

The Ethical Relationship Between Humans - Plants in the Ethics of Responsibility Hans Jonas and Lulik in East Timor

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ABSTRACT:

The development of science and technology has significantly increased human capacity to control and transform nature, including plants. However, this power is often exercised within an anthropocentric framework that treats plants merely as economic resources, neglecting their intrinsic value and the long-term ecological and moral responsibilities owed to future generations. This contributes to both the global ecological crisis and a growing ethical crisis in human-plant relationships. This study critically examines the ethics of responsibility developed by Hans Jonas and the concept of lulik in Timorese culture, exploring how they understand the relationship between humans, plants, nature, and the sacred. Using a philosophical-normative approach grounded in hermeneutic analysis and critical dialogue between contemporary moral philosophy and traditional moral systems, the research evaluates the potential of integrating these perspectives into a contextual and sustainable plant ethics. The findings reveal that Jonas's ethics provides a strong normative foundation for environmental ethics but remains insufficiently engaged with living, practice-based non-Western moral traditions. Conversely, lulik, which regulates relationships among humans, nature, and the sacred through customary norms, moral sanctions, and ecological prudence, has not yet been systematically explored as a source of normative ethics in contemporary philosophy. As its main contribution, the study proposes an innovative synthesis that recognizes lulik as a legitimate ethical system rather than merely a cultural or spiritual expression. This framework develops a plant ethics that affirms the intrinsic value of plants, defines humans as guardians of life, and emphasizes intergenerational and cosmic moral responsibility, thereby enriching environmental ethics within the cultural context of Timor-Leste and the global world.

Keywords: Human relations, Plants, Hans Jonas, Ethics of Responsibility, Lulik.

1. Introduction

Through the development of science and technology, humans have acquired a tremendous capacity to modify and control the natural world of plants. However, this technological power is often used without respect for the dignity of plants as living beings with integrity (Bazin, Damien, et al., 2022). Plants are assessed primarily on the basis of their current economic value, without consideration for intergenerational responsibility or future ecological and moral consequences (Rodrigues, G. Prado, 2024).

This attitude is rooted in an anthropocentric worldview, which places humans at the centre and as rulers over all of creation (Savoia, 2017, p. 189). The destruction of tropical forests and the pollution of rivers show that the relationship between humans and the plant world is moving further away from an attitude of care and responsibility, and is increasingly tending towards destructive exploitation. Conservation biologists refer to this situation as a mass extinction crisis, that is, a global crisis of death primarily caused by human actions themselves (Hall, 2011, p. 1). This crisis reveals a crisis that is not merely ecological and technological, but also a crisis of the ethical relationship between humans and plants. In this context, the fundamental question that arises is: How do Hans Jonas's ethics of responsibility and the concept of *lulik* in Timorese culture interpret the relationship between humans and nature and plants within the traditional moral framework of *respeito* (respect) towards the sacred? And to what extent can a synthesis between Hans Jonas's ethics of responsibility and the concept of *lulik* serve as the basis for a contextual and sustainable plant ethics?

To answer these questions, this discussion starts from two main foundations: the principle of the ethics of responsibility formulated by Hans Jonas and respect in *lulik* in the culture of Timor-Leste. According to Jonas's principle of the ethics of responsibility, responsibility for the environment should not be understood in a narrowly defined manner, but must be reflected upon and integrated into various socio-cultural sectors so that it can be valued and applied in practice

(Mantatov & Mantatova, 2015, p. 1056). This approach aims to encourage the development of educational techniques capable of legitimising new forms of interaction between humans and nature, as a response to contemporary socio-environmental demands (Almeida, Rodrigues de, et al., 2020). Aligned with this, the authors Leal & Durante (2021) assert that Jonas's ethics of responsibility holds significant importance within the context of environmental ethics, as it serves as a renewal of moral philosophy theory that provides a conceptual foundation for the development of plant ethics from an interdisciplinary perspective.

Amidst the accelerating ecological degradation, ethical responses to the environmental crisis remain fragmented and culturally biased, often dominated by anthropocentric and Western paradigms (Kumar, Sandeep, 2023). These paradigms fail to recognize the deeper spiritual and ethical interconnectedness between humans and the natural world. Consequently, environmental ethics requires renewal through the support of various currents of thought that morally recognize our relationship with non-human life (Shweta, 2025).

The concept of *lulik* in Timorese culture is one of the ways of thinking that provides a moral foundation for human relations with non-human life. In the daily lives of the Timorese people, *lulik* not only shapes identity in relation to the sacred or spiritual forces, but also serves as a normative guide to the correct way of establishing relationships with other people and with the natural environment (Santos, AA; Shatini, Y., 2024). As a moral reference, *lulik* establishes sanctions against deviant behaviour and regulates individual and collective actions in relation to others, to plants, and to the sacred (Castro, A. Fidalgo, 2015).

Within this framework, *lulik* must be understood as a complex and multi-layered moral concept, which transcends a narrow interpretation as merely a tradition or cultural expression. The management of rules and the sacred regulations inherent within it function as a normative mechanism that actively shapes and directs the

ways of relating to one's fellow human beings and to the plant world in the society of Timor-Leste (Najarudin, 2023).

The internal complexity of lulik actually reinforces its systemic nature as a coherent moral system, as it encompasses a set of noble values, prohibitions and obligations that govern human attitudes, perceptions and actions towards the entire system of life (Gouveia Leite, Luis; Oliveira, 2025, p. 312). Thus, lulik can be positioned as an ethical framework that demands wisdom and prudence in treating the natural environment, whilst affirming the sacred dimension as the basis for moral legitimacy in the ecological ethical practices of traditional Timorese communities.

Although Hans Jonas's ethics of responsibility has provided a strong normative foundation for environmental and plant ethics, this approach has yet to be developed in dialogue with living and praxis-based non-Western local moral systems. On the other hand, the concept of lulik in Timorese culture possesses a wealth of normative and spiritual resources for regulating human relations with plants and nature, but it has not been systematically examined as a source of environmental ethics that can engage in dialogue with contemporary moral philosophy. Consequently, there is a theoretical gap in integrating Hans Jonas's ethics of responsibility with the concept of lulik as the basis for a contextual, sacred and sustainable plant ethics in Timor-Leste.

Hence, this study proposes an innovative ethical synthesis between Hans Jonas's ethics of responsibility and the concept of lulik as Timor's traditional moral system, positioning lulik not merely as an expression of the culture or local spirituality, but as a legitimate source of normativity in the development of plant ethics contextual, sacred and sustainable in Timor-Leste.

This study makes a significant theoretical contribution to environmental ethics by developing Hans Jonas's ethics of responsibility through a critical dialogue with the concept of lulik as a local moral system. This study

argumentatively asserts that lulik is not merely a cultural phenomenon, but a normative ethics framework that has moral legitimacy and regulatory power over human relations with nature and plants. Through this synthesis, the study formulates a contextual plant ethics and sacred, while expanding the horizon of environmental ethics beyond anthropocentric approaches towards future-oriented sustainability (Rosa, Frederico D.; Berghahn, 2022).

2. Methodology

This study employs a qualitative approach, utilising library research and a hermeneutic approach as its analytical framework. This approach was chosen because the study focuses on the understanding, interpretation and philosophical reflection on Hans Jonas's concept of the ethics of responsibility, and the traditional moral values embodied in the concept of lulik in Timor-Leste culture.

Through a literature review, this study examines various primary and secondary sources relating to the ethical thought of Hans Jonas, in particular the concept of the ethics of responsibility presented in his book *Das Prinzip Verantwortung: Versuch einer Ethik für die technologische Zivilisation* (The Imperative of Responsibility: In Search of an Ethics for the Technological Age). In addition, this study also uses the works of Mircea Eliade, specifically *O Sagrado e o Profano: A Essência das Religiões*, as a reference for understanding the sacred dimension in human religious and cultural experience. Other sources, including scientific articles, books and academic writings that discuss the concept of lulik in the cultural context of Timor-Leste, are also used as material for analysis.

The hermeneutic approach is used to interpret the philosophical and moral meanings found in Hans Jonas's theory of responsibility, as well as the values embodied in the concept of lulik. In this study, the hermeneutic approach serves as a method for understanding the relationship between text, cultural context and human experience when facing the changing of the

times, particularly the development of modern science and technology.

The main focus of this research is to explore the possibility of a new philosophical synthesis through a dialogue between Hans Jonas's ethics of responsibility and traditional morality as embodied in the concept of *lulik* in Timor-Leste society. This dialogue aims to examine how traditional values can make an ethical contribution to addressing the challenges of modern technology, particularly in relation to human responsibility towards nature, life, future generations, and the balance of the relationship between humans and the environment.

This research analysis was conducted in several stages. Firstly, this study analysed the key concepts in Hans Jonas's thought, particularly the principle of responsibility as the ethical foundation for a technological society. Secondly, a philosophical interpretation of Hans Jonas's theory of the ethics of responsibility was undertaken, taking into account the historical context and the moral challenges arising from the development of science and technology. Thirdly, this study reflects upon and interprets the meaning of *lulik* in the culture of Timor-Leste as a traditional moral value system possessing spiritual, ecological and social dimensions.

Through these stages, this study seeks to develop a more contextual understanding of the ethics of responsibility, an ethical approach that integrates modern philosophical thought with the cultural wisdom of Timor-Leste in addressing the challenges of contemporary technological civilisation.

3. Results

The results of the research show that Hans Jonas's ethics of responsibility and the concept of *lulik* in Timorese culture have strong points of convergence in affirming that plants are not merely economic resources, but rather an integral part of life with intrinsic value and a moral dimension. The synthesis of these two perspectives produces a contextual framework for plant ethics, which places humans as guardians of life with ethical responsibilities that are relational, intergenerational and cosmic in

nature. This research also confirms that *lulik* is not merely a cultural tradition, but a normative system that reinforces environmental ethics through respect for the sacredness of nature, and can thus serve as a philosophical foundation for the conservation of plants and the development of sustainable environmental ethics in Timor-Leste.

4. Discussion

4.1. Human-Plant Interaction in Hans Jonas's Ethics of Responsibility

The increasing environmental degradation and the irresponsible use of natural resources, particularly flora, indicate a breakdown in the harmonious relationship that once existed between humans and plants. This relationship, which was previously characterized by respect and balance, has gradually been replaced by utilitarian and extractive logic (Rodrigues, Prado, 2017).

If we examine this issue through the lens of the Ethics of Responsibility proposed by Hans Jonas, it is clear that this situation demands an ethically and ontologically grounded re-evaluation of how humans interact with plants (Oliveira Jelson R.; Sousa, Grégori de, 2025). In this context, interaction with plants must be considered not merely as a topic of practical sustainability, but also as an issue encompassing ethical, social, economic and political aspects (Jeronimo; Carvalho, 2020, p. 436).

Plants, although they have no consciousness or voice, are a fundamental element in the web of life: they produce oxygen, regulate the climate, sustain biodiversity, and in many ways act as the silent guardians of the planet's health. To disregard their intrinsic value, according to Jonas, is an unacceptable ethical risk because it threatens the very principles of life and the future of humanity itself (Junior, 2020, p. 52).

Reconsidering this relationship means adopting an attitude that respects the ontological value of plants. This includes conserving forests, promoting regenerative agricultural practices, advancing environmental education, and recognizing that nature is not a consumable

object as understood by modern society (Boff, 2015, p. 181), but rather an ethical subject worthy of consideration. Jonas urges us to develop a new ecological sensibility, in which technology must be subject to responsibility, not short-term profit (Oliveira Jelson R.; Sousa, Grégori de, 2025). Only in this way can humans build an ethical and harmonious coexistence with plants and ensure a viable future for coming generations.

Hans Jonas does not specifically address plant ethics as an independent theme, but rather develops an ethical framework oriented towards the preservation of life as a whole for the sake of future sustainability (Gouveia Leite, Luis; Oliveira, 2025). Nevertheless, the implications of his thought, particularly as formulated in *The Imperative of Responsibility* (1979), can be understood as a moral renewal relevant to efforts to preserve the plant world. In this work, Jonas proposes an ethics that emphasizes the future of humanity as well as the sustainability of the biosphere amidst the rapid development of science and technology (Moreira, 2022, p. 33). This ethics is based on the principle of prudence and moral responsibility towards all forms of life that are fragile and unable to protect themselves, including plants that are directly within the reach and impact of human actions.

Although Hans Jonas does not specifically address plants as a distinct ethical theme, the ethical principles he developed can be applied to plants and the entire realm of life. This philosopher argues that life itself, not merely human life, but also the plant world, is a reality possessing an intrinsic value, and as such demands moral responsibility from humans (Sganzerla, 2015, p. 163). Within this framework, responsibility towards plant life is understood as an integral part of wider ethics, which recognizes the fundamental interconnectedness of all living beings, including humans (Valera, 2019, p. 176).

By proposing an ethics that transcends anthropocentrism, Jonas affirms his recognition of the intrinsic value and moral rights of all forms of life (Jonas, 2004, p. 70). This perspective can be extended conceptually to the plant world as an integral part of the biosphere, thereby

strengthening the foundations of biocentric and ecological ethics. Therefore, the conservation of plants becomes a fundamental ethical imperative, not merely for the benefit and well-being of humans today, but also to guarantee the rights of future generations to life on a healthy planet, with forests and biodiversity that remain well-preserved (Sganzerla, 2015, p. 164).

Thus, according to Hans Jonas, our responsibility towards plants is not merely an issue of utility, but an ethical imperative that must guide our actions and decisions towards the natural environment of plants. The protection of plants is an urgent and challenging issue within the framework of the ethics of responsibility, as it demands careful moral judgement regarding the impact of human actions on plant life in order to maintain a sustainable ecosystem (Oliveira, Jelson, et al., 2025).

To realize this protection, there needs to be a paradigm shift, from a utilitarian view towards a perspective that recognises the intrinsic value of plants. This responsibility must be realised through a collective commitment, divided between individuals, communities and the government (Jonas, 2006, p. 44). This commitment demands collective action and coordination, through education to foster environmental consciousness, with the aim of ensuring a harmonious relationship between humans and the world of plants. In this way, the concept of responsibility has developed and adapted in line with the emergence of new historical conditions, particularly in the face of modern technology, which is both transformative and potentially destructive (Moreira, 2022, p. 26). Facing this fundamental change in human nature and behaviour demands an ethical framework capable of responding to these challenges. This is emphasised by Jonas when he states:

The most important point is that the nature of human action has changed to such an extent that a form of responsibility has emerged whose full significance has not yet been realised. This responsibility has a completely new substance and an unprecedented scope relating to the future, to the realm of political action and,

consequently, to political morality (Jonas, 2006, p. 207).

This idea serves to emphasise that the ethics of responsibility is not limited to the immediate impact of human actions, but must encompass long-term consequences for the future of life and the moral, social and political order within society.

It is undeniable that, individually, every person, through their small actions, however weak and vulnerable, participates in and influences the universe. Therefore, Jonas's analysis focuses more on the collective than on the individual. He assumes that the primary aim of true responsibility relates to collective actors and collective actions, not merely individual actors and individual actions (Jonas, 2006, p. 44). Thus, the primary aim is to preserve the integrity of living beings on planet Earth and to maintain conditions that ensure harmony.

According to Jonas, when the integrity of nature is threatened by human actions, the immediate risk that arises is the threat to the very survival of humanity itself. However, the concept of integrity in Jonas's ethics does not stop at mere environmental conservation. Integrity is understood in a broader and multidimensional sense, including the physical integrity of nature and ecosystems, which are now threatened by climate change, the loss of biodiversity, and pollution (Melo Souza, M. César de, 2013, p. 50). At the same time, this destruction and pollution of nature's integrity also directly affects all aspects of human existence, and humanity's future as the bearer and heir of moral values is threatened (Bazin, Damien, et al., 2021)

4.2. The Human-Plant Relationship in The Concept of Lulik (Sacred) in Timorese Culture

Lulik can be understood as a traditional concept that aims to protect humans and manage the environment sustainably (Marfai, 2013, p. 35). Lulik is present in all aspects of life. In the religious sphere, it organizes human life in relation to the divine or the sacred. In the moral sphere, lulik contains noble values applied within specific communities to guide attitudes,

perceptions, and behaviour towards nature and the environment in a wise and thoughtful manner (Gouveia Leite, Luis; Oliveira, 2025, p. 12).

Based on this understanding, lulik is a set of values designed to address social, economic, cultural, spiritual, health and moral issues within traditional society. The people of Timor practice lulik rituals in all their activities: from clearing new land, planting and harvesting, to times of illness and health; in relationships between individuals and with the spirits of nature; from birth to death, they always practise lulik rituals. Thus, lulik represents the spirituality and way of life of the Timorese people, influencing their actions in both the physical and spiritual realms, as well as their relationships with others, nature, and the sacred, the divine (Gouveia Leite, Luis; Oliveira, 2025, p. 312).

The relationship between the divine and the plant world is a central aspect of lulik. Acts of environmental destruction are viewed as disobedience towards God (Nai), who is present and immanent within the plant world (Bovensiepen, Judith M., 2014). Since ancient times, the natural world has been humanity's responsibility, although initially this responsibility was limited to specific groups. Thus, morality in lulik is not confined to human relationships or an anthropocentric perspective, but extends to concern for nature and the living beings within it. It demonstrates that there is an awareness of moral responsibility towards various forms of non-human life, in addition to plants (Jähnichen, Traugott, et al., 2023).

In traditional Timorese society, cutting down a tree is no simple matter. Because the people of Timor view nature as an entity with a soul that is under the protection of ancestral spirits. Therefore, before felling a tree, they perform a traditional ritual led by a traditional leader as a form of seeking permission and paying respect to nature. The ritual involves offerings such as betel nut, meat, rice and traditional drinks, as well as the sprinkling of coconut water and blessed water to maintain harmony between humans, nature and the spirits of the ancestors, as well as to avoid disaster (Nayuf, H.; Simon, J.C., 2021).

This practice is not a form of idolatry but rather a moral and ethical act within Timorese culture. These practices are also an incarnation of cultural knowledge, a process of abstraction that guides our relationship with the environment. Trees are regarded as living beings possessing a ruling spirit. The plant world is understood as a living entity that communicates, and humans understand its voice and its message (Nonrila H.D., et al., 2024). They live within a truth and a social order grounded in an ecological-cosmic perspective: nature belongs to the community, and the community belongs to nature. “In this interplay of reciprocal relationships, humans and nature develop together. They always adapt to one another and undergo a process of mutual adaptation” (Boff, 2017, p. 181).

Lulik does not regard humans as the centre or as a superior being, but rather as the custodians responsible for the preservation and sustainability of nature through an attitude of respect. This perspective emphasises humanity’s moral responsibility towards the environment. Thus, the presence of lulik in nature—whether in plants, specific objects, or animal and plant totems, constitutes a doctrine that instils moral consciousness within traditional communities, thereby encouraging mutual respect and, simultaneously, the preservation of the environment (Hot Nome, et al., 2022). Plants are respected not merely for their utility, but for their sacred nature, that is, because the sacred is present within them. This understanding often disappears in modern societies that have undergone a process of the desacralisation of nature (Eliade, 2023, p. 167). Denial of the sacredness of nature causes humans to lose their sense of wonder towards nature, so that nature is reduced to merely an object of exploitation and scientific manipulation (Jonas, 2017, pp. 274–275).

With regard to nature, lulik prohibits environmental destruction, such as deforestation and burning, particularly in places considered sacred, such as trees, rocks, springs and lakes, whether in the mountains or on the plains. Lulik establishes rules for environmental conservation, encouraging respect for nature as the mother who

sustains life. Harmony between humans and nature is a fundamental principle of lulik, which teachings respect and appreciation for nature as an essential part of human life (Akalibey, Scholastica et al., 2024).

In traditional Timorese ceremonies, before clearing new land or felling large trees, the community performs the lulik ritual as a sign of respect for nature. Farmers, in addition to applying agricultural techniques, must obey lulik laws and respect the spirits of nature (nai). In the lulik belief system, there is a spirit who rules the land, known as rai nain, who is responsible for maintaining the harmony between humans and the land. The land is also considered a source of wisdom, which teaches justice and responsibility to those who learn from it (Sinthumule, N.I., 2023).

Lulik forbids the destruction and pollution of the land and nature, as both are part of human life. Without the land, there is no life, and without trees and forests, human life is completely dependent on it. Pope Francis emphasises this in *Laudato Si*: “We ourselves are the earth [...]. Our bodies are made up of the elements of the planet; its air allows us to breathe, and its water gives us life and restores us” (Francis, Pope, 2015, no. 2).

Therefore, we must take care of the environment with responsibility on all levels, through concrete actions for the benefit of the ecological system. Lulik remains an important guide for the moral and ethical consciousness of the Timorese people; it regulates their relationship with the plant world and encourages respect for and responsibility towards the plant world through praxis education (Frankline, Yufenyuy B., 2026).

4.3. Relation Between Ethics Responsibility of Jonas and Lulik in The Timorese Tradition

Hans Jonas, in his famous thesis on the ethics of responsibility, states: “Act in such a way that the consequences of your actions are in harmony with the continued existence of authentic human life on earth” (Jonas, 2006, pp. 47–48). For Jonas, nature, including the plant world, is not merely a neutral object of technological exploitation, but a subject, possessing value and holding a moral

claim upon humanity. Life itself calls us to be responsible, even before humans rationally formulate it. Therefore, humans are called to be respectful and responsible towards the entire community of life. Jonas's ethics thus expands the moral horizon towards an ontological responsibility, where the existence of life (including plants) possesses an intrinsic value that demands *respeto* (respect) (Frankline, Yufenyuy B., 2026).

In Timorese culture, the concept of *lulik* refers to the sacred, the holy, and that which is inseparable from the cosmic order of life. *Lulik* does not merely denote sacred objects or places, but also the living relationship between humans, nature, ancestors, and the Divine. Nature, including plants, is understood as part of the sacred web of life; therefore, the relationship between humans and nature must be conducted with a spirit of '*respeto*' (respect), not domination over it. Violating the laws of nature by causing destruction without responsibility means breaking the *lulik* order and leads to cosmic, social, and spiritual disharmony (Maru, Y. et al., 2020). As emphasised in studies of Timorese culture: *lulik* governs the moral relationship between humans, nature, ancestors, and the spiritual world; violating nature is a violation of the sacred order." (Fox, 1980). Therefore, plants are not understood merely as resources, but as entities that are morally and spiritually significant. A respectful attitude towards plants is part of a living traditional morality passed down through the generations.

The ethical relationship between Hans Jonas's ethics of responsibility and the concept of *lulik* in Timorese culture converges on a fundamental point: the recognition of the sacredness of life and the demand for human responsibility towards nature. He states that the power of modern technology demands a new ethics based on the 'heuristics of fear' in order to protect fragile life (Gouveia Leite; Oliveira, 2025, pp. 6–7). Meanwhile, *lulik* has instilled a sacred consciousness from the very beginning, which limits human actions towards nature through customary norms and religious symbols. Both reject the logic of exploitation and assert that the

relationship between humans and plants must be: a) relational, not instrumental, b) respectful (*respeito*), not dominant, c) responsible towards the future of life (Mantatov, et al., 2015). In this sense, *lulik* can be interpreted as a form of pre-modern ethics of responsibility, whilst Jonas offers a modern philosophical articulation of a similar moral intuition.

Within the traditional moral framework of respect for the sacred, both Hans Jonas's ethics and the concept of *lulik* affirm that:

- a) nature and plants possess intrinsic moral value,
- b) humans are guardians, not absolute lords of life,
- c) ethical responsibility is intergenerational and cosmic (Mantatov, et al., 2015, p.1056).

Ethical relations with plants cannot be reduced merely to ecological obligations, but must be understood as moral and spiritual acts that preserve the sacredness and sustainability of life on planet Earth. In this context, Hans Jonas, through his Principle of Responsibility, has offered a profound critique of modern ethics, which is anthropocentric and fails to anticipate the long-term impact of human technological actions. Jonas asserts that the power of modern humanity has reached a scale that determines the destiny of life itself, thus demanding a new ethics oriented towards the future and the sustainability of the entire community of life (Jonas, 2006, p. 73). This perspective finds strong resonance in the concept of *lulik* in Timorese culture, which views plants and nature as a sacred reality, such that the relationship between humans and nature is governed by respect, moral restrictions, and intergenerational responsibility.

Therefore, a plant ethic is required as a form of moral and spiritual education that aims to build a new relationship between humans and the plant world. In Hans Jonas's perspective on the ethics of responsibility, life, including plant life, possesses intrinsic value that demands respect and protection, especially in the face of the power of modern technology, which is capable of threatening the sustainability of life itself. This ethics places the preservation of forests and the plant world for the sake of the continuity of life as a primary value, which transcends the logic of

capitalist and consumerist society (Alves, 2008, pp. 246–247). Hence, plants cannot be reduced to mere instruments for human interests, but must be understood as an integral part of creation whose existence brings moral demands upon human responsibility, whether for present or future generations (Frankline, Yufenyuy B., 2026).

The urgency of this approach is becoming more evident in the face of today's global ecological crisis, including in the context of Timor. As Hans Jonas warned, "in a few centuries alone, humankind has succeeded in destroying and placing various species of animals and plants at risk of extinction. Cities, metropolises and megalopolises have sprung up from the ground [...]. Green forests have been replaced by grey forests of concrete and stone" (Ferrari, 2007, p. 94). This reality demonstrates that the ecological crisis is essentially a crisis of humanity's moral responsibility towards creation (QURROTUL'AIN, Shadra Diah, et al, 2024).

In the face of this situation, it is very important to develop ethical and pastoral strategies that are effective, including strengthening inter-sectoral cooperation in society and cultivating moral and spiritual values that foster awareness of personal and collective responsibility (Solomonian, Leslie et al., 2021). The environmental crisis is essentially a reflection of the social and moral crisis of how humans live together, work, make political decisions, and implement the law (ATU, L. Florido; OKE, Petrus F. Loran, 2024). This crisis is further aggravated by weak coordination and collaboration between institutions that have a mandate to formulate and safeguard a future of sustainable life (Koebele, Elizabeth 2020). Consequently, various forms of ecological damage and disasters that threaten human survival and the integrity of nature are often not addressed seriously and sustainably.

This study has several limitations, as it remains confined to a limited scope of analysis. First, it is based primarily on a qualitative literature review and hermeneutic analysis of Hans Jonas's ethics of responsibility and the Timorese concept of lulik.

Second, the study focuses mainly on the philosophical and ethical convergence between Jonas's principle of responsibility and lulik, without examining the broader social, political, economic, and ecological factors that also shape environmental management in Timor-Leste.

Finally, this research does not evaluate the effectiveness of integrating Jonas's ethics and lulik into concrete environmental programs or institutional collaborations involving government agencies, religious organizations, customary authorities, and civil society. Therefore, while the study offers a conceptual framework for a contextual plant ethic grounded in philosophical and cultural traditions, further interdisciplinary and empirical research is needed to assess its practical applicability, policy relevance, and contribution to sustainable environmental governance in Timor-Leste.

5. Conclusion

In conclusion, the relationship between humans with nature and plants must be understood as a fundamental moral responsibility, including ethical, spiritual and social dimensions. Hans Jonas's philosophy emphasises that life, including plants, possesses intrinsic value that demands respect and protection, particularly in the face of the power of modern technology which has the potential to threaten the sustainability of life. Meanwhile, the concept of lulik in Timorese culture affirms that nature and plants are sacred, so humans must maintain harmony with nature through moral norms, rituals, and respect for the sacred. The integration of these two ethical frameworks reveals a crucial common ground: recognition of the sacredness of life, rejection of the logic of exploitation, and emphasis on ethical responsibility that is relational, intergenerational, and cosmic.

Based on this synthesis, we can formulate contextual and sacred plant ethics, which place the preservation of forests and the plant world as a core value, and invite humans to become guardians of life, not its dominant rulers. This approach demands the development of ethical strategies, moral and spiritual education, and cross-sectoral cooperation within society, in

order to face the ecological crisis, which is essentially a social and moral crisis. In this way, a plant ethics grounded in the perspectives of Hans Jonas and lulik not only provides a normative foundation for the conservation of nature, but also widens the horizon of environmental ethics towards continuous sustainability and harmony between humans, plants, and nature as a whole.

We finally realised that this research is still limited to a literature review that integrates the ideas of Hans Jonas with the concept of lulik as the foundation of plant ethics. Therefore, further research needs to be developed through empirical studies on the implementation of lulik values in environmental conservation within indigenous communities in Timor-Leste, the development of an environmental ethics education model that combines Hans Jonas's philosophy of responsibility with local wisdom, and interdisciplinary studies linking philosophy, theology, anthropology and environmental science. Furthermore, comparative research with other cultural traditions in South-East Asia and

the Pacific, as well as an analysis of environmental policies grounded in intergenerational responsibility and local cultural values, is expected to enrich the development of environmental ethics whilst providing more practical recommendations for sustainable development and ecological justice.

The last, it is recommended that further research be conducted into the role of religious institutions, customary authorities, civil society organizations, and governmental institutions in promoting collaborative environmental management. Studies of this kind can enhance the implementation of ethical policies that integrate scientific knowledge with local wisdom. In this way, the dialogue between Hans Jonas's ethics of responsibility and the concept of lulik from Timor-Leste can contribute not only to philosophical discourse, but also to concrete ecological practices that support long-term sustainability for both human and non-human life.

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