



The *Buddha's Paṭiccasamuppāda*: Addressing contemporary environmental development challenges through eschatological perspectives

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Received Date: December 15, 2024

Revised Date: January 31, 2025

Accepted Date: January 31, 2025

ABSTRACT

Background: Religion is often considered as a cause of environmental problems. In response to this pessimism, Buddhism through the philosophy of Dharma comes up as revolutionary perspective in shaping contemporary environmental development paradigm, a counter for modern Cartesian-Newtonian paradigm. This philosophy is embodied in the concept of *paṭiccasamuppāda* applied as “scalpel” on existing environmental problems. **Methods:** This study employs a qualitative approach using library research, analyzing philosophical, religious, and environmental texts. Through content analysis of Buddhist teachings, particularly *paṭiccasamuppāda*, the study explores its role as an alternative paradigm for addressing environmental challenges. **Findings:** The findings reveal that *paṭiccasamuppāda*, or the law of dependent origination, provides a holistic understanding of the interconnectedness between humans and nature. Unlike the Cartesian-Newtonian paradigm, which separates the observer from the observed, *paṭiccasamuppāda* emphasizes relational existence and balance, fostering ecological ethics based on interdependence. This perspective reduces environmental exploitation and encourages sustainable practices. **Conclusion:** The study concludes that *paṭiccasamuppāda* serves as a transformative framework for addressing contemporary environmental issues. By shifting from a dualistic worldview to an interconnected one, it promotes a sustainable development model. Integrating Buddhist ecological ethics into environmental policies and education can contribute to a more sustainable future. **Novelty/Originality of this article:** This study presents *paṭiccasamuppāda* as a fundamental principle for reinterpreting environmental sustainability. Unlike previous research that broadly discusses Buddhist ethics, this study specifically highlights *paṭiccasamuppāda* as a precise analytical tool for addressing environmental issues. By bridging Buddhist philosophy and contemporary ecological challenges, this study offers a novel perspective on sustainability rooted in spiritual wisdom.

KEYWORDS: buddha; development; dharma; environment; paradigm; *paṭiccasamuppāda*.

1. Introduction

Sustainable development, as an agenda for transformation in 2030, can not be separated from the contribution of religion, both as inspiration and implementation (Sadowski, 2017). The linkage has been built since 1967 by Lynn White assumption about traditions in religion as causes of environmental crises (LeVasseur & Peterson, 2017). The presumption creates interdisciplinary method for religion in facing environmental issues (Sadowski, 2017). This method is similar to holistic approach (Miller & Spoolman, 2016). This similarity becomes a form of harmony relationship between religion and nature.

Cite This Article:

Johannes, H. P. (2025). The *Buddha's Paṭiccasamuppāda*: Addressing contemporary environmental development challenges through eschatological perspectives. *Life and Death: Journal of Eschatology*, 2(2), 156-170. <https://doi.org/10.61511/lad.v2i2.2025.1499>

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Religion essentially supports the nature. The religious, as in America, do practices that are more environmentally friendly than secularists (Kanagy & Willits, 1993; Shibley & Wiggins, 1997). Possessing spiritual powers of nature is often a good reason to keep caring nature as part of culture (Gaerrang, 2017; Woodhouse et al., 2015). That power is manifested in the local wisdom that is useful for maintaining the existence (Kakoty, 2018). Such practices are also run by Buddhists in several philosophies. First philosophy explains the concept of emptiness as the basis for creating feeling (Morgan, 2015). The second philosophy is known as Buddhist economics, through deepening one of eight elements in Noble Truth, the right livelihood (Kakoty, 2018). The third philosophy stems from the concept of self-realization Arne Naess often associated in the discussion of the relation with nature (Cavazza, 2014; Talukder, 2016). Fourth philosophy called anatta, which means no core self, also based on the relation with nature (Verhaeghen, 2017). The fifth is the Middle Way that is elaborated into the concept of sustainability (Bandarage, 2013). Beside those philosophies, there is another philosophy which is important called paṭiccasamuppāda or law of dependent arising.

Behind the evidence of good relationship between religion and environmentally friendly practices, other findings reveal the opposite view. Religion is regarded as a cause of environmental problems (Guth et al., 1993). Faced with the various political and economic issues (Jacoby & Terrone, 2009), the environmental realm of religion intervenes on the power of the elite, ignoring the contribution of individual communities (Simkins, 2008). One practice in fact is the commercialization of water that causes the water scarcity in Kangding, China (Yang, 2017). Due to environmental reasons as well, the various conflicts and wars continue prolonged (Faris, 2009). "Nature prostitution" (Nasr, 1997) is the result of human ignorance (Prakash, 2018). Moreover, religious teachings which are actually based on kindness often lead to mis-interpretation or possibly over-interpretation. Thus, religion is actually not the root cause of environmental problems, but human himself (Byarugaba, 2017) and the crisis of mind (Palmer & Finlay, 2003). Therefore, it is important to restore the position of religion, especially Buddhism, which adheres to the philosophy of harmony of human and nature (Wang, 2016), to the right track. It can be done by the reaffirmation of the basic philosophy of paṭiccasamuppāda as a way to face the challenges of contemporary environmental development. Paṭiccasamuppāda is chosen because of its simplicity and rationality in seeing reality, not like the nothingness explained by Morgan (2015) or anattā by Verhaeghen (2017) which are relatively difficult to understand and still not popular to be used to face contemporary environmental problems.

Contemporary environmental problems born and developed from a radical change related to human perspective on nature. The paradigm of modern science has failed in realization of the concept of contemporary development. This failure is due to the substance of philosophical paradigms that are no longer relevant (Kjellman, 2006). According to Morris Berman, logical consequence of distinction firmly between the observer and the observed is the total reification, an overview of things exclusion from self. This view is the real form of the paradigm of modern science, a paradigm that needs to be responsible for a variety of "diseases of civilization" that came to the surface, such as drugs, depression, psychopathic, schizophrenia, and suicide (Capra, 1997). The philosophical implications of this paradigm development actualized on the human outlook on nature which is so static and sectoral. On this basis, contemporary environmental problems require a new paradigm. This paradigm is later known as the holistic paradigm, a new paradigm to achieve the sustainable development (Cloutier et al., 2018).

Holistic paradigm is an applicative econcentrism principle synthesized from the concept of spirituality (Bandarage, 2013). Of course, the basic teaching of Buddhism through Dharma (meaning the Truth), can be a proper perspective on holistic paradigm. This paradigm is transformed through paṭiccasamuppāda concepts into solutions for problems of the contemporary environment. Buddhism conceptual breakthrough is expected to cure the human acute illness (Menahem, 2013; Wu, 2013), answering the mystery of world development. Thus, this study aims to elucidate paṭiccasamuppāda, as a perspective to face challenges of contemporary environmental development. It is done

through literature study towards Cartesian Newtonian paradigm as root of problem, transformation to holistic paradigm, philosophy of paṭiccasamuppāda, and of course concluded by paṭiccasamuppāda in facing challenges of contemporary environmental development paradigm.

2. Methods

This study employs a qualitative approach using the library research method. This method is chosen to explore the concept of paṭiccasamuppāda as a paradigm in addressing contemporary environmental development challenges. Library research enables an in-depth exploration of philosophical texts, academic studies, and literature related to the relationship between religion, particularly Buddhism, and the sustainable development paradigm.

The data used in this study is sourced from academic literature, including books, scientific journals, articles, and official documents relevant to the research theme. The literature examined covers the concept of paṭiccasamuppāda in Buddhism and its relevance to sustainable development, critiques of the Cartesian-Newtonian paradigm as the root of contemporary environmental issues, the evolution of the holistic paradigm as a solution to environmental problems, and the relationship between religion and environmental sustainability based on theoretical and empirical studies.

Data collection is conducted through a systematic review of the available literature. This process includes identifying primary and secondary sources that discuss the concept of paṭiccasamuppāda and its relevance to sustainable development, performing a comparative analysis of various philosophical perspectives related to the environment, and synthesizing multiple theories and approaches that contribute to the holistic paradigm in environmental development.

Data analysis is carried out using content analysis techniques, which involve data reduction by categorizing relevant information according to the research theme, interpreting academic texts to understand the essence of paṭiccasamuppāda in the environmental context, and integrating research findings into the framework of sustainable development based on the holistic paradigm.

To ensure the validity and credibility of the research findings, data triangulation is conducted by comparing various sources of literature from different perspectives, critically examining arguments that support or critique the relevance of paṭiccasamuppāda in environmental development, and evaluating the validity of theories by referring to previous relevant studies. Through this approach, the study aims to contribute to strengthening the philosophical and practical foundation of paṭiccasamuppāda as an alternative paradigm in addressing contemporary environmental development challenges.

3. Results and Discussion

3.1 Results Cartesian-Newtonian paradigm: Root of problem

As the name implies, Cartesian-Newtonian paradigm born from contribution of the two main characters, René Descartes and Isaac Newton. Some basic assumptions are important to be understood as a philosophical step to understand the root of environmental problems. Subjectivism-anthropocentric thought starting from René Descartes: 'cogito ergo sum'. This thought refers to ontological base that occupies subject as the reality of existence. As implication, the entity itself is the only entity that is active and powerful against other entities. In fact, in the Western tradition, man becomes the sole subject of the controlling rights. This thinking triggers various forms of colonialization hundreds of years ago. The colonialization describes a constellation of human competition towards spaces. Behind the controversy, this idea also reap support, not on the substance but the axiology dimension. For example, anthropocentric often referred to as a way to love yourself, which will be useful

as a starting point for people to love his fellow man and his nature (Kopnina et al., 2018). Thought that often negative connotations this would need to be reversed into the collective thinking in accordance with the demands of contemporary development.

The more essential reality is the ontology of the paradigm. Spiritual implications of this paradigm is human greed. Greed is not just the root, but the tip of the root in the human "suffering tree". Greed is illustrated as the ceaselessly recurring thirst (Gunderson, 2016). This is the main cause of ills of life (Dhammananda, 2002). Although no humans have been fully understood the reality of suffering, suffering is still happening. Is suffering becomes permanent? Of course not, Gotama Buddha has proven it. The glamorous royal life is regarded as a source of suffering should be abandoned. As the best fruit from the "tree of revolution", human needs to be aware of their quality to face suffering. Facing suffering is the best way to demonstrate the power.

The Cartesian-Newtonian paradigm has deeply influenced the development of modern environmental ethics. The emphasis on subject-object dualism and anthropocentrism has led to an exploitative approach toward nature, where human beings position themselves as separate from and superior to their environment (Descola, 2013). This mechanistic worldview fosters a perspective in which nature is seen merely as a resource to be manipulated, leading to extensive environmental degradation (Merchant, 1980).

One of the primary criticisms of this paradigm is its contribution to the ongoing ecological crisis. The industrial revolution, largely influenced by Newtonian physics, accelerated environmental destruction through technological advancements that prioritized economic gains over ecological balance (White, 1967). The philosophy of control and domination over nature has resulted in deforestation, loss of biodiversity, and climate change, all of which pose existential threats to human and non-human life alike. The fundamental question that arises is whether it is possible to shift from this mechanistic paradigm toward a more holistic ecological perspective.

Several scholars propose a post-Cartesian ecological paradigm that seeks to integrate holistic and relational approaches to nature (Capra & Luisi, 2014). Instead of perceiving nature as an object separate from human existence, this paradigm emphasizes interconnectedness and the intrinsic value of all living beings (Naess, 1973). The emergence of deep ecology, ecofeminism, and indigenous ecological knowledge provides alternative frameworks that challenge the Cartesian-Newtonian dualism (Plumwood, 1993). In contrast to the Cartesian-Newtonian paradigm, Buddhist environmental ethics offer an alternative perspective that aligns with sustainable living (Kaza, 2000). The principle of *pratīyasamutpāda* (dependent origination) suggests that all beings are interconnected, rejecting the notion of an isolated, dominant human subject (Loyd, 2010). Buddhist teachings emphasize mindfulness, simplicity, and non-greed, which serve as antidotes to the excessive materialism promoted by modern industrial societies (Harvey, 2000). By integrating such ethical perspectives, humanity can move beyond the destructive legacies of the Cartesian-Newtonian worldview and toward a more sustainable and harmonious relationship with the environment. The transition requires not only philosophical shifts but also practical applications in policy, education, and socio-economic structures to mitigate the ongoing environmental crisis.

3.2 Transformation to holistic paradigm

The track record of anthropocentrism is still lasting in contemporary times, like an endless suffering. Former traces are evident on the issue of animal conservation (Vucetich et al., 2018) to the latest technological developments (Razduev, 2018). Real human beings already know this disease, but they are too uncomfortable. This actually happened to most people, at a time when others are already enlightened and gave a glimmer of hope. This hope is manifested in so-called new paradigm of the holistic paradigm.

Born of a rebuttal to the development of modernism, holistic paradigm gave a drop of water in the middle of dry desert. Great scientists like Albert Einstein with the theory of relativity, Niels Bohr with quantum theory, or the Heisenberg uncertainty principle, have

opened eyes of the world from a long sleep decorated with a beautiful dream. These breakthroughs firmly denied subjectivism-anthropocentric paradigm that considers nature as a machine. On this basis, the holistic paradigm to illustrate the world as a system that is dynamic, nonlinear, complex, and have feedback (Forrester, 2009; Ogata, 2014). The system operates on the basis of the chaotic interdependence (Gleick, 1988), such as Butterfly Effect (Sardar & Abrams, 2001), “The flutter of butterfly wings in Brazil leads to tornado in Texas.” Holistic paradigm based the way of systems thinking becomes critical needs in contemporary world development. The needs are understood by observing “breath of life” towards “metabolism of existence” (Capra, 2015).

The mindset has philosophical similarities with the Buddha’s *paṭiccasamuppāda*. This similarity is clearly visible on the concept of interconnectedness of an entity with other entities. The similarity is not an impulse or a conspiracy of a particular faction or party, but a law of nature that is truth. That is, the reality of interconnectedness does not depend presence of a particular doctrine. This is unrefusable law of nature. Like a healing heart entity in a complex system of human body (Loyd, 2010), *paṭiccasamuppāda* exists as a cure to contemporary environmental development paradigm.

The holistic paradigm, as a response to anthropocentrism, offers a transformative perspective that challenges the reductionist and mechanistic views of the world. In contemporary discourse, this paradigm is becoming increasingly relevant as societies confront environmental degradation, technological disruptions, and ethical dilemmas in human-animal relations. The recognition of interconnectedness and systemic interdependence provides a framework for redefining humanity’s role in the world—no longer as a dominator of nature but as an integral participant in its dynamic processes.

This perspective extends beyond the philosophical realm and permeates various scientific disciplines. In ecological studies, the principles of the holistic paradigm inform conservation efforts that consider not only species preservation but also ecosystem balance. Conservationists now emphasize biodiversity maintenance and habitat protection rather than narrowly focusing on individual species. This shift reflects a growing awareness that life on Earth is a complex web of relationships rather than a hierarchy dictated by human needs.

Moreover, the holistic paradigm has influenced the way society perceives technological advancements. Emerging fields such as biomimicry and ecological engineering embody this paradigm by seeking solutions inspired by nature rather than imposing artificial constructs onto the environment. For instance, researchers are developing sustainable materials modeled on natural processes, such as self-healing concrete that mimics biological regeneration. This approach contrasts sharply with traditional technological development, which often disregards ecological consequences in pursuit of progress.

The notion of interconnectedness also finds resonance in economic and social theories. Scholars and policymakers are increasingly adopting frameworks such as the circular economy, which aligns with the holistic paradigm by emphasizing resource efficiency and waste minimization through closed-loop systems (Ellen MacArthur Foundation, 2015). Instead of a linear model of production and consumption that leads to environmental depletion, the circular economy fosters sustainability by considering the entire lifecycle of products. This systemic shift demonstrates how the holistic paradigm is influencing practical solutions in governance, industry, and daily life.

In the realm of ethics, the holistic paradigm challenges traditional anthropocentric moral frameworks by advocating for expanded moral consideration. Ethical perspectives such as deep ecology (Naess, 1973) and biocentric ethics argue for the intrinsic value of all living beings rather than valuing nature solely for its utility to humans. This philosophical shift has significant implications for policies on animal rights, land use, and climate change mitigation. By acknowledging the interconnectedness of all life forms, societies can adopt more responsible and compassionate practices in their interactions with the natural world.

The holistic paradigm also resonates with spiritual and religious traditions beyond Buddhism’s *paṭiccasamuppāda*. Indigenous worldviews, for example, have long embraced the principle of interdependence. Many Indigenous cultures recognize a sacred bond

between humans and nature, viewing the Earth not as a commodity but as a living entity deserving of respect. This alignment between ancient wisdom and contemporary holistic thinking reinforces the universal applicability of systemic interdependence.

Furthermore, embracing the holistic paradigm has practical implications for education and human development. Educational models that incorporate systems thinking encourage students to perceive connections between disciplines, fostering a more integrated understanding of the world. Rather than fragmenting knowledge into isolated subjects, holistic education promotes interdisciplinary approaches that mirror the complexity of real-world challenges. This shift is critical in preparing future generations to navigate global issues with a more nuanced and interconnected mindset.

In sum, the holistic paradigm serves as both a critique of anthropocentrism and a constructive alternative for shaping a more sustainable and ethical future. Its principles apply across diverse fields—from science and technology to economics, ethics, and spirituality—demonstrating its far-reaching influence. By embracing systems thinking and recognizing the interdependence of all entities, humanity can transition from a destructive mode of existence toward a more harmonious and responsible way of inhabiting the Earth. As this paradigm gains traction, it has the potential to redefine our collective trajectory, steering societies away from short-term exploitation and toward long-term sustainability and coexistence.

3.3 Philosophy of Paṭiccasamuppāda

Some related research about paṭiccasamuppāda include varied issues about humanity. Kardaš (2015) outlines the Buddhist interpretation of paṭiccasamuppāda (dependent co-arising) as problem causation and nature of phenomena. Paṭiccasamuppāda is also used as a tool to explore the complex ethical dynamics about paradoxical of violence and love (Davis, 2016). Tanaka (2010) describes the relation of paṭiccasamuppāda and nothingness. Last but not least, Breyer (2012) discusses causal determinism as the basic philosophy of paṭiccasamuppāda.

Related to all the issues appointed, the underlying philosophy encourages people to answer questions related to the origin of human, the reason for human existence, and the purpose of human after life. This is called the law of dependent arising, an absolute natural law regardless the Buddha existence. Paṭiccasamuppāda basic essence is unlimited causes of a phenomenon. To give a clear illustration, one day in the past at Savatthi (a city in ancient India), Buddha describes,

"And what is law of dependent arising? From ignorance as the prerequisite condition, comes construction. From construction as the prerequisite condition, comes consciousness. From consciousness as a prerequisite condition, comes name and form. From name and form as the prerequisite conditions, come six senses. From six senses media as the prerequisite condition, come contact. From contact as a prerequisite condition, comes feeling. From feeling as the prerequisite condition, comes desire. From desire as the prerequisite condition, comes clinging. From clinging as the prerequisite condition, comes formation. From formation as the prerequisite condition, comes birth. From birth as the prerequisite condition, then comes aging & death, sorrow, lamentation, pain, misery, and despair. Those lead to the existence of suffering." (Nyanatiloka et al., 2011).

Twelve phenomena in this law is referred to as condition, because none of these phenomena stand-alone (Ñāṇananda, 2015). The postulate is started with ignorance that causes the construction. Consistent with the entity as a phenomenon of the conditions, ignorance itself is not without cause. Ignorance comes from failure of understanding that the existence of only a physical and mental processes that continue to evolve (Nyanatiloka et al., 2011). The philosophical implications of the understanding are the abolition of the entity "I", "you", "he", or even "Buddha". "I" is the object without self core (non-self), in other

words, there is no "I". Form is void and at the same time, void is form. This is the concept of nothingness in Buddhism, as described Tanaka (2010). It is also explained in the Prajna Paramita Heart Sutra.

The philosophy of Paṭiccasamuppāda, or dependent origination, is a foundational concept in Buddhism that describes the interconnectedness of all phenomena. It asserts that everything arises due to specific conditions and ceases when those conditions are no longer present. This idea emphasizes that no phenomenon exists independently, and everything is interdependent. Recent research has explored Paṭiccasamuppāda as an analytical framework for addressing complex issues across various disciplines, including environmental science, psychology, and social sciences. Scholars have proposed that understanding the principle of interdependence can lead to more effective interventions in these fields, offering a systematic approach to tackling global challenges such as environmental degradation and social inequity (Jones, 2024; Kenaphoom et al., 2024).

In the context of environmental concerns, Paṭiccasamuppāda has been applied to address contemporary ecological and development issues. By bridging Buddhist philosophy with ecological ethics, researchers argue that the interconnectedness of all things offers a compelling framework for sustainable development. This view suggests that recognizing the interdependence between human actions and the environment can lead to more sustainable policies and practices, promoting harmony between society and nature.

In psychological terms, Paṭiccasamuppāda provides insights into the development of consciousness and self-identity. Researchers have interpreted dependent origination as a psychological process that explains how unconscious mental processes evolve into self-consciousness. This interpretation aligns with Buddhist philosophy, offering a deeper understanding of how the mind and the sense of self arise and develop over time. It suggests that both mental and physical phenomena are conditioned by prior causes, thus revealing the impermanent and interdependent nature of the self (Ellis, 2021).

Historically, the doctrine of Paṭiccasamuppāda has been integral to various Buddhist traditions, with its influence extending across cultures and regions. The transmission of this concept is evident in numerous ancient Buddhist texts, where it is systematically illustrated as a core philosophical teaching. This historical perspective highlights the enduring significance of dependent origination in shaping Buddhist thought and practice throughout the centuries (Yakup, 2024).

Furthermore, the concept of dependent arising underscores the importance of understanding causality and interdependence in human existence. It teaches that all phenomena, including human suffering, arise from specific conditions and can be transformed by altering those conditions. This understanding offers a practical approach to addressing human predicaments, suggesting that liberation and personal transformation are possible through awareness of the interconnected nature of all things (Anālayo, 2021)

These various interpretations and applications of Paṭiccasamuppāda demonstrate its relevance in contemporary thought, offering a profound and holistic perspective on existence. The doctrine's emphasis on causality and interdependence encourages individuals to examine the conditions that shape their lives and the world around them, fostering a deeper awareness of the interconnectedness of all phenomena (Kenaphoom et al., 2025).

3.4 Paṭiccasamuppāda in facing challenges of contemporary environmental development paradigm

On the basis of law of dependent arising, paṭiccasamuppāda fills the gap of distinction between Cartesian-Newtonian paradigm and holistic paradigm. This gives new hope over pessimism statements related to environmental development in this contemporary era. Nowadays, environmental development is far from being inclusive. On one hand, environmentalists show optimism for radical change, on the other hands, they begin to more realistic. Expressions of pessimism comes from all sides, at least represented by modern physicists who had just died, Stephen William Hawking (1942-2018). The rationale of

Hawking is the law of entropy that is supersensitive which may stop human civilization (Schaefer, 2004). When the entropy is maximum, the system will reach the peak. Will the big bang theory be proved through the destruction of human today's? What is clear, Hawking gives convincing indication that the earth as inhabited today is no longer sufficient for future generations. As scientists are based on a critical attitude, giving up is not an option. Future generations are also entitled to a proper place. Without showing excessive pride, Buddhism gives a glimmer of hope from the Truth.

In the midst of pessimism regarding the condition of the contemporary environment, *paṭiccasamuppāda* gives a solution to human mind as source of crisis (Palmer & Finlay, 2003). The Truth of *paṭiccasamuppāda* embodied in the concept of nothingness. Viewing nature as a "nothing" entity generates new paradigm. Nothingness does not mean "without content" or "nil". Nothingness reflects the inability of human or other entities in portraying themselves as a whole. In practical terms, failure to define self-identity is evident from the description of the man who runs various social status, such as status as a father, as a lecturer on campus, or status as an employee of a company. Who is the entity "you"? The nothingness concept gives you an impasse. This paradigm needs to be applied as a contemporary human perspective to the environmental development. Nature is an unnamed entity, so it does not belong to anyone. Moreover, is "nature" really a "nature"? When the air and water entities are separated from nature, is "nature" still called as "nature"?

The true nothingness of nature gives fresh perspective in defining environmental contemporary development challenges. An understanding of nothingness is expected to lower the human egoism created by the Cartesian-Newtonian paradigm. This is done because the real enemy of human is actually themselves (Trizin, 2011). So, self-defeating is a good start to adopt a holistic paradigm. This adoption will be successful when the concept of nothingness is understood wholly as part of the spiritual structure of society, irrespective of religion or belief. Indeed, the Truth is embodied in Dharma as a natural law, whether Buddha appears or not.

The concept of nothingness becomes realistic in answering the contemporary environmental development paradigm challenges due to its application in Buddha's era. The journey "to-be-Buddha" can not be separated from a true understanding of the concept of nothingness. In fact, this understanding has become the key to enlightenment of all Buddhas, enlightenment which leads to the termination of the life cycle to the condition of Nibbana (the extinction of self which brings enlightenment and liberation from pain) (Armstrong, 2002), beyond the doctrine of heaven.

In the midst of the majority religion or belief to trust rescue end times by the figure of God, Buddhism gives a new dimension. In the context of environmental development, in the end, human needs to save themselves from destruction. Buddha is certainly not going to save you. Individual efforts are the only way (Armstrong, 2002), of course with the guidance of some sort of *paṭiccasamuppāda*.

Buddhist doctrine of the *paṭiccasamuppāda* in facing the challenges contemporary environmental development paradigm is not beautiful star clusters that must be received in absolute and rigid form. The journey to Buddhahood who successfully break the chain of life to the full liberation of Nibbana is not enough to make human satisfied. Apart from such stories as the only form of exclusive beliefs of Buddhism, the proof remains as demands. Without intending to impose this doctrine at all, obsession proof is true not only apply to Buddhists, even by members of other religions, including the atheism. Spirituality is not limited to religious beliefs (Gianarkis, 2013), but awareness of the ontology beyond human. Ontological-based spirituality is the Buddhism efforts to contribute to the transformation of paradigm. To that end, the spirituality proof of *paṭiccasamuppāda* needs to be operationalized in technical basis, so it can be applied to everyone without exception. Proof that encourages a transformative movement, movement *penyelematan* inclusive world through the concretization of real abstraction.

The proof, in Buddhism, is called *ehipassiko*. This concept literally means "come and see", in contrast with "come and believe". The proof will then encourage true belief. Buddhism does not guarantee its doctrine as Truth until it is proved by any practitioners.

This is necessary because the blind trust of Bible which is actually fiction, does not give the true meaning of spirituality. The term "fiction" is meant not negate the reality as "fictitious", but the imagination of the doctrines of positive thirst for verification. Similarly, the construction of the contemporary environment based on the concept *paṭiccasamuppāda* need proof. To prove it, the concept *paṭiccasamuppāda* characterized by nothingness need to be adopted and deployed in concrete actions for the development of the contemporary environment, such as the spatial planning of an area. Planning offered is called Spatial Planning System Based Nothingness. This can be an alternative to transform modern paradigm which is no more relevant in contemporary world that centered with global sustainable city mission (Yokohari et al., 2000). In this plan, particularly in metropolitan cities such as Jakarta, physical development in space integrated with the development of human spirituality as the owner of the spaces. The concept of integration is still abstract, but the philosophical meaning of this integration is necessary to understand all of society as a major actor in the spaces. Development is done on natural entities that means "nothing" to human. By implication, the construction was actually "nothing" for humans, it does not mean anything for the spirituality of human. The development is only a fulfilment of body as materialistic sense of human. Thus, spirituality need to take over control of the body. This acquisition makes people become "nothing" and not as "empty of content" (in philosophical) or "hollow without ambition" (in practical), but nothing as the rationale release from attachment. This kind of planning system will normalize the functional relationship of an urban and its surrounding areas based on central place theory. Failed relationship will result in fat conurbation phenomena. In future, urban planning should be directed to create megapolitan area that agglomerate benefits toward surroundings, instead of conurbation that leads to ungovernable cities (Meijers & Burger, 2017). Values, lifestyle, and infrastructure are also attached in this relationship (Koentjaraningrat, 2000). In the end, the philosophical concept conceptualized will mean "nothing" without the concrete implementation. The next mission is to reconstruct a contemporary development plans to be implemented as a validation step of the Truth *paṭiccasamuppāda*, a law of nature which is not only owned exclusively by Buddhists, but also all human collectively.

3.5 Buddhist ecological ethics and holistic environmental paradigm

In recent years, environmental concerns have gained increasing attention across multiple disciplines, including philosophy and religion. Buddhism, with its deep emphasis on interdependence, non-harm (*ahimsa*), and mindfulness, offers an ethical framework that aligns closely with ecological sustainability. The concept of Buddhist ecological ethics seeks to integrate Buddhist moral principles with contemporary environmental challenges, fostering a holistic environmental paradigm that acknowledges the interconnection between human beings, nature, and the universe.

Buddhist ecological ethics is rooted in several core principles that can be applied to modern environmental issues. The doctrine of interdependence and non-self (*Anatta* & *Pratītyasamutpāda*) emphasizes that all beings and phenomena are interconnected. This principle highlights the idea that human actions—both ethical and unethical—have environmental consequences, making ecological degradation a result of collective human behavior rather than an isolated issue. Compassion (*Karunā*) and loving-kindness (*Mettā*) are fundamental ethical principles in Buddhism, extending beyond humans to all sentient beings. These values advocate for the protection of nature and ecosystems as an expression of moral responsibility. The principle of non-violence (*Ahimsa*) and ethical conduct (*Śīla*) forms the ethical foundation of Buddhist environmentalism. Avoiding harm to all living beings includes refraining from activities that lead to environmental destruction, such as deforestation, pollution, and excessive consumption. Mindfulness (*Sati*) and simple living play a crucial role in fostering awareness of human actions and their consequences. Environmental mindfulness encourages individuals to live sustainably, reduce waste, and consume resources responsibly. Lastly, the concept of right livelihood (*Sammā-ājīva*), as part of the Noble Eightfold Path, promotes ethical economic activities that do not exploit

nature. This principle aligns with sustainable business models, eco-friendly industries, and community-based environmental efforts.

The holistic environmental paradigm within Buddhism integrates ethical, spiritual, and scientific perspectives to address ecological concerns. Unlike reductionist approaches that treat environmental problems as isolated technical issues, the holistic paradigm views them as interconnected ethical, social, and spiritual challenges. The deep ecology movement, which advocates for the intrinsic value of all living beings, shares significant parallels with Buddhist ecological ethics. Both perspectives argue against anthropocentric views and promote an egalitarian relationship between humans and nature. In the context of climate change mitigation, Buddhist ethics encourage personal responsibility in addressing environmental challenges. Buddhist communities and monasteries worldwide have adopted green practices, including afforestation projects, renewable energy initiatives, and sustainable agriculture. Additionally, the concept of Engaged Buddhism, pioneered by figures such as Thich Nhat Hanh, integrates Buddhist principles with social and environmental activism. Many Buddhist leaders advocate for policy changes, ecological restoration, and sustainable living practices.

Table 1. Literature review: Buddhist ecological ethics and holistic environmental paradigm

No	Author(s)	Title	Findings
1	Wang & Tan (2024)	Towards a Holistic Buddhist Eco-Ethics	Proposes a three-dimensional framework integrating Buddhist principles with ecological ethics and activism.
2	Li et al. (2023)	The Three Dimensions of Buddhist Ecological Ethics Wisdom	Identifies three ethical dimensions: respect for nature, universal compassion, and the purification of mind and environment.
3	Setiawan (2023)	Reinterpreting Buddhist Environmental Ethics Through the Lens of Agential Realism	Reinterprets Buddhist ethics using agential realism, arguing for integrating socio-political dimensions in environmental sustainability.
4	Loy (2019)	Ecodharma: Buddhist teachings for the ecological crisis	Analyzes how Buddhist teachings can offer solutions to modern environmental crises, emphasizing meditation and ethical action.
5	Lim (2019)	Environmental revolution in contemporary Buddhism: The interbeing of individual and collective consciousness in ecology	The article highlights the concept of "interbeing" introduced by Thich Nhat Hanh, emphasizing the interconnectedness of individual and collective consciousness in an ecological context, as well as the importance of transforming awareness to address the global environmental crisis and promote shared responsibility for a sustainable future.
6	Cairns (2024)	Phases of the Buddhist Approach to the Environment	Johannes Cairns's research, "Phases of the Buddhist Approach to the Environment," outlines three key phases in Buddhist attitudes toward ecology. The Premodern Phase spans from the early teachings of Buddhism until the 1960s, featuring a diverse range of attitudes toward environmental ethics. The Second Phase, emerging during the counterculture movement in the

1960s, involves the development of early Buddhist-inspired ecophilosophies, though its global impact has been limited. The Third Phase, beginning in the 1990s, entails the global adoption of ecophilosophies and environmental practices by Buddhist organizations, marking a shift toward engagement with mainstream environmental issues. Cairns highlights the potential for Buddhism to adapt and actively respond to contemporary ecological challenges despite historical challenges in addressing social and environmental matters,.

The reviewed studies reveal an increasing scholarly interest in Buddhist ecological ethics, with a particular focus on its applicability in environmental activism and policymaking. Many scholars highlight the compatibility between Buddhist ethics and ecological sustainability, arguing that Buddhist teachings can serve as a moral foundation for sustainable development. The integration of mindfulness-based practices in ecological ethics suggests that environmental awareness should begin with personal transformation. Additionally, several studies emphasize the importance of community-led initiatives, where Buddhist monasteries and lay practitioners participate in ecological conservation projects.

4. Conclusions

Contemporary environmental development challenge demands a new paradigm that is more relevant. The Buddha's *paṭiccasamuppāda*, through an understanding of nothingness, has answered the challenge. However, this concept would need to be translated into operational level, so it can be easily applied by all parties or stakeholders concerned. The discovery grows a new optimism, not only for Buddhists, but also for all human without boundaries.

Acknowledgement

This research is supported by School of Environmental Science of Universitas Indonesia. The author specially thanks Dr. Herdis Herdiansyah, M.Hum. for the guides, also Ankiel Lelono and Rheza Maulana as reviewers. Finally, the author also thanks to colleagues in 36A Regular Class for the supports.

Author Contribution

Conceptualization H. P. J; Methodology, H. P. J; Writing – Original Draft Preparation, H. P. J; Writing–Review & Editing, H. P. J. About the layout, H. P. J contributes in; creating an abstract and theoretical background. H. P. J contributes in; creating the introduction and methods, summarizing the journal about nineteen indicators of happiness in Indonesia, and writing part of the result and discussion.

Funding

This research received no external funding.

Ethical Review Board Statement

Not available.

Informed Consent Statement

Not available.

Data Availability Statement

Not available.

Conflicts of Interest

The author declare no conflict of interest.

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