinking about what must be done.

I. Pope Francis on Integral Ecology and a New Dialogue

The most widely-known of the recent documents on environmental issues and the human condition is *Laudato Si': On Care for Our Common Home* (Libreria Editrice Vaticana, July 2015, 160p), addressed to the world's 1.2 billion Catholics—and beyond. This Encyclical Letter is composed of 246 numbered paragraphs in six chapters, starting with an explanation of “LAUDATO SI', mi' Signore”—“Praise be to you, my Lord,” a canticle from Saint Francis of Assisi reminding us that our common home on earth is like a sister with whom we share our life and a mother who embraces and sustains us. Other paragraphs in the introduction refer to Encyclicals expressing ecological concern from previous Popes, echoing “the reflections of numerous scientists, philosophers, theologians and civic groups, all of which have enriched the Church's thinking.” (paragraph #7)

After extolling Saint Francis as “the example par excellence of care for the vulnerable and of an integral ecology lived out joyfully and authentically” (#10), Pope Francis summarizes his appeal: “the urgent challenge to protect our common home includes a concern to bring the whole human family together to seek a sustainable and integral development... I urgently appeal, then, for a new dialogue about how we are shaping the future of our planet” (#13-14).

Chapter One, “*What Is Happening to Our Common Home,*” questions continued acceleration of changes affecting humanity and the planet, coupled with a more intensified pace of life and work. Topics include pollutants producing a broad spectrum of health hazards (#20), dangerous waste that is often non-biodegradable (#21), a throwaway culture that reduces things to rubbish and has yet to develop a circular model (#22), a disturbing warming of the climatic system (#23), melting of the polar ice caps and release of methane gas (#24), the rising number of migrants fleeing from poverty caused by environmental degradation, with widespread indifference to such suffering (#25), the urgent need to drastically reduce greenhouse gases in the new few years (#26), the quality and quantity of fresh drinking water (#27-31), loss of biodiversity as earth's resources are plundered (#32-42), decline in the quality of human life as many cities become unhealthy places (#43-44), increased violence

and growing drug use (#46), overload and confusion in the new digital world (#47), too much blame on “population growth instead of extreme and selective consumerism on the part of some” (#50), growing inequality within and between countries (#51), lack of “the culture needed to confront this crisis...leadership capable of striking out on new paths” (#53), too many special interests and “sporadic acts of philanthropy,” too much superficial rhetoric, and the failure of global summits (#54), the rise of a superficial ecology that “bolsters complacency and a cheerful recklessness” (#59), and “signs that things are now reaching a breaking point, due to the rapid pace of change and degradation” (#61).

“If we are truly concerned to develop an ecology capable of remedying the damage we have done, no branch of the sciences and no form of wisdom can be left out, and that includes religion.” (#63) Chapter Two, *The Gospel of Creation*, goes on to explain the wisdom of biblical accounts, the responsibility for God’s earth (#68), the mystery of the universe, the mystery of each creature in the harmony of creation, the sense of deep communion with the rest of nature, and the gaze of Jesus who lived “in full harmony with creation.” (#98)

Chapter Three, *The Human Roots of the Ecological Crisis*, returns to secular themes with a vengeance, covering the dominant technocratic paradigm (#101), our new era where technical prowess has brought us to a crossroads (#102), the lack of human responsibility to match our immense technological development (#105), “the idea of promoting a different cultural paradigm and employing technology as a mere instrument” (#108), how finance overwhelms the real economy (#109), fragmentation of knowledge and technology-related specialization that make it difficult to see the larger picture (#110), an authentic humanity calling for a new synthesis (#112), “the fact that people no longer seem to believe in a happy future; they no longer have blind trust in a better tomorrow” (#113), the “urgent need for us to move forward in a bold cultural revolution” (#114), modernity marked by an excessive anthropocentrism that prizes technical thought over reality (#115), the incompatibility of concern with the protection of nature and the justification of abortion (#120), the need to take account of the value of labor in any integral ecology, which by definition does not exclude human beings (#124), the need to prioritize access to steady employment for all (#127), the need to constantly rethink the goals, effects, and ethical limits of indiscriminate genetic manipulation (#131), and the need for “a broad, responsible scientific and social debate” on the common good, present and future (#135).

“Since everything is closely interrelated, and today’s problems call for a vision capable of taking into account every aspect of the global crisis” (#137), Chapter Four considers elements of an *Integral Ecology* which “clearly respects its human and social dimensions.” It is essential to seek comprehensive solutions considering interactions within natural systems and with social systems, and such strategies “demand an integrated approach to combating poverty, restoring dignity to the excluded, and at the same time protecting nature.” (#139) Other elements include “sustainable use” that considers each ecosystem’s regenerative ability (#140), the need for “an economic ecology capable of appealing to a broader vision of reality” and “a humanism capable of bringing together the different fields of knowledge, including economics, in the service of a more integral and integrating vision” (#141), a “cultural ecology” that protects the treasures of humanity in the broadest sense

while calling for greater attention to local cultures (#143), a need to respect the rights of peoples and cultures and avoid “attempts to resolve all problems through uniform regulations or technical interventions” (#144), the need to show special care for indigenous communities and their view of land as a sacred space and a gift from God (#146), authentic development and the ecology of daily life (#147-151), lack of housing in cities and rural areas as “a grave problem in many parts of the world” (#152), systems of urban transport as a frequent source of suffering (#153), respect for the human person underlying the principle of the common good (#157), the broader vision of justice between the generations—the kind of world we want to leave to our children (#159-160), and our inability to think seriously about future generations as “linked to our inability to broaden the scope of our present interests and to give consideration to those who remain excluded from development” (#162).

Chapter Five, *Lines of Approach and Action*, outlines “the major paths of dialogue which can help us escape the spiral of self-destruction which currently engulfs us” (#163).

1. *Dialogue on the Environment in the International Community*. On the need to think of one world with a common plan and a global consensus for confronting the deeper problems of sustainable agriculture, renewable energy, universal access to drinking water, and better management of marine and forest reserves (#164). Also considers the worldwide ecological movement (#166), the 1992 Earth Summit in Rio echoing the 1972 Stockholm Declaration (#167), the “wide-ranging but ineffectual outcome document” of the Rio+20 conference on sustainable development due to countries that place their national interests above the common good (#169), the injustice to poor countries from internationalizing environmental costs (#170), the worry that buying and selling carbon credits can lead to a new form of speculation and could become a ploy that permits excessive consumption of some countries and sectors (#171), the priority of eliminating extreme poverty in poor countries (#172), enforceable international agreements (#173), and governance systems for oceans and the whole range of “global commons” (#174).
2. *Dialogue for New National and Local Policies*. On limits for healthy and mature societies related to foresight and security with regulatory norms and timely enforcement (#177), a far-sighted environmental agenda (#178), more cooperatives to ensure local self-sufficiency (#179), promoting ways of conserving energy and modifying consumption (#180), countering “the mindset of short-term gain and results that dominates present-day economics and politics” and promoting “a genuine and profound humanism to serve as the basis of a noble and generous society” (#181).
3. *Dialogue and Transparency in Decision-Making*. On transparent assessment of environmental impacts of business ventures (#182-185), reassessments when significant new information comes to light, with involvement of all interested parties (#187), encouraging “an honest and open debate so that particular interests or ideologies will not prejudice the common good” (#188).
4. *Politics and Economy in Dialogue for Human Fulfillment*. On an economy that is not “subject to the dictates of an efficiency-driven paradigm of technocracy” and “rethinking the outdated criteria which continue to rule the world” (#189), openness

to different possibilities that direct energy along new channels (#191), correcting the disparity between excessive technological investment in consumption and insufficient investment in resolving urgent problems facing the human family (#192), accepting “decreased growth in some parts of the world, in order to provide resources for other places to experience healthy growth” (#193), redefining our notion of progress (#194), recognizing the economic and social costs of using up shared environmental resources (#195), the principle of subsidiarity which grants freedom at every level of society, while also demanding a greater sense of responsibility for the common good (#196), and the need for a “healthy politics” that is “farsighted and capable of a new, integral and interdisciplinary approach” to the major problems of humanity (#197).

5. *Religions in Dialogue with Science*. On the need for religions to dialogue among themselves for the sake of protecting nature, defending the poor, and “building networks of respect and fraternity”; dialogue among the various sciences is likewise needed, and between the various ecological movements (#201).

Finally, Chapter Six, on *Ecological Education and Spirituality*, considers many matters that have to change course as we set out on the “long path to renewal” (#202), a new lifestyle that confronts “compulsive consumerism” (#203), embarking on “new paths to authentic freedom” (#205), awakening “a new reverence for life” and developing a “firm resolve to achieve sustainability” as proposed in the Earth Charter (#207), environmental education that critiques the myths of utilitarian modernity (#210), the nobility of caring for creation through little daily actions in lifestyle (#211), institutions empowered to impose penalties for damage inflicted on the environment (#214), learning to see and appreciate beauty (#215), ecological conversion to bring about lasting change as community conversion (#219), a spiritual growth marked by moderation and the capacity to be happy with little (#222), speaking of the integrity of ecosystems and of human life (#224), inner peace reflected in a balanced lifestyle, together with a capacity for wonder (#225), and building a “civilization of love” and making love felt in every action seeking to build a better world (#231).

COMMENT

You don't have to be Catholic, Christian, or any type of believer to benefit from this broadly and deeply humanistic statement. Seculars can skip over the Introduction, and Chapters Two and Six, and get right into 1) What Is Happening to Our Common Home, 3) The Human Roots of the Ecological Crisis, 4) Integral Ecology, and 5) Lines of Approach and Action. Seen together, this “different cultural paradigm” (#108), in contrast to the “dominant technocratic paradigm” (#101), is nothing less than the new human-centered paradigm promoted in the pages of *CADMUS*! For example, see the “*CADMUS* Vision” facing the Contents page, “New Paradigm Quest” by Alexander Likhotal, and several other related essays in the May 2015 issue.

The only complaint that seculars will likely have is the Pope's position that there is too much blame on population growth and not enough on consumerism (#50) and the corresponding defense of the Church's stance against abortion (#120). We can discuss this.

The striking Encyclical Letter from Pope Francis is widely seen as an urgent statement about climate change. But it is much more. The "Integral Ecology" promoted in Chapter 4 is a wide-ranging humanistic worldview that confronts the narrow outlooks taught in our educational institutions and prevailing throughout society. And the "paths of dialogue" outlined in Chapter 5 point to what is needed for the environment, politics, and human fulfillment. We need much more genuine dialogue, and "honest debate must be encouraged among experts, while respecting divergent views" (#61). Unfortunately, there is no suggestion as to how serious dialogue and debate can be promoted in an era of complex issues with many specialized experts and opinionated interest groups.

ALSO SEE the *Islamic Declaration on Global Climate Change* issued by the Islamic Foundation for Ecology and Environmental Sciences in Birmingham UK (www.ifees.org), resulting from the International Islamic Climate Change Symposium in Istanbul, August 2015 (www.islamicclimatedeclaration.org).

II. Jeffrey Sachs on Planetary Boundaries & U.N. Sustainable Development Goals

A very different but equally worthy message is conveyed by Jeffrey D. Sachs in **The Age of Sustainable Development** (Columbia University Press, March 2015, 543p, \$34.95pb), the companion volume to a MOOC with the same title distributed by the United Nations Sustainable Development Solutions Network (www.SDSNedu.org; <http://unsdsn.org>), which is directed by Sachs, who also heads the Earth Institute at Columbia University and served as special advisor to the UN's Millennium Development Goals. SDSN is also offering a course on **Laudato Si'** and promises "more than 30 courses in the next three years."

In the Foreword, Secretary-General Ban Ki-moon states that "Sustainable development is the central challenge of our times." (p.xi) This is followed by Sachs' definition of sustainable development as "both a way of looking at the world, with a focus on the interlinkages of economic, social, and environmental change, and a way of describing our shared aspirations for a decent life, combining economic development, social inclusion, and environmental sustainability. Our new era will soon be described by new global goals, the Sustainable Development Goals." (p.xii)

Chapters provide an overview of sustainable development, and discuss an unequal world, the history of economic development, why some countries remain poor, how to end extreme poverty, planetary boundaries (as concerns climate change, oceans, pollution, food, and energy), social inclusion, education for all, health for all, food security (sustainable

supply and the end of hunger; how environmental change threatens the food system and vice versa), resilient cities, climate change and mitigation of greenhouse gas emissions, saving biodiversity and protecting ecosystem services, and sustainable development goals (ending extreme poverty, economic development within planetary boundaries, effective learning for all children and youth, gender equality and human rights for all, health and wellbeing at all ages), improved agricultural systems, inclusive and resilient cities, curbing greenhouse gas emissions by half by 2050 as the world economy grows perhaps threefold, sustainable and transparent management of water and other natural resources, and transformed government for sustainable development (ending corruption and tax havens, more accountability, and transparency).

“Simply speaking, sustainable development is the greatest, most complicated challenge humanity has ever faced. Climate change alone is extraordinarily difficult, but then add in other challenges of a rapidly urbanizing world, a great extinction process underway due to human domination of ecosystems, increasing population, over-extraction from oceans and land resources, massive illegal trade, and other issues. These are complex problems, and are science-based issues without the necessary worldwide public literacy in the scientific underpinnings. These are issues of tremendous uncertainty in chaotic, nonlinear, complex systems. This is a multigenerational problem that we are unequipped by tradition to think about. It goes to the core of our economic life.” (p.506)

COMMENT

ALSO SEE: **Big World Small Planet: Abundance within Planetary Boundaries** by Johan Rockstrom and Mattias Klum (Max Strom Publishing, May 2015, 205p), an introduction to the “planetary boundaries” concept pioneered by Rockstrom, Director of the Stockholm Resilience Institute, which emphasizes the Anthropocene era resulting from the great acceleration of human “big world” pressures on the planet. Rockstrom has also contributed a MOOC on “Planetary Boundaries” to the UN’s Sustainable Development Solutions Network.

The Age of Sustainable Development is aimed at college-level students and readers.

A more popularized alternative is the **Sustainable World Sourcebook: Critical Issues, Inspiring Solutions, Resources for Action** (Berkeley CA: Sustainable World Coalition/Earth Island Institute, 4th Edition, 2014, 164p, \$25). This ‘Essential Guidebook for the Concerned Citizen’ has a Foreword by Paul Hawken and chapters on environment and healing the web of life, smart energy, a just society in a world that works for everyone, economics that values life (inspired by David Korten and the New Economy Working Group), living well together in strong and nurturing communities, and creating a sustainable future with our daily actions.

III. Nicholas Stern on the Urgency of Tackling Climate Change

Whereas Jeffrey Sachs is a major figure in promoting the UN's Millennium Development Goals and the new Sustainable Development Goals, Nicholas Stern, President of the British Academy and chair of the UK's Grantham Research Institute on Climate Change (London School of Economics), is a major figure in climate change economics. A former Chief Economist of the World Bank, he was the lead author of the **Stern Review on the Economics of Climate Change** (Cambridge University Press, 2007, 692p.), followed by **A Blueprint for a Safer Planet: How to Manage Climate Change** (Bodley Head, 2009). Along with Felipe Calderon, Former President of Mexico, he served as co-chair of the Global Commission on the Economy and Climate, which published its report, **Better Growth, Better Climate: The New Climate Economy Report** in September 2014.

His latest book, **Why Are We Waiting? The Logic, Urgency, and Promise of Tackling Climate Change** (The MIT Press, May 2015, 406p, \$27.95), seeks to make the argument "as accessible as possible to a wide audience."

He begins by stating that "The people of the world are gambling for colossal stakes... the risks from a changing climate over the next hundred years and beyond are immense... (with) a strong possibility that the relationship between human and their environment will be so fundamentally changed that hundreds of millions of people, perhaps billions, would have to move." We are the first generation that "could destroy the relationship between humans and the planet, and perhaps the last generation that can prevent dangerous climate change." The potential paths of development embodying strong reductions in greenhouse gas emissions and creative adaptation "are becoming ever clearer, and they look ever more attractive in themselves." And the portrayal of climate action as being in "inexorable conflict with growth, poverty reduction, and radical improvements in human well-being is false and diversionary... A committed and measured low-carbon transition would likely trigger an exciting new wave of global investment, innovation, and prosperity." (p.xxvii)

Chapters discuss the basic choices the world faces between peril and prosperity, alternative pathways we could take (exploring technologies, services, and processes, as well as costs and benefits), domestic policies for achieving dynamic structural change (including lessons from public economics on market failure), models of the economics of climate change that currently dominate much economic discussion (they "grossly underestimate the economic damages and risks"), the need for a new generation of models with "a broader and wiser set of perspectives" and evidence from a broad range of sources, the "serious analytical errors" in many analyses of intergenerational issues (especially in approaches to discounting associated with short-term decision-making), the "inherent conservatism of science and science modeling" (e.g., omitting key factors such as thawing permafrost, collapse of polar ice sheets, release of seabed methane, ocean acidification, collapse of tropical forests, etc.), the "unwillingness or inability to grapple seriously with the basic ethical principles underlying the values and valuations," ignorance of much of the literature in public economics about cost-benefit analysis and discounting, the broader ethical and moral issues that inform policy analysis of climate change, recent global developments in climate action (there are

many positive examples, but “the world is moving far too slowly”), how international climate change institutes and negotiations could evolve in the near future (e.g. the December 2015 “COP21” conference in Paris), and an approach to international equity that could underpin the framework for climate governance. “Progress at the national level would be greatly facilitated by a deeper and broader understanding of what is happening around the world in the movement toward a low-carbon economy.” (p.245) Stated differently, “A failure to understand what others are doing, and a presumption that it is very little, reinforced by expectations that international cooperation will be weak, has generally hindered progress.” (p.250)

“In the eight years since **The Stern Review** was published, the arguments that the costs of inaction greatly exceed the costs of action, strong then, are still stronger now... The choices we now face present an enormous opportunity. But delay is dangerous. If we fail to take this opportunity and attempt to follow the old ways, the opportunity will be gone. We use it or lose it.” (p.303) To avoid the many risks, or reduce them radically, “fundamental change will be necessary, including essentially zero emissions in the second half of the century... Delay is dangerous because flows of emissions build stocks of greenhouse gases...high-carbon capital and infrastructure, which can last for decades, can lock us into high-emission activities.” (p.304)

Stern finally asks “Why are we moving so slowly?”(p.305) and explores four answers:

1. *Analytical Difficulties and Failings*: the unwillingness of many to recognize moral responsibilities toward future generations, the importance of equity among people (“it is usually the poorest, who have contributed the least to creating the problem, who are hit the earliest and the hardest”), and the nature and scale of what is happening worldwide;
2. *Communication Deficit*: action has been hampered by lack of communication of sound arguments, and a surplus of effective communication of misguided arguments. Moreover, messengers matter: if movement for change is to gather momentum, we can expect different communicators for different audiences, utilizing rhetoric and frames that resonate with values and emotions that could inspire large-scale action; “the importance of frequent, accurate, clear, and accessible public discussion of climate change places a great responsibility on media organizations” (p.307), many operating under a misguided conception of “balance” between scientific evidence and nonscientific opinion;
3. *Psychological Barriers*: communicating and persuading people to act on climate change may be more challenging than many believe; myriad psychological processes work against action, and risk perceptions too often correlate with basic values;
4. *Structural Barriers*: the organization of politics and the structure of the political economy; disproportionate influence of vested interests; groups that see themselves as threatened and fear dislocation; many politicians facing short-term electoral incentives despite medium- and long-term benefits of climate policy; short-term incentive structures in business; a dearth of disclosure and transparency requirements in many jurisdictions; media that favor immediate consumer interests or do not promote the long-term public interest.

In light of the above, Stern concludes with several lessons for climate change: 1) Good analysis is critical: “climate change concerns the management of risk on a colossal scale” (p.314); 2) Appealing to values and a sense of justice can be powerfully motivating; “the transition must be equitable and seen as equitable” (p.315); 3) Communicate strategically and use examples; “extreme weather events can be the most powerful examples of all” (p.315); 4) Package policies: “integrate climate action with other reforms”; 5) Technological, economic, social, and political change are all needed and can reinforce each other; 6) Young people will continue to be a powerful source of pressure for climate action; it is they who will suffer most from the negligence of earlier generations; 7) International cooperation can help drive change: “it is important to understand what others are doing and planning; that is the foundation of cooperation” (p.318).

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IV. GENERAL COMMENT

The obvious and important difference between these three books concerns their general focus. Nicholas Stern centers on climate change and transition to a low-carbon and no-carbon economy. This challenge is the most immediate of the three, with the clearest alternatives. And, indeed, the transition is already underway to some degree, although much more needs to be done, especially in overcoming “analytical failings” of economists.

Jeffrey Sachs focuses on planetary boundaries—a broader and even more worrisome concern that goes beyond climate change—and on pursuing the UN’s new “post-2015” Sustainable Development Goals, a “multigenerational problem” that we are still unequipped to think about, and far more ambitious than transition to a low-carbon economy.

Pope Francis goes even further, calling for a “bold cultural revolution” (#114) to counter the “dominant technocratic paradigm” (#101) that has created much of today’s messy mega-crisis. This is the loudest and clearest call for what the World Academy of Art and Science calls a “human-centered paradigm.” It will surely be difficult to initiate and maintain the many dialogues and debates that are needed, but such a change toward seriously thinking about “integral ecology” may be the most important of all.

Viewed together, the three books should be seen as complementary. All are concerned, for example, not only with the environment, but with ending poverty and promoting human well-being worldwide. Perhaps these books can be seen as three stages of transition—if we are wise and lucky in overcoming the barriers identified by Nicholas Stern. (Another barrier, generally neglected, is the immediacy of security concerns—especially terrorism and cyber-security—which displace attention to long-term climate threats. Ultimately, we cannot have sustainability without security, and vice versa, and the two realms are slowly beginning to overlap.)

A final note is deserved about the efficacy of a new economic paradigm or new economic theory to displace the industrial-era economics that does not value human and natural capital. This is an important part of the long-term human-centered paradigm project. But, as pointed out by Nicholas Stern, what we immediately need is “new economic models with broader and wiser perspectives,” consideration of ethical principles about future generations and more, and overcoming ignorance of the literature on cost-benefit analysis and discounting. Inadequate economic thinking about basic climate concerns is not as grand as a “new economic paradigm,” but simply responsible and thoughtful economics for the 21st century, perhaps encouraged by more debates and dialogues, as the Pope advocates.

And, as Stern urges, the sooner economists (and concerned citizens to prod them) engage in necessary learning, the better. Continuing education is demanded for physicians and airplane pilots; why not economists, too?

These three deeply thoughtful global sustainability leaders deserve attention. One does not have to agree with everything they say, but their books could serve as common ground for overcoming fragmentation (Pope Francis, #110) by initiating a “new dialogue” (#14) and the broad scientific and social debate that is so badly needed (#135).

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