General Introduction

Savarimuthu Ignacimuthu, S.J.

Entomology Research Institute, Loyola College, Chennai, India

imuthus@hotmail.com

The question of environmental justice occupies the thoughts of many people today—much more so, it seems, than past eras due to the grave effects of environmental degradation. Yet in pondering this issue we might like, as Pope Francis encourages us in his encyclical *Laudato si'*, to stress “the effects on people’s lives of environmental deterioration, current models of development and throwaway culture.”¹ The natural outcomes of our current system and the problems of environmental injustice are being confronted throughout the world in various forms of pollution, solid and liquid waste, climate change, water scarcity, deforestation, loss of biodiversity, depletion of natural resources as a result of accelerated modes of production, and urban congestion. This occurs, it should go without saying, to benefit the developmental priorities that unfairly favor the interests of a small, select group of stakeholders. Still it has become increasingly apparent that urgent action is needed to prevent further environmental degradation, and that every person of good will has the moral responsibility to work for the benefit of environmental justice.

In recent decades, the Catholic Church has increasingly realized its role in this environmental matter, repeatedly calling upon Catholics—and those beyond the confessional parameters—to acknowledge the injustice and that coincides with the environmental devastation that is occurring. Several contemporary pontiffs—specifically Paul VI, John Paul II, and Benedict XVI—are protagonists, in this respect, articulating a Catholic environmental ethics by exhorting the church to become active participants in safeguarding environment. In the apostolic letter *Octogesima adveniens*, Paul VI warns against the tragic consequences of unchecked human activity upon ecosystems: “Man is suddenly becoming aware that by an ill-considered exploitation of nature he

1 Francis, *Laudato si'*, May 24, 2015, n. 31; http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html (accessed June 10, 2016).

risks destroying it and becoming in turn the victim of this degradation.”² John Paul II, in turn, cautions against the materialistic tendency of contemporary society that regards nature simply in utilitarian terms: “Man often seems to see no other meaning in his natural environment than what serves for immediate use and consumption.”³ Benedict XVI, the pope emeritus, writes more recently that the earth’s treasures no longer serve to build up God’s garden for all to dwell in, but instead serves the powers of exploitation and destruction.⁴ The pope is saying this because of the alienation of large number of people from true progress and due to the vast gap that exists between the rich and the poor.

Yet at this critical juncture, as the global community is beginning to confront these environmental challenges, Pope Francis’s historic encyclical *Laudato si’* invites his global audience towards a renewed relationship with “our common home,” to relate to nature as God’s gift. Having highlighted the root causes of our present environmental dilemma, Francis formulates his ethical challenge to elucidate that humans have the capacity to shape our planetary future constructively and in a sustainable manner. Such care for creation, he asserts, is not just the task of politicians or the business elite, but in truth everyone “can cooperate as instruments of God for the care of creation, each according to his or her own culture, experience, involvements and talents.”⁵

For our purposes, this particular encyclical serves as a catalyst for inquiry and reflection on not only theological themes, but to bring ecological topics and issues to the forefront with specific reference to the Society of Jesus. The pope, himself a Jesuit, of course plays a prominent role in this narrative and in fostering a conversation on a global stage at this critical point. Yet the intimate relation between Jesuits and nature has much deeper roots that are set within the foundations of the Society, the seeds of which can be found in Ignatian spirituality. Since the inception of the Society with Saint Ignatius of Loyola and his first companions, the intense study of nature represents an integral part of the Jesuit “way of proceeding” with regard to both spiritual and intellectual formation. In those earliest generations, the pedagogical task of

2 Paul VI, *Octogesima adveniens*, May 14, 1971, sec. 21, http://w2.vatican.va/content/paul-vi/en/apost_letters/documents/hf_p-vi_apl_19710514_octogesima-adveniens.html (accessed June 10, 2015); or see *Acta Apostolicae Sedis* [hereafter *AAS*] 63 (1971): 416–17.

3 John Paul II, *Redemptor hominis*, March 4, 1979, sec. 15, http://w2.vatican.va/content/john-paul-ii/en/encyclicals/documents/hf_jp-ii_enc_04031979_redemptor-hominis.html (accessed June 10, 2016); or see *AAS* 71 (1979): 287.

4 Woodeene Koenig-Bricker, *Ten Commandments for the Environment: Pope Benedict XVI Speaks Out for Creation and Justice* (Notre Dame, IN: Ave Maria Press, 2009), 2.

5 Francis, *Laudato si’*, n. 14.

their social apostolate demanded that certain Jesuits pursue excellence in the natural sciences, so that they may accordingly fulfill their teaching responsibilities. Indeed, in recent years, notable individuals contributed substantially in creating greater environmental awareness in many regions of the world, as a means to mitigate the negative impact upon ecosystems—and thus on those who remain the most vulnerable, the poor and the marginalized. Yet in light of this pastime, we might be able to consider anew the innumerable ways that Jesuits have contributed to the protection of the environment since the foundation of the Society of Jesus.

In the field of physics, for instance, Jesuits historically played an instrumental role in its development as a scientific discipline. The renowned historian of science John Heilbron remarks that the “single most important contributor to the support of the study of experimental physics in the seventeenth century was the Catholic Church, and, within it, the Society of Jesus.”⁶ Heilbron, in fact, credits the Jesuits for their pedagogical practice and, in particular, their resistance to instituting a formal textbook in natural philosophy—as was the norm for other scholarly disciplines—that was reflected in the text of the *Ratio studiorum*.⁷ This disposition seems to have encouraged Jesuits to be more proactive in the natural sciences, and it distinguished them not just from their European contemporaries, but also from other Catholic religious communities. “There is one order,” another historian of science echoes Heilbron’s viewpoint, “that stands out from all others as the scientific order without rival in seventeenth-century Catholicism, and that of course is the Society of Jesus.”⁸

Yet Jesuits also contributed in smaller ways to advancements in several fields of scientific inquiry. Take the field of botany as an example, and one that illustrates the global scope and coordination within the Society. While it is true that numerous plants and insects are named in honor of Jesuits as a sort of recognition of their significant contributions, it is also apparent that a sort of fascination with biodiversity has manifested since the earliest generations of Jesuits. The magisterial work of René Taton reveals that in the early Society—that is to say before the suppression—many Jesuits considered their mission to

6 John Heilbron, *Electricity in the Seventeenth and Eighteenth Centuries: A Study of Early Modern Physics* (Berkeley: University of California Press, 1979), 2. Jesuits play a significant role in Heilbron’s account of the nascent discipline of physics: see especially 101–14 and chapter 4, “The Jesuit School,” 180–93.

7 Ibid., 109–10. For the primary source, see *The Ratio studiorum: The Official Plan for Jesuit Education*, trans. Claude Pavur (St. Louis: Institute of Jesuit Sources, 2005).

8 William B. Ashworth Jr., “Catholicism and Early Modern Science,” in *God and Nature: Historical Essays on the Encounter between Christianity and Science*, ed. David C. Lindberg and Ronald L. Numbers (Berkeley: University of California Press, 1986), 154.

be inextricably linked to the intense study of their ecological context as might be exemplified in the missions of such figures as: José de Acosta (1540–1600) as a naturalist studying in the West and East Indies in the 1580s; Michał Boym (1612–59) as not only a noted geographer but also a student of the fauna and flora of China and Japan in the 1640s; Filippo Buonanni (1638–1723) as a botanist in the Philippines in the 1690s. Moreover, Nicolas Sarrabat (1698–1737) proved the circulation of sap in plants in the 1720s; João de Loureiro (1715–c.1792) studied flora through his exploratory career as a missionary from his Cantonese base to various regions, such as Cambodia, Mozambique, Malabar, Sumatra, until returning to Portugal to publish his book on Indochinese flora; and Juan Ignacio Molina (1740–1829) investigated the plants of Chile in the 1790s.⁹ These Jesuit examples can begin to illustrate how invested the early Society was in the deep study of the environment since its foundation. This tradition continues even today in the ministries of some Jesuits.

It is important to recall that such a constructive stance towards the material universe, which the Jesuits cited above exemplify, is a fundamental facet of the Ignatian worldview and thus the Jesuit way of proceeding. Ignatius himself—who took particular delight in watching the stars at night¹⁰—witnessed and experienced how God acted in the world. Indeed, it is this vision of God's activity within creation that led to his own conversion. The *Spiritual Exercises* of Saint Ignatius, as the foundational text of the Society, itself emphasizes that God's love is manifest in the universe, and thereby urges Jesuits to contemplate God's indwelling.¹¹ The “Contemplation for Attaining Love” (in the Spanish text, “La contemplación para alcançar amor”), for instance, proposes that every person may see God in all things, and (potentially) all things in God.¹² The “Contemplatio” possesses the possibility for the retreatant to gaze

9 See René Taton, ed., *History of Science*, vol. 2: *The Beginning of Modern Science, from 1450 to 1800*, trans. A. J. Pomerans (London: Thames and Hudson, 1964), 150–616, for various articles and chapters wherein Jesuits play a prominent role, especially 2:150–2, 625 (J. Acosta), 2:368 (Buonanni), 2:558 (Sarrabat), 2:563 (Loureiro), and 2:616 (J. I. Molina), and also “Science in the Far East from the 16th to the 18th Century,” 586–601, which deals primarily with the Jesuit scientific contributions in China and Japan. For an elaboration of Boym's career, see Robert Chabrié, *Michel Boym: Jésuite polonais et la fin des Ming en Chine (1646–1662)* (Paris: Pierre Bossuet, 1933).

10 See *Fontes narrativi de S. Ignatio de Loyola et de Societatis Iesu initiis*, ed. Cándido de Dalmases et al. (Rome: Monumenta Historica Societatis Iesu, 1943), 1:374–76.

11 Louis J. Puhl, trans., *The Spiritual Exercises of Saint Ignatius* (Bombay: St. Paul Publications, 1965), 87.

12 See *Exercitia spiritualia Sancti Patris Ignatii de Loyola*, eds. Cándido de Dalmases (Rome: Monumenta Historica Societatis Iesu, 1969), n. 230–37.

at creation with awe and wonder. Accordingly this type of worldview, which is possibly open to the whole environment as a source of grace, seeks out the active and immanent presence of God within creation, just as Ignatius experienced it.

In 2008, the Thirty-Fifth General Congregation of the Society of Jesus rightly identified the mission of “reconciliation with creation” as one of the crucial, new frontiers of the Jesuit mission and a new kind of faith doing justice. The exhortative power of this document advocates that Jesuits, individually and collectively, “move beyond doubts and indifference to take responsibility for our home, the earth.”¹³ In response, many Jesuit provinces throughout the world took up this invitation with concrete agendas of protecting the environment. Almost every province created a task force to initiate and sustain programs that were related to ecological initiatives such as eco-audits, organic farming, vermicomposting, planting trees, the promotion of biopesticides, the implementation of herbal and indigenous systems of medicine, eco-publications, the maintenance of “green” campuses, the goal of clean and plastic-free habitats, improved waste management, recycling and reusing, rainwater harvesting, the adoption of eco-friendly lifestyles, and solar power generation. Nevertheless, it is also apparent that many contemporary Jesuits are still slow to cooperate with these environmentalist movements—and this is especially the case in developed countries. In this special issue of the *Journal of Jesuit Studies*, we will highlight the works of Jesuits vis-à-vis the environment from the perspective of various regions in the hopes of fostering a fruitful cross-cultural conversation that is needed within the Society.

In his discussion of the environmental activities of European Jesuits, José Ignacio García, S.J., details and chronicles the way that the mission of the European Conference of the Society of Jesus employs an ecological perspective. Identifying exemplary figures at the origins of the Society who made helpful contributions to the natural sciences either as educators in schools or as missionaries, García elaborates how these early Jesuits were also active participants in various scientific fields, such as botany, entomology, astronomy, meteorology, and geography. Turning his focus towards the later Society—that is to say, after the suppression—García also explains how twentieth-century Jesuits became engaged in agricultural education, specifically in France and Spain, by establishing reputable institutions that were rooted in the nearby farming environs, and responsive to the social needs and evolving dynamics

13 See John Padberg, S.J., ed. *Jesuit Life and Mission Today: The Decrees and Accompanying Documents of the 31st–35th General Congregations of the Society of Jesus* (St. Louis: Institute of Jesuit Sources, 2009), specifically GC35, d. 3, n. 31.

of those rural regions. Such educational entrepreneurs also assisted in the development of new forms of agronomy, energy development, and new types of environmental activism.

In his reflection of his own itinerary from being a Jesuit novice and scholastic in the United States to now serving as a missionary in Uganda, James Strzok, S.J., provides a comprehensive account of the environmental projects of the Jesuits in East Africa. In these circumstances, where the consequences of climate change are being encountered immediately in the form of droughts, Strzok himself provides an exemplary approach to such precarious conditions, having applied sound environmental practices while designing and constructing educational buildings and also leading the Jesuits of this region to be among the first to install solar water heating systems. Other energy innovations from this case include the exploitation of geothermal heat from borehole water as a means of heating buildings, as well as solar energy in order to operate water pumps, and for lighting and powering computers. Bio-latrines, as he explains, are even being constructed with an aim to use methane gas for cooking. Moreover, such ecological projects also serve as an exhibition of best practices and inspiration for the broader Tanzanian public and a possible source of collaboration. Strzok demonstrates an ecological manner of proceeding that is integrated with a sense of justice and solidarity toward the most vulnerable.

Still another Jesuit perspective—this one from Jesuit Conference of Asia-Pacific (JCAP)—Pedro Walpole, S.J., emphasizes that an ethical stance of environmental justice should also highlight the communal and longitudinal threats to a region's welfare. Based in the Philippines, but deeply familiar with the regional challenges that Asia-Pacific confronts in the form of climatic hazards, especially typhoons, he elaborates upon the ways that the Jesuit network is facilitating and aiming for greater interoperability with both government agencies and local communities in the countries that the Jesuits of JCAP inhabit. While Pope Francis's call to protect "our common home" provided a powerful exhortation, as Walpole reminds us, with respect to not only the Society but also the church as a whole, JCAP is at the forefront on this issue. Teaching and working documents, such as *Healing a Broken World* and *Our Environmental Way of Proceeding*, have motivated the Jesuits in Asia-Pacific to make practical steps towards environmental care.¹⁴ Moreover, the growing response to natural

14 For former document, see *Promotio iustitiae* 106, no. 2 (2011), also available online at: <http://www.ecojesuit.com/jesuit-response-to-environmental-and-ecological-challenges-healing-a-broken-world/1427/> (accessed June 10, 2016). For the latter document, see *Our Environmental Way of Proceeding: Moving Forward Our Ecology Strategy and Action*

disasters and calamities, and the coordinated activities to mitigate disasters, has fostered a lively dialogue on sustainability science and values that should be developed at the grassroots, university, and governmental levels. The Jesuits of this region, as Walpole observes, are able to leverage their organizational strength to enhance these areas of focus.

As for the environmental works of Jesuits in India and Sri Lanka, Savarimuthu Ignacimuthu, S.J., discusses how that region's conference related the doctrine of creation to environmental awareness and advocacy at the public level. This article provides a sort of biographical directory of South Asian Jesuits with specific reference to the ecological aspects of their missions. Many are involved in smaller projects, such as the provision of solar cookers to small households, the local development of watershed programs, the supply of safe drinking water, preventive measures to limit deforestation, planting trees, micro-propagating rare and endangered plants, the preservation of biodiversity, the promotion of sustainable agriculture and organic farming—to name a few. Many of the Jesuits in South Asia, working along these lines, also have recognition and awards for their environmental work.

In a very different context, exploring the ecological initiatives that the Society in the United States generated, Ken Homan, S.J., suggests that American Jesuits in many respects have failed to honor the call for ecological conversion. While enumerating how the Jesuits and their institutions in the USA responded to the call of *Laudato si'*, Homan discusses the significance of investment responsibility, environmental stewardship, reducing ecological footprints through a lens of integral ecology. He provides helpful examples of improving the conditions of the natural world through several examples of Jesuit institutions, both in secondary and higher education. Still there is a profound degree of comfort and complicity on the part of Jesuits in the United States, and so he proposes an ecological examen that may illuminate new ways forward and enable this kind of cultural shift.

Finally, Sergio Coronado Delgado, addressing the works of Jesuit social centers in Latin America and especially their advocacy, emphasizes how this form of social apostolate operates in a mode of accompaniment with vulnerable rural communities. In Latin America, where environmental injustice tends to revolve around mining issues, Delgado exemplifies an approach that frames environmental justice as a basic concern for social justice. In a manner that echoes Walpole's article, Coronado illustrates, with specific cases, how these

Plan, August 2012 (revision), <http://www.ecojesuit.com/wp-content/uploads/2015/04/7-Environmental-Way-of-Proceeding.pdf> (accessed June 10, 2016).

centers continue to play a supportive role for such causes through campaigns of knowledge-building “from below” that includes and empowers local leaders. He also urges that these centers reinforce and extend their activities for the sake of environmental justice, concluding his article with Pope Francis’s call for restoring ecological balance.

As these articles suggest, momentum is gradually building within the Society to address the immense ecological challenges as a central part of the Jesuit mission. The apostolate of Jesuit education places the Society in a privileged position to contribute to environmental justice in a unique way. The Secretariat of Jesuit Higher Education, for instance, has launched in January 2016 an online interactive educational resource, entitled “Healing Earth.”¹⁵ Intended to help students and teachers alike in an immersive educational experience, this platform provides substantial material as an introduction to the emerging field of environmental science. Developed and released by the same office that published in 2011 the document, *Healing a Broken World*, this resource might motivate Jesuits and their collaborators further to become actively involved in protecting the environment.¹⁶ Similarly, a kind of bridge-building is in development through the Global Ignatian Advocacy Network-Ecology (GIAN), a new Jesuit collaborative that is intended to involve as many people as possible in this global agenda of healing this broken world.¹⁷ Thus far, there are possible signs of emerging hope. For instance, in December 2015, national representatives gathered together in Paris in order to deliberate about how to preserve the earth from continued exploitation and destruction as a result of the current patterns of consumption. The message of Pope Francis in *Laudato si’*, issued only six months prior, may have resonated with those world leaders who responded to the call for dialogue and the need for listening.

This special issue of the *Journal of Jesuit Studies* offers a series of articles on the environmentalist activities of Jesuits, while reflecting upon the capability of the Society and its institutions to care for our common home. Though neither an exhaustive nor a comprehensive investigation of Jesuit activities throughout the world, it is by our design a sort of portrait of Jesuit works on the topic that aims for inclusivity, as well as a multiplicity of perspectives with

15 International Jesuit Ecology Project, Loyola University Chicago, “Healing Earth,” <http://healingearth.ijep.net> (accessed June 10, 2016).

16 *Promotio iustitiae* 106, no. 2 (2011): http://www.sjweb.info/documents/sjs/pj/docs_pdf/PJ_106_ENG.pdf (accessed June 10, 2016).

17 Ecology and Jesuits in Communication, *Ecojesuit*, <http://www.ecojesuit.com> (accessed June 10, 2016).

the hope that it may present insights that a global conversation might provide. We are confident that the readers will enjoy reading these articles, which provide a panoramic view of the ways that Jesuits across every continent are approaching and incorporating ecology into their own missions. It is our hope that these accounts may be a source of motivation for others towards the goal of environmental justice. Indeed, reconciliation and living in harmony with creation could become a spiritual path that encompasses the fullness of life, “so that God may be all in all” (1 Corinthians 15:28).