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Influence of the Bible on Care for Creation: Insight from the Indian Context

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The Bible's incredible impact in the fields of health, education, politics, art, science, technology and other areas of human endeavour is well known globally. Christian institutions in India are the result of the same source of inspiration, and their graduates have contributed immensely to the making of modern India. Caring for creation, as an important part of social responsibility, is one of those contributions.

Environmental concern in India had its nineteenth-century roots in the Commons Preservation Society, Royal Society for the Protection of Birds, Garden City Movement, and Forestry Commission, among other groups that sought to resist industrialization, deforestation, and urbanization. Even though some accuse the Judeo-Christian tradition of encouraging neglect of the environment, in actuality Scripture has strongly influenced authors, writers, scientists and theologians to speak and act on behalf of care for creation.

This paper will highlight (1) the accusation that Christianity promotes ecological crises; (2) the role of Indian Christians who took nation-

alism seriously and the missionaries who helped in nation building; (3) the contribution of missionaries and other Christians in sowing the seeds of ecological consciousness; (4) how the 'new humanity' in Christ teaches us to use, maintain and preserve the environment collectively.

I. Religious Indictments of Both West and East

Many intellectuals, including some Christians, have a gross misconception that the present environmental crisis is supported by biblical texts. Scholars such as Roderick Nash, Rudolf C. Heredia, Lynn White and Max Nicholson are in this group.¹

¹ Roderick Nash, author of *The Rights of Nature: A History of Environmental Ethics* (Madison: University of Wisconsin Press, 1989), has stated that 'Christianity has done too little to discourage and too much to encourage the exploitation of nature.' Rudolf C. Heredia, in 'Ethics and Ecology: Towards an Ecological Ethic—Religious and Secular Perspectives', *New Frontiers in Education* 18, no. 3 (1988): 1, emphasized that Christianity has 'paved the way for the tremendous scientific

White, a medieval historian, in a paper delivered to the American Association for the Advancement of Science in 1966, contended that the roots of the ecological crisis lie in religious cosmology, and specifically in Western Christianity's anthropocentrism and instrumentalist view of nature. 'Especially in its Western form, Christianity is the most anthropocentric religion the world has seen,' White stated. According to White, Christianity insists that 'it is God's will that man exploits nature for his proper ends.' The Genesis story, in which God created Adam in His image, paved the way for humans to destroy nature by giving them the dominance over God's creation, which has resulted in environmental destruction and crisis.²

Furthermore, White argued, linear thought within Christianity teaches that humankind was the final and glorious purpose of God's creation, and that therefore non-human nature was created for the sole purpose of humanity's use and development.³ White maintained that our environmental problems would persist and even worsen until we reject the Christian axiom that nature exists to serve

man. He concluded that as long as our science and technology are tintured with orthodox Christian arrogance, there would be no solution.⁴

White became an icon in the world of environmental protection. In the fifty years since the initial publication of White's essay, Christian eco-theologies have robustly responded to it. Nearly every book on the relation of Christianity to its environment refers to White's thesis, and most introduce their argument as an explicit response to it.⁵ Francis Schaeffer in *Pollution and the Death of Man* (1970) was probably the earliest to defend Christianity against White. In the following year, Richard Wright published a response to Lynn White's article in *Bioscience*, titled 'Responsibility for the Ecological Crisis'.

India is among the twelve megabiodiversity countries of the world and is home to numerous species of plants and animals which collectively form 8 percent of the world's diversity of life.⁶ Its total land area of 329 million hectares is a gorgeous landscape.⁷ In the last few decades, however, India has suffered from serious environmental problems.⁸ Indian

and technological advancement' rather than promoting care for creation. Lynn White, a historian from the University of California, published 'The Historical Roots of Our Ecological Crisis', *Science* 155, no. 3767 (10 March 1967). See also Max Nicholson, *The Environmental Revolution* (London: Hodder & Stoughton, 1970), 265, and in general, O. P. Dwivedi, *World Religions and the Environment* (New Delhi: Gitanjali, 1989), 38–39.

2 White, 'Historical Roots', 1205.

3 See Annette Mosher, 'Christianity, Covenant, and Nature', *Baptistic Theologies* 8, no. 1 (2016), 63–67.

4 Dieter T. Hessel and Rosemary Radford Ruether, *Christianity and Ecology* (Cambridge, MA: Harvard University Press, 2000), 497.

5 Willis Jenkins, 'After Lynn White: Religious Ethics and Environmental Problems', *Journal of Religious Ethics*, 37, no. 2 (2009): 285.

6 Brij Kishor Gupta, 'Wildlife in the Cross-hairs', *Science Reporter* (November 2006): 11.

7 K. R. Gupta (ed.), *Encyclopedia of Environment: Environment Problems and Policies* (New Delhi: Atlantic Distribution, 2005), 39.

8 Sumit Guha, 'A Historical Study of the Control of Grass and Fodder Resources in

culture is dominated by Hinduism. Modern industrialization, with its attitude that nature is a vast store of resources to be exploited for economic profit, has overtaken the more environmentally sound cultures that existed in pre-modern India. In spite of the prevalence of strong pantheism, animals are being mistreated,⁹ rivers worshipped as goddesses are being polluted, and trees thought to be the abode of deities are being destroyed. According to Vishal Mangalwadi, "The environmental mess in India, which is far worse than in the industrialized West, is a clear indication that the worship of nature damages creation more than do our attempts to manage it."¹⁰

It is believed that the ancient Hindu myth is founded on a profoundly ecological vision, as mentioned in the Rig Vedas. But David Gosling paints another picture, giving the example of two prominent Hindu deities from Mahabharata and their strange behaviour towards the environment. In this story, Krishna and Arjuna are in the forest when a poor Brahmin asks for alms. The request is granted and he is transformed into Agni, the god

of fire, who satisfies his hunger by consuming the forest. As the forest begins to burn, the forest creatures, including *naga* (snakes, usually cobras), flee the flames.¹¹

The Ganges River, considered the holiest river by ancient Hindu texts, is facing severe crises. In spite of several warnings from various government authorities, this goddess has become a dumping site for industrial wastes, idols made of clay and heavy metals, and dead bodies. The rivers that are supposed to purify human beings physically, morally, and ritually are said to be on the receiving end of *adharma*, unrighteous behaviour.

Among animals, the cow especially serves for Hindus as a sacred symbol of God's preserving and sustaining power; without cows, families could not survive. But sadly, cows are being mistreated publicly once they stop milking. In addition, uncontrolled use of fireworks during festivals continues to pollute the air and deafen the urban population. 'Hindus have become champions at raping their mother', laments Swami Srivatsa Goswami, a Vrindavan-based scholar.¹² The worship of nature elements according to Hindu philosophy is need-based and situational; the creatures being worshipped either supply food or pose a threat to the worshippers.

In contrast to Western traditions in which humans are described as separate from nature over which

Eighteenth-Century Maharashtra', in Mahesh Rangarajan, *Environmental Issues in India: A Reader* (Delhi: Pearson Longman, 2007), 97–98.

9 Recently a newspaper reported that a surgeon removed 70 kg of plastics from a cow's stomach. Vishant Vaze, '70 Kg Plastic Waste Taken Out from Cow', *Navhind Times*, 4 January 2016, <http://epaper.navhindtimes.in/pageimages/pdf/2016/01/04/04012016-md-ga-03.pdf>.

10 Vishal and Ruth Mangalwadi, *The Legacy of William Carey: A Model for Transformation of a Culture* (New Delhi: Good Books, 1993), 108.

11 The episode occurs in the Mahabharata. David L. Gosling, *Religion and Ecology: In India and South Asia* (London and New York: Routledge, 2001), 16.

12 David Haberman, *River of Love in an Age of Pollution: The Yamuna River of Northern India* (Berkeley: University of California Press, 2006), 84.

they have dominion, Indian thought has seen humans (in their embodied lives) as an intimately interconnected part of nature. In the Vedic worldview, gods, humans and nature formed one organic whole. None was superior and none was inferior. All three were equally eternal and mutually dependent.¹³ Therefore, according to Hinduism, to harm any aspect of nature, be it air, water, plants or animals, is tantamount to harming oneself. Thus, there is a clear and unambiguous environmental ethic within Indian thought. Nevertheless, this ethic has not protected South Asia from environmental problems. The rise in ecological crises in India signals our loss of control over the natural world.¹⁴

There are several reasons for today's environmental crisis in India. First, we have failed to understand our responsibility to care for creation. Second, we have forgotten the dedication of visionaries who laboured to preserve our natural ecosystem. Third, we have been guilty of anthropocentrism in our view of nature. Fourth, we in India have blamed the West and Christianity for the problem rather than examining where we have failed to protect the environment. Fifth, under the umbrella of Indian traditions are many beliefs and philosophies (such as polytheistic, monotheistic, monist, dualistic and even atheistic views) which contradict each other, and the difference of

opinion has created confusion in the minds of their followers. There is no concrete eco-theology within Hinduism that can protect the environment.

II. The Natural World in the Early Church Fathers and the Scientific Revolution

The patristic traditions contained many beliefs about nature: about the origins and structure of the cosmos, the motions of celestial bodies, the elements, sickness and health, explanations of dramatic natural phenomena (thunder, lightning, eclipses and the like), and the relationship between the cosmos and the gods. These considerations were studied as part of 'natural philosophy'.¹⁵ The early Christian church was confronted by the dualist cosmology of Gnosticism, which held that Christ and his Father were not responsible for the created world and that salvation consisted in transcending material creation. In response to this teaching, Irenaeus (ca. 120–202) set out the basis for Christian cosmology.¹⁶

Irenaeus became a resolute defender of the strict divinity of the Logos (Christ), through whom God the Father created all things.¹⁷ Ire-

¹³ Augustine Thottakara, *Eco-dynamics of Religion: Thoughts for the Third Millennium* (Bangalore, India: Dharma Publications, 2000), 106.

¹⁴ Lance E. Nelson, *Purifying the Earthly Body of God: Religion and Ecology in Hindu India* (New York: State University of New York Press, 1998), 39.

¹⁵ David C. Lindberg, 'Early Christian Attitudes toward Nature', in Gary B. Ferngren (ed.), *The History of Science and Religion in the Western Tradition: An Encyclopedia* (London: Garland, 2000), 278.

¹⁶ Elizabeth Theokritoff, 'Creator and Creation', in M. B. Cunningham & Elizabeth Theokritoff (eds.), *The Cambridge Companion to Orthodox Christian Theology* (Cambridge: Cambridge University Press, 2008), 63.

¹⁷ Stanley L. Jaki, 'God, Nature, and Science', in Gary Ferngren (ed.), *The History of Science*

naeus stated that 'the initial step for the soul to come to the knowledge of God is contemplation of nature.'¹⁸ His Cappadocian naturalism was not opposed to the pervasive presence of God in creation and treated nature as a dynamic and interactive event within which both divine and cosmic energies converged and synergized.¹⁹ According to Theokritoff, Cappadocians believed that 'it is for the sake of the whole creation that man the microcosm receives the divine in-breathing, so that nothing in creation should be deprived of a share in communion with God.' This sense of 'solidarity in createdness', she added, 'has remained a leitmotif in Eastern Christian theology.'²⁰

Basil of Caesarea sharply attacked Greek philosophers and astronomers who 'have willfully and voluntarily blinded themselves to the knowledge of the truth'. These men, he continued, have 'discovered everything, except one thing: they have not discovered the fact that God is the creator of the universe.'²¹ Basil asserted, 'I want creation to penetrate you with so much admiration that wherever you go, the

least plant may bring you the clear remembrance of your Creator. ... One blade of grass or one speck of dust is enough to occupy your entire mind in beholding the art with which it has been made.'²²

In his *Apology for Allegory*, Gregory of Nyssa displayed the relationship between 'God and the cosmos', or 'the structure of matter and the creation' as both one event and many events.²³ Gregory was more interested in bridging the scriptural worldview and the scientific cosmologies of the time, rather than in the interpretation of Genesis.²⁴ He displayed an ability to integrate large amounts of scientific data and naturalistic explanations within his theological narrative. The accuracy of Gregory's explanations when compared with the modern sciences is not significant here; what is relevant is that he was aware of the knowledge of the sages who studied nature before and in his own time.²⁵

Rene Dubos proposed that Christian stewardship should have a basis in the teachings of St. Benedict. The Benedictine order 'actively intervened in nature' as farmers and builders. According to Dubos, 'Benedict of Nursia ... can be regarded as the patron saint of those who believe that true conservation means not only protecting nature against human misbehaviour but also developing human activities that favour a creative, harmonious relationship between

and Religion in the Western Tradition: *An Encyclopedia* (London: Garland Publishing, 2000), 54.

18 J. Matthew Sleeth, 'Teachings on Creation through the Ages', in *The Green Bible NRSV* (New York: Harper Collins, 1989), 1-98.

19 Doru Costache, 'Making Sense of the World: Theology and Science in St Gregory of Nyssa's *An Apology for the Hexaemeron*', *Phronema* 28, no. 1 (2013): 6.

20 Theokritoff, 'Creator and Creation', 65.

21 David C. Lindberg, 'Early Christian Attitudes toward Nature', in Gary B. Ferngren (ed.) *The History of Science and Religion in the Western Tradition: An Encyclopedia* (London: Garland, 2000), 278.

22 Basil the Great (329-379), *Hexaemeron*, Homily 5, 'Germination of the Earth', cited in Sleeth, 'Teachings on Creation through the Ages', 1-99.

23 Costache, 'Making Sense of the World', 1.

24 Costache, 'Making Sense of the World', 6.

25 Costache, 'Making Sense of the World', 8.

man and nature.²⁶ The first chapter of Genesis speaks of man's dominion over nature. The Benedictine rule, in contrast, seems inspired rather by the second chapter, in which the Lord placed man in the Garden of Eden not as a master but rather in the spirit of stewardship. Throughout the history of the Benedictine order, its monks have brought about profound transformations of soil, water, fauna and flora.²⁷ Saint Bernard believed that it was the monks' duty to work as partners with God in improving His creation, or at least in giving it a more human expression. Implicit in his writings is the thought that labour is like a prayer which helps in recreating paradise out of chaotic wilderness.²⁸

The Bible inspired many scientific pioneers to go in search of the laws of nature—a long, tedious, demanding, and multigenerational journey. The Bible taught that God 'gave the sea its boundary so the waters would not overstep His command'.²⁹ Many believe that the birth of modern science took place at the establishment of the Royal Society of London for Improving Natural Knowledge in 1660. Others place it in 1620, when Francis Bacon's book, *Novum Organum Scientiarum* (New Instrument of Science) was published. Still others may prefer 1543, the year of publication of *De revolutionibus orbium coelestium* (On

the Revolution of Celestial Spheres) by Nicholas Copernicus.³⁰ Whatever the case, the Bible was directly responsible for producing modern science.

Francis Bacon is considered the founder of scientific methods.³¹ He was the Lord Chancellor of England and a founder of the Royal Society. Bacon held to the truth of both of God's two books—the book of nature and the book of God's word, the Bible:

There are two books laid before us to study, to prevent our falling into error; first, the volume of the Scriptures, which reveal the will of God; then the volume of the *Creatures*, which express his power.³²

Johannes Kepler asserted that the universe was a 'bright Temple of God and we astronomers are priests of the highest God in regard to the book of nature'.³³ He elaborated the idea of nature as a living organism in the late sixteenth century.³⁴

30 Sarojini Henry, *Science Meets Faith: An Interdisciplinary Conversation* (Mumbai: St. Paul's Press, 2009), 59.

31 James MacLachlan, *Galileo Galilei, First Physicist* (New York: Oxford University Press, 1997).

32 Francis Bacon, *The Advancement of Learning* (London: Henrie Tomes, 1605). The 1893 edition by David Price (Cassell and Company) is available online at www.fullbooks.com. Cited in Vishal Mangalwadi, *The Book That Made Your World: How the Bible Created the Soul of Western Civilization* (Dallas, TX: Thomas Nelson, 2011), 240.

33 Avihu Zakai, 'The Rise of Modern Science and the Decline of Theology', *Reformation and Renaissance Review* 9, no. 2 (August 2007): 135.

34 J. Kozhamthadam, 'Science and Ecology', *Jnanadeepa* (Ecological Concerns) 9, no. 1 (January 2006): 23.

26 Rene Dubos, *A God Within* (New York: Charles Scribner's Sons, 1972), 168.

27 Dubos, *A God Within*, 169.

28 Dubos, *A God Within*, 171.

29 Proverbs 8:29. Verses like this one shaped the original idea of 'natural laws'. Francis Oakley, 'Christian Theology and the Newtonian Science: The Rise of the Concept of the Laws of Nature', *Church History* 30 (1961) 436.

Isaac Newton regarded his scientific work as praise for God and as the study of God's works. In all his discoveries, Newton seems to have silently acknowledged a divine presence.³⁵ When Newton discovered his law of gravitation he did not say, 'Now I have gravity, I don't need God.' Instead he wrote *Principia Mathematica*, the most famous book in the history of science, expressing the hope that it would 'persuade the thinking man' to believe in God.³⁶ He declared that 'the most elegant system of the sun, planets, and comets could not have arisen without the design and dominion of an intelligent and powerful being.'³⁷ Then he went on to speak about the majestic God of the Bible, on whose power and dominion the universe's very existence is constantly dependent.³⁸

Newton's religious faith was more important to him than his science. He was concerned with theology, prophecy and church history right from an early age. He was a fervent reader as well as a student of the Bible. William Stukeley, who was acquainted with Newton near the end of the latter's life, wrote, 'No man in England

read the Bible more carefully than he did.'³⁹ At a fundamental level, Newton believed that science leads to God. The early evangelicals also welcomed scientific discoveries, seeing them as evidence of the scope of God's work in nature.⁴⁰

III. The Foundation of Ecological Consciousness in India

Long before world organizations formally addressed ecological crises, concern for the natural environment was prominent among many Christian missionaries and scientists. The British societies were founded with meeting civic needs among their objectives⁴¹ and most environmental movements and related government policies were the outcomes of the scientific revolution. Such societies had a great impact in promoting environmental care in India.

The Royal Geographical Society initiated awareness regarding deforestation, desiccation, and climate change and proposed large-scale forest conservation.⁴² Subsequently adopted in India, this aggressive for-

35 Kozhamthadam, 'Science and Ecology', 23.

36 John Lennox, 'Stephen Hawking and God', September 2010, reprinted at <https://www.rzim.org/read/just-thinking-magazine/stephen-hawking-and-god>.

37 Isaac Newton, *The Principia: Mathematical Principles of Natural Philosophy*, trans. I. Bernard Cohen and Anne Whitman (Berkeley: University of California Press, 1999), 940, cited in Denis Alexander (ed.), *The Isaac Newton Guide Book* (Cambridge: Faraday Institute, 2012), 42.

38 Alexander, *The Isaac Newton Guide Book*, 42.

39 Alexander, *The Isaac Newton Guide Book*, 36.

40 Dave Bookless, *Creation Care in Christian Mission* (Oxford: Regnum Books, 2016), 108.

41 John M. MacKenzie, 'The Provincial Geographical Societies in Britain, 1884-1914', in Morg Bell and Robin Butlin (eds.), *Geography and Imperialism 1820-1940* (Manchester, UK: Manchester University Press, 1995), 95.

42 Richard H. Grove, 'Imperialism and the Discourse of Desiccation: The Institutionalisation of Global Environmental Concerns and the Role of the Royal Geographical Society, 1860-1880', in Bell and Butlin, *Geography and Imperialism*, 36.

est protection effort led to the emergence of a school of environmentalists in the country.⁴³ The influence of the Society of Arts led William Roxburgh, the second superintendent of Royal Botanic Garden, Calcutta (now Acharya Jagadish Chandra Bose Indian Botanic Garden), to promote extensive tree planting policies in Bengal. After 1842, forest conservation practice and environmentalism in India drew from the climatic theories of renowned naturalist and geographer Alexander von Humboldt (who had a Lutheran background) and Joseph Boussingault.⁴⁴

Great Christian missionaries, intellectuals and environmentalists who admired God's creation did their best to create environmental awareness among Indians.

1. William Carey

William Carey was born in England in 1761 and arrived in India in 1793 as a Baptist missionary. He is considered a founder of the modern Protestant missionary movement. Known for his famous admonition to 'expect great things from God and to attempt great things for God',⁴⁵ with much effort he established the Agricultural Horticultural Society on 14 September 1820. His vision of forming this society was guided by his practical interest in improving India's agricultural economy and supplying food to the hungry mil-

lions of India.⁴⁶ Carey was the botanist after whom *Careya Herbacea*, one of the three varieties of eucalyptus found only in India, is named.⁴⁷ His interest in botany gave birth to horticulture in India.⁴⁸

Carey placed great emphasis on introducing modern science to India and taught botany, zoology and astronomy in addition to theology at Serampore.⁴⁹ Dave Bookless regards him as one of the early examples of 'evangelical ecological consciousness', saying that his motivation for environmental protection 'came from his belief that God has made man responsible for the earth.'⁵⁰ Carey became acquainted with William Roxburgh, whose wife was the daughter of a missionary.⁵¹ Roxburgh gave the name *Careya* to an interesting genus of *Myrtaceae*.⁵²

Carey brought the English daisy to India and introduced the Linnaean species classification system to gardening. He was the first to publish books on science and natural history in India and edited *Flora Indica*, written by Roxburgh. He believed that 'all thy works praise Thee, O Lord.'⁵³

43 Grove, 'Imperialism and the Discourse', 40.

44 Richard H. Grove, 'Imperialism and the Discourse', 41.

45 Marina Ngursangzeli Behera, 'William Carey and the British East India Company', *American Baptist Quarterly* (January 1, 2010): 246.

46 Behera, 'William Carey', 252.

47 Mangalwadi and Mangalwadi, *The Legacy of William Carey*, 17.

48 Joseph C. Robbins, 'The Social Application of the Missionary Motive Abroad', in *The Triumph of the Missionary Motive* (Philadelphia: American Baptist Publication Society, 1920), 69.

49 Mangalwadi and Mangalwadi, *The Legacy of William Carey*, 81.

50 Bookless, *Creation Care*, 106.

51 George Smith, *The Life of William Carey: A Shoemaker and Missionary* (London: J. M. Dent & Co.), 220-221.

52 Smith, *The Life of William Carey*, 304.

53 Mangalwadi and Mangalwadi, *The Lega-*

He was prompted to become heavily involved in ecological endeavours because he was horrified to see the Indian ecosystem, which had 'become an uncultivated jungle abandoned to wild beasts and serpents.'⁵⁴ He was the first person in India to write essays on forestry, almost fifty years before the government made its very first attempt at forest conversation in Malabar.⁵⁵

Bookless asserts that Carey would have drawn inspiration from the hymnody of Isaac Watts (1674–1748), whose work focussed on 'the Psalmist's celebration of God's glory in nature in the light of Christocentric New Testament theology.'⁵⁶ It was William Carey, a Christian missionary, and not the Hindu mystics who initiated the struggle for regenerating eco-balance in India.⁵⁷

Chittabrata Patil claims that missionaries (especially the Baptist missionaries of Serampore, who included William Carey, Felix Carey and John Max) served the Indian people, left a valuable legacy of science and culture,⁵⁸ and played a path-breaking role in spreading science and technology in India. But according to him, this was all a tool for them to convert people with the help of British colonialism.⁵⁹ On the other hand, Jawaharlal

Nehru, the first Prime Minister of India, acknowledged the contributions of the early missionaries, especially the Baptists of Serampore:

The desire of the Christian missionaries to translate the Bible into every possible language thus resulted in the development of many Indian languages. Christian mission work in India has not always been admirable or praiseworthy ... but in this respect, as well as in the collection of folklore, it has undoubtedly been of great service to India.⁶⁰

2. Vedanavakam Sastri

Scholar Indra Vishwanathan Peterson describes two Indian intellectuals in the early nineteenth century: King Serfoji II (1777–1832), a Hindu and prince of the Maratha dynasty that ruled Tanjore, and the Tamil poet Vedanayakam Sastri (1774–1864), the first Protestant Christian poet to write in the Tamil language. Both were quite influenced by Western education and their interest in European arts and sciences. Before the British could establish education in South India, these two became key instruments in providing Western education by establishing schools.⁶¹ They embraced the vision of Profes-

cy of William Carey, 17.

⁵⁴ Mangalwadi and Mangalwadi, *The Legacy of William Carey*, 20.

⁵⁵ Mangalwadi and Mangalwadi, *The Legacy of William Carey*, 22.

⁵⁶ Bookless, *Creation Care*, 106.

⁵⁷ Mangalwadi and Mangalwadi, *The Legacy of William Carey*, 108.

⁵⁸ Chittabrata Patil, *Scientific Bengal: Science, Technology and Environment under the Raj* (Delhi: Kalpaz Publications, 2006), 42.

⁵⁹ Patil, *Scientific Bengal*, 51.

⁶⁰ Jawaharlal Nehru, *The Discovery of India* (Delhi: Oxford University Press, 1946), 317–18.

⁶¹ Indra Vishwanathan Peterson, 'Tanjore, Tranquebar, and Halle: European Science and German Missionary Education in the Lives of Two Intellectuals in the Early 19th Century', in Robert Eric Frykenberg (ed.), *Christians and Missionaries in India: Cross-Cultural Communication since 1500* (London: Routledge, 2003), 94.

sor August Hermann Francke in Halle, which was introduced by Ziengenbalg under the Tranquebar Mission.⁶² Francke's philosophy maintained an integral relationship between science and theology. Missionaries and others in India received their theological and pedagogical training in this format.⁶³

One can find a blend of mixed Tamil-English curriculum with biblical ideals and the principles of science and technology from the West in the education program that King Serfoji and Sastri provided.⁶⁴ They introduced the study of the natural environment into the educational system in South India; the study and growing of various species of plants in a botanical garden became part of the curriculum. New approaches to natural history and new cosmology in a pietist Christian theological context were mentioned in Vedanayakam Sastri's Tamil poems.⁶⁵ Serfoji became a member and fellow of the Royal Geographical Society. The work of these two men in a variety of fields including science, environment, botany and cosmology helped to lay the founda-

tion for modern Tamil literature.⁶⁶

3. Sam Higginbottom

Sam Higginbottom was another outstanding missionary who responded to the cry of the poor and hungry world, dedicating his life to the cause of agriculture in India. In 1910 he established the Allahabad Agriculture Institute (now Sam Higginbottom University of Agriculture, Technology and Sciences). He was confident that agriculture, along with the Gospel, provided the solution to the poverty of India.⁶⁷

The Institute sat on a large parcel of poor land, as if meant for the outcaste farmers to cultivate. Yet Higginbottom showed the people what could be done with dry, hard, thin, cactus-infested land. He taught farmers to burn off the cactus spines and then to use the cactus to feed their cattle in times of drought when all other fodder failed.⁶⁸

Motivated by Matthew 14:13–16, Higginbottom drew on the power of the Gospel to reach the rural masses of India and make an impact in agricultural sciences. The Allahabad Agriculture Institute (AAI) became

62 The Danish Tranquebar Mission was staffed by German missionaries and by the seminary founded by Francke at the end of the seventeenth century in the German city of Halle-on-the-sale. Francke was a German Lutheran clergyman, philanthropist, and biblical scholar. Under his influence, Christian missionary efforts were greatly enhanced, zeal was aroused and recruits for Christian missions were gained, and Halle also became a centre for Danish mission activity in India.

63 Peterson, 'Tanjore, Tranquebar, and Halle', 97.

64 Peterson, 'Tanjore, Tranquebar, and Halle', 98.

65 Peterson, 'Tanjore, Tranquebar, and Halle', 100.

66 Robert Frykenberg, 'The Halle Legacy in Modern India: Information and the Spread of Education, Enlightenment and Evangelization', in *Missionsberichte aus Indien im 18. Jahrhundert* (Halle, Germany: Franckesche Stiftungen, 2004), 19.

67 Joseph C. Robbins, 'The Social Application of the Missionary Motive Abroad', in William H. Hill (ed.), *The Triumph of the Missionary Motive* (Philadelphia: American Baptist Publication Society, 1920), 69.

68 Helen Barrett Montgomery, *The King's Highway* (West Medford, MA: Central Committee on the United Study of Foreign Mission, 1915), 107.

a centre for teaching, research and extension services. Higginbottom wrote India's first textbooks on dairy farming, horticulture and extension and designed programmes to train officials for the civil services. He introduced silo pits for storing green and dry fodder for animals. In 1935, Gandhi asked him to inspect and report on the earthquake-stricken area of Bihar, where he was received by Dr. Rajendra Prasad (the first president of independent India).⁶⁹ His vision for India is expressed in his writings: 'I am anxious to see the day when India shall take her proper place as one of the great self-governing peoples of the world.'⁷⁰

Higginbottom played an important role in creating ecological consciousness among his students and recognized the work of those who were involved in this task.⁷¹ Even after 109

years, his mission and vision continue to be implemented at this institute, which is now a university (under the state government of India) where I teach. Sam Higginbottom University of Agriculture, Technology and Sciences (SHUATS) in Allahabad promotes agricultural research with the goal of providing food security and improved quality of life to the people of India. The university has worked to develop temperature-tolerant wheat and rice varieties for Indian farmers in order to mitigate climate change due to global warming.

4. J. C. Kumarappa

Joseph Chelladurai Cornelius (Kumarappa) was a Tamil Christian from Tanjore who had been trained in accountancy in London and New York. After returning to India in 1929, he came into contact with Gandhi.⁷² Kumarappa's mother, Esther Rajanayakam, was a devout Christian who inculcated the moral and spiritual values in his life that played an important role in shaping his economic philosophy.⁷³

Kumarappa was in charge of two Gandhian *swadeshi* (indigenous goods) institutions: All India Spinners Association and All India Village Industries Association. His writings had profound ecological implica-

69 S. B. Lal, 'A Brief Sketch of Dr. Sam Higginbottom's Vision on Gospel and Plough: Then and Now', in Jagdhari Masih and Samuel Richmond (eds.), *NACSAR-09 Technological Advancement in Science and its Socio-Religious Impact* (Allahabad, India: AAI, 2009), 61.

70 Sam Higginbottom, *The Gospel and the Plow: The Old Gospel and Modern Farming in Ancient India* (Mussoorie, India: Nivedit Good Books, 2014), 16.

71 See Helen M. Rockey and Harold B. Hunting, *The Wonderland of India* (New York: Missionary Education Movement of the US-Canada, 1992), 117. Among those whose works Higginbottom recognized in *The Gospel and the Plow* were Colonel E. Hudson, superintendent of Naini Jail, who planted a large number of trees and changed the whole landscape (pp. 7–8); Mr. and Mrs. Howard, imperial economic botanists, who bred the 'Pusa Series' of wheat; Dr. Barber, an imperial botanist who worked on sugarcane (p. 41); Mr. Leake, Director of the United Province of

Cawnpore, who sowed different varieties of cotton (p. 34); and Dr. Carleton of the American Presbyterian Mission, who introduced varieties of fruits in India (p. 33).

72 Guha, *A Historical Study*, 118.

73 Kumarappa is described as 'a Gandhian economist ahead of his time' in a *Down-to-Earth* article at <http://www.downtoearth.org.in/indepth/a-gandhian-economist-ahead-of-his-time-30798> (n.d.).

tions. He said, 'If we produce everything we want from within a limited area, we are in a position to supervise the methods of production; while if we draw our requirements from the ends of the earth it becomes impossible for us to guarantee the conditions of production in such places.' While denouncing industrialization in tune with Gandhi, he observed that agriculture is and ought to be 'the greatest among occupations' in which 'man attempts to control nature and his environment in such a way as to produce the best results.'⁷⁴ For him, industrial development was contrary to the Mahatma's dream of a 'village-centered economic order.'⁷⁵

Sumit Guha stated that 'J.C. Kumarappa, even more than Mahatma Gandhi, was a prophet and a pioneer of the contemporary environmental movement.'⁷⁶ His work combined biblical principles and Gandhian non-violence, with a focus on human dignity. Both he and Gandhi worked on creating an economy that would focus on meeting human needs and resolving unemployment, poverty and environmental crises. M. M. Thomas described him as one of the 'Christians of the inner Gandhi circle.'⁷⁷

IV. Christian Influence on the Indian Ecosystem

Earth Day, which is celebrated on 22

April globally (and in India as well), reminds us about our responsibility towards planet Earth. On this occasion, we Indians plant trees, clean the surroundings, organize seminars and conferences and hold painting competitions, among other creative activities. Surprisingly, the founder of this day was John McConnell, a Christian believer and the son of a Pentecostal evangelist.⁷⁸ As a visionary, he always gave priority to the care for creation and devoted his life to 'peace, justice and care of Earth'.⁷⁹

Those are international examples; there are plenty in India as well. In 1988, under the directorship of Fr. Jose Chirackal, a movement against deforestation, called Friends of Trees, was started in Patna, Bihar.⁸⁰ Similarly, in the early 1990s when deforestation was rampant, Bishop William Moses of the Anglican Church's Coimbatore Diocese started a 'Tree Evangelization Mission' with the slogan 'Greening the mind of the people'.⁸¹

Temsutula Imsong undertook a bold initiative to clean the Varanasi Ghats in conjunction with *Swachh Bharat Abhiyan* (Clean India Movement), a government-sponsored clean-up programme launched in

⁷⁸ Darrin J. Rodgers and Nicole Sparks, 'Pentecostal Pioneer of the Earth Day: John McConnell Jr.' in A. J. Swoboda (ed.), *Blood Cries Out: Pentecostals, Ecology, and the Groans of Creation* (Eugene, OR: Pickwick, 2014), 3.

⁷⁹ Robert M. Weir, *Peace, Justice, Care of Earth: The Vision of John McConnell, Founder of Earth Day* (Kalamazoo, MI: Press On Publishing, 2007).

⁸⁰ Andreas Nehring, *Ecology: A Theological Response* (Madras: Gurukul Summer Institute, 1994), 268.

⁸¹ Nehring, *Ecology*, 260.

⁷⁴ Guha, *A Historical Study*, 118.

⁷⁵ Ramachandra Guha, *An Anthropologist Among the Marxists and Other Essays* (Delhi: Permanent Black, 2001), 82.

⁷⁶ Guha, *An Anthropologist*, 86.

⁷⁷ M. M. Thomas, *The Acknowledged Christ of the Indian Renaissance* (Madras: CLS, 1970), 242.

2014. In an interview, she mentioned that when she was an eight-year-old she cleaned the road in her village as part of a local church program in Nagaland.⁸² Her initiative got a boost after Prime Minister Modi praised her on 31 March 2015 on Twitter: 'This effort by @temsutulaimsong & the entire team to clean the Ghats in Varanasi is phenomenal! I salute them.'⁸³

A Rocha, an international evangelical Christian conservation organization, is actively involved in India, focusing on biodiversity conservation and emphasizing scientific research, environmental education, church and theological engagement, and community-based conservation projects.⁸⁴ The ACTS (Agriculture, Crafts, Trades and Studies) Group (www.actsgroup.org) and its initiative called PEAS (Programme for Environmental Action in Schools) are running nationwide projects related to environmental awareness, fostering eco-culture, and health issues under the leadership of renowned Indian environmentalist Dr. Ken Gnanakan. The National Council of Churches in India (NCCI) with its Commission on Justice, Peace, Creation is keenly involved in addressing threats to creation along with combatting poverty

and economic injustice in India.⁸⁵

The Department of Ecological Concerns within the Church of South India⁸⁶ is continuously making efforts to generate ecological consciousness among the people of India. Its director, Dr. Mathew Koshy, organizes national and international conferences and awareness programs, which have been well attended by religious leaders, politicians and scientists over the last few decades.⁸⁷ EFICOR (Evangelical Fellowship of India Commission on Relief) is a national Christian organization engaged in development, advocacy, disaster response and training; it serves the poor, socially excluded and marginalized irrespective of caste, creed or ethnicity. It also addresses the negative impact of climate change and networks with other like-minded civil organizations, NGOs and concerned government ministries.

The Roman Catholic Church, through the Caritas wing of the Catholic Bishops Conference in India, is imparting ecological awareness by involving itself in tree planting; participating in *Swachh Bharat Abhiyan*; sharing the ecological values of Francis of Assisi, Pope John Paul II, Pope Francis and others; and giving humanitarian assistance in the context

82 Kavitha Rao, 'Temsutula Imsong Picked Up a Broom and Bucket and Cleaned Up a Riverbank', *Christian Science Monitor*, 8 October 2015, <http://www.csmonitor.com/World/Making-a-difference/2015/1008/Temsutula-Imsong-picked-up-a-broom-and-bucket-and-cleaned-up-a-riverbank>.

83 NDTV, 'Duo Praised by PM Modi Bats For Sanitation at Varanasi Ghats', 4 April 2015, <http://www.ndtv.com/india-news/duo-praised-by-pm-modi-bats-for-sanitation-at-varanasi-ghats-752219>.

84 Bookless, *Creation Care*, 116.

85 See National Council of Churches in India, 'Commissions', nccindia.in/commission/.

86 The Church of South India is the result of the union of churches of varying traditions: Anglican, Methodist, Congregational, Presbyterian, and Reformed. It was inaugurated in September 1947, after protracted negotiation among the churches concerned.

87 Report by Dr. Koshy, Church of South India, Department of Ecological Concerns, <http://www.csisynod.com/erec.php>.

of natural and human-made calamities.⁸⁸

V. Conclusion

Christians (both from the West and from India) have made enormous contributions towards addressing a wide range of environmental concerns, both globally and locally. Lynn White's critical paper drove Christian theologians to interpret the doctrine of creation more intently in the light of caring for creation.

According to the Word of God, Christian believers are considered part of the 'new humanity' (Eph 2:15) created in Christ Jesus to do good works (2:10), and hence they know their responsibility towards God's creation. Through the power of the Gospel and the compassion of our Lord Jesus Christ, missionaries were able to influence many aspects of life in India. They worked genuinely and effectively among the helpless and

unfortunate members of Indian communities.

Today major Christian agencies understand their role and commitment towards addressing climate change, environmental crises, global warming, poverty and natural disasters. God has given us a mandate to care for creation as stewards, caretakers, children of God, and servant leaders—loving and nurturing our fellow beings. As Christians, we are called to make a difference in society, as the salt of the earth and the light of the world. The Bible encourages us to work for the glory of God with integrity: 'Whatever you do, work at it with all your heart, as working for the Lord, not for men' (Col 3:23; Eph 6:7–8).

We admire all those who have worked diligently and tirelessly in protecting and preserving the biodiversity of India as God's gift to us. We retain the eschatological hope that one day God will restore this fallen creation but until then, as good stewards, we must keep on working meticulously to preserve it.

88 See the Caritas India website, <http://cbci.in/Caritas-India.aspx>.