

CORRESPONDING AUTHOR:

Prof Leon Hugo
(Emeritus) Professor
Dept Geography
University Of Pretoria
Pretoria,
South Africa
Leonhugo7777@gmail.com

OTHER AUTHOR:

Prof Jean O. Hugo
HUB "(CEO)" Ecomplan cc
jeanhugo1000@gmail.com

DATES:

Published: 28 February 2025

HOW TO CITE THIS ARTICLE:

Hugo, M.L. & Hugo, J.O., 2025. The environmental crisis: A religious solution?. KOERS — Bulletin for Christian Scholarship, 90(1). Available at: <https://doi.org/10.19108/KOERS.90.1.2581>

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The environmental crisis: A religious solution?

Abstract

The earth and its inhabitants are facing an impending environmental catastrophe. Despite remarkable technological advancements and sophisticated economic strategies, the situation continues to worsen at an alarming rate. The growing demand for higher living standards exacerbates the exploitation of resources, contributing to environmental degradation. Human greed and interpersonal competition drive the rapid extraction of natural resources, leading to the degradation of the planet's ecological foundation. Therefore, the solution does not lie in enhanced or restrained technological progress, educational programmes or new economic theories but in transforming human attitudes and aspirations, profoundly shaped by socio-economic and cultural-historical contexts.

In this context, religion plays a crucial role in shaping individuals' worldviews. Most religious teachings advocate for the responsible use of resources, together with love and respect towards other human beings. If these core principles of environmental stewardship and care for others, along with the warnings against greed and the dangers of wealth, were more actively embraced, the current environmental crisis could have been avoided.

Keywords: environmental crisis; greed; love; nature; religion

Opsomming

Tans word die aarde en sy inwoners met 'n dreigende omgewingskatastrofe gekonfronteer. Ten spyte van merkwaardige tegnologiese vooruitgang en gesofistikeerde ekonomiese strategieë versleg die situasie teen 'n ontstellende tempo. Die toenemende vraag na hoër lewenstandaarde vererger die uitbuiting van hulpbronne, wat tot omgewingsagteruitgang bydra. Menslike hebsug en interpersoonlike kompetisie dryf die vinnige onttrekking van natuurlike hulpbronne, wat tot die degradasie van die planeet se ekologiese grondslag lei. Juis hierom lê die oplossing nie in verhoogde of gematigde tegnologiese vooruitgang, intensiewe opvoedingsprogramme of in vernuwend ekonomiese teorieë nie, maar eerder in die verandering van menslike houdings en aspirasies. Laasgenoemde word deurdringend deur sosio-ekonomiese en kultureel-historiese kontekste beïnvloed.

In hierdie konteks speel godsdiens 'n deurslaggewende rol in die vorming van individuele wêreldbeskouings. Die meeste godsdienstige leerstellings bepleit die verantwoordelike gebruik van hulpbronne, sowel as liefde en respek teenoor ander mense. Indien omgewingsbewaring en sorg vir ander as kernbeginsels tesame met waarskuwing teen hebsug en die gevare van rykdom meer aktief omarm is, kon die huidige omgewingskrisis vermy gewees het.

Kernbegrippe: hebsug; godsdiens; liefde; natuur; omgewingskrisis

1. Introduction: a situation report

Aside from socio-political upheavals, the most pressing issue dominating the media today is the wave of environmental disasters such as floods, droughts, raging wildfires, and the drying up of major rivers like the Euphrates. These disasters have been primarily attributed to global warming (National Oceanic and Atmospheric Administration's (NOAA's) National Centers for Environmental Information, 2023). This points to an environmental crisis of unprecedented scale. As far back as August 2021, a United Nations report (2021) issued a “**code red**” warning that we are approaching a point of no return in this crisis (Guterres, 2021). This is leading not only to human tragedies but also to further environmental degradation, disrupting the delicate balance of nature and undermining the planet's ability to provide essential ecosystem services. Essential ecosystem services on which humanity depends include clean water, air, soil, vegetation, and wildlife. This global environmental crisis is rapidly approaching a tipping irreversible threshold within our lifetime (Pinnock, 2022). Consequently, this qualitative, literature-based study aims to conceptualise the current environmental situation's challenges.

2. Problem statement

A solution to any problem can only be effectively considered once the root cause is clearly identified. This environmental crisis is the core challenge we face – indeed, a defining moment in human history. The literature offers many causes and solutions, all of which take a pragmatic approach. However, the psychological and especially religious perspectives are largely missing. Therefore, the key question still remains: How can humanity solve this crisis?

3. Origin and development of the environmental problem

Environmental degradation has been inevitable for a long time. As early as the late 1940s, Aldo Leopold (1949) and Rachel Carson (1962) issued warnings. However, humanity remained caught up in the wave of post-war prosperity. During this wave, they were driven to subdue and dominate nature, extracting resources as rapidly as possible under the guise of “development”. It was not until the 1990s that the urgency of action became widely acknowledged. In 1992, the global community adopted Agenda 21 (United Nations, 1992), marking a commitment to sustainable living. However, at the 2002 World Summit (United Nations, 2002), it became clear that poverty remained widespread. It was estimated that 25,000 people were dying of hunger each day, and environmental degradation had worsened rather than improved. Thirteen years later, the United Nations adopted the Sustainable Development Goals (United Nations, 2015), yet meaningful progress remains elusive even after another ten years. At the 28th Conference of the Parties (COP) meeting in 2023, world leaders failed to demonstrate significant progress (Wijesinha & Barbarà, 2023; Monsalve, 2023).

4. Proposed solution to the environmental crisis

There is extensive literature available on the issue that can be grouped into four broad themes: the deterministic deep ecologists, also called “ecosophy”; technology (in its different levels); a possibilistic humanistic approach of education; and the economic approaches (of “red” and circular “green” economies).

4.1 Deep Ecology-pacifism (*Laissez-faire attitude*)

At the one extreme, some reckon that nothing at all should be done to save nature. In this context, nature encompasses the physical world collectively, including plants, animals, the landscape, and other products of the earth. These people also believe that nature should

continue to exist without human interference. A condition of equilibrium between people and nature is to be reached, even if it means that humanity as a species were to disappear. The concept pervading through this group is that a million years after the human race becomes extinct, it will barely be noticed that we were ever here. It maintains that Mother Earth, or Gaia's spirit, incorporates all beings (Myers, 1990). Hunger and epidemics (like the human immunodeficiency virus (HIV) and the Ebola virus) are seen as *solutions* to excessive population density. At the same time, the extermination of smallpox is considered to violate the law of biodiversity (Lovelock, 1988). This approach has no place for empathy or love towards fellow human beings¹; "survival of the fittest" is the law of life. Such dynamic balance used to be found in pre-industrial communities. Examples are the San people of Southern Africa, who lived in full dynamic balance with nature. Thus, people knew their limitations as determined by the environment and adapted accordingly.

4.2 Technology

In stark contrast to this deterministic worldview, possibilism (see, e.g., Roorbach & Semple, 1911) gained prominence as humanity developed from a subsistence-based, slash-and-burn existence through agricultural and industrial revolutions, and into an era of technological transformation. Although we cannot free ourselves from the directives and limitations of natural laws, we can manipulate nature (Hugo & Hugo, 2024). Possibilism posits that human ingenuity can overcome all natural limitations. In 1955, the editors of *Fortune magazine* published an article "*The fabulous future: America in 1980*". This article asserted that "there is no longer any margin of doubt that whatever the minds of people visualise, the genius of science can turn into functioning fact" (Southwick, 1972, p. 51).

Similarly, Andrew Carnegie, even before the recent explosion of technology, proclaimed that if we adhere to the principles of industrial progress, "we shall be promised a new life on earth in which poverty, suppression, and exploitation will disappear" (Carnegie, 1901, p. 31). However, reality has proven otherwise. Carnegie's vision has not materialised. Instead, interpersonal competition, greed, and a lack of love and compassion for both humans and the environment prevail. For example, fossil fuel interests and large corporate institutions continue to drive environmental degradation, causing immense suffering in their pursuit of profit. Therefore, it has become evident that technology alone is not the solution.

Dare one challenge the concept that the human brain – a gift from God that allows us to navigate our lives and distinguish right from wrong – has instead led us to the very brink of annihilation through technology and humanism? This statement challenges whether human technological "development" has, in fact, been a downward spiral.

4.3 Geoengineering

Technocrats are quick to reply: "[We] are increasingly looking to geoengineering technologies ... to save humanity..." (Van Diemen, 2021, p. 1). Humans, for example, created a monocultural agricultural system with massive production capacity under the laudable development credo to feed the masses. However, this system is kept artificially in balance by extra input (water, fertilisers, energy) above what is usually available in nature.

Therefore, the following critical questions must be asked: Will humans be able to replicate the natural system through technological infusion into the resource production line? If humans kill all the bees with insecticides, will humans, for example, effectively replace their pollination role? After clearing the global forests, can humans replace the extraction function of CO₂ from the air by plants through innovative technology? Will humankind be able to match the biosphere's ecological intelligence? (Callicott, 2014; Frank, 2022). At a point of no return, humanity might realise that it has replaced most of the ecosystem services and

1 "Love" in this context refers to the Greek term for love between friends, *philia* (φιλία): a love of deep friendship or affectionate bond between individuals. "*Philia*" is characterised by mutual respect, shared experiences, loyalty, and a strong emotional connection without romantic ties.

might be unable to re-instate the natural processes. Dare we, therefore, venture on such a high-risk path without knowing what the unforeseen implications might be according to the trigger factors principle? In this regard, chaos theory (Straussfogel & Von Schilling, 2009) warns us that we cannot predict the ripple effect of our actions. Is the high-risk technology to be the desperate “last throw of the dice” for survival? Can we improve on nature and arrive at a higher level of sustainable living than nature intends? These are questions of genuine concern.

Consequently, the fundamental issue is the following: According to the first thermodynamic law, *new matter* (the earth’s resources) cannot be created. Thus, they are limited. No matter how far and sophisticated our engineering techniques can develop and new energy resources are discovered, growth will always be limited.

4.4 Biomimicry: Nature knows best

The conviction exists that technology should be developed within the fundamental guidelines of designing harmoniously with nature. This conviction was already propagated in 1969 (McHarg, 1969). Natural ecosystems have developed a balance over a long period and are sustainable. These systems are productive, responsive to pests, and retentive of natural nutrients. Thus, they are appropriate models on which to base the design of land use systems (Benyus, 1997). This approach is appropriately named biomimicry – mimicking nature. Nature remains an unparalleled source of engineering brilliance and products for medical science. For example, the efficiency of biological systems is evident in the structure of a spider’s web—stronger than steel and yet exceptionally light—and in the aerodynamic adaptations of birds, which have inspired aviation. In this regard, the Bible (Job: 12:7) states: “Just ask the animals, and they will teach you. Ask the birds of the sky, and they will tell you. Speak to the earth, and it will instruct you. Let the fish in the sea speak to you.”

While geoengineering focuses on minimising human environmental impact, biomimicry seeks to learn proactively from nature’s strategies in order to manage sustainable development. A critical question thus remains: Can this approach adequately address the imminent challenge of feeding a global population projected to reach approximately 10 billion by 2080? (United Nations, 2024)

4.5 Economic systems

The demand-supply force drives the exploitation of resources and the concomitant degradation of the environment. The eminent American social scientist Garrett Hardin (Hardin, 1968) emphasised that in a market-driven economy, all companies drive their production to the limit, pursuing only their own interest and that of their shareholders. In doing this, they ignore the fact that they operate within a limited resource base that will eventually lead to the ruin of the earth.

To survive, this trend of economic growth, driven by the human being’s demand, needs to be curtailed and eventually reversed by changing to a degrowth economy. Eventually, this need must be in balance with nature’s provision capacity. Modern capitalistic economies (the so-called “red economy”) strive to exploit resources and “conquer” the environment (according to the philosophy of possibilism). The theory of “green economy” (Samanta, 2022) refers to environmentally friendly production with an emphasis on conservation and preservation. However, trying to maintain any given status quo is not according to nature’s directives. After all, nature is dynamic, and stagnation equals death to any dynamic system. A “circular economy”, in contrast, promotes the replacement of linear production and consumption patterns (produce-use-discard) with circular or sustainable recycling ones (Friend, 2003). Therefore, it can be concluded that the world needs an entirely new economy. However, this is unlikely as long as people crave ever-rising living standards.

4.6 EDUCATION

If one looks beyond the superficial concepts into the reasons for the crisis, usually provided by “the people who know”, we need to think again. Technology and industrial development are not the *reasons for* the crisis but the *result of* people’s decisions. People’s demand opens the door and drives supply (production). Economic models depend on human demand patterns; therefore, it is critical to assess the deep-seated reasons for humans’ livelihoods exceeding nature’s capacity to provide them. After all, nature has certain limitations. In this regard, the following problem is imminent: Humans are, by and large, self-centred, driven by a craving for comfortable (if not outright luxury) living and prestige, even if it means harming fellow humans and depleting resources to increase their living standards.

Furthermore, fellow human beings are seen as competitors instead of co-operators. As a result, humans lack *love and respect* for co-beings and nature. Some of Mahatma Gandhi’s most famous words (Gandhi, 1927) are that the earth has enough resources for people’s needs, but not for their greed. Mother Teresa echoes Gandhi: “We need to live more simply, so that others can simply live.” (Yasinski, s.a. p. 34) In his turn, Goldsmith (1981, p. 191) also wrote: “Materialism, not religion, ... is the opium of the people.” Living by love (caring for) your neighbour and our fellow creatures would have averted the crisis. The argument of Friend (2003, p. 1) should also be noted: “Only through proper education can the population ... be actively and sensitively involved with environmental matters.” However, the following questions remain: Can people’s disposition change from selfishness to the Biblical requirement that humans must love their neighbours as themselves? Can one be taught to love? Humanistic education has failed up until now.

4.6.1 The influence of human perception

As a result of people’s unique place in the environment as the so-called “ecological dominant” with their superior “power of invention”, it is vital to study their decision-making processes. To understand why and how people make decisions that have a profound effect on the world is indeed essential for our survival. Fuggle and Rabie (1983, p. 7) say: “... developments in environmental conservation must take place in ethical and moral realms just as much as in ecological and technical fields...” All ideas (whether good or bad) originate in humans’ minds and then (often) activate a reaction. Therefore, it is evident and unsurprising that the diverse influences of distinct cultures are apparent in how they exploit the physical-biological environment.

It has already been shown that a solution to the problem cannot be discussed until its cause has been determined. As said, technological mismanagement that leads to ecological catastrophes is not the *cause* of the problem but the (secondary) *result* of an underlying basic cause. According to Catto (1990), the underlying cause is man’s greedy and selfish character, resulting from the Biblical Fall of humanity. However, if the world were guided by the Biblical principle “Love your neighbour as yourself,” there probably would not have been the threat of an environmental crisis. Self-love, taking precedence over love for the “neighbour”, lies at the heart of competition for resources and the hoarding of capital stock. Mollison (as quoted by Hugo & Hugo, 2024, p. 318) states: “Our consumptive lifestyle has led us to the very brink of annihilation ... To accumulate wealth ... beyond one’s needs in a limited world is to be truly immoral.”

It is wishful thinking that educational programmes will persuade modern, ego-centric (self-loving), materialistic people (especially politicians, industrialists, and others who are the prime decision-makers) to make less profit. Furthermore, it is unrealistic to expect these people to live less comfortably for the sake of others and ecological principles (to change people from *ego*-centric to *eco*-centric). Emphasising the need to be faithful to the requirements of their faiths does motivate most followers of religions to live a spiritually respectable life. But, Don Pinnock (Pinnock, 2022, p. 1) laments that “... the sad truth is, most humans don’t give a damn about nature”. A fundamental conviction in Christianity, however,

is that humankind is inherently sinful. Therefore, no good works (or education) can change one's inherent sinfulness. The only way to change is to fully accept the transformation of the heart by accepting the restoration through Jesus Christ. Therefore, speculating on technological, ecological, economic, or humanistic steps towards solving the environmental crisis has superficial value. Unless people's disposition changes, no blueprint, such as the Sustainable Development Goals (SDGs) of the United Nations with detailed instructions, will lead to a solution.

4.6.2 Logic reasoning versus perception

Whereas all non-human elements are subject to natural laws whose reactions are predictable, the interactions between humans and their environment are much more complex. Thus, there is no simple cause-and-effect relationship between humans and natural forces. People are not mere omnivorous animals ruled by natural laws since they come from a complex socio-economic and cultural-historic heritage. Therefore, ingenuity, emotions, experience, and desires influence them. The culturally determined psychology of the individual thus determines their feelings towards their environment, and their perception of the nature of their environment determines their response.

Their interaction with the natural environment can only, in a sense, be understood by considering their perceptions of the natural environment and their behavioural response to it. This implies that we must be able to integrate models of social, religious and economic systems with our models of natural systems to understand human-environment interactions.

The standard analysis of the approaches towards a solution to the environmental crisis in the literature is pragmatic, scientific, and strictly logical. As said, solutions to real-world problems, however, do not lie in the sphere of logic alone. Even Albert Einstein said the following: "Imagination is more important than knowledge." (*Einstein*, 1929, p. 3) Thus it is primarily imagination, and not logic, that drives scientific advancement and personal inspiration.

Still, it's vital to ask: How can humans' attitudes be changed? Could they be changed through religion, education, laws and regulations, legal prosecution, or penalties? It seems that humankind will only adhere to conservation when forced to do so, through (1) government decree or (2) through necessity to save them from discomfort. The water crisis in the Western Cape in 2018 illustrated this. All citizens knew groundwater drilling to be only a temporary solution and that unlimited energy for permanent desalination was unavailable. Thus, technology was not a permanent solution. Yet, little reaction was forthcoming from the public to save water until the daily usage was, *by decree*, limited to 50 litres per person per day, and heavy fines were laid on transgressors. The financial and convenience issues (realising that they would be penalised and would not have water to flush toilets) and nothing else made them change their attitude towards conserving water.

5. Theocentric consideration: the role of religion

More than 80 per cent of humans on earth believe in a supernatural being (Pew Research Centre, 2012). It will thus be opportune to briefly look at the influence of religion on the perception of the human-environment interface, even though most ecological scientists regard it as irrelevant.

The rise of the church in Western Europe during the Middle Ages as the state authority resulted in religious thinking beginning to play a significant role in human behaviour. "Thus, religion became the most dynamic formative influence, undeniably spawning a characteristic world view, or environmental perception among the people" (Rorabacher, 1973, p. 35).

White (1971) argues as follows: Since technology is responsible for the misuse of the environment, Christianity, representing the general social fabric in Europe, is the cause of the environmental crisis. Therefore, humankind will continue to experience a worsening ecological crisis until we reject the Christian axiom that nature has no reason to exist except to serve man. This argument has been supported by others, such as Toynbee (1972). However, others have reacted to this argument. For example, De Blij (1974) states that this phenomenon is also found in many other parts of the world where the social system propagated by Christianity is more or less unknown. For instance, the most severe erosion known is found in Syria (Mohammed et. al., 2020). Although there is an element of truth in White's argument (1971), it would be unfair to blame this ecological crisis on the socio-religious system of Christianity just because Christianity is synonymous with capitalistic Western civilisation.

Where Christians (and specifically politicians, decision-makers, and industrialists among them) are guilty of greed and other malpractices, it should be seen as behaviour deviating from the guidelines laid down in the Bible for a true Christian lifestyle. If God has told humans to rule over nature, this does not imply that it may be destroyed for profit. Much attention is given to the warning against the evil of excessive wealth and to the virtue of simplistic living. The same argument is relevant for Buddhism, Islam, Judaism, and most other religions. Although every main religion denounces happiness through material acquisition, advertising incessantly promotes its value – something in which people seemingly have more faith.

5.1 Overview of the main religions' directives towards nature and fellow humans

In our search for a change of heart (to change our logical thinking and thus our actions), it is appropriate to, very briefly, examine the main religions regarding their perception of 1) nature and their 2) attitude towards fellow humans.

Islam: *Allah has raised the cosmos and set up the balance for all things, so do not transgress the balance* (Khalid & O'Brien, 1992). Humanity's role on earth is that of a "*khalifa*", a vice-regent or trustee of God. We are God's stewards and agents on earth. Thus, we are not masters of this earth; it does not belong to us to do what we wish. The Quran stresses kindness and love to everyone. In Surah An-Nisa (4:36), it says: "Worship Allah ... and to parents do good, and to relatives, orphans, the needy, the near neighbour, the neighbour farther away, the companion at your side, the traveller..." (Batchelor & Brown, 1992, p. 43).

Quakers (also known as the Religious Society of Friends): They emphasise living harmoniously with the earth to preserve the integrity, resilience, and beauty of the commonwealth of life between nature and humans (Gillman, 1988). Respecting life includes both humans and nature.

Judaism: *God placed man in the garden of Eden to tend and watch over it* (Genesis 2:15). It is reiterated by Psalm 8:6-8. The Bible (the Old Testament) contains very exact guidelines for how we should interact with nature. For example, there should be a seven-year cycle for rest for men as well as tillage of crops. Furthermore, the Bible also states that we should never remove *all* the eggs from a bird's nest, and neither should we remove the mother with her chicks (Deut. 22:6). The concept of *tikkun olam*, meaning "repairing the world", emphasises the Jewish responsibility to make the world a better place. Judaism teaches love for all people through the command to "Love your neighbour", show kindness to the stranger, and treat everyone with dignity (Lev. 19:18). Justice (*tzedek*) and kindness (*chesed*) are central virtues in Judaism (Rose, 1992). Deut. 24:19 says: "When you are harvesting and you overlook a sheaf, do not go back ... Leave it for the alien, the fatherless and the widow" This verse shows the importance of showing empathy and love for all instead of selfishness and greed. Deuteronomy 25:4 also states the importance of having empathy

with animals: "Do not muzzle an ox while it is treading out the grain." Proverbs 17:23, in turn, emphasises the importance of knowing the condition of one's flock.

Buddhism: In complete harmony with ecology, Buddhism teaches that all beings are interconnected. This means that everything and everyone is *interdependent*, and nothing exists in isolation. Understanding this interconnectedness fosters a deep sense of love and compassion for others (animals, plants, and human beings) because their well-being is directly linked to one's own. Hence, it attaches immense importance to wildlife and the protection of the environment on which every being in the world depends for survival. The Karaniya metta sutta teaches: "Just as a mother would protect her only child with her life, even so let one cultivate a boundless heart toward all beings, and let this loving-kindness pervade the whole world." (Batchelor & Brown, 1992, p. 43)

Indigenous African religion: All things were created by the Supreme Being for a harmonious continuity, and, as such, there must be a relationship of mutual obligation between all created things. All is pervaded by divinity. Nature's spirits are associated with specific animal and tree species, sacred forests, rivers, lakes, and mountains, which remind local communities of their need to respect the environment. Nothing should be done to antagonise the ancestral spirits that permeate nature. African folklore is rich with teachings about love for fellow beings, emphasising community, kindness, respect, and moral integrity. Through these narratives, love is portrayed as a fundamental aspect of human existence, crucial for both personal and communal well-being. The concept of *Ubuntu* (a Nguni Bantu term) encapsulates the idea that "I am because we are," emphasising that individual identity is linked to community and the importance of loving care for one another (Mbiti, 1969). Folklore includes stories about spirits or ancestors watching over the living, reinforcing that one's actions towards others affect human relationships and spiritual harmony.

Catholicism: In April 2020, Pope Francis spoke in support of Earth Day and emphasised the responsibility of individuals and governments to protect the planet. He reiterated the themes of *Laudato si'*, calling for ecological conversion and the need to care for the environment as an act of love and responsibility for future generations. In the *Laudato si'*, the Pope sees a close connection between social responsibility and the environment (Francis, 2015). He points out that people experiencing poverty suffer most from environmental degradation (Francis, 2015). His recent pleading for a one-world religion, where everyone lives in mutual love and acceptance, has been widely reported in public media.

Chinese religious thinking: Much emphasis is placed on the unity between people and nature and people's harmonious relationship with nature. People must also see themselves as insignificant elements in the great universal order. It stresses the unity between people and nature (Batchelor & Brown, 1992).

Christianity: Love towards God and your neighbour is the central theme of the Christian faith. The New Testament does not provide an exhaustive guide on how humans should treat nature. However, the directives in Judaism, which also apply to the Christian faith, have been pointed out above. It emphasises stewardship, care, compassion, and respect for all of creation. Humanity's attitude towards nature is shaped by an understanding that the natural world is God's creation and that humans are called to reflect God's care and compassion in their treatment of nature. 1 Cor. 10:26 states: "For the earth is the Lord's, and everything in it." This implies that we should handle nature with reverence. God's compassion is also reflected in Luke 12:6: "Are not five sparrows sold for two pennies? Yet not one of them is forgotten by God." In Matthew 6:26, one also reads: "Look at the birds of the air; they do not sow or reap or store away in barns, and yet your heavenly Father feeds them."

The relationship between humans and the environment can be traced back to Adam and Eve, who decided not to submit to God's ruling (Gen. 3:6) but to determine for themselves what is right and wrong. They also chose to manage their own existence, upon which they soon

encountered “thorns and thistles” that they had to overcome. This struggle to overcome the challenges of nature has been the core of humans’ technological “development” that is clearly speeding towards a self-inflicted catastrophe. From day one (or shall we say, after day seven), it has been a struggle between humans and nature, trying to overcome heat, drought, pestilence, floods, etc. “For we know that all creation has been groaning as in the pains of childbirth right up to the present time.” (Rom. 8:22)

The earth *will* eventually be destroyed as prophesied in 2 Pet. 3:10-13, Rev. 21:1, and Rev. 22, and the earth’s ecology *will be* rewritten (Is. 65:17-15). “I saw a new ... earth ... for the first earth has passed away. There will be no more death ... for I am making everything new.” (Rev. 21:1-4) Thus, we merely dwell temporarily within the system in which it will not be possible for humankind to redeem the world ecologically to its paradise state. However, the ultimate hope for the restoration of the earth is not in the present but in the eternal New Earth. Not negating the directive in the meantime to “... tend and watch” over the earth (Gen. 2:15) as we, in the same way, are to care for each other (Moo, 2006; Breuilly & Palmer, 1992).

Atheism: There is no god and no creation. Everything has originated out of “nothing” and developed by chance. No inherent difference exists between a human, a frog, or a tree. All are species in their own right. Balance in nature will be established according to the theory of evolution – *the survival of the fittest*. If humans can develop and improve to adapt better, they will survive (Martin, 1990). It reminds one of the often-expressed humanism clichés: If you believe in yourself, anything is possible. Variations of this idea are expressed in self-help literature, motivational speeches, and personal development books.

Pantheism: One spirit in nature – permeating humans, plants, and animals – exists. Everything that exists is part of a single, infinite substance: God. Nature is the ultimate good, and humanity must adhere to its spiritual directives (Levine, 1994).

Hinduism: Hindus believe in one Supreme Being, Brahma, who is the creator of everything (Prime, 1992). The Hindu viewpoint on nature is permeated by a reverence for life and an awareness that the great forces of nature – the earth, the sky, the air, the water, and fire – as well as various orders of life, – including plants and trees, forests, and animals – are all bound to each other within the great rhythm of nature. The principles of *dharma* and *ahimsa* encourage individuals to cultivate loving relationships with others, recognise the divine in everyone and promote a sense of unity and community. Love is seen as an essential virtue that enhances spiritual growth and leads to a harmonious society.

Sikhism: Sikhism teaches respect for God’s creations and emphasises the importance of humility and selflessness. Sikhs are encouraged to share with others and contribute positively to society, extending to environmental care and conservation efforts (McLeod, 1968).

Extreme ecologists: It may be argued that the extreme ecologists, much similar to Pantheism, is in a sense a religion that “worships” Gaia, which is seen as nature or Mother Earth. Nature has value in its own right and needs to be conserved for its own purpose (Myers, 1990). According to many newspaper reports, TV stations and other media outlets, three-quarters of a million people attended the last New York Central Park Earth Day (2023), where they worshipped the earth.

Humanistic socio-ecologists: As discussed, humanism’s early protagonists, such as Giovanni Pico della Mirandola (1486), established the tendency to “worship” humanity: If man reaches his full potential (physically and morally), he will be able to solve environmental problems. Man, therefore, has the potential to live in perfect love and happiness.

5.2 Critique of a theological approach

The theocentric approach is not an alternative approach to solving the environmental crisis. Still, it offers a specific angle to the challenge, whether it is to be resolved through technology, economic theory, or education. Religious conviction guides our reasoning and perception of values and ideals, and this, in turn, influences our actions.

As pointed out, all religions have a common denominator in requiring love and respect for humans and nature. Solutions by way of technology, economic theories, and education principles without regard to loving care to nature and people are futile and could lead to ultimate disaster. It should be remembered that most people do not live by the directives of their faith conviction, and not all programmes established in the past to find solutions have been successful. However, seen in this light, it is not surprising that religious thinking has had limited impact on averting the environmental demise.

Simplistic living also permeates all religions, denouncing greed. It is especially prominent in Buddhism and Christian teaching. It is said that Gandhi reported that he would have accepted Christianity if it were not for the way in which Christians lived (Gandhi, 1927). The same could be said of all religions, including their attitude towards nature and co-inhabitants of the earth, as stated by their credos. Selfishness often drives their striving for self-realisation and perceived success, measured in terms of money and prestige. It overrides their concern for fellow human beings and towards nature as proclaimed by their denomination's confessions.

Our conclusion has thus been that *if* we could have replaced selfishness with *loving and respecting the environment and fellow beings*, the solution for solving the environmental crisis would not have been an issue. Einstein, probably the most remarkable intellectual mind ever, did, apart from contributions to physics, express deep reflections on human nature, ethics, the interconnectedness of life, and the role of love and dedication in the realm of education and teaching (Calaprice, 2010). It is believed that he wrote a letter to his daughter before his death; while controversial, this letter goes as far as to substitute his famous equation:

$E = mc^2$, where **E** = energy, **m** the mass of the matter involved and **c** the speed of light, with:

E (driving force) = **Love** times the speed of light squared.

Similar to the inertia by the scientists of his time to accept his famous equation, he stated that the world is not yet ready to accept that love can be the binding force in the universe – a very true statement. For the natural sciences, reality must be measurable and quantifiable. It might be an overstatement, but for the physicist, love has nothing to do with environmental forces. In their turn, economists will scorn it, and educationists seem to have a distorted concept of love, equating it with sex.

Still, it is vital to ask: Can love (*philia*) really play a role in the conservation of the environment? A basic premise in ecology is that everything is dynamically connected to everything else. (Odum & Barrett, 2005). Just as the natural law of *gravity* attracts and holds everything together and *energy* drives the system, *love and respect* are the only forces that can lead the human population to a solution for environmental disintegration. Through the driving force of energy, all parts in the ecosystem are linked in a food web of life – energy (light) stimulates vegetation growth, herbivores depend on vegetation, and carnivores rely on it until all matter is returned to vegetation via the soil organisms. Love is the equivalent driving force that drives and binds together everyone. Einstein (as quoted by Calaprice, 2010, p. 1) said: "Love is Light, that enlightens those who give and receive it." A circle of mutual caring and support is thus evident.

Another principle of nature is that nothing functions independently in an ecological system. Anything isolated from the rest of the system dies (a fish out of water, a bee without flowers, etc.). All things are thus harmoniously connected and function as a smoothly running machine. We, as humans, are part of this environmental system of life. Love attracts people to each other, bonding them for everyone's benefit. Basic economic rules illustrate this principle – trade between countries is essential for balanced economies. Love teaches that (as in a sustainable situation in nature or the economy) we are all connected. Without love, there is fierce competition and greed instead of co-operation, according to the cliché “everyone for himself”. Hence, all systems and groups disintegrate into separate standing individuals that *vie* for power. Therefore, it is essential to remember that love and respect keep us together; they heal wounds, care for and seek the other party's benefit.

In nature, the principle of mutualism, contrary to amensalism, teaches us that different species should benefit from each other in order for everybody, along with the whole system, to prosper. Even in the case of parasitism, species live in harmony – benefitting from the host without harming it. Humans should thus follow suit and reach optimal co-operation and mutual sustainability through co-operation with each other and nature. An integrated, sustainable society cannot become a reality where selfishness and greed by individuals dominate. A major change of heart is the only realistic solution, not technology, strategic economic plans, or educational systems.

6. Conclusion

As humans, we have not succeeded in trying to live by the directives of all religions to live responsibly towards nature and co-inhabitants. We have not fulfilled the Biblical requirement of Gen. 2:15, namely, “to work and tend” over the earth. Nor have we abided by ecological sustainability guidelines implicated in “... not taking all the eggs from birds' nest but leaving one” (Deut. 22:6). Similarly, we cannot fulfil the requirements of love due to our greed. Thus, the statement in the Bible is reflected in the current situation on earth: “... the whole land will be laid waste because there is no one who *cares*” (Jeremiah 12:11) [*italics added*]. These rules are embodied by Jesus in one word: *love*. Love does not harm the “neighbour” or the environment.

Do we, as humanity, have a solution? We need to employ technology, economic theory and education. However, this employment should be grounded in the Biblical command: Love your neighbour and God's creation. Which way will we go? The decision is ours. We should keep in mind that we should create the future if we, as humans, want to predict it.

BIBLIOGRAPHY

- Batchelor, M., & Brown, K. (1992). *Buddhism and ecology: World religions and ecology series*. Cassel.
- Benyus, J. (1997). *Biomimicry: Innovation inspired by nature*. William Morrow and Company.
- Breuilly, E., & Palmer, M. (1992). *Christianity and ecology: World religions and ecology series*. Cassel.
- Calaprice, A. (2010). *The ultimate quotable Einstein*. Princeton University Press.
- Callicott, J. (2014). *Thinking like a planet: The land ethic and the earth ethic*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199324880.001.0001>.
- Carnegie, A. (1901). *The gospel of wealth and other timely essays*. Century. Retrieved from Google Books.
- Carson, R. (1962). *Silent spring*. Houghton Millen.
- Catto, G. (1990). *The origin of the environmental crisis*. Public lecture at the University of Pretoria, 13 August.
- De Blij, H. J. (1974). *Man shapes the earth: A tropical geography*. Hamilton.

- Frank, A. (2022, 6 March). Does Planet Earth have a mind of its own? *SciTechDaily*. <https://scitechdaily.com/does-planet-earth-have-a-mind-of-its-own> Retrieved 8 November 2024.
- Friend, J. F. C. (2003). *Environmental management in South Africa: The blue model*. Impact Books.
- Fuggle, R. P., & Rabie, M. A. (1983). *Environmental management in South Africa*. Juta.
- Gandhi, M. K. (1927). *The story of my experiments with truth*. (Translated from Gujarati by Mahadev Desai). Navajivan Trust. <https://doi.org/10.1111/j.1741-2005.1950.tb04613.x>.
- Gillman, H. (1988). *A light that is shining: An introduction to the Quakers*. Quaker Books.
- Goldsmith, E., & Hildyard, N. (1990). *The earth report 2: Monitoring the battle for our environment*. Mitchell Beazley.
- Guterres, A. (2021). The United Nations declared a "Code Red for Humanity". Intergovernmental Panel on Climate Change (IPCC). Sixth Assessment Report, August.
- Hardin, G. (1968). The tragedy of the commons. *Science New Series*, 162(3859):1243-1248.
- Hugo, M. L., & Hugo, J. O. (2024). *An ecological guide to sustainable living in Southern Africa*. Ecoplan.
- Jagran Josh: Education News. (s.a.). Complete career guide. <https://www.jagranjosh.com/> Retrieved 6 November 2024.
- Khalid, F., & O'Brien, J. (1992). *Islam and ecology: World religions and ecology series*. Cassel.
- Leopold, A. (1949). The land ethic. In: A. Leopold (eds.), *A sand county almanac* (pp 201-226). Oxford University Press: Part IV.
- Levine, M. P. (1994). *Pantheism: A non-theistic concept of deity*. Routledge.
- Lovelock, J. (1988). *The ages of Gaia*. Oxford University Press.
- Martin, M. (1990). *Atheism: A philosophical justification*. Temple University Press.
- Mbiti, J. S. (1969). *African religions and philosophy*. Heinemann Educational Books.
- McHarg, I. (1969). *Design with nature*. Pennsylvania University Press.
- McLeod, W. H. (1968). *Guru Nanak and the Sikh religion*. Oxford University Press.
- Mirandola, G.P. (1998). On the dignity of man. (Translated from Latin by Charles Glenn Wallis, Paul Miller and Douglas Carmichael). Hackett Publishing.
- Mohammed, S., Alsafadi, K., Talukdar, S., Kiwan, S., Hennawi, S., Alshihabi, O., Sharaf, M., & Harsányie, E. (2020). Estimation of soil erosion risk in southern part of Syria by using RUSLE integrating geo informatics approach. *Remote Sensing Applications: Society and Environment*, 20. <https://doi.org/10.1016/j.rsase.2020.100375>.
- Mollison, B. (1988). *Permaculture: A designer's manual*. Tagari Publications.
- Monsalve, M. M. (2023). Mexico's energy and climate contradictions are laid bare at COP28. *El País* (English edition). <https://english.elpais.com/climate/2023-12-06/mexicos-energy-and-climate-contradictions-are-laid-bare-at-cop28.html> Retrieved 6 November 2024.
- Moo, D. (2006). Nature in the new creation: New Testament eschatology and the environment. *JETS*, 49(3):449-88.
- Myers, N. (1990). Gaia: The lady becomes ever more acceptable. *Geographic Review*, 3(3): 2-8.
- Naess, A. (1989). *Ecology, community and lifestyle: Outline of ecosophy*. Cambridge University Press.
- National Oceanic and Atmospheric Administration's (NOAA's) National Centers for Environmental Information. (2023). State of the Climate Report, National Oceanic and Atmospheric Administration. Special Supplement to the *Bulletin of the American Meteorological Society*, 105(8). <https://doi.org/10.1175/2024BAMSStateoftheClimate.1>.
- Odum, E. P., & Barrett, G. W. (2005). *Fundamentals of ecology*. 5th ed. Brooks/Cole.
- Pew Research Centre. (2012). The global religious landscape: A report on the size and distribution of the world's major religious groups as of 2010. <https://www.pewresearch.org/religion/2012/12/18/global-religious-landscape-exec/> Retrieved 6 November 2024.
- Pinnock, D. (2022, 6 December). The sad truth is most humans don't give a damn about nature. *Daily Maverick*. <https://www.dailymaverick.co.za/article/2022-12-06-the-sad-truth-is-most-humans-dont-give-a-damn-about-nature/> Retrieved 8 November 2024.

- Pope Francis. (2015, 24 May). *Laudato Si'*. Rome: On care for our common home [letter]. The Vatican.
- Prime, R. (1992). Hinduism and ecology: World religions and ecology series. London.
- Roorbach, G. B., & Semple, E. C. (1912). Influences of geographic environment on the basis of Ratzel's system of anthropo-geography. *The ANNALS of the American Academy of Political and Social Science*, 41(1):350-351. <https://doi.org/10.1177/000271621204100150>.
- Rorabacher, J. A. (1973). Geo-historical approaches to environment. *Journal of Geography*, 72(4):31-41.
- Rose, M. (1992). Judaism and ecology: World religions and ecology. Cassel.
- Samanta, S. (2022, 29 Aug.). The five principles of green economy [blog post]. <https://www.blogs.opengrowth.com/the-principles-of-green-economy> Retrieved 8 November 2024.
- Southwick, C. H. (1972). Ecology and the quality of our environment. Van Nostrand.
- Straussfogel, D., & Von Schilling, C. (2009). International encyclopaedia of human geography. Elsevier.
- Toynbee, A. (1972). The religious background of the present environmental crisis. *International Journal of Environmental Studies*, 3:141-146. <https://doi.org/10.1080/00207237208709505>
- United Nations. (1992). Earth Summit. UN Conference on Environment and Development (UNCED). Agenda 21: A plan for sustainable development, Rio de Janeiro, Brazil.
- United Nations Report. (2002). World leaders stress shared responsibility immediate action, as high-level segment of Johannesburg Summit Continues: Press Release ENV/DEV/690. Paper delivered at the Earth Summit: UN Conference on Environment and Development, Johannesburg (26 August – 4 September). <https://press.un.org/en/2002/envdev690.doc.htm> Retrieved 6 November 2024.
- United Nations. (2015). Department of Economic and Social Affairs Sustainable Development. Sustainable development goals (SDGs). <https://www.un.org/sustainabledevelopment> Retrieved 28 January 2025.
- United Nations World Population Prospects (WPP). (2024). Population division: UN Department of Economic and Social Affairs (DESA). <https://population.un.org/wpp/> Retrieved 23 March <https://doi.org/10.18356/9789211065138c011>
- Van Diemen, A. (2021, 18 Aug.). Our burning planet. *Daily Maverick*. <https://www.dailymaverick.co.za/article/2021-08-18-unproven-technologies-unknown-risks-top-sa-climate-scientists-sceptical-humanity-can-geoengineer-its-way-out-of-climate-crisis/>
- White, L. (1971). The historical roots of our ecological crisis. In TR Detwyler (ed.), *Man's impact on environment* (pp. 1203–1207). McGraw Hill.
- Wijesinha, H. M., & Barbarà, L. (2023). COP28. What did it accomplish and what's next? <https://www.weforum.org/stories/2023/12/cop28-what-did-it-accomplish-and-whats-next/> Retrieved 6 November 2024.
- Yasinski, K. (s.a.). Mother Theresa quotes [blog post]. <https://blogs.glowscotland.org.uk/ed/turnbullva/quotes-from-mother-teresa/>

Author Contribution:

The basic concept and design of the theme and the text content are based on Jean Hugo's ideas and studies in Sociology at NW University (formerly P.U.CHO) for NGD. The written text was mainly compiled by Leon Hugo. The technical editing was a collaborative effort by both authors.