



CREATIONAL SOLIDARITY STRENGTHENS THE WEAKEST LINK:

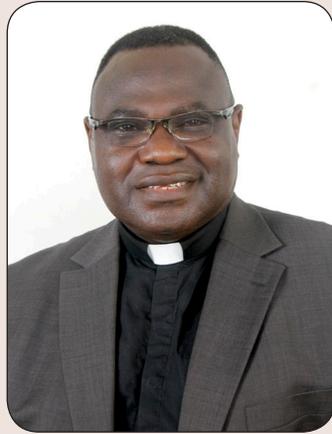
*Energy Ethics and Climate Change
in Sub-Saharan Africa*

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Introduction: The Metaphor of the Weakest Link

Conventional wisdom teaches that a chain, however strong, is broken at its weakest link. Ecologically speaking, nature can be likened to a strong chain in which every link is connected to the one before and the one after it, in a coordinated, consistent, mutual reinforcement of life. Christian religious wisdom too recognizes and upholds “a *solidarity among all creatures* arising from the fact that all have the same Creator and are all ordered to his glory”.¹ This solidarity is preserved by divine providence, as all creation is in a ‘state of journeying’ (*in statu viae*) toward an ultimate perfection yet to be attained, that to which God has destined it.² Human beings do not stand outside of, but are fully integrated with and sustained by this awesome array of natural processes.³ Whereas human activity should protect and sustain this ever provident planet, the brazen pursuit of so-called growth and progress, and the accompanying consumerist attitude and behavior in the last two centuries of our existence, has in fact severely weakened several links in this ecological chain-of-being. So weakened is it that the entire chain is in danger of breaking up.

I believe that humanity can still rise to the occasion and exercise our natural human instinct to protect earth’s ecological resources. To do this successfully, we must acknowledge climate change as the human problem that it is, change our present patterns of consumption, and adopt new ways of living that are consistent with the desire to avert this impending catastrophe. Now more than ever before, human beings must begin to see themselves as part of the planetary ecosystem, and “learn to live within these systems rather than falsely see ourselves as exceptional in relation to the rest of the natural world.”⁴ In practical terms the responsibilities cannot be uniform. It may require that people in some regions of the world like North America, Europe and parts of Oceania must consider reducing consumption

1 Congregation for the Doctrine of the Faith, *Catechism of the Catholic Church* (Vatican City - Dublin: Liberia Editrice Vaticana - Veritas, 1995), No. 344. Emphasis original.

2 Ibid., No. 302.

3 See Pope Francis, *Laudato Si’: On Care for Our Common Home* (Vatican City: Liberia Editrice Vaticana, 24 May 2015), No. 138.

4 Whitney A. Bauman, “Developing a Planetary Ethic: Religion, Ethics and the Environment,” in *Religious and Ethical Perspectives for the Twenty-First Century*, ed. Paul O. Myhre (Winona, MN: Anselm Academic, 2013), p. 228.

in favor of impoverished people around the planet.⁵ The new lifestyle we adopt must be based on a shift to, and an appropriate utilization of, renewable energy resources.

The scourge of Climate Change and the Call to Ecological Conversion

Our present experience of the external manifestations of climate change include unusual events like rising sea levels and persistent floods, expanding deserts and decreasing productive land, exploding human populations/habitations in urban and semi-urban areas, which put a strain on amenities and resources like potable water. Plastic pollution and untreated sewage in waterways exacerbate these impacts. While different parts of the world are impacted differently, the global impact is unmistakable. In Africa, for instance, we are increasingly seeing violent conflicts between hitherto peaceful neighboring communities and between pastoralists and farmers, all generated and/or sustained by the anxieties associated with scarcity of natural resources, anxieties induced by climate change.⁶ These trends warn in the sternest way yet that the interconnected web of nature is crying out for reprieve against the absolute independence and dominion of human beings.⁷

This crisis that has brought planet earth to the brink of disaster has been brought about, at least partly, by human activity and human choices,⁸ and it portends a tragedy of immeasurable proportions, not merely because of what our species stands to lose, but because humanity itself has so far failed to rise to the occasion and do what is natural to it. It is in our nature to care for and tend the earth, to make it more bounteous and more provident to all earth's inhabitants.⁹ This moral failure is a negation of our humanity, which calls for conversion, for there is no limit to the incalculable workings

5 Cf. *Ibid.*, p. 223.

6 See William Tsuma, "Climate Change–Conflict Nexus: Framework for Policy–Oriented Action," *Conflict Trends*, no. 2 (2011). <http://accord.org.za/wp-content/uploads/2011/07/ACCORD–Conflict–Trends–2011–2.pdf> [accessed 24/10/2016].

7 Pope Francis, No. 117.

8 Cf. Brian Stiltner, *Toward Thriving Communities: Virtue Ethics as Social Ethics* (Winona, MN: Anselm Academic, 2016), p. 112.

9 See Anthony J. Kelly, *Laudato Si': An Integral Ecology and the Catholic Vision* (Adelaide, SA: ATF Theology, 2016), p. 30.

of grace in our hearts. Kelly sums this up well when he writes, "[E]cological conversion, whether it occurs from above by the grace of God or grows from below by renewed efforts to explore and act, is the basis for a new lifestyle capable of carrying its convictions to the political, economic and social world."¹⁰ This will certainly not be easy for those who are used to affluent lifestyles. Ecological conversion must be embarked upon as a mark of the solidarity of all humanity. Solidarity, as Pope Francis unequivocally states, "presumes the creation of a new mindset which thinks in terms of community and the priority of the life of all over the appropriation of goods by a few."¹¹ He further says, "[T]he dignity of the human person and the common good rank higher than the comfort of those who refuse to renounce their privileges."¹² Structures and systems that uphold and support this individualist or group socio-economic one-upmanship are unjust and unethical. Every Christian should denounce these structures not because people with privilege and security are bad, but because in their group-think and collective action they become blind to the needs of others, and thereby constrain flourishing and stifle the common good.¹³

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10 *Ibid.*, p. 14.

11 Pope Francis, *Evangelii Gaudium: On the Proclamation of the Gospel in Today's World* (Vatican City: Libreria Editrice Vaticana, Nov. 2013), No. 188.

12 *Ibid.*, No. 217.

13 Cf. Stiltner, p. 112.

Two Worlds Apart: The Scandal of Energy Poverty in the Global South

Energy poverty in Sub-saharan Africa is a typical example of how large groups can become blind or insensitive to the needs of others. The 'two worlds' that Ramanathan describes inhabit the same planet and share the same biogeophysical realities, yet could never be farther apart in terms of privilege and security. The world of the bottom 3 billion (B3B), unlike that of the top 4 billion (T4B), is starved of even the basic energy to lift them out of poverty, yet it is least prepared for, and stands to suffer, the worst effects of climate change! With regard to global emissions, "the entire B3B world contributes only 6% of fossil CO₂ emissions while about 2.5 billion in T4B contributed as much as 85%."¹⁴ The burdens and privileges are, therefore, not equitably shared, and the problem of energy poverty has direct link with what has finally been recognized as the problem of global inequalities. Jim Yong Kim, President, World Bank Group says, "inequality is constraining national economies and destabilizing global collaboration in ways that put humanity's most critical achievements and aspirations at risk."¹⁵ Thus, where people stand on the global poverty-affluence ladder also determines their access to energy. Taking into consideration that more than half of the entire world's extremely poor people live in Sub-saharan Africa (an estimated 389 million of them), it is easy to see that they are also the worst affected by energy poverty.

For certain demographics like women and girl children in Africa, for instance, the impact of the lack of access to needed good energy for basic household use can be the difference between achieving their full potentiality and remaining in the poverty trap. Chores like gathering dry wood for cooking and heating are usually left to this segment of society, and the number of hours per day spent on these chores subtracts from the time they can give to other self-enhancement goals like education, healthy habits and better living standards. They are, therefore, inadvertently rendered even

14 Veerabhadran Ramanathan, "The Two Worlds Approach for Mitigating Air Pollution and Climate Change," Pontifical Academy of Sciences, Extra Series, no. 41 (May, 2014): 1.

15 The World Bank, *Poverty and Shared Prosperity 2016: Taking on Inequality* (Washington, DC, 2016), p. ix.

poorer and placed further down the poverty pile than their males counterparts. This has implications for the assertion of women's human rights to full flourishing and equal treatment as dignified persons.

Energy Corporations' Profit Motive and Human Need in Africa

The present energy poverty in Sub-saharan Africa is needless, yet it is the result of a combination of factors that include corporate insensitivity to the needs of the poor and poor leadership. The sheer absence of extensive investment in clean renewable energy sources, of which Africa has abundance, comes from a well orchestrated corporate strategy to keep this region dependent on fossil fuels. This is evinced in the intensification of investments by oil and gas companies in Exploration and Production (E&P), mostly offshore,¹⁶ as against the present scanty investments in renewable sources. This is upsetting when compared to the yearly amounts of investments required to fully achieve an African renewable energy roadmap by 2030.¹⁷ In the last ten years, for instance, Ghana, Kenya and Uganda have become important players in oil and gas, thanks to foreign investments in E&P. The poor, however, have not yet been positively impacted by this expanding fossil fuel industry. According to the Africa Progress Panel, "Africa's energy systems are inefficient and inequitable. They generate high-cost electricity (around eight times the unit cost of countries in East Asia) through grids that mainly serve national elites. Africa's rich get subsidized energy. The poor get to collect firewood, burn bio-mass and purchase charcoal."¹⁸ The Panel noted that Africa has an opportunity to skip the carbon-intensive energy pathway followed by rich countries and emerging countries alike. Its preference was clearly for renewable technologies that provide a low-cost alternative. Sadly, however, "current investment plans and energy policies

16 See KPMG, *Oil and Gas in Africa* (Cape Town: KPMG, 2015). This Report states that about 57% of all exports from Africa are based on hydrocarbons!

17 See IRENA, *Africa 2030: Roadmap for a Renewable Energy Future* (Abu Dhabi: International Renewable Energy Agency, 2015), p. 7. The authors are clear that in order to bring this transformation about, "it would require on average USD 70 billion per year of investment between 2015 and 2030. Within that total, about USD 45 billion would be for generation capacity. The balance of USD 25 billion would be for transmission and distribution infrastructure," p. 7.

18 Andrew Johnston, *Climate Change: An African Agenda for Green, Low-Carbon Development* (Geneva: Africa Progress Panel Expert Meeting, 2014), p. 12.

have set the region on a high-carbon pathway of dependence on coal and oil. Charting a new course will require a fundamental rethink in approaches to energy investment.”¹⁹

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It is well known that African governments lack the independent financial and technological capacity to make and follow through with investment decisions that would take a different course. Thus, foreign investors are once again calling the shots, even in life-and-death matter of access to energy. Because almost all the energy companies, their multinational oil and gas collaborators and majority shareholding originate from the global North, Africans have a good reason to believe that the energy companies are Northward bound in their operational agenda, namely that of exploiting natural resources from the South and supplying the rich markets of the North. This may make good global business sense, but without an appropriate concern for, or commensurate development of the regions whose land, water and air are impacted by these industrial activities, it amounts to what Pope Francis calls indifference at a globalized scale.²⁰

This way of thinking and doing business, as observed repeatedly in the present wave of globalization, inevitably disadvantages Africa and its people,

19 Ibid.

20 Pope Francis, *Evangelii Gaudium*, No. 54. To sustain a lifestyle which excludes others, or to sustain enthusiasm for that selfish ideal, a globalization of indifference has developed. Almost without being aware of it, we end up being incapable of feeling compassion at the outcry of the poor, weeping for other people's pain, and feeling a need to help them, as though all this were someone else's responsibility and not our own.

and once again African thinkers disavow “[T]he foreign investor [who] has assumed all the characteristics of the former slave trader and colonialist, aiming at getting the highest profits possible with minimum or no social responsibilities whatsoever.”²¹ In the run-up to COP21, it was not surprising, therefore, to hear an insistent voice urging that “African leaders should [must] ensure that a global climate deal acknowledges the historical and moral responsibility of the developed world to help poorer regions adapt to climate effects. They should [must] also insist on Africa's need to grow, develop, create jobs and improve its people's lives—notably by boosting access to energy and transforming agriculture—even as it plays its own part in moving towards a low-carbon future.”²² Today, it is all the more imperative for all individual and corporate investors to insist that the so-called ‘double zero’ ambition of eliminating poverty while decarbonizing energy systems is factored into their investment decisions. This makes not only good ethical business sense, but is also the pathway to a sustainable planet, for us and for future generations.

Environmental Pollution and Energy Wastage: The Example of Gas Flaring in Nigeria

The activities of multinational oil and gas companies in Nigeria over the last fifty years have affected the environment in tragic ways. Incessant oil spills due to a combination of human error, equipment failure and, more recently, sabotage and illegal refining of crude oil by aggrieved local residents and criminal gangs have blighted the landscape in many parts of Nigeria's Niger Delta region.²³ Paradoxically, while shareholders of corporations like ExxonMobil, Chevron, Shell, Total and Agip, mostly investors based in Europe and North America, received huge dividends from their investments

21 John Mary Waliggo, “A Call for Prophetic Action,” in *Catholic Theological Ethics in the World Church: The Plenary Papers from the First Cross-Cultural Conference on Catholic Theological Ethics.*, ed. James Keenan (London: The Continuum Publishing Group, 2007), p. 257. Emphasis original.

22 Johnston, p. 18.

23 See Edward Osang Obi, “The Exploitation of Natural Resources: Reconfiguring Economic Relations toward a Community-of-Interests Perspective,” in *Just Sustainability: Technology, Ecology and Resource Extraction*, ed. Christiana Z Peppard and Andrea Vicini (Maryknoll, N.Y.: Orbis Books, 2015); and Stakeholder Democracy Network, *Communities Not Criminals: Illegal Oil Refining in the Niger Delta* (London and Port Harcourt: SDN, 2013).

in these companies, ecosystems were being irreparably damaged in the Niger Delta region. The oil and gas industry has effectively destroyed the livelihoods of ordinary residents in this region. Taking into consideration that government presence is completely absent in many of these areas, the operations of the industry have rendered residents more dependent on irregular and inadequate corporate handouts (in the name of Corporate Social Responsibility) that often lead to conflict among the people. International investors and ethical investor bodies that have the capacity to change the lot of those who suffer under the impact of their funds, should be in a position to fact-check some of the information they receive from the glossy pages of the Annual Reports rendered by their managers, lest they be inadvertently complicit in the human rights abuses committed by the companies they invest in.

The so-called 'double zero' ambition of eliminating poverty while decarbonizing energy systems in investment decisions makes not only good ethical business sense, but is also the pathway to a sustainable planet, for us and for future generations.

The case of gas flaring is pathetic. Natural gas flaring not only deliberately wastes gas that is a by-product of oil exploration when the complex infrastructure for capturing natural gas does not exist, it is also an important source of emissions.²⁴ In the midst of plenty Nigeria suffers some of the worst energy poverty in Africa.²⁵ Paradoxically, Nigeria still flares gas fifty

24 See Ansem O. Ajugwo, "Negative Effects of Gas Flaring: The Nigerian Experience," *Journal of Environment Pollution and Human Health* 1, no. 1 (2013): 7. Flared gas contains in the main Carbon dioxide and Methane, apart from particulate matter that remains suspended in the atmosphere. Together, these two gases make up 80% of the greenhouse gases that cause global warming.

25 Electricity generation and transmission in Nigeria has never topped 5,000 MW for any length of time. In fact, it has often dropped to as low as 1,000 MW or less, for a national population of ap-

years after the oil and gas industry took off. According to the NNPC's Annual Statistical Bulletin, 2014, a total of 289.6 billion standard cubic feet, SCF, of gas, representing 11.47 per cent of the total gas produced in the country in that year was flared, with only marginal reduction reported in the 2015 edition of the Bulletin.²⁶ From that Bulletin it was also clear that the Joint Venture companies "comprising the multinational oil companies were the worst offenders in terms of quantity, as they flared 211.836 billion SCF of gas, representing 11.2 per cent of their total gas production of 2.11 trillion SCF."²⁷ However, the Gas Flare Tracker, a GIS tracking system developed conjointly by Civil Society and the Ministry of Environment in Nigeria, warns that these figures are "calculated from incomplete data and calibrated to other available statistics by multiplying yearly totals by 6"! This facility also states that during the first ten months of 2016 Nigeria flared 559,805,544.11 Mscf,²⁸ which translates to financial losses of about \$1.9 trillion at an average cost price of \$3.23 per standard cubic feet.²⁹ This loss is huge by any standards, but for a poor and developing nation that is grappling with major gaps in energy and other infrastructure, amidst a recessed economy, this is scandalous, to say the least.

Obviously, in the quest for competitive profit margins, the business managers have calculated that it is cheaper to flare than to invest in the infrastructure to capture the gas and use it to generate electricity for the Nigerian people. This abuse of nature and its resources happens only because the multinational oil and gas companies are in a business partnership with the Nigerian government, in which the Nigerian National Oil Corporation

proximately 180 million people! In June 2016 generation was said to have stagnated at 3,032 MW as against a National Peak Demand of 17,720 MW.

26 See Nigerian National Petroleum Corporation, "2015 Annual Statistical Bulletin," *Annual Statistical Bulletin* (2015). <http://www.nnpcgroup.com/Portals/0/Monthly%20Performance/2015%20ASB%201st%20edition.pdf> [accessed 29/10/2016].

27 Michael Eboh, "Nigeria Loses N174bn to Gas Flaring - NNPC," *The Vanguard Newspaper* (2015). <http://www.vanguardngr.com/2015/07/nigeria-loses-n174bn-to-gas-flaring-nnpc/> [accessed 23/10/2016].

28 Nigerian Ministry of Environment, "Nigerian Gas Flare Tracker", FMOE and SDN <http://gasflare-tracker.ng/> (accessed 13/10/2016). The figures are conservative and based on limited satellite data. The authors suggest these could be multiplied by a factor of 5 to bring them closer to figures from the Nigerian National Petroleum Corporation (NNPC)

29 Average price of gas per cubic meter was computed from U.S. Natural Gas Industrial Price (January-July, 2016), at U.S. Energy Information Administration, "Natural Gas Industrial Price", Department of Energy <https://www.eia.gov/dnav/ng/hist/n3035us3m.htm> (accessed 13/10/2016).

(NNPC) is majority shareholder. The companies thrive on a regulatory structure that is scant on enforcement, and lobby to perpetuate this structure so that their business benefits from it. Naomi Klein, who is aware of the negative impact of this 50 year old practice, asserts, “[T]he practice is responsible for about 40 percent of Nigeria’s total CO2 [sic] emissions.”³⁰ Neither morality nor ecological concern should permit such recklessness, especially in the face of the two extremes of energy affluence in the global North and abject energy poverty in the South. All persons around the world can call for transparency in emissions counting, demand that subsidies for fossil fuels end, and advocate for national contributions to the Green Climate Fund that will support the essential investments into renewable energy structures instead of the inequitable and polluting extraction that is the scourge of Nigeria. All individual and corporate investors can additionally take positive action to mobilize capital and increase funding for clean energy access. Initiatives like 1 for All, which invites partners to invest 1% of assets to scale up funding for energy access, and Sustainable Energy for All, an international forum to advance strategic investment, offer global-scale opportunities for positive and transformative action that individuals can and should support.³¹ More specifically, International Finance Institutions (IFIs) should not do business with countries like Nigeria that waste energy resources, and donor nations should not fund energy projects in these countries, that leave no pathway to a renewable future.

Conclusion: A New Ethical Awakening

It is well known that in the last two centuries industrial-scale development, growth and advancement in Europe and North America caused our species to lose its common touch with the rest of creation, while entertaining ‘misconceived notions of greatness and agency’.³² This attitude to creation’s

30 Naomi Klein, *This Changes Everything: Capitalism vs. The Climate* (Toronto, Canada: Alfred A. Knoff, 2014), p. 264.

31 See See4All Forum, “Going Further, Faster – Together”, Sustainable Energy for All <http://www.se4all.org/forum> (accessed 31/10/2016).

32 See Kevin Glauber Ahern, “Magnanimity: A Prophetic Virtue for the Anthropocene,” in *Turning to the Heavens and the Earth: Theological Reflections on Cosmological Conversion*, ed. Julia Brumbaugh and Natalia Imperatori-Lee (Collegeville, Minnesota: Liturgical Press, 2016), p. 106.

others has so diminished life prospects in our common home that it pleads, even now, that we ‘take another course’.³³ Pope Francis’s call is a poignant example of the voice of religion intervening in the public sphere, seeking and forming new transformative partnerships between the secular and the theological for the preservation of all that we hold dear. Beyond econometrics, the religious injunction ‘Thou shalt not kill’, according to Pope Francis, “sets a clear limit in order to safeguard the value of human life, today we also have to say ‘thou shalt not’ to an economy of exclusion and inequality.”³⁴ Thus, bridging the yawning gap between the over-supply of energy in the global North and the problem of access to basic energy in the global South makes not only econometric sense, but also fulfills religious obligation of solidarity to eradicate extreme global poverty as a whole. Creational solidarity in the sense in which The Catechism teaches that the Creator God not only gives being and existence to His creatures, but also, and at every moment, upholds and sustains them in being, while also enabling them to act and bringing them to their final end,³⁵ is eminently consistent with the African relational ethic of responsibility for the earth and preservation of life. Living life to the full as a creature, and giving life in its fullness to creation as a whole is at the centre of this ethic. Laurenti Magesa, a leading thinker in this ethical framework, opines that whatever gives or promotes life is considered good, just ethical, desirable, and even divine. In the same way, whatever diminishes it is wrong, bad, unethical, unjust, and detestable.³⁶

Therefore, individuals and groups in whose favor the balance of the scales of prosperity is tipped, whether by merit of their personal effort or by the accident of birth place, have a corresponding moral responsibility to ensure equity in the distribution of these goods. Thinking ethically, they must realize that their use or *ab-use* of natural resources like fossil fuels for amassing energy wealth always increases the energy deficit and living standards of poorer people. Similarly, good or positive actions in this regard can go a long way to easing the sufferings of many others elsewhere. All

33 See Pope Francis, *Laudato Si’*, No. 53.

34 Pope Francis, *Evangelii Gaudium*, No. 54.

35 Congregation for the Doctrine of the Faith, No. 301.

36 See Laurenti Magesa, *African Religion: The Moral Traditions of Abundant Life* (Nairobi: Daughters of St. Paul, 1998), p. 77; Waliggo, p. 255. Emphasis original.

people must, therefore, “act with integrity and recognize the global impacts of their personal and collective actions.”³⁷ Goodwill that stretches out in solidarity from the global North will surely be met with a commensurate effort by ordinary Africans to make the shift necessary to a renewable future for the common good. On the other hand, if Africa remains in poverty, energy-wise and otherwise, this continent will constitute an unfortunate weakest link in the planetary ecological chain, and humanity as a whole will have to pay the price for this moral fault.

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³⁷ Erin Lothes Biviano and others, “Catholic Moral Traditions and Energy Ethics for the Twenty-First Century,” *Journal of Moral Theology* 5, no. 2 (2016): 2.



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