

# Catholic Responses to Peacebuilding, Climate Change, and Extractive Industries

WILLIAM N. HOLDEN

UNIVERSITY OF CALGARY, CANADA

KATHLEEN NADEAU

CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO

## **Abstract**

The paper overviews the Catholic response to addressing climate change-related problems and its peacekeeping efforts in the conflict zones impacted by natural and manmade disasters. It argues for the importance of transforming the dominant economic paradigm based on extracting natural resources for sale around the world, into a more environmentally sound approach that promotes the sustainable use of renewable energy sources and the greenifying of the natural environment. It calls for a world in which humans are seen as stewards of creation and their cities are constructed with the view of tendering and caring

for other living sentient species and life forms to better ensure ecological balance and a better-quality life for future generations to come.

**Keywords:** *extractivism, climate change, climate injustice, green house gases, Laudato Si, peacebuilding, preferential option for the poor, social justice, solar power, structural violence, subsidiarity, sustainability.*

You would put off the evil day, yet you hasten  
the reign of violence. (Amos 6:3)

## Introduction

According to a 2019 United Nations Environment Program report, natural resource extraction and processing make up approximately 50 percent of all greenhouse gas emissions.<sup>1</sup> Extractive industries (such as mining, oil, gas, and forestry) are substantial contributors to climate change through their direct greenhouse gas emissions during the process of extraction, the emission of greenhouse gases from their products, their role in degrading carbon sinks, or in some cases all three. In the tar sands of northern Alberta, forests and peatlands are removed before tar sands mining begins, where large

---

<sup>1</sup> United Nations Environment Program, *Global Resources Outlook* (New York: United Nations Environment Program, 2019), 8.

quantities of natural gas are burnt to remove oil from the tar sands. When this oil is consumed, it emits greenhouse gases.<sup>2</sup> In Colombia, “[t]he vast Cerrejón open-cast [coal] mine in La Guajira, has been operating since the 1980s.”<sup>3</sup> It produces tens of millions of tons of high carbon dioxide content coal every year.<sup>4</sup> California, despite being a world leader in the use of renewable energy sources, allows some 200 oil refineries to operate, especially in Los Angeles South Bay and San Francisco Bay areas. They release into the air some of the highest intensity of greenhouse gas pollutants of any refinery region in the US. According to California’s own regulations, oil from these refineries is “too dirty to burn.” Nevertheless, it is shipped out from Long Beach to countries with lax air pollution laws, such as China, by Koch Industries.<sup>5</sup> In Queensland, Australia, there is the proposed Adani coal mine that if built will take up “0.5 percent of the world’s remaining carbon budget—the amount science says we can risk burning before tipping the world over 1.5° C.”<sup>6</sup> Once our carbon emissions go beyond this atmospheric carbon capacity, we can no longer return to preindustrial levels.

---

<sup>2</sup> Paul Rodgers, *Irregular War: The New Threat from the Margins* (London: IB Tauris, 2016), 190.

<sup>3</sup> Danny Chivers, “World in Motion,” *New Internationalist*, May–June 2019, 29.

<sup>4</sup> Chivers, “World in Motion,” 29.

<sup>5</sup> Judith Lewis Mernit, “It’s Time for California to Get Out of the Oil Business,” *Sierra, National Magazine* (March 1, 2019), <https://www.sierraclub.org/sierra/2019-2-march-april/feature/its-time-for-california-get-out-oil-business>.

<sup>6</sup> Chivers, “World in Motion,” 28.

David Spratt and Ian Dunlop wrote, “Climate change intersects with pre-existing national security risks to function as a threat multiplier and accelerant to instability, contributing to escalating cycles of humanitarian and socio-political crises, conflict, and forced migration.”<sup>7</sup> According to David Wallace-Wells, for every 0.5°C increase above preindustrial levels, the world will see a 10 to 20 percent increase in the likelihood of armed conflict.<sup>8</sup> Worldwide, there is a strong causal relationship between mining and oil drilling operations in indigenous forested lands, industrial agriculture (e.g., palm oil and cattle ranching), and climate change and conflict.<sup>9</sup> For example, coal mining areas in the Philippines are usually militarized zones too. Indigenous people frequently identify coal mining interests as the culprits behind the militarization in their area, whereas the government often blames the New People’s Army. As climate change continues there will be more conflict.

In the words of Harald Welzer, “violence has a great future ahead of it.”<sup>10</sup> The enhanced potential for conflict

---

<sup>7</sup> David Spratt and Ian Dunlop, *Existential Climate-Related Security Risk: A Scenario Approach* (Melbourne: National Center for Climate Restoration, 2019), 4. See also Maria Stinus-Cabugon, “Coal Mining a Necessary Evil?,” *The Manila Times*, July 30, 2018, <https://www.manilatimes.net/2018/07/30/opinion/analysis/coal-mining-a-necessary-evil/424855/>.

<sup>8</sup> David Wallace-Wells, *The Uninhabitable Earth: Life After Warming* (New York: Time Duggan Books, 2019), 125.

<sup>9</sup> Eelco Rohling, *The Oceans: A Deep History* (Princeton: Princeton University Press, 2017), 216.

<sup>10</sup> Harald Welzer, *Climate Wars: Why People Will Be Killed in the Twenty-First Century* (Cambridge: Polity Press, 2008), 6.

inherent in climate change “will also require a new diplomacy of peacebuilding,”<sup>11</sup> wrote Christian Parenti. This paper argues for the necessity of moving beyond this current paradigm of extractivism, which sees the continuous extraction of natural resources as the only source of progress, to a more environmentally sustainable approach that promotes the use of renewable energy sources and the greenification of planet earth to ensure a better future for generations to come. It offers an overview on the Catholic response to addressing problems caused by the changing climate and its peacebuilding efforts in conflict-prone communities suffering from manmade and natural climate change-related disasters.

## **Catholic Peacebuilding**

The term “peacebuilding” began to enter widespread use in 1992 when Boutros Boutros-Ghali, then United Nations Secretary General, announced his agenda for peace.<sup>12</sup> Since then, peacebuilding has become a broadly used term connoting activities transcending crisis intervention and generating longterm development and the creation of governance structures and institutions conducive to peace.

---

<sup>11</sup> Christian Parenti, *Tropic of Chaos: Climate Change and the New Geography of Violence* (New York: Nation Books), 2011, 11.

<sup>12</sup> R. Scott Appleby, “Peacebuilding and Catholicism: Affinities, Convergences, Possibilities,” in *Peacebuilding: Catholic Theology, Ethics, and Praxis*, eds. Robert J. Schreier, R. Scott Appleby, and Gerard F. Powers (Maryknoll, New York: Orbis Books, 2010), 11.

Peacebuilding, explained Scott Appleby, encompasses “the range of practices essential to the building of a sustainable and just peace.”<sup>13</sup>

The Roman Catholic Church has addressed issues of peace and social justice since its inception.<sup>14</sup> It traces its roots back to Jesus Christ, the bringer of social peace and good will, who reached out to the poor and oppressed showing great concern for their health and well-being. He redefined the term “neighbor” to include outcasts and called us to love our enemies. He stood alongside and defended women, Samaritans, lepers, prisoners, and itinerants, and asked the rich to follow in his footsteps.

The Spirit of the Lord is upon me, because he has anointed me to bring good news to the poor. He has sent me to proclaim release of the captives and recovery of sight to the blind, to let the oppressed go free, to proclaim the year of the Lord’s favor (Luke 4: 18–19).

In the age of the Roman Emperor Constantine (AD 306–337), the church was a place of asylum (e.g., provided protection to those running away from abusive situations or state agents). The church has also long been a strong advocate for prison reform. However, it was not until the

---

<sup>13</sup> Appleby, “Peacebuilding and Catholicism,” 11.

<sup>14</sup> Robert J. Schreiter, “Future Directions in Catholic Peacebuilding.” In *Peacebuilding: Catholic Theology, Ethics, and Praxis*, eds. Robert J. Schreiter, R. Scott Appleby, and Gerard F. Powers (Maryknoll, New York: Orbis Books, 2010), 424.

end of the nineteenth century that the church's traditional teaching of social justice and peace became formalized in a coherent body of thought referred to as "Catholic Social Teaching,"<sup>15</sup> which was consolidated in the *Compendium of the Social Doctrine of the Church*.<sup>16</sup> This still-developing Compendium provides an overview on how to build a just society and live together with compassion and love in the modern world. It consolidates and summarizes key Catholic social teachings by theme, and umbrellas Papal encyclicals and other church doctrines such as Pope Francis's 2015 *Laudato Si: On Care of Our Common Home*. *Laudato Si* was written in response to some of the most pressing issues of our time: structural inequalities, environmental degradation, and climate change. Building upon earlier encyclicals, Pope Francis began with these words:

*Laudato Si, mi Signore – "Praise be to you, my Lord."*

In the words of the beautiful canticle, Saint Francis of Assisi reminds us that our common home is like a sister with whom we share our life and beautiful mother who opens her arms to embrace us. "Praise be to you, my Lord, through our Sister, Mother Earth, who sustains and governs us, and who produces fruit and colored flowers and herbs." This sister now cries out to

---

<sup>15</sup> Schreiter, "Future Directions in Catholic Peacebuilding," 424.

<sup>16</sup> Pontifical Council for Justice and Peace, *Compendium of the Social Doctrine of the Church* (Manila: Catholic Bishops Council of the Philippines, 2004).

us because of the harm we have inflicted on her by our irresponsible use and abuse of goods with which God endowed her. . . . The violence present in our hearts, wounded by sin, is also reflected in the symptoms of sickness in the soil, in the water, in the air and in all forms of life.<sup>17</sup>

As discussed by Robert Schreiter, “Catholic social teaching has become the principal shaper of the vision of Catholic peacebuilding.”<sup>18</sup> Catholic peacebuilding aims to address social and environmental injustices through non-violent means and to transform the cultural and structural conditions that perpetuate destructive conflict.<sup>19</sup> Three of the most important components of this social teaching are the universal destination of goods, the preferential option for the poor, and the principle of subsidiarity.

First, the universal destination of goods is the principle that God gave the earth to the entire human race for the sustenance of all humans without excluding or favoring anyone.<sup>20</sup> According to the *Compendium of the Social Doctrine of the Church*, the universal destination of goods “requires that

---

<sup>17</sup> Pope Francis, *Laudato Si: On Care for Our Common Home* (Vatican City, Vatican, 2015), 3. See also Vatican.va, no. 1–2, [http://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco\\_20150524\\_enciclica-laudato-si.html](http://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html).

<sup>18</sup> Schreiter, “Future Directions in Catholic Peacebuilding,” 424.

<sup>19</sup> See Marie Dennis, “Catholic Peace-Building,” News Notes, July–August 2012, <https://maryknollogc.org/article/catholic-peacebuilding>.

<sup>20</sup> Pontifical Council for Justice and Peace, *Compendium of the Social Doctrine*, 105.



the poor, the marginalized, and in all cases those whose living conditions interfere with their proper growth, should be the focus of particular concern.”<sup>21</sup>

Second, the preferential option for the poor refers to the church’s main concern for helping to uplift and alleviate the suffering of the poor and oppressed. As Kenneth Himes, OFM, explained, “the option for the poor requires that any fair assessment of a society or community must include whether the least well off are able to be contributing members to, and beneficiaries of, the common good.”<sup>22</sup> The preferential option for the poor was a central theme of the Latin American liberation theologians in the 1970s and has grown to become widely accepted by the universal church.<sup>23</sup> According to the preferential option for the poor, to act on behalf of the poor is to act for Christ.

And the King will say to them in reply, “Amen,  
I say to you, whatever you did for one of these  
least brothers of mine, you did for me.”  
(Matthew 25:40)

Conversely, to fail to act for the poor is to act against Christ.

---

<sup>21</sup> Pontifical Council for Justice and Peace, *Compendium of the Social Doctrine*, 111.

<sup>22</sup> Kenneth R. Himes, “Peacebuilding and Catholic Social Teaching,” in *Peacebuilding: Catholic Theology, Ethics, and Praxis*, eds. Robert J. Schreiter, R. Scott Appleby, and Gerard F. Powers (Maryknoll, New York: Orbis Books, 2010), 276.

<sup>23</sup> Gutiérrez, Gustavo, *A Theology of Liberation* (Maryknoll, New York: Orbis Books, [1988] 1971), xxv.

He will answer them, “Amen, I say to you, what you did not do for one of these least ones, you did not do for me.” (Matthew 25:45)

In the words of Lisa Cahill, “Lack of empathy for others results in apathy toward their needs and suffering” and “this is a rejection of Christ himself.”<sup>24</sup>

Third, subsidiarity is “the principle that decisions should always be taken at the lowest possible level or closest to where they will have their effect.”<sup>25</sup> A concept first introduced by Pope Pius XI in his Social Encyclical, *The Fortieth Year: On the Reconstruction of the Social Order*,<sup>26</sup> subsidiarity refers to the idea that decision-making and social organization work should be conducted from the perspective of the local communities involved, not from the top down. “It is an injustice, and at the same time a grave evil and disturbance of right order to assign to a greater and higher association what lesser and subordinate organizations can do.”<sup>27</sup> As Himes explained, subsidiarity derives from the Latin word *subsidium*, meaning “help” or “assistance.”<sup>28</sup> The aim of the principle of subsidiarity is to place emphasis upon

---

<sup>24</sup> Lisa S. Cahill, “A Theology for Peacebuilding,” in *Peacebuilding: Catholic Theology, Ethics, and Praxis*, eds. Robert J. Schreiter, R. Scott Appleby, and Gerard F. Powers (Maryknoll, New York: Orbis Books, 2010), 304.

<sup>25</sup> *Cambridge Dictionary Online*, s.v. “subsidiarity,” <https://dictionary.cambridge.org/us/dictionary/english/subsidiarity>.

<sup>26</sup> Pontifical Council for Justice and Peace, *Compendium of the Social Doctrine*, 114.

<sup>27</sup> Pius XI, *Quadragesimo Anno*, May 15, 1931, accessed December 29, 2019, [vatican.va](http://www.vatican.va), 9.

<sup>28</sup> Himes, “Peacebuilding and Catholic Social Teaching,” 277.

smaller, more grassroots agencies that can provide services more effectively.<sup>29</sup>

Pope Pius XI's encyclical, *On the Fortieth Year*, was largely written in response to the extreme political and economic turmoil of his time (1922–1939). In Italy, Mussolini had risen into power and the world was entering into the period of the Great Depression (1929–1939). The “West” (the orbit of Western Europe and the US) was living in fear of the spread of communism from the Soviet Union. Although, ironically, the founder of the Soviet Union, Vladimir Lenin, had set up his government on the basis of that very same principle of subsidiarity in so far as it was supposedly ruled directly by councils of soldiers, peasants, and workers.<sup>30</sup> By 1929, Vladimir Lenin's successor, Joseph Stalin had reconsolidated governing power under his authority as the sole dictator.<sup>31</sup> Pope Pius XI directed his criticism at the excesses of Western capitalism, which he argued also deepened the divide between the rich and poor. He called on employers to pay workers a living wage, enough to support a family. He also condemned the irresponsible behavior of banks and those who promoted the creation of illusory desires through marketing.

---

<sup>29</sup> Himes, “Peacebuilding and Catholic Social Teaching,” 277.

<sup>30</sup> History.com Editors, “Vladimir Lenin,” HISTORY, last updated September 19, 2019, accessed September 6, 2020, <https://www.history.com/topics/russia/vladimir-lenin>.

<sup>31</sup> History.com Editors, “Joseph Stalin,” HISTORY, last updated September 19, 2019, <http://www.history.com/topics/russia/joseph-stalin>.

## Climate Change

Any discussion of climate change begins with the sun. Incoming solar radiation from the sun warms the surface of the earth. As the earth's surface warms, thermal infrared radiation is emitted toward space through the atmosphere where greenhouse gases, such as carbon dioxide (CO<sub>2</sub>), act like an insulating blanket, retain some of this outgoing thermal infrared radiation, and warm the surface of the earth.<sup>32</sup> The role of greenhouse gases in warming the earth is a concept that has been well understood since the nineteenth century.<sup>33</sup> If there is an increase in the concentration of greenhouse gases in the atmosphere, they will retain more of this outgoing thermal infrared radiation and force it back down toward the surface of the earth (in a process known as “radiative forcing”), thus warming the surface of the earth. A succinct description of the basic physics of climate change is provided by William de Buys.

Greenhouse gases trap more of the heat that earth would otherwise radiate back into space. The retained heat charges the atmosphere and oceans—the main drivers of the planetary climate system—with more energy, loading them

---

<sup>32</sup> de Buys, William, *A Great Aridness: Climate Change and the Future of the American Southwest*. (New York: Oxford University Press, 2011), 10.

<sup>33</sup> Martin Rees, *On the Future: Prospects for Humanity* (Princeton: Princeton University Press, 2018), 38.

with more oomph to do the things they already do, but more powerfully than before.<sup>34</sup>

Although it is not the most powerful greenhouse gas in terms of its potential for radiative forcing, CO<sub>2</sub> is the most heavily emitted greenhouse gas, and much of the discussion of climate change focuses on CO<sub>2</sub> emissions. Prior to the Industrial Revolution when large quantities of CO<sub>2</sub> were emitted as coal was burnt in the mid-eighteenth century, the concentration of CO<sub>2</sub> in the atmosphere would have been approximately 280 parts per million (PPM).<sup>35</sup> On June 10, 2019, the atmospheric CO<sub>2</sub> observed at the Scripps Institution of Oceanography's Mauna Loa Observatory on the Island of Hawaii was 414.41 PPM—a 48 percent increase above preindustrial levels.<sup>36</sup> At current emission levels it is likely that atmospheric CO<sub>2</sub> will exceed 700 PPM and even reach 1,000 PPM by 2100.<sup>37</sup> So much CO<sub>2</sub> has already been emitted since the beginning of the Industrial Revolution that even if all CO<sub>2</sub> emissions fell to zero in 2100 the earth would continue to warm until the year 3000.<sup>38</sup> “Even if all greenhouse gas emissions stopped immediately,” wrote Parenti, “there is already enough CO<sub>2</sub>

---

<sup>34</sup> de Buys, *A Great Aridness*, 10.

<sup>35</sup> Rohling, *The Oceans*, 192.

<sup>36</sup> Scripps Institution of Oceanography, “The Keeling Curve,” accessed June 11, 2019, <https://scripps.ucsd.edu/programs/keelingcurve>.

<sup>37</sup> Rohling, *The Oceans*, 212.

<sup>38</sup> Nathan P. Gillett et al., “Ongoing Climate Change Following a Complete Cessation of Carbon Dioxide Emissions,” *Nature Geoscience* 4, no.1 (2011): 83–87.

in the atmosphere to cause *significant* warming and disruptive climate change.”<sup>39</sup> As Welzer wrote, “Present and future generations will unfortunately have to deal with a time lag of half a century, whose climate effects would show even if everyone stopped driving a car tomorrow.”<sup>40</sup>

Despite impressions generated by the media, particularly in Australia and North America, there is a solid scientific consensus about anthropogenic climate change.<sup>41</sup> Richard Alley declared, “scientifically there is not another ‘side’ that deserves equal time.”<sup>42</sup> “Although anomalies and uncertainties will always exist, the case for a warming climate is about as solid as any scientific case will ever be,” wrote De Buys.<sup>43</sup> According to the United States Global Change Research Program, “For the warming over the last century, there is no convincing alternative explanation supported by the extent of the observational evidence.”<sup>44</sup> “Climate science has arrived at this terrifying conclusion,” wrote Wallace-Wells,

---

<sup>39</sup> Parenti, *Tropic of Chaos*, 226.

<sup>40</sup> Welzer, *Climate Wars*, 83.

<sup>41</sup> J. Stuart Carlon et al., “The Climate Change Consensus Extends Beyond Climate Scientists.” *Environmental Research Letters* 10, no. 9 (September 24, 2015): 1–12; John Cook et al., “Consensus on Consensus: A Synthesis of Consensus Estimates on Human-Caused Global Warming,” *Environmental Research Letters* 11 (April 13, 2016): 1–7; Oreskes, Naomi. “The Scientific Consensus on Climate Change,” *Science* 306, no. 5702 (December 3, 2004): 1686.

<sup>42</sup> Richard B. Alley, *The Two-Mile Time Machine: Ice Cores, Abrupt Climate Change, and Our Future* (Princeton: Princeton University Press, 2000), xii.

<sup>43</sup> de Buys, *A Great Aridness*, 61.

<sup>44</sup> United States Global Change Research Program, *Climate Science Special Report: Fourth National Climate Assessment, Volume I* (Washington: U.S. Global Change Research Program, 2017), 10.

“by systematically ruling out every alternative explanation for observed warming.”<sup>45</sup>

One of the most vivid examples of the impacts of atmospheric CO<sub>2</sub> fluctuations on the earth’s climate should strike a chord with readers of Catholic Social Teaching familiar with Gustavo Gutiérrez and his 1995 book *Las Casas: In Search of the Poor of Jesus Christ*.<sup>46</sup> Gutiérrez’s book documents the advocacy of the Dominican Priest Father Bartolomé de las Casas on behalf of the indigenous peoples of the New World during the sixteenth century when they suffered immense depredations at the hands of the Iberian colonizers. During this century, approximately 55 million indigenous Americans died as a result of abuses inflicted upon them by Europeans during the conquest of the New World and by the introduction of diseases to which they lacked immunity.<sup>47</sup> This abrupt population decrease led to the abandonment and secondary succession of 56 million hectares of cropland, which in turn lowered atmospheric CO<sub>2</sub> by 4.4 PPM, thus causing a reduction of global surface air temperatures from 0.03°C to 0.08°C during the seventeenth century.<sup>48</sup> Climate change deniers, who reject the anthropogenic contribution to climate change, readily

---

<sup>45</sup> Wallace-Wells, *The Uninhabitable Earth*, 219.

<sup>46</sup> Gustavo Gutiérrez, *Las Casas: In Search of the Poor of Jesus Christ* (Eugene, Oregon: Wipf and Stock Publishers, 1995).

<sup>47</sup> Alexander Koch et al., “Earth System Impacts of the European Arrival and Great Dying in the Americas after 1492,” *Quaternary Science Reviews* 207 (2019), 30.

<sup>48</sup> Koch et al., “Earth System Impacts,” 27.

made the observation of the abnormally cold weather of the seventeenth century. Regardless of their denial, this cold spell was partly caused by anthropogenic changes in atmospheric concentrations of CO<sub>2</sub>—the very process they dispute.

The consequences of climate change will consist of stronger tropical cyclones, such as Super Typhoon Haiyan which destroyed Tacloban City in the Philippines in 2013.<sup>49</sup> It will also entail heavy rainfall events, flooding, extreme heat waves, droughts, forest fires, and rising sea levels.<sup>50</sup> According to Wallace-Wells, some studying climate change refer to the coming twenty-second century as “the century of Hell.”<sup>51</sup> One of the most profound impacts of climate change is climate injustice; those countries who do the least to cause climate change will suffer the most from it, while those countries that do the most to cause climate change will suffer the least from it.<sup>52</sup>

Table 1 displays the ten countries most at risk to climate change. These countries have an average Human Development Index (HDI) ranking of 117.3 (126 if oil rich Brunei Darussalam is excluded). As developing countries, they are

---

<sup>49</sup> William N. Holden, “Typhoons, Climate Change, and Climate Injustice in the Philippines,” *Austrian Journal of Southeast Asian Studies* 11, no. 1 (2018): 117–139.

<sup>50</sup> National Academies of Sciences, Engineering, and Medicine. *Attribution of Extreme Weather Events in the Context of Climate Change* (Washington: The National Academies Press, 2016).

<sup>51</sup> Wallace-Wells, *The Uninhabitable Earth*, 12.

<sup>52</sup> Henry Shue, *Climate Justice: Vulnerability and Protection* (Oxford: Oxford University Press, 2014); Steve Vanderheiden, *Atmospheric Justice: A Political Theory of Climate Change* (Oxford: Oxford University Press, 2008).



lacking in resilience, which historian Kyle Harper defined as “the measure of a society’s capacity to absorb shocks and to fund recovery from injury.”<sup>53</sup> These countries also have relatively low CO<sub>2</sub> emissions with average per capita CO<sub>2</sub> emissions of 3.17 metric tons (1.07 metric tons if oil rich Brunei Darussalam is excluded). In contrast, Australia, Canada, and the US were identified by Albert Magalang, Head of the Philippine Government’s Department of Environment and Natural Resources Climate Change Office (and its Designated National Authority for the United Nations Framework Convention on Climate Change), as the top three high CO<sub>2</sub> emitting developed countries posing obstacles to climate change negotiations!<sup>54</sup>

**Table 1:** The Top 10 Countries Most at Risk to Climate Change and Three Resilient Developing Countries.

Risk Ranking (2018) <sup>a</sup>	Country	Human Development Index Ranking (2017) <sup>b</sup>	Per Capita CO <sub>2</sub> Emissions in Metric Tons (2016) <sup>c</sup>
1	Vanuatu	138	0.5
2	Tonga	98	1.3
3	Philippines	113	1.2

<sup>53</sup> Kyle Harper, *The Fate of Rome: Climate, Disease, and the End of an Empire* (Princeton: Princeton University Press, 2017), 55.

<sup>54</sup> Albert A. Magalang, Head of Department of the Environment and Natural Resources Climate Change Office and Designated National Authority for UNFCCC, Personal Interview by William N. Holden, Quezon City, Philippines, April 20, 2017.

4	Solomon Islands	152	0.3
5	Guyana	125	3.1
6	Papua New Guinea	153	0.9
7	Guatemala	127	1.1
8	Brunei Darussalam	39	18.3
9	Bangladesh	136	0.5
10	Fiji	92	2.3
118	Australia	3	15.5
131	United States	13	15.5
152	Canada	12	15.1

**Sources:** <sup>a</sup>Bündnis Entwicklung Hilft, “World Risk Index 2018 Overview,” *2018 World Risk Report* (Berlin: Bündnis Entwicklung Hilft, 2018), 48–51; <sup>b</sup>United Nations Development Program, *Human Development Indices and Indicators, 2018 Statistical Update* (New York: United Nations Development Program, 2018), 22–25, table 2, ; “CO<sub>2</sub> Emissions (Metric Tons Per Capita),” World Bank Group, accessed August 30, 2020, [https://data.worldbank.org/indicator/EN.ATM.CO2E.PC?name\\_desc=false](https://data.worldbank.org/indicator/EN.ATM.CO2E.PC?name_desc=false).

In contrast to the ten countries most at risk to climate change, Australia, Canada, and the US are at a substantially lower risk to climate change. These countries are developed countries with ample resilience to climate change (with an average HDI ranking of 9.33). However, they are also high CO<sub>2</sub> emitters (with an average per capita CO<sub>2</sub> emission of 15.67 metric tons).<sup>55</sup> Comparing Australia, Canada, and the

<sup>55</sup> Other data sources give substantially higher numbers on CO<sub>2</sub> emissions for Australia, Canada, and the United States but do not provide an emission

US to the ten countries most at risk to climate change illustrates climate injustice.

In 1969, Johan Galtung introduced the concept of “structural violence,” which is defined as some social structure or institution preventing people from meeting their basic needs, as suffering that might otherwise be prevented.<sup>56</sup> To Eric Bonds, climate injustice is a form of structural violence; high emitting countries do not address climate change but greatly benefit from their heavy emissions; in doing so, they “will certainly cause early deaths” and “will drive people from their homes and homelands, all of which will cause untold suffering.”<sup>57</sup>

In addition to structural violence, climate change contributes to direct violence. Extreme weather and water scarcity will inflame and escalate existing social problems in the developing world and will lead to what Parenti calls “a project of open-ended counterinsurgency on a global scale.”<sup>58</sup> To Parenti, climate change will “act as a radical accelerant, like gasoline on a smoldering fire.”<sup>59</sup> Examples of the conflicts compounded by the problem of climate change

---

estimate for all of the countries in Table 1. World Bank data has been used because it provides an estimate for all of these countries.

<sup>56</sup> Johan Galtung, “Violence, Peace, and Peace Research,” *Journal of Peace Research* 6, no. 3 (1969), 171.

<sup>57</sup> Eric Bonds, “Upending Climate Violence Research: Fossil Fuel Corporations and the Structural Violence of Climate Change,” *Human Ecology Review* 22, no. 2 (2016), 4.

<sup>58</sup> Parenti, *Tropic of Chaos*, 10.

<sup>59</sup> *Ibid.*, 65.

include increased cattle raiding in East Africa, increased Afghan opium poppy cultivation, an entrenchment of Naxalite violence in India, and rural to urban Brazilian migration fueling drug violence in the favelas of Rio de Janeiro.

By 2050, it is estimated that up to one billion people will be moving due to climate change.<sup>60</sup> In the Asia Pacific, home to 60 percent of the world's population, hundreds of people died in 2019 due to extreme flooding and landslides, heavy typhoons, deadly fires, droughts, and heatwaves, which even led to some towns and cities nearly running out of water.<sup>61</sup> While wealthier cities like Singapore and Hong Kong can afford to disaster proof themselves to some extent, impoverished communities are at the highest risk of succumbing to disasters resulting from extreme weather changes, which could prove disastrous for human livelihoods, food production, water sources, economies, and infrastructure.<sup>62</sup>

Climate change has already become a catalyst for social breakdown and conflict throughout the Middle East, the Maghreb, and the Sahel, which has contributed to the migration of millions of people from these regions into Europe.<sup>63</sup> Unfortunately, while the developed countries of the world cause climate change with their profligate CO<sub>2</sub>

---

<sup>60</sup> Parenti, *Tropic of Chaos*, 207.

<sup>61</sup> Spratt and Dunlop, *Existential Climate-Related Security Risk*, 4.

<sup>62</sup> Tom Whyman, "First-Class Lifeboats," *New Internationalist* 519 (May–June 2019), 32.

<sup>63</sup> *Ibid.*

emissions, some are militarizing their borders against anticipated refugees. Donald Trump's call to build a wall to isolate the US from Latin American migrants and refugees, the latter fleeing violence in their homelands, could be viewed as an indicator of what is to come, unless he is ousted from office and the world unitedly reverses course to mitigate climate change and solve the problems of poverty and environmental degradation.

### **The Catholic Response to Climate Change**

As discussed in the previous section, climate change is related to peacebuilding because climate change-induced disasters can give rise to conflict.<sup>64</sup> Rising temperatures around the planet further exacerbated regional conflicts such as on local drought cycles in East Africa.<sup>65</sup> With Pope Benedict XVI's 2010 Message for the World Day of Peace, the Roman Catholic Church gave what Schreiter called "an encouraging sign that the concerns about the environment for Catholic peacebuilding stand to become more developed within the coming period of time."<sup>66</sup>

For the 2010 World Day of Peace Pope Benedict XVI selected the theme "If you want to cultivate peace, protect creation."<sup>67</sup> According to him, one of the most serious

---

<sup>64</sup> Schreiter, "Future Directions in Catholic Peacebuilding," 447.

<sup>65</sup> Ibid.

<sup>66</sup> Schreiter, "Future Directions in Catholic Peacebuilding," 447.

<sup>67</sup> Pope Benedict XVI, *Message of His Holiness Pope Benedict XVI for the Celebration of the World Day of Peace* (Vatican City: Pope Benedict XVI, 2010), 1.

threats to peace, aside from modern warfare, “are the threats arising from the neglect—if not downright misuse—of the earth and the natural goods that God has given us.”<sup>68</sup> He further adds that, “The environment must be seen as God’s gift to all people and the use we make of it entails a shared responsibility for all humanity, especially the poor and future generations.”<sup>69</sup> He then asked, “Can we remain indifferent before the problems associated with such realities as climate change . . . ?”<sup>70</sup> Touching on the issue of climate injustice, Pope Benedict XVI pointed out that “It is important to acknowledge that among the causes of the present ecological crisis is the historical responsibility of the industrial countries.”<sup>71</sup> He emphasized the principle of subsidiarity stating how “it is important for everyone to be committed at his or her proper level.”<sup>72</sup>

Schreiter’s 2010 prediction that the environment for Catholic peacebuilding would become more developed within coming decades was prophetic. In 2015, Pope Francis issued the Papal Encyclical *Laudato Si: On Care for Our Common Home*, a profoundly important document dealing with matters of climate change.<sup>73</sup> In *Laudato Si*, Pope Francis

---

<sup>68</sup> Pope Benedict XVI, *Message of His Holiness*, 1.

<sup>69</sup> *Ibid.*

<sup>70</sup> *Ibid.*, 2.

<sup>71</sup> *Ibid.*, 3.

<sup>72</sup> *Ibid.*, 4.

<sup>73</sup> William N. Holden, and William O. Mansfield, “*Laudato Si*: A Scientifically Informed Church of the Poor Confronts Climate Change,” *Worldviews: Global Religions, Culture, and Ecology* 22, no. 1 (March 12, 2018): 28–55.

declared climate change to be “one of the principal challenges facing humanity in our day.”<sup>74</sup> In this encyclical Pope Francis displays a solid understanding of the science behind climate change: the scientific consensus behind it, the large-scale natural disasters accompanying it, how its effects will be felt for a long time, how it will generate migration, and the urgent need to reduce CO<sub>2</sub> emissions.

A common theme running throughout the encyclical is the extent to which climate change will disproportionately impact the poor. As Pope Francis explained, all of the world’s countries have a responsibility to prevent climate change but the highly developed countries, who became prosperous as a result of their historical use of fossil fuels, have a greater responsibility to reduce their emissions. Quoting the Bolivian Bishops, Pope Francis stated:

the countries which have benefited from a high degree of industrialization, at the cost of enormous emissions of greenhouse gases, have a greater responsibility for providing a solution to the problems they have caused.<sup>75</sup>

An important component of *Laudato Si* is how it demonstrates adherence to the principle of subsidiarity by His Holiness quoting the Catholic Bishops Conferences of Argentina, Australia, Bolivia, Brazil, Canada, Germany,

---

<sup>74</sup> Pope Francis, *Laudato Si*, 20.

<sup>75</sup> *Ibid.*, 86.

Japan, New Zealand, Paraguay, Portugal, South Africa, and the US.<sup>76</sup> According to Edwin Gariguez, Executive Secretary of the National Secretariat for Social Action (NASSA), Caritas Philippines, subsidiarity is displayed throughout *Laudato Si*. Pope Francis did not just use his authority; he referenced many other authorities including non-Catholics and even non-Christians.

In articulating how everyone has a role to play, Pope Francis was respecting many people and not just using his authority. This is how subsidiarity should work; everyone must address environmental degradation.<sup>77</sup> In the Philippines, Edione Febrero, Social Action Director of the Diocese of San Jose de Antique, Panay, explained that subsidiarity comes in through the concept of protecting the earth where you are; people are taught to act locally in their homes and schools.<sup>78</sup> According to Meliton Oso, Social Action Director of the Archdiocese of Jaro, Panay, subsidiarity also comes from the concept of doing what you can and linking to those who can do more.<sup>79</sup>

---

<sup>76</sup> Holden and Mansfield, "*Laudato Si*," 149.

<sup>77</sup> Father Edwin A. Gariguez, Executive Secretary, National Secretariat for Social Action, Caritas-Philippines, Personal Interview by William N. Holden, Tagaytay, Cavite, Philippines, April 26, 2017.

<sup>78</sup> Father Edione Febrero, Social Action Director, Diocese of San Jose de Antique, Personal Interview by William N. Holden, Tagaytay, Cavite, Philippines, April 26, 2017.

<sup>79</sup> Father Meliton Oso, Social Action Director, Archdiocese of Jaro, Personal Interview by William N. Holden, Tagaytay, Cavite, Philippines, April 26, 2017.



Another vital application of Catholic social thought to climate change is “the preferential option for the poor.” Climate injustice constitutes a denial of the preferential option for the poor because, although the poor of the world do not cause climate change, they disproportionately suffer its consequences.<sup>80</sup> According to Juderick Calumpiano, Social Action Director of the Diocese of Borongan on Samar island, climate change involves developing countries suffering the most and yet have the responsibility to deal with climate change that is brought upon them. Those who cause climate change should not pass the burden of its mitigation and adaptation to these poor countries.

Climate injustice is “a concrete example of not providing a preferential option for the poor.”<sup>81</sup> According to Nathaniel Alegre, the Disaster Risk Reduction and Community Organizing Coordinator of the Diocese of Borongan, the poor countries of the world are suffering from the emissions of rich countries. As such, climate injustice is the ultimate example of the denial of the preferential option for the poor.<sup>82</sup> Amalie Obusan, Greenpeace Southeast Asia Country

---

<sup>80</sup> Holden, William N., and Kathleen M, Nadeau, “Reflections on Pope Francis's *Laudato Si: On Care for Our Common Home: Ethical and Social Dimensions of the Ecological Crisis Today*,” *Philippine Quarterly of Culture and Society* 46, no. 1 & 2 (2018), 117.

<sup>81</sup> Father Juderick Calumpiano, Social Action Director, Diocese of Borongan, Borongan, Eastern Samar, Personal Interview by William N. Holden, December 16, 2016.

<sup>82</sup> Nathaniel D. Alegre, Disaster Risk Reduction and Community Organizing Coordinator, Diocese of Borongan, Borongan, Eastern Samar, Personal Interview by William N. Holden, December 16, 2016.

Director for the Philippines, suggested that climate change's impacts infringe on the basic rights of all, but if there is a sector in society that bears the brunt of this it is the poor. In Obusan's words, climate change "is perhaps the epitome of the denial of the preferential option for the poor."<sup>83</sup> As Othelia Versoza, survivor of Super Typhoon Haiyan in Tacloban City, Philippines, explained, climate injustice is the denial of the preferential option for the poor because the capitalists of the developed countries only think about the world's rich who are capable of buying their products while the rest of the world are their slaves. Versoza feels she is one of the slaves of these developed countries who are only getting richer through their greenhouse gas emissions when they should be aiding people affected by climate change.<sup>84</sup>

### **The Catholic Bottom-Up Approach to Peacebuilding in an Age of Climate Change**

In addressing climate change, the Roman Catholic Church brings together and applies the principles of subsidiarity, its preferential option for the poor, and the universal destination of goods. It takes a bottom-up approach to peacebuilding and development that begins by giving a voice to the poor living in affected communities. Globally, under the leadership of the Pope, the church can

---

<sup>83</sup> Amalie Obusan, Greenpeace Southeast Asia Country Director, Personal Interview by William N. Holden, Quezon City, Philippines, April 26, 2017.

<sup>84</sup> Othelia N. Versoza, Super Typhoon Haiyan Survivor, Personal Interview by William N. Holden, Tacloban City, December 21, 2016.

engage in climate change activism. Within individual countries, under the leadership of the Bishops Conferences, the church can so engage. Within individual dioceses, under the leadership of diocesan bishops, it can participate in such movements. At the level of individual parishes, under the leadership of parish priests, the church can get involved to help mitigate climate change. Indeed, even at a *barrio* level, members of small Christian communities can help address the problem of climate change.

Consider these multiple layers of social involvement in the Philippine example. Globally, the church acts through the Global Catholic Climate Movement to bring *Laudato Si* to life.<sup>85</sup> To Father Edwin Gariguez, the church as a whole plays a big role in addressing climate change because of its moral authority. The Roman Catholic Church has organized a global Catholic climate movement to promote climate justice and to make developed countries accountable for causing global warming. Developed countries have a responsibility to give aid to developing countries.<sup>86</sup>

At a national scale within the Philippines, NASSA has three mandates: development, advocacy, and humanitarian aid. It advocates for holistic and integral human development and for the sustainable management of the environment in the interest of human dignity. Development

---

<sup>85</sup> Global Catholic Climate Movement, accessed June 11, 2019, <https://catholicclimatemovement.global>.

<sup>86</sup> Gariguez, Personal Interview.

work from this perspective aims to address structural problems, especially poverty and environmental degradation, to promote the human weal, while humanitarian aid is focused on saving lives and alleviating suffering in the immediate aftermath of emergencies such as natural and climate change related disasters.

NASSA does a lot of coordination including activism regarding climate injustice.<sup>87</sup> Locally in the Philippines, the church also engages in climate change activism through its Basic Ecclesial Communities (BECs). The BECs are small communities composed of 40 to 200 families organized on a parish-by-parish basis.<sup>88</sup> Some BECs consist of parish members who regularly attend Sunday services and meet together weekly in the church centers to discuss scripture readings and its application in their own lives. Others may involve groups of villagers or neighbors who meet in one another's homes during celebrations such as a birthday and read and discuss how stories from the Bible reflect their own experiences.

According to Gary Alvarado, a Redemptorist Priest based in Tacloban City, the BEC movement can be an effective vehicle for imparting consciousness into people to carry out "their God-given mission" to protect the environment, by

---

<sup>87</sup> Gariguez, Personal Interview.

<sup>88</sup> William N. Holden, "Post Modern Public Administration in the Land of Promise: The Basic Ecclesial Community Movement of Mindanao," *Worldviews: Global Religions, Culture, and Ecology* 13, no. 2 (January 1, 2009): 180–218. <https://doi.org/10.1163/156853509X438599>.

encouraging them to think about how they can protect it and put their words into action.<sup>89</sup> As Father Meliton Oso put it, the BEC movement is set up along the lines of *Laudato Si* and is an example of thinking globally and acting locally, as illustrated in the case of Philippine BEC clean up drives and tree planting programs.<sup>90</sup>

## **Beyond Neoliberal Extractivism**

As indicated earlier, natural resource extraction and processing make up approximately 50 percent of all greenhouse gas emissions.<sup>91</sup> Thus, to prevent catastrophic climate change (and the conflict accompanying it) humanity must move beyond extractivism, “a term originally used to describe economies based on removing ever more raw materials from the earth, usually for export to traditional colonial powers, where ‘value’ was added.”<sup>92</sup> According to Klein:

Extractivism is a nonreciprocal, dominance-based relationship with the earth, one purely of taking. It is the opposite of stewardship, which involves taking but also taking care that regeneration and future life continue. Extractivism is the mentality

---

<sup>89</sup> Father Gary Alvarado, Redemptorist Priest, Personal Interview by William N. Holden, Tacloban City, Leyte, December 18, 2016.

<sup>90</sup> Oso, Personal Interview.

<sup>91</sup> United Nations Environment Program, *Global Resources Outlook*, 8.

<sup>92</sup> Naomi Klein, *This Changes Everything: Capitalism vs the Climate* (Toronto: Knopf, 2014), 169.

of the mountaintop remover and the old-growth clear-cutter. It is the reduction of life into objects for the use of others, giving them no integrity or value of their own—turning living complex ecosystems into “natural resources.”<sup>93</sup>

Railing against extractivism (applying the principle of subsidiarity) in *Laudato Si*, Pope Francis wrote, “God gave the earth to the entire human race for the sustenance of all humans without excluding or favouring anyone.”<sup>94</sup>

Neoliberalism has become hegemonic as a discourse, something that has become taken for granted. Richard Peet states, neoliberalism has “achieved the supreme power of being widely taken as scientific and resulting in an optimal world.”<sup>95</sup> He argued that protestations against neoliberalism have been downplayed “as an offence against reason, progress, order, and the best world ever known.”<sup>96</sup> Multilateral organizations, such as the Asian Development Bank and the World Bank, have aggressively encouraged the adoption of neoliberal policies by encouraging governments of developing countries to extract raw materials in the name of “development.”<sup>97</sup> A substantial impetus to extractivism

---

<sup>93</sup> Klein, *This Changes Everything*, 169.

<sup>94</sup> Pontifical Council for Justice and Peace, *Compendium of the Social Doctrine*, 105.

<sup>95</sup> Richard Peet, *Unholy Trinity: The IMF, World Bank, and WTO* (London: Zed Books, 2003), 4.

<sup>96</sup> Peet, *Unholy Trinity*, 4.

<sup>97</sup> William N. Holden, “Ecclesial Opposition to Large-Scale Mining on Samar: Neoliberalism Meets the Church of the Poor in a Wounded Land,” *Religions* 3, no. 3 (2012): 833–861, <https://doi.org/10.3390/rel3030833>; “Neoliberal Mining

has been the ascendancy of neoliberalism, “a theory of political economic practices proposing that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade.”<sup>98</sup>

In moving beyond extractivism it is imperative that we stop using fossil fuels. Pope Francis poignantly argued, “there is an urgent need to develop policies so that, in the next few years, the emission of carbon dioxide and other highly polluting gases can be drastically reduced.”<sup>99</sup> That is, “fossil fuels—especially coal, but also oil, and to a lesser degree gas—needs to be progressively replaced [by renewable energy sources such as solar power] without delay.”<sup>100</sup> As Parenti explained, “ultimately, the most important thing is mitigation: we must decarbonize our economy.”<sup>101</sup>

Solar power, an energy source that produces no pollution, kills no miners, and produces no radioactive waste, is an ideal source of decarbonized energy. According to Martin Rees, “the Sun provides five thousand times more energy to

---

amid El Niño Induced Drought in the Philippines,” *Journal of Geography and Geology* 5, no. 1 (2013): 58–77, <https://doi.org/10.5539/jgg.v5n1p58>; “The New People’s Army and Neoliberal Mining in the Philippines: A Struggle against Primitive Accumulation,” *Capitalism Nature Socialism* 25, no. 3 (2014): 61–83, <https://doi.org/10.1080/10455752.2014.922109>.

<sup>98</sup> David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2005), 2.

<sup>99</sup> Pope Francis, *Laudato Si*, 21.

<sup>100</sup> *Ibid.* 122.

<sup>101</sup> Parenti, *Tropic of Chaos*, 12.

the Earth's surface than our total human demand for energy."<sup>102</sup> For humanity to achieve the Paris accord target of limiting global warming to 1.5°C above preindustrial levels, it will be necessary to close one coal-fired electricity station every day until 2040.<sup>103</sup> Unfortunately, we are doing the opposite. Coal-fired power stations are still being built, and there are 1,600 new coal plants worldwide being planned for construction or are currently under construction.<sup>104</sup> Globally, coal-fired power has nearly doubled since 2000.<sup>105</sup> Political leaders in developed countries are reluctant to do anything drastic to reduce greenhouse gas emissions. They would rather continue putting off action on climate change, "especially if the benefits are far away and decades into the future."<sup>106</sup>

Consider Justin Trudeau, the Prime Minister of Canada. While running for office in 2015, Trudeau campaigned on a platform of making Canada a leader on climate change. In December of that year Trudeau and several provincial premiers attended the Paris Climate Conference amid great fanfare. However, by 2018, concerned about his lagging popularity in oil-rich Alberta, Trudeau's government spent billions of dollars purchasing a pipeline to transport bitumen from the tar sands of northern Alberta to the Pacific coast.

---

<sup>102</sup> Rees, *On the Future*, 49.

<sup>103</sup> Hazel Healy, "Habitable Earth," *New Internationalist*, May–June 2019, 20.

<sup>104</sup> Chivers, "World in Motion," 29.

<sup>105</sup> Wallace-Wells, *The Uninhabitable Earth*, 45.

<sup>106</sup> Rees, *On the Future*, 45.



This earned him the derogatory nickname “Justin Crude Oil” among environmentalists who felt betrayed by the abrogation of his earlier promise to make Canada a leader on climate change. For these politicians, who are worried about short-term electoral cycles, the hard choices (such as banning the use of fossil fuels) that must immediately be made now to address climate change are too great a burden to be made—these are what Amos 6:3 refers to as the “evil day” that is put off. However, by putting off these hard choices these politicians put humanity on a collision course with catastrophic climate change and in doing so hasten the reign of violence.

Developed countries must also provide mitigation assistance to developed countries. In the words of Welzer, wealthy high-tech nations should “provide less modernized countries with cost-free technology for the reduction or avoidance of noxious emissions.”<sup>107</sup> According to Pope Francis, there must be “mechanisms and subsidies [that] allow developing countries access to technology transfer, technical assistance, and financial resources.”<sup>108</sup> Unfortunately, the dominance of neoliberalism has made the implementation of policies to address climate change difficult. In Parenti’s words, “to venerate the market, and despise the state, is to oppose legal limits on greenhouse gas

---

<sup>107</sup> Welzer, *Climate Wars*, 171.

<sup>108</sup> Pope Francis, *Laudato Si*, 127.

emissions.”<sup>109</sup> According to Pope Francis, this demonstrates how “the environment is defenceless before the interests of a deified market, which has become the only rule.”<sup>110</sup> Pope Francis rejects neoliberalism’s exaltation of the market stating that “by itself, the market cannot guarantee integral human development and social inclusion.”<sup>111</sup>

Modern neoliberal capitalism suffers from high and widening inequality.<sup>112</sup> This rampant inequality has not gone unnoticed by Pope Francis, who wrote “we should be particularly indignant at the enormous inequalities in our midst.”<sup>113</sup> Inequality makes economic growth an imperative. If the absolute size of the economic pie keeps growing, poorer segments of society will feel that they are becoming better off, and they will not focus their attention on the unequal distribution of wealth and income.<sup>114</sup> However, infinite growth in a world constrained by finite resources is impossible. In the case of growth fueled by the extraction (and burning) of fossil fuels, there is only so much absorptive capacity in our atmosphere before catastrophic

---

<sup>109</sup> Parenti, *Tropic of Chaos*, 222.

<sup>110</sup> Pope Francis, *Laudato Si*, 222.

<sup>111</sup> *Ibid.*, 82.

<sup>112</sup> Branko Milanovic, *Global Inequality: A New Approach for the Age of Globalization* (Cambridge, Massachusetts: Harvard University Press, 2016); Joseph E. Stiglitz, *The Price of Inequality: How Today's Divided Society Endangers Our Future* (New York: Norton, 2012).

<sup>113</sup> Pope Francis, *Laudato Si*, 66.

<sup>114</sup> Richard Wilkinson and Kate Pickett, “Equality is Better- for Everyone,” in *People First Economics*, ed. David Ransom and Vanessa Baird, (Oxford: Oxford University Press, 2010), 155–163.

climate change occurs. “The world,” wrote Leo Barasi, “can never prevent dangerous climate change as long as it sticks with an economic model based on growth.”<sup>115</sup>

Concerns about the viability of infinite growth in a world constrained by finite resources were articulated in *Laudato Si*. Pope Francis indicated how some argue “that the problems of global hunger and poverty will be resolved simply by market growth.”<sup>116</sup> “The idea of infinite or unlimited growth,” wrote Pope Francis, “is based on the lie that there is an infinite supply of the earth’s goods and that this leads to the planet being squeezed dry beyond every limit.”<sup>117</sup> Furthermore, we also need to “think of containing growth by setting some reasonable limits and even retracing our steps before it is too late.”<sup>118</sup> Climate change is caused by growth; growth is made necessary by inequality. Rapid growth can no longer be relied upon to ameliorate the position of the lower classes. As such, action to prevent climate change will have to entail a redistribution of income. In the words of Barasi, “there would almost certainly have to be massive wealth redistribution to compensate those who had previously counted on the hope of future growth to alleviate their poverty.”<sup>119</sup>

---

<sup>115</sup> Leo Barasi, *The Climate Majority: Apathy and Action in an Age of Nationalism* (Oxford: New Internationalist Publications, 2017), 121.

<sup>116</sup> Pope Francis, *Laudato Si*, 81.

<sup>117</sup> *Ibid.*, 79.

<sup>118</sup> Pope Francis, *Laudato Si*, 141.

<sup>119</sup> Barasi, *The Climate Majority*, 121.

Massive wealth redistribution may sound like a radical policy prescription, but given the vast disparities in incomes and wealth present in today's world, it is certainly feasible. In the words of Rees,

. . . the plight of the 'bottom billion' in today's world could be transformed by redistributing the wealth of the thousand richest people on the planet. Failure to respond to this humanitarian imperative, which nations have the power to remedy, surely casts doubt on any claims of institutional moral progress.<sup>120</sup>

Moreover, there needs to be a change in mindset among all classes of society from one focused on accumulation of monetary and material gains to that of qualitative improvements in social and environmental health and well-being. Can we dream of a different way of life that uses renewable energy sources and that lives harmoniously with other living species and the natural environment? A way to start might be by promoting small organic farming communities, multi-cropping, the use of renewable resources, and the harmonic management of societies with nature that allows trees and all living things to work together with the ecosystem to heal our mother earth.

---

<sup>120</sup> *On the Future*, 6.

## Conclusion

In *Laudato Si*, Pope Francis has called us stewards of God's creation charged to manage the earth's resources more sustainably and redistribute its fruits more equitably. It is significant that the Roman Catholic Church has issued a warning about climate change. With the widespread presence of the Catholic Church, it has a following in both developed and developing countries. As a result, it is well placed to help address the problem of climate change. The three precepts of Catholic Social Teaching (universal destination of goods, the preferential option for the poor, and the principle of subsidiarity) have a theological underpinning. However, these are cast in non-theological language thus making them readily accessible to secular members and regular clergy (members of religious orders) of the church.<sup>122</sup> As Appleby wrote:

Humanitarian actors and relief and development workers, whatever their religious background, prioritize the alleviation of human suffering and strive to provide nutrition, education, clean water, health care, and equal access to employment. They would readily resonate with articles of Catholic social teaching such as the preferential option for the

---

<sup>122</sup> Appleby, "Peacebuilding and Catholicism," 12.

poor, solidarity, the priority of labor, and stewardship of the environment.<sup>123</sup>

Climate change requires immediate action, or its results will become catastrophic. In the words of Eelco Rohling of the Climate Change Institute at the Australia National University, “It is time to escape the trappings of incessant rhetoric, arguments, deliberate sowing of doubt and confusion, and trying to shoot messengers, which serve only greed, self-enrichment, and ignorance.”<sup>124</sup> By engaging in climate change activism, the church is engaging with what Pope Francis called, “one of the principal challenges facing humanity in our day.”<sup>125</sup> As environmental activist and scholar Naomi Klein explained, “climate change has become an existential crisis for the human species.”<sup>126</sup> It will profoundly affect humanity, particularly the poor and future generations.

Finally, peacebuilding is an important undertaking of the Roman Catholic Church. Extractive industries are a substantial source of climate change-inducing greenhouse gas emissions that have and will lead to conflict. By engaging in climate change activism, the church is acting to build peace. However, according to Rohling, “it is essential to think beyond the current century when considering climate change and its impact on civilization.”<sup>127</sup>

---

<sup>123</sup> Appleby, “Peacebuilding and Catholicism,” 13.

<sup>124</sup> Rohling, *The Oceans*, 217.

<sup>125</sup> Pope Francis, *Laudato Si*, 20.

<sup>126</sup> Klein, *This Changes Everything*, 15.

<sup>127</sup> Rohling, *The Oceans*, 213.

With the evident environmental changes of the earth, we have already experienced some of the deadly effects of climate change. In the Philippines, some of these became apparent during Super Typhoon Haiyan in Tacloban City when a ship, the MV Eva Jocelyn, broke loose from its moorings on the morning of November 8, 2013. The strong winds and rain caused it to run aground, destroying homes and killing people in an urban poor community.<sup>128</sup> After the storm, the MV Eva Jocelyn's bow was left behind as a monument memorializing the thousands of lives lost and the resilience of those who survived in advocacy for the rebuilding of a more sustainable planet earth.<sup>129</sup> May monuments like this not merely become an object of memorializing but be an impetus for the actions that must be taken.

## **Bibliography**

Alegre, Nathaniel D. Disaster Risk Reduction and Community Organizing Coordinator, Diocese of Borongan. Personal Interview by William Holden. Borongan, Eastern Samar. December 16, 2016.

---

<sup>128</sup> Holden, "Typhoons, Climate Change, and Climate Injustice," 118.

<sup>129</sup> MV Eva Jocelyn's bow bears the inscription: "This shipwreck stands as a remembrance of the thousands of lives that perished throughout the City of Tacloban on that day. It marks the genesis of our advocacy for resilience and adaptation to a new normal that will continue for generations to come."

- Alley, Richard B. *The Two-Mile Time Machine: Ice Cores, Abrupt Climate Change, and Our Future*. Princeton: Princeton University Press, 2000.
- Alvarado, Father Gary Redemptorist Priest. Personal Interview by William Holden. Tacloban City, Leyte. December 18, 2016.
- Appleby, R. Scott. "Peacebuilding and Catholicism: Affinities, Convergences, Possibilities." In *Peacebuilding: Catholic Theology, Ethics, and Praxis*, edited by Robert J. Schreiter, R. Scott Appleby, and Gerard F. Powers, 3–22. Maryknoll, New York: Orbis Books, 2010.
- Barasi, Leo. *The Climate Majority: Apathy and Action in an Age of Nationalism*. Oxford: New Internationalist Publications, 2017.
- Bonds, Eric. "Upending Climate Violence Research: Fossil Fuel Corporations and the Structural Violence of Climate Change." *Human Ecology Review* 22, no. 2 (2016): 1–21. <https://doi.org/10.4225/13/58213bfb66967>.
- Cahill, Lisa S. "A Theology for Peacebuilding." In *Peacebuilding: Catholic Theology, Ethics, and Praxis*, edited by Robert J. Schreiter, R. Scott Appleby, and Gerard F. Powers, 300–331. Maryknoll, New York: Orbis Books, 2010.
- Calumpiano, Father Juderick. Social Action Director, Diocese of Borongan. Personal Interview by William Holden. Borongan, Eastern Samar. December 16, 2016.
- Carlton, J. Stuart, Rebecca Perry-Hill, Matthew Huber, and Linda S. Prokopy. "The Climate Change Consensus Extends Beyond Climate Scientists." *Environmental Research Letters* 10, no. 9 (September 24, 2015): 1–12. <http://dx.doi.org/10.1088/1748-9326/10/9/094025>.
- Chivers, Danny, "World in Motion," *New Internationalist*, May–June 2019, 29.
- Cook, John, Naomi Oreskes, Peter T. Doran, William R. L. Anderegg, Bart Verheggen, Ed W. Maibach, J. Stuart Carlton,



- Stephan Lewandowsky, Andrew G. Skuce, Sarah A. Green, Dana Nuccitelli, Peter Jacobs, Mark Richardson, Barbel Winkler, Rob Painting, and Ken Rice. “Consensus on Consensus: A Synthesis of Consensus Estimates on Human-Caused Global Warming.” *Environmental Research Letters* 11, no.4 (April 13, 2016): 1–7. <http://dx.doi.org/10.1088/1748-9326/11/4/048002>.
- de Buys, William. *A Great Aridness: Climate Change and the Future of the American Southwest*. New York: Oxford University Press, 2011.
- Dennis, Marie. “Catholic Peacebuilding.” News Notes, July–August 2012. <https://maryknollogc.org/article/catholic-peacebuilding>.
- Febrero, Father Edione, Social Action Director, Diocese of San Jose de Antique. Personal Interview by William Holden. Tagaytay, Cavite, Philippines. April 26, 2017.
- Galtung, Johan. “Violence, Peace, and Peace Research.” *Journal of Peace Research* 6, no. 3 (1969): 167–191. <https://doi.org/10.1177%2F002234336900600301>.
- Gariguez, Father Edwin A. Executive Secretary, National Secretariat for Social Action, Caritas-Philippines. Personal Interview by William Holden. Tagaytay, Cavite, Philippines. April 26, 2017.
- Gillett, Nathan P., Vivek K. Arora, Kirsten Zickfeld, Shawn J. Marshall, and William J. Merryfield. “Ongoing Climate Change Following a Complete Cessation of Carbon Dioxide Emissions.” *Nature Geoscience* 4, no.1 (2011): 83–87.
- Global Catholic Climate Movement, accessed June 11, 2019, <https://catholicclimatemovement.global>.
- Gutiérrez, Gustavo. *Las Casas: In Search of the Poor of Jesus Christ*. Eugene, Oregon: Wipf and Stock Publishers, 1995.
- . *A Theology of Liberation* Maryknoll, New York: Orbis Books, [1988] 1971.
- Harper, Kyle. *The Fate of Rome: Climate, Disease, and the End of an Empire*. Princeton: Princeton University Press, 2017.

- Harvey, David. *A Brief History of Neoliberalism*. Oxford: Oxford University Press, 2005.
- Healy, Hazel. "Habitable Earth." *New Internationalist*, May-June 2019: 15–21.
- Hilft, Bündnis Entwicklung. "World Risk Index 2018 Overview." In *2018 World Risk Report*, 48–51. Berlin: Bündnis Entwicklung Hilft, 2018.
- Himes, Kenneth R. "Peacebuilding and Catholic Social Teaching." In *Peacebuilding: Catholic Theology, Ethics, and Praxis*, edited by Robert J. Schreiter, R. Scott Appleby, and Gerard F. Powers, 265–299. Maryknoll, New York: Orbis Books, 2010.
- History.com Editors. "Joseph Stalin." HISTORY. Last updated Spetember 19, 2019. <https://www.history.com/topics/russia/joseph-stalin>.
- . "Vladimir Lenin." HISTORY. Last updated September 19, 2019. <https://www.history.com/topics/russia/vladimir-lenin>.
- Holden, William N. "Ecclesial Opposition to Large-Scale Mining on Samar: Neoliberalism Meets the Church of the Poor in a Wounded Land." *Religions* 3, no. 3 (2012): 833–861. <https://doi.org/10.3390/rel3030833>.
- . "Neoliberal Mining amid El Nino Induced Drought in the Philippines." *Journal of Geography and Geology* 5, no. 1 (2013): 58–77. <https://doi.org/10.5539/jgg.v5n1p58>
- . "Post Modern Public Administration in the Land of Promise: The Basic Ecclesial Community Movement of Mindanao." *Worldviews: Global Religions, Culture, and Ecology* 13, no. 2 (January 1, 2009): 180–218. <https://doi.org/10.1163/156853509X438599>.
- . "The New People's Army and Neoliberal Mining in the Philippines: A Struggle against Primitive Accumulation," *Capitalism Nature Socialism* 25, no. 3 (2014): 61–83. <https://doi.org/10.1080/10455752.2014.922109>.

- . “Typhoons, Climate Change, and Climate Injustice in the Philippines,” *Austrian Journal of Southeast Asian Studies* 11, no. 1 (2018): 117–139. <https://doi.org/10.14764/10.ASEAS-2018.1-7>.
- Holden, William N., and William O. Mansfield. “*Laudato Si*: A Scientifically Informed Church of the Poor Confronts Climate Change.” *Worldviews: Global Religions, Culture, and Ecology* 22, no. 1 (March 12, 2018): 28–55. <https://doi.org/10.1163/15685357-02201002>.
- Holden, William N., and Kathleen M. Nadeau. “Reflections on Pope Francis’s *Laudato Si: On Care for Our Common Home*: Ethical and Social Dimensions of Ecological Crisis Today,” *Philippine Quarterly of Culture and Society* 46, no. 1 & 2 (2018): 97–127.
- Klein, Naomi. *This Changes Everything: Capitalism vs the Climate*. Toronto: Knopf, 2014.
- Koch, Alexander, Chris Bierley, Mark M. Maslin, and Simon L. Lewis. “Earth System Impacts of the European Arrival and Great Dying in the Americas after 1492.” *Quaternary Science Reviews* 207 (March 2019): 13–36. DOI: 10.1016/j.quascirev.2018.12.004.
- Magalang, Albert A. Head of the Department of the Environment and Natural Resources Climate Change Office and Designated National Authority for UNFCCC. Personal Interview by William Holden. Quezon City, Philippines. April 20, 2017.
- Mernit, Judith Lewis. “It’s Time for California to Get Out of the Oil Business.” *Sierra, National Magazine* (March 1, 2019), <https://www.sierraclub.org/sierra/2019-2-march-april/feature/its-time-for-california-get-out-oil-business>.
- Milanovic, Branko, *Global Inequality: A New Approach for the Age of Globalization*. Cambridge, Massachusetts: Harvard University Press, 2016.

- Mitchell, Wesley ed. "The Theory of the Liesure Class." In *What Veblen Taught, Selected Writings of Thorstein Veblen*, 215–301. New York: The Viking Press, Inc., 1936.
- National Academies of Sciences, Engineering, and Medicine. *Attribution of Extreme Weather Events in the Context of Climate Change*. Washington: The National Academies Press, 2016.
- Obusan, Amalie. Greenpeace Southeast Asia Country Director. Personal Interview by William Holden. Quezon City, Philippines. April 26, 2017.
- Oreskes, Naomi. "The Scientific Consensus on Climate Change." *Science* 306, no. 5702 (December 3, 2004): 1686. DOI: 10.1126/science.1103618.
- Oso, Father Meliton. Social Action Director, Archdiocese of Jaro. Personal Interview by William Holden. Tagaytay, Cavite, Philippines. April 26, 2017.
- Parenti, Christian. *Tropic of Chaos: Climate Change and the New Geography of Violence*. New York: Nation Books, 2011.
- Peet, Richard, *Unholy Trinity: The IMF, World Bank, and WTO* (London: Zed Books, 2003), 4.
- Pius XI. *Quadragesimo Anno*. May 15, 1931. Accessed December 29, 2019. [http://www.vatican.va/content/pius-xi/en/encyclicals/documents/hf\\_p-xi\\_enc\\_19310515\\_quadragesimo-anno.html](http://www.vatican.va/content/pius-xi/en/encyclicals/documents/hf_p-xi_enc_19310515_quadragesimo-anno.html).
- Pontifical Council for Justice and Peace. *Compendium of the Social Doctrine of the Church*. Manila: Catholic Bishops Council of the Philippines, 2004.
- Pope Benedict XVI, *Message of His Holiness Pope Benedict XVI for the Celebration of the World Day of Peace*. Vatican City: Pope Benedict XVI, 2010.
- Pope Francis, *Laudato Si: On Care for Our Common Home*. Vatican City: Vatican, 2015. [http://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco\\_20150524\\_enciclica-laudato-si.html](http://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html).

- Rees, Martin. *On the Future: Prospects for Humanity*. Princeton: Princeton University Press, 2018.
- Rohling, Eelco. *The Oceans: A Deep History*. Princeton: Princeton University Press, 2017.
- Rodgers, Paul. *Irregular War: ISIS and the New Threat from the Margins*. London: IB Tauris, 2016.
- Schreiter, Robert J. “Future Directions in Catholic Peacebuilding.” In *Peacebuilding: Catholic Theology, Ethics, and Praxis*, edited by Robert J. Schreiter, R. Scott Appleby, and Gerard F. Powers, 366–397. Maryknoll, New York: Orbis Books, 2010.
- Scripps Institution of Oceanography. “The Keeling Curve.” Accessed June 11, 2019. <https://scripps.ucsd.edu/programs/keelingcurve>.
- Shue, Henry. *Climate Justice: Vulnerability and Protection*. Oxford: Oxford University Press, 2014.
- Spratt, David and Ian Dunlop. *Existential Climate-Related Security Risk: A Scenario Approach*. Melbourne: National Center for Climate Restoration, 2019. [https://docs.wixstatic.com/ugd/148cb0\\_90dc2a2637f348edae45943a88da04d4.pdf](https://docs.wixstatic.com/ugd/148cb0_90dc2a2637f348edae45943a88da04d4.pdf)
- Stiglitz, Joseph E. *The Price of Inequality: How Today's Divided Society Endangers Our Future*. New York: Norton, 2012.
- Stinus-Cabugon, Maria. “Coal Mining a Necessary Evil?” *The Manila Times*, July 30, 2018. <https://www.manilatimes.net/2018/07/30/opinion/analysis/coal-mining-a-necessary-evil/424855/>.
- United Nations Development Program. *Human Development Indices and Indicators, 2018 Statistical Update*. New York: United Nations Development Program, 2018.
- United Nations Environment Program, *Global Resources Outlook*. New York: United Nations Environment Program, 2019.

- United States Global Change Research Program. *Climate Science Special Report: Fourth National Climate Assessment, Volume I*. Washington: U.S. Global Change Research Program, 2017.
- Vanderheiden, Steve. *Atmospheric Justice: A Political Theory of Climate Change*. Oxford: Oxford University Press, 2008.
- Versozza, Othelia N. Super Typhoon Haiyan Survivor. Personal Interview by William Holden. Tacloban City. December 21, 2016.
- Wallace-Wells, David, *The Uninhabitable Earth: Life After Warming* (New York: Time Duggan Books, 2019), 125.
- Welzer, Harald, *Climate Wars: Why People Will Be Killed in the Twenty-First Century* (Cambridge: Polity Press, 2008), 6.
- Whyman, Tom. “First-Class Lifeboats.” *New Internationalist* 519 (May–June 2019): 32.
- Wilkinson, Richard, and Kate Pickett. “Equality is Better—for Everyone.” In *People First Economics*, edited By David Ransom and Vanessa Baird, 155–163. Oxford: Oxford University Press, 2010.
- World Bank Group. “CO2 Emissions (Metric Tons Per Capita).” Accessed August 30, 2019. [https://data.worldbank.org/indicator/EN.ATM.CO2E.PC?name\\_desc=false](https://data.worldbank.org/indicator/EN.ATM.CO2E.PC?name_desc=false).