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Pancasila Perspective on the Concept of Land Ethic, Deep Ecology, Dark Ecology, and Ecofeminism

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Abstract: Deforestation and oil palm expansion in Sumatra and Kalimantan through 2025 represent a multidimensional ecological crisis demanding a contextual ethical response. This issue encompasses social, economic, and cultural dimensions, leading to agrarian conflict, biodiversity loss, and high carbon emissions. This research aims to: (1) Identify convergences and dissonances between four global environmental ethics paradigms (Land Ethic, Deep Ecology, Dark Ecology, and Ecofeminism) and Pancasila values; (2) Construct a coherent framework of Pancasila-based Environmental Ethics, and; (3) Formulate policy implications for forest and plantation governance in Indonesia. Using qualitative philosophical-literature study and critical content analysis, the findings yield a synthesis grounded in four main pillars: (1) Communal-Relational, framing nature as part of a broader moral community; (2) Spiritual-Divine, affirming nature's intrinsic value as creation; (3) Complex Network-Aware, acknowledging and managing paradoxes within global systems, and; (4) Anti-Patriarchal and Corporate Domination and Gender Justice, rejecting the dual oppression of women and nature. The framework offers a holistic normative foundation for reforming forest governance in Indonesia and beyond, emphasizing ecological justice, spirituality, global network transparency, and gender equality.

Keywords: Dark Ecology; Deep Ecology; Ecofeminism; Land Ethic; Pancasila.

1. Introduction

The rate of deforestation and expansion of oil palm plantations in Indonesia has become a very important and complex environmental issue. Data from Forest Watch Indonesia (2025) shows that Indonesia is still ranked at the top as a country with tropical primary forest cover loss, with land conversion for plantations, particularly oil palm plantations, being one of the main causes. This problem is not only related to ecological aspects, but has also touched on social, economic, and cultural aspects, resulting in agrarian conflicts, loss of biodiversity, and large carbon emissions. The dominant approach to environmental management, which is often anthropocentric-instrumental, has proven inadequate in providing sustainable and equitable solutions (Burke & Fishel, 2025). This is where various paradigms of global environmental ethics emerged, offering critical perspectives and various ecological theories, such as Land Ethic (Aldo Leopold), Deep Ecology (Arne Naess), Dark Ecology (Timothy Morton), and Ecofeminism (Vandana Shiva), which challenge the philosophical basis of the relationship between humans and nature, including environmental issues in Indonesia.

The Theory of Land Ethics put forward by Aldo Leopold (1949, p. 204) clearly states that "Land Ethics simply expands the boundaries of communities to include soil, water,

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plants, and animals, which are collectively known as soil." He emphasized that the role of humans is no longer as conquerors, but as "ordinary members" in the biotic community. On the other hand, Arne Naess (1985, p. 28) argues that "The well-being and development of human and non-human life on Earth have inherent value. These values do not depend on the usefulness of the non-human world for human purposes." This principle of biosphere egalitarianism calls for profound spiritual and structural changes in the way we view natural ecosystems. In contrast to the approach that tends to be romantic, Timothy Morton (2016, p. 29) introduces the term "*mesh*" or intertwine, which he describes as "A state of radically interconnected. There is no 'outside' because being outside the *mesh* means not being anywhere, because existence is always connected." This *mesh* is "dark" because it is filled with inevitable strangeness, discomfort, and contradictions, such as our relationship with industrial waste that is "disgusting" but inseparable from the modern production system. On the other hand, Vandana Shiva (1988, p. 42) emphatically states that "Wherever women struggle against the destruction of nature, they implicitly fight against the masculine forms of technology and production that destroy life. They implicitly reaffirm feminine ways of relating to nature, which are based on acceptance, reciprocity, and compassion." She analyzes the parallel relationship between domination of women and exploitation of nature, which is often manifested in the extractive industry.

Contemporary research recognize that environmental ethical frameworks must be contextualized in local cultural and philosophical systems to achieve meaningful policy impacts (Kopnina et al., 2018; Washington et al., 2024). This recognition is in line with the growing call to integrate ecocentrism values into conservation governance, going beyond a fully anthropocentric approach (Simsar et al., 2021; Wilson et al., 2025). Recent research has begun to associate the theories of Land Ethic, Deep Ecology, Dark Ecology, and Ecofeminism with the context in Indonesia. For example, Fatrawati Kumari's (2025) research analyzes conflicts that occur in oil palm plantations in South Kalimantan through the perspective of Ecofeminism. In addition, Ashri Rahmatia's (2025) research examines the destruction of the Mandala Bayan Customary Forest in North Lombok Regency using the lens of Ecofeminism. On the other hand, Tasnim Nazira Rida (2025) explores the potential of Land Ethic introduced by Aldo Leopold in forestry policy reform in Indonesia. However, most previous research still places Western and Indian perspectives as the main framework, with limitations in testing their resonance against local philosophical values in Indonesia. In fact, as a nation based on Pancasila, Indonesia has a comprehensive value system to understand the relationship between humans, society, and nature. The precepts in Pancasila such as Social Justice for All the People of Indonesia (*Keadilan Sosial bagi Seluruh Rakyat Indonesia*) and the Belief in the One and Only God (*Ketuhanan Yang Maha Esa*) are believed to emanate ecological values, which offer a strong basis of cultural legitimacy for environmental ethics. Several other studies, such as the one conducted by Hanifa Paramitha Siswanti (2025), have attempted to read environmental issues in West Java through Pancasila, but have not been carried out systematically and critically in dialogue with broader global environmental paradigms such as Dark Ecology and Deep Ecology. Research on the destruction of mangrove forests in Indonesia has also been reviewed from the Dark Ecology and Deep Ecology paradigm by Yulison Herry Chrisnanto, et al. (2026), but has not related the issue to the perspective of Pancasila philosophical values.

This research addresses a critical gap by establishing a constructive dialogue between global environmental ethics—namely Land Ethic, Deep Ecology, Dark Ecology, and Ecofeminism—and the philosophical foundation of Pancasila. These paradigms have been widely recognized for challenging anthropocentric approaches and promoting more ecologically just relationships between humans and nature (Leopold, 1949; Naess, 1973; Morton, 2010; Plumwood, 1993). In the Indonesian context, environmental degradation, particularly deforestation and oil palm expansion, is closely linked to extractive economic practices and governance frameworks that prioritize instrumental rationality over ecological balance (McCarthy & Cramb, 2009; Pye et al., 2012). Therefore, this study seeks to explore the relevance and possibility of synthesizing global environmental ethics with Pancasila values to develop a contextual and culturally grounded ethical framework that remains open to global perspectives.

Accordingly, this research aims to: (1) identify points of convergence, dissonance, and potential mutual enrichment between global environmental ethics and Pancasila values; (2) construct a coherent and contextual Pancasila-based environmental ethics framework; and (3) formulate policy implications for forest governance and oil palm plantation management in Indonesia. The novelty of this study lies in its effort to bridge global theoretical frameworks with local philosophical values, thereby offering a normatively robust and culturally legitimate foundation for environmental governance. Such an approach is increasingly emphasized in contemporary scholarship as essential for enhancing policy effectiveness, public legitimacy, and sustainability outcomes in complex socio-ecological systems (Dryzek, 2013; Schlosberg, 2013; Bosselmann, 2017).

2. Method

This study employs qualitative methodologies, incorporating a philosophical inquiry framework and comprehensive literature reviews. This approach is selected due to the nature of the subject matter, which encompasses concepts, values, and theories that necessitate interpretive and argumentative analysis to reveal meanings, discern relationships, and develop new conceptual frameworks (Creswell & Poth, 2017). As a form of exploratory-descriptive and analytical-critical research, this investigation seeks to explore, compare, and synthesize perspectives from diverse paradigms in order to address the research questions posed (Yuwono et al., 2025). The specification of the research conducted is library research, where all data is obtained from credible written sources and electronic documents (George, 2008). The focus of the study lies at the level of conceptual and normative analysis to build theoretical arguments, not direct empirical testing in the field. However, this conceptual analysis is constantly faced with the empirical context of the issue of deforestation and oil palm plantations in Indonesia as a test of relevance (Ibanga, 2020).

The types and techniques of data collection are carried out systematically through several stages (Yuwono, 2025). First, the recording and study of primary literature on fundamental texts from each paradigm, such as: (1) A Sand County Almanac, and Sketches Here and There (1949); Ecology, Community and Lifestyle: Outline of an Ecosophy (1985); Dark Ecology: For a Logic of Future Coexistence (2016), and; Staying Alive: Women, Ecology, and Survival in India (1988). As for the authoritative literature on Pancasila as a philosophy, such as Pancasila Dasar Falsafah Negara (1974) and Pancasila Filsafat Dasar (2021). Second, the search and analysis of secondary documents in the form of scientific journal articles and recent research reports.

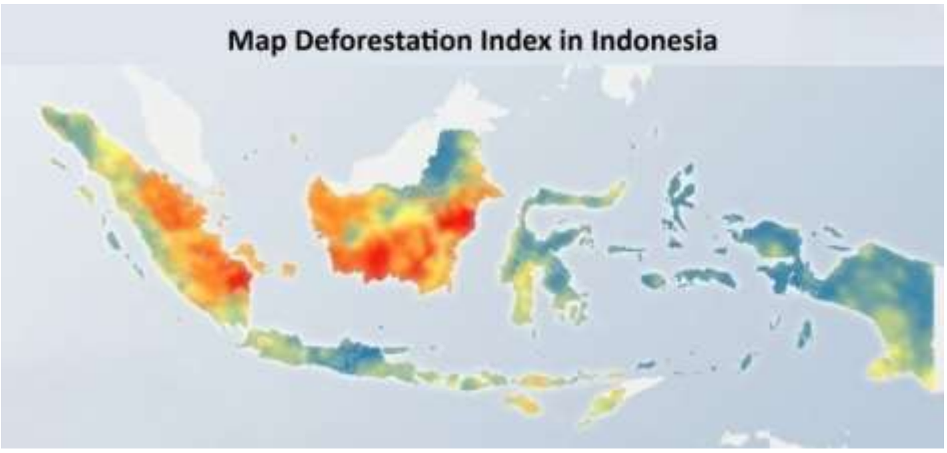
The data analysis method applied is qualitative content analysis combined with philosophical interpretation approaches and critical comparative analysis (Krippendorff, 2013). According to Hans-Georg Gadamer (1975), to ensure the implementation of systematic and structured analysis, this study uses an analysis protocol that has been operationalized, consisting of: (1) Textual Interpretation; (2) Critical Comparative Analysis; (3) Contextual Reflection, and; (4) Synthesis Construction. Textual interpretation is carried out by close reading technique of the fundamental texts of each paradigm regarding ecology and authoritative literature on Pancasila. At this stage, each text is read repeatedly to identify key concepts, argumentation structures, and underlying philosophical assumptions. The results of the interpretation are documented in the form of concept maps for each paradigm. Critical comparative analysis is carried out by utilizing a comparative matrix that includes four comparative dimensions: (1) Ontology (view of the nature of nature and the relationship between humans and nature); (2) Axiology (the values adhered to and the ethics offered); (3) Epistemology (a way of knowing and sources of knowledge about nature), as well as; (4) Practical implications (policy or action recommendations). This matrix is applied systematically to each paradigm in relation to the values of Pancasila, so that points of convergence and dissonance can be identified in a structured manner.

Contextual reflection was carried out by linking the results of the comparative analysis with empirical data on deforestation and oil palm plantations in Indonesia, obtained from the Forest Watch Indonesia report and related studies. This reflection aims to evaluate the relevance and potential application of the results of philosophical synthesis in the context of real policies in Indonesia. At this stage, a plausibility test is also carried out by questioning whether the ethical framework built can explain the existing empirical phenomenon and offer a better alternative to the approach that has been dominant (Olafson, 1998). The synthesis construction is carried out by compiling the results of previous analyses into an environmental ethical framework based on Pancasila. This synthesis process uses the abductive reasoning approach, which is drawing the most logical conclusion (inference to the best explanation) from the results of comparison and contextual reflection (Ricoeur, 2016). The synthesis is outlined in the form of interrelated ethical principles (pillars), as well as formulated policy implications. The entire analysis process applies the principle of triangulation of data sources, which is by comparing and confirming findings from different types of sources (primary texts, journal articles, research reports, and policy documents) to ensure the validity of arguments.

3. Results and Discussion

3.1 Deforestation in Indonesia by 2025

Figure 1. A map of the Deforestation Index in Indonesia for 2025 showing color gradations from turquoise, which indicates low deforestation rates, to red, which indicates high deforestation rates.



Source: Forest Watch Indonesia, 2025

Based on the visualization of the Deforestation Index map in Indonesia in 2025, the analysis shows that the pattern of forest cover loss is not evenly distributed spatially and has a significant correlation with human activities and regional biophysical characteristics. This map uses a color gradation from blue-greenish (low value) to red (very high value), which visually depicts the spectrum of deforestation intensity in Indonesia. The blue-greenish color, which indicates "very low" to "low" deforestation rates, generally dominates areas such as Papua and Sulawesi that still have extensive primary forest cover, as well as some conservation areas and protected forests (Meilinda et al., 2025). These areas often have relatively limited access, difficult topography, or stronger protection status, so deforestation pressures can be suppressed (Budiharta & Holl, 2025).

In contrast, the color red, which indicates "very high" or "extreme" deforestation rates, is clearly concentrated in some key areas. The most striking red clusters can be seen on the island of Sumatra, particularly in the provinces of Riau, Jambi, and South Sumatra, as well as in parts of West Kalimantan and Central Kalimantan. This spatial pattern is highly consistent with the historical trajectory of oil palm plantation expansion and large-scale commercial logging activities (Halomoan et al., 2025). The concentration of red in the eastern part of Sumatra and the western part of Kalimantan reflects the massive transformation of lowland forest landscapes into monoculture plantations, especially oil palm plantations, over the past few decades (Rijal et al., 2025). These areas are central to land conversion for global agribusiness (Khairul & Sinta, 2025).

The color distribution on the map also reflects the dynamics of the "deforestation front" movement. The gradation from red to orange and yellow around the core area that is red indicates buffer zones or areas that are undergoing a gradual process of fragmentation and conversion. On the other hand, the blue-greenish regions of eastern Indonesia (Papua) are currently starting to show warmer patches of color (yellow and orange) at some points, signaling the beginning of a potentially increasing deforestation pressure as infrastructure development and agribusiness investment shifts to the region (Forest Watch Indonesia, 2025b). This map clearly shows that the deforestation crisis in Indonesia is spatially concentrated and strongly linked to extractive economic development models in certain regions.

3.2 Land Ethic Paradigm, Social Justice Precepts, and Deliberative Precepts

The dialogue between Land Ethic introduced by Aldo Leopold and the Precepts of Social Justice in Pancasila creates a solid philosophical basis for criticizing and reforming agrarian policies, especially related to the conversion of forests into oil palm plantations. Aldo Leopold's (1949) main principle regarding the "land community", in which human beings do not play the role of rulers but rather as "ordinary members and citizens" who are equal to land, water, plants, and animals, find a deep resonance with the spirit of the Precept of Social Justice for All Indonesian People. Justice in Pancasila, as affirmed by Notonagoro (1974), is collective and holistic, not only limited to interaction between people. Therefore, it can be interpreted ecologically that justice must also be upheld for all entities in the ecosystem community. The practice of local wisdom such as customary prohibition forests in Sumatra or the concept of *Leuweung Titipan* in West Java clearly reflects this communal ethic, where resource management is carried out with the principles of sustainability and intergenerational responsibility (Warren et al., 2016). This convergence shows that the values initiated by Aldo Leopold are not something imported from outside, but have deep cultural roots in Indonesian society.

Previous studies on spatial planning policies and forest conversion practices for oil palm plantations have noted significant dissonance between these principles and the realities on the ground (Astuti et al., 2022; Margono et al., 2014; McCarthy, 2011). Forests, which in the Land Ethic and Pancasila paradigms should be seen as subjects that have value and rights in the community, have been reduced to mere commodities or economic assets that can be converted only for short-term gains (Margono et al., 2014). This is where Pancasila provides a critical contextualization dimension. The precepts of Social Justice, which are imbued with the spirit of kinship and togetherness, can enrich the concept of Land Ethic introduced by Aldo Leopold. In this framework, humans are not just "ordinary members," but "responsible family members." This relationship is hierarchical-relational and full of respect, which can be analogous to humans as "older brothers" who protect the weaker (flora and fauna) and at the same time as "children" who respect and care for "mothers" (nature) (Poespowardojo & Seran, 2021).

This synthesis implies the need for ecologically just agrarian reform in oil palm plantation governance. The policy must recognize the ecological rights of the land community, which is more than just the right of tenure. Certification schemes such as the Indonesian Sustainable Palm Oil (ISPO) need to be reformed with indicators that assess the overall health of ecosystems, including biodiversity, water quality, and nutrient cycle stability, rather than focusing only on productivity and formal legality (Sahfida, 2025). The constitutional recognition of the Rights of Indigenous Peoples through the Constitutional Court Decision Number 35/PUU-X/2012 is a clear example of the manifestation of Land Ethic guided by the Precepts of Social Justice, because it returns the authority to manage land communities to communities living in symbiosis with them (Mochtar et al., 2012).

The dialogue between the Land Ethic introduced by Aldo Leopold and the Fourth Precept of Pancasila opens up a significant ecological political dimension. Aldo Leopold's (1949) principle regarding land communities basically requires collective governance that is inclusive of ecological interests. This is in line with the core of the Fourth Precept, which is the implementation of a common life through deliberation for consensus led by wisdom (Poespowardojo & Seran, 2021). If land communities include both humans and non-humans, then the question is: How can the voices and interests of non-human members (rivers, forests, and species) be represented in decision-making deliberations on spatial and agrarian planning? This is where the ethics introduced by Aldo Leopold challenges an anthropocentric democracy that considers only human voices, and encourages us to formulate ecological democracy (Dryzek, 2002).

In this context, the Fourth Precept provides a thoughtful procedural framework. Wisdom requires that decisions are not made solely based on short-term exploitation appetites or market pressures, but must be based on deep considerations regarding the long-term impact on the integrity of land communities (Wang et al., 2024). Deliberations on oil palm plantation licensing, for example, must clearly consider the "voice" of the ecosystem through the representation of scientific data (biodiversity health and water carrying capacity), local ecological wisdom from indigenous peoples, and the precautionary principle (Schlosberg, 2009). Thus, representatives in decision-making institutions, such as in the Environmental Impact Analysis (EIA) process or the preparation of Regional Spatial Plans (RSP), should include not only economic stakeholders, but also ecological interest keepers, such as representatives of environmental scientists, conservation non-governmental organizations, and communities that depend on ecosystem health (Utari et al., 2025).

Dissonance arises when the mechanism of deliberation or formal representation actually functions as a tool to legitimize destructive land transfer. As noted by Joe Van Rajs Hutabarat et al. (2025), village-level deliberations for forest area release are at risk of being procedurally flawed, non-inclusive, and co-opted by the interests of big financiers, a pattern that may reflect broader challenges in participatory forest governance. The Fourth Precept, which is affirmed in the spirit of the people, should ensure that the decision-making process is controlled by and for the people, including those whose interests are related to the preservation of nature (Notonagoro, 1974). Therefore, the synthesis of the Land Ethic and the Fourth Precept demand environmental democratic reform, namely the strengthening of institutions of deliberation that are authentic, transparent, and provide an equal space for local ecological and scientific knowledge to guide collective wisdom.

The implications of this dialogue on palm oil management are the need for a more meaningful and ecologically fair consultation and deliberation process. In the context of oil palm governance, some scholars have proposed that participatory processes such as Free, Prior and Informed Consent (FPIC) could be expanded to incorporate ecological considerations, though this remains a theoretical proposition rather than an established practice (E. Martin & Bradshaw, 2025; Owen & Kemp, 2014; Toumbourou et al., 2025). Representative institutions such as the House of Representatives must have adequate capacity and perspective to function as guardians for the interests of the wider land community, beyond the transient human constituents (J. G. C. Martin et al., 2025). Thus, the Fourth Precept serves as a channel to implement Land Ethic into governance, creating an ecological deliberation that makes collective wisdom in maintaining the integrity of the land community the highest goal of the state.

3.3 Deep Ecology Paradigm and Divine Precepts

The dialogue between Deep Ecology and the First Precept of Pancasila opens the understanding that the crisis of deforestation and oil palm expansion in Indonesia is not only a technical-economic problem, but also a spiritual and moral crisis. Deep Ecology, initiated by Arne Naess (1985), emphasizes the recognition of the intrinsic value of all living things and the entirety of nature, beyond its instrumental value to humans. This principle is rooted in the spiritual awareness that human beings are only a small part of the wider fabric of life. In the Indonesian context, the Precepts of the One Godhead provide a broad and diverse foundation of spirituality to support these principles (Notonagoro, 1974). Various local traditions and wisdom, such as *Tri Hita Karana* in Balinese culture (which maintains harmony between humans, God, and nature), *Hamemayu Hayuning Bawana* in Javanese culture (beautifying and maintaining the world), and the cosmology of indigenous peoples who view forests as living and sacred entities, are substantively in line with the Deep Ecology platform (Agus et al., 2021). These concepts reject radical anthropocentrism and affirm that nature has the right to flourish and be respected because it is part of the creation or manifestation of the Divine (Billet et al., 2023). Research involving different cultures shows that incorporating spiritual values in environmental conservation efforts can strengthen the effectiveness of ecosystem protection policies (Avtzis et al., 2018; Filho et al., 2022; Pater et al., 2024; Rutte, 2011; Sinthumule, 2025).

Spirituality in Deep Ecology tends to be personal, transcendent, and often separate from formal social structures (Coates, 2025). Meanwhile, in Pancasila, the precepts of the One Godhead do not stand alone. These precepts are lived and expressed in a real and institutionalized social life system (Poespowardojo & Seran, 2021). Therefore, the large-scale exploitation of forests for monoculture oil palm plantations is not only a violation of ecological ethics, but also a denial of the First Precept, because it is destructive and disrespectful of God's creation. Pancasila, thus, provides a framework in which environmental ethics derived from spirituality are no longer just the choices of individual consciousness, but are transformed into collective social obligations based on faith. This provides greater normative power to bind the state and society in the responsibility of preservation.

The implications of this synthesis for forestry and oil palm plantation policies are fundamental. This approach emphasizes the fundamental failure of the secular and anthropocentric development paradigm, which views forests only as providers of commodities and services. Policies such as moratoriums and reforestation need to be re-viewed not only as technical efforts for carbon sequestration or biodiversity conservation, but also as a process of restoring a sacred relationship with nature and fulfilling the mandate as humans to protect ecosystems on earth. Formal environmental education and public campaigns must actively integrate local ecological wisdom sourced from Divine values, thereby building awareness that protecting forests is part of worship and moral responsibility (Randazzo, 2025). This shows that Deep Ecology found a very strong "cultural home" in Indonesia through the Precepts of the One Godhead.

3.4 Dark Ecology Paradigm and Unity Precepts

The dialogue between Dark Ecology initiated by Timothy Morton and the Indonesian Unity Precepts provides an important perspective to understand the inevitable complexities of ecological crises, especially in the context of the palm oil industry. The main concept of Timothy Morton (2016), "*mesh*", describes the absolute, unbreakable state of interconnectedness of everything from human, non-human, ideas, economics, and ecology, in an unstable and often paradoxical network. This interconnectedness reflects the spirit of the Precept of Indonesian Unity, which is traditionally understood as the socio-cultural unity of the nation, but can and must be expanded into the ecological unity of the archipelago (Poespowardojo & Seran, 2021). However, Timothy Morton reminds that this *mesh* is "dark" and filled with unresolved strangeness, discomfort and contradictions, far from a complete picture of harmony (Chivas et al., 2023).

In this context, the palm oil industry in Indonesia is an ideal empirical example of a "dark *mesh*". This global network connects smallholders in Kalimantan, conglomerates of companies, consumers in Europe and Asia, global financial markets, central and local governments, environmental activists, burned peatlands, endangered species, and the climate crisis in one interconnected and inseparable system (Li, 2015). Through the perspective of Dark Ecology, we can see that Indonesia in this network has an uncomfortable paradoxical position. Indonesia is a victim of global commodity demand and destructive extractive practices, as well as active actors who support deforestation and agrarian conflicts (Aprianto, 2016). The precepts of Unity, often imagined as the ideal of harmony, face the challenge of not ignoring this contradiction, but rather recognizing it as a reality that must be faced together. True unity, in the context of Dark Ecology, is solidarity to collectively manage dark complexity, not simply dreaming of returning to a pure state of nature that actually never existed (Notonagoro, 1974).

The ethical and policy implications of this synthesis are transformative and resist simplification. This approach rejects the narrative that demonizes oil palm plantations as "absolute evil", as such narratives ignore the livelihoods of millions of farmers and workers trapped in the *mesh*, as well as obscure the responsibility of global consumers (Djati et al., 2025). Instead, the ethics needed are the ethics of "living in paradox" or coexisting with oil palm plantations. The policy born from this awareness will focus on managing the dark intertwining towards environmentally friendly management, not its elimination. This means shifting from a paradigm of land expansion toward equitable ecological intensification of existing degraded land, strengthening transparency and fairness in global supply chains, and developing governance mechanisms that explicitly recognize and manage the inevitable trade-offs between production, conservation, and social justice (McCarthy, 2011). The moratorium and certification policy should be understood not as a final solution, but as part of an ongoing process to steer the oil palm plantation *mesh* towards a more responsible path.

Through the dialogue of Dark Ecology with the Precepts of Unity, there is an understanding that Indonesian unity in the Anthropocene era also includes unity in vulnerability, collective responsibility, and the need to share fate in a paradox-fraught ecological-global network. This leads to a more mature, pragmatic, and courageous political ethics, so that it no longer fantasizes about separating oneself from a "dirty" system, but is committed to changing it from within with full awareness of the always uncertain and often uncomfortable consequences, so that the system can be better (Sharma, 2025). Thus, this synthesis does not weaken the ideal of unity, but rather deepens it with the ecological realism necessary to meet the challenges of the 21st century.

3.5 Ecofeminism Paradigm and Humanitarian Precepts

The dialogue between ecofeminism and the Precepts of a Just and Civilized Humanity unravels the common ideological roots of the ecological crisis and gender injustice triggered by the expansion of oil palm plantations. Ecofeminism, as formulated by Vandana Shiva (1988), analyzes the parallel and historical relationship between the domination of women and the exploitation of nature, both of which are seen as passive objects to be controlled and exploited within the framework of patriarchy and capitalism. This analysis resonates strongly with the substance of the Second Precept of Pancasila, which affirms the principle of universal humanity that rejects all forms of oppression and demands the realization of justice and a noble civilization (Poespowardojo & Seran, 2021). In the context of oil palm plantations, forest conversion massively reproduces this logic of dual domination between the traditional knowledge and role of women farmers as forest gardeners and guardians of family food security replaced by vulnerable wage-worker relationships in a monoculture system controlled by the global market (Setyowati et al., 2025). The destruction of forest ecosystems also damages the material bases that sustain women's lives and agency (Nazri, 2022). Empirical research in a number of developing countries shows that women's participation in natural resource management makes a significant contribution to conservation success and poverty reduction (Agarwal, 2009; Bitzer et al., 2024; Meinzen-dick et al., 2019; Ota et al., 2024; Tan et al., 2025).

However, ecofeminism requires critical contextualization in the Indonesian context. While ecofeminism in India often emphasizes patriarchy as the sole structure of dominance, the reality in Indonesia shows a complex interplay between cultural patriarchy, the logic of global capital accumulation, and the rationality of developing countries that often place resource exploitation as a national imperative (Tsing, 2024). This is where the Precepts of Just and Civilized Humanity provide a more comprehensive and relevant framework. This precept requires that "justice" and "civilization" should not be understood narrowly, but rather that they should be expanded to include ecological justice and gender justice that are interconnected. A "civilized" society, in this context, is a society that has a civilization of mutually respectful relationships, not only between humans (men and women), but also between humans and nature (Notonagoro, 1974). Thus, the exploitation of nature and the marginalization of women in the palm oil industry are double violations of the dignity of humanity and civilization itself.

The policy implications of this synthesis have transformative and operational properties. This approach requires radical gender and ecological mainstreaming in every policy and program related to forestry and plantations. Social Forestry Schemes need to ensure quotas and women's leadership in management groups, as well as recognize their right to manage (Istiqlali, 2022). The sustainable certification of ISPO (Indonesian Sustainable Palm Oil) and RSPO (Roundtable on Sustainable Palm Oil) must adopt indicators that can measure the fulfillment of women's rights, access to productive resources, and recognition of women's ecological knowledge in agroforestry management (Pardede, 2025). The People's Oil Palm Replanting (Peremajaan Sawit Rakyat) program implemented by the Government of Indonesia through the Oil Palm Plantation Fund Management Agency (Badan Pengelola Dana Perkebunan Kelapa Sawit) must be designed to empower women, not just replace forest trees with oil palm trees, by ensuring access to ownership, financing, and training (Rowland et al., 2022). Women must be seen as critical agents of change in the transition to a more equitable and regenerative food system and landscape, not just as passive beneficiaries (Bond et al., 2024). Therefore, efforts to create sustainable and equitable forest and oil palm governance must be inherently and inseparably also a gender liberation project. Realizing the Ethical Principles of Humanity in an era of ecological crisis means simultaneously restoring a civilized relationship with nature and eliminating all forms of oppression of women, because both struggles are rooted in the same ethics of care, respect, and justice.

3.6 Interconnection, Advantages, and Disadvantages of Environmental Paradigm in the Framework of Pancasila

The interconnection between the four paradigms of global environmental ethics (Land Ethic, Deep Ecology, Dark Ecology, and Ecofeminism) that interact with the values of Pancasila not only creates convergence, but also reveals tensions (dissonance) that need to be managed critically (Cetera, 2021). Each of these paradigms offers a unique and complementary perspective, but it also has limitations when implemented in the context of diverse Indonesia. Although these four paradigms come from different traditions and geographical contexts, they actually form a network of thoughts that reinforce each other when dialogued. The Land Ethic put forward by Aldo Leopold (1949) provides an ontological basis by expanding the moral community to include non-human entities. The concept of "ordinary members" in the biotic community was a prerequisite for Deep Ecology developed by Arne Naess, which then provided spiritual depth by affirming the intrinsic value of nature. Arne Naess himself acknowledges the influence of Aldo Leopold (1985, p. 30), stating that "Aldo Leopold's soil ethics is an important step towards a deeper ecological consciousness." In other words, Land Ethic paves the way, while Deep Ecology fills it with spiritual and cosmological meaning.

Meanwhile, Ecofeminism proposed by Vandana Shiva criticizes the previous two paradigms that are considered insensitive to aspects of power and gender. Vandana Shiva (1988, p. 56) asserts that "the ecological crisis is essentially a crisis of masculinity," a dimension that is not explicitly discussed in Land Ethic or Deep Ecology which tends to be abstract and universal. However, this criticism actually enriches the understanding by showing that domination of nature is never gender-neutral. This is where Timothy Morton's Dark Ecology comes into play to remind us that connectedness itself is paradoxical and "dark." Timothy Morton (2016, p. 82) states that "there is no way back to pure Nature," a critique of the tendency of romanticism in Deep Ecology as well as the idealization of "women's knowledge" in Ecofeminism. Thus, these four paradigms can be likened to intertwined threads, where Land Ethic provides a canvas, Deep

Ecology provides spiritual color, Ecofeminism adds dimensions of justice and power, while Dark Ecology reminds us that painting itself is a complex network that never finishes.

In the context of Pancasila, these four paradigms provide significant advantages. Land Ethic with the concept of its land community finds a strong resonance in the spirit of kinship and social justice of Pancasila. As stated by Wahyu Pratama Tamba, et al. (2024), justice in Pancasila is collective and holistic, which allows the expansion of the meaning of "society" to include nature. This is an opportunity to formulate an agrarian policy that is not only anthropocentric, but also recognizes ecological rights. Deep Ecology with an emphasis on the intrinsic value of nature opens up a space for dialogue that is rich in the first precept of Pancasila. Various local wisdom such as *Tri Hita Karana* in Bali or *Hamemayu Hayuning Bawana* in Java show that ecological spirituality is not uncommon in Indonesia (Widiatmaka, 2022). This allows conservation policy to be based not only on scientific-rational arguments, but also on deeper spiritual and religious motivations.

Dark Ecology offers intellectual honesty that is rarely found in environmental discourse in Indonesia. Instead of getting caught up in a narrative of demonization of the palm oil industry or blind defense, this paradigm encourages us to acknowledge the complexities and paradoxes that exist. In the context of the precepts of Indonesian Unity, Timothy Morton's idea of "*mesh*" can be interpreted as the awareness that Indonesia is entangled in a complicated global network, so the solutions taken must be collaborative and transparent, not isolationist (Karimi, 2024). Ecofeminism, with its analysis of the dual domination of women and nature, provides a critical basis for the precepts of humanity. As explained by Nuri Widiastuti Veronika (2021), indigenous women's movements in Indonesia often function as a movement for the protection of nature, and vice versa. This opens up opportunities for forestry and plantation policies that are not only environmentally friendly, but also gender-equitable in a transformative way.

The direct application of these four ecological theories without critical contextualization holds serious disadvantages and challenges. Aldo Leopold's of Land Ethic, with its concept of "land community", tends to be homogeneous and does not address internal conflicts of interest within the community (Schlosberg, 2009). In the context of a pluralistic Indonesia, the question arises about who has the right to represent "land interests". This is where the role of deliberation to reach consensus becomes very important. Arne Naess's of Deep Ecology, which emphasizes Self-realization in general, confronts the challenge of the potential for ecological romanticism that ignores the socio-economic realities of society. Considering all forms of human intervention as "unnatural" can lead to exclusive conservation policies, which in turn marginalize local and indigenous communities that have been coexisting with nature (Adhikari et al., 2014). Therefore, it is important to prioritize the precepts of the people in order to balance ecological idealism with the reality of participation and the welfare of the people.

The Dark Ecology proposed by Timothy Morton, although it presents complexity, has the potential to cause paralysis in action (paralysis by complexity). If everything is connected in a dark and paradoxical net, where does the right intervention lie? In the context of oil palm plantation management, this approach can be misused to justify the status quo on the grounds that "it is complicated and there is no perfect solution" (Astuti et al., 2022). The challenge is how to transform an awareness of complexity into collective action that remains bold and directed. Complexity cannot be solved by impulsive reactions or black-and-white solutions. The term "Wisdom" in the fourth precept of Pancasila requires depth of thinking, rational consideration, and wisdom to see the big picture before making decisions. It is a mechanism to bring together various minds that are aware of the complexity of the problem, and then agree on a single direction of movement (consensus). Ecofeminism, with its emphasis on the masculine-feminine dichotomy, faces criticism regarding the potential for gender essentialism. Identifying women inherently with nature and affection can reinforce gender stereotypes that are actually wanted to be eliminated (Keim-Malpass et al., 2014). In the Indonesian context, gender relations in natural resource management vary greatly between cultures, so generalizations need to be avoided. The precepts of a Just and Civilized Humanity demand a more nuanced approach, which recognizes that both men and women can be agents of destruction and conservation of nature. A brief explanation of the advantages and disadvantages of implementing environmental ethics in the context of Pancasila is summarized in the table as follows.

Table 1. Analysis of the Advantages and Disadvantages of the Implementation of The Environmental Paradigm in the Context of Pancasila

Environmental Paradigm	Advantages in the Context of Pancasila	Disadvantages in the Context of Pancasila	Solutions to Overcome
Land Ethic (Aldo Leopold)	Expanding the meaning of a moral community that is in harmony with the spirit of kinship and collective justice.	The homogeneity of the concept of community so that it does not discuss internal conflicts and the representation of non-human interests.	Develop an ecological deliberation mechanism involving scientists, indigenous peoples, and environmental non-governmental organizations. Integrating the analysis of agrarian conflicts in every spatial planning policy.
Deep Ecology (Arne Naess)	Providing a spiritual foundation that is in harmony with local wisdom and divinity so as to strengthen the motivation of nature conservation.	The potential for ecological romanticism that ignores socio-economic realities thus poses exclusive conservation risks.	Implement a community-based conservation approach that recognizes local economic rights. Integrating spiritual values with sustainable economic empowerment programs such as ecotourism or agroforestry.
Dark Ecology (Timothy Morton)	Offering intellectual honesty and acknowledging the global complexities and paradoxes that are aligned with the awareness of networking.	The risk of paralysis by complexity can be abused to justify the status quo.	Build a sustainable multi-stakeholder forum with clear mandates and time targets to avoid deadlocks. Apply an adaptive management approach that acknowledges uncertainty but still takes gradual decisions.
Ecofeminism (Vandana Shiva)	A sharp analysis of the dual dominance (nature and women) thus strengthens the	The potential for gender essentialism so that the masculine-feminine	Involve men as partners in women's empowerment and environmental protection programs.

	argument for gender and ecological justice.	dichotomy becomes rigid.	Conduct ethnographic research before designing policy interventions.

Source: Personal Documentation, 2026

By mapping the interconnection, advantages, and disadvantages through the table, the synthesis of Environmental Ethics based on Pancasila can be built on a strong foundation. This synthesis not only adopts all ideas directly, but also selects, reinterprets, and adjusts to be truly in line with the values of Pancasila and the reality of Indonesia, while remaining open to criticism and improvement. The interconnection between paradigms and the analysis of their advantages and disadvantages are essential conditions for creating a synthesis that is not only eclectic, but also truly contextual and relevant.

3.7 Formulating Relevant Pancasila Environmental Ethics for the Ecological Crisis

Drawing upon the convergence and dissonance revealed through the comparative analysis, this research develops a synthesis framework that incorporates complementary aspects from each paradigm alongside Pancasila values. The author introduces the term "Pancasila-based Environmental Ethics" to refer to this framework, acknowledging it as an analytical construct aimed at promoting further discourse and empirical examination rather than asserting a definitive or conclusive formulation. This framework was developed specifically for the governance of deforestation and oil palm plantations in Indonesia. This ethics is designed to address the complexity of Indonesia's ecological crisis, particularly deforestation and the oil palm plantation dilemma, with a deep and distinctive Indonesian value foundation. The framework is multidimensional, complementary, and offers a more holistic approach compared to the partial application of Western and Indian theories.

Fundamentally, Pancasila-based Environmental Ethics is built on four interconnected pillars, namely: a) The Communal-Relational Pillar, which comes from the dialogue of Land Ethic and the Precepts of Social Justice (strengthened by the Precepts of the People). This pillar affirms that nature is not private property, but part of a broader moral community. The relationship between man and nature must be understood in the spirit of kinship and togetherness, where justice must be upheld for all members of the land community, including future generations (Leopold, 1949; Notonagoro, 1974; Poespowardojo & Seran, 2021); b) The Spiritual-Divine Pillar, which is sourced from the dialogue of Deep Ecology and the Precepts of the One Godhead. This pillar provides an ontological basis that nature has an intrinsic value that comes from its existence as a creation. Therefore, nature conservation is a form of worship and moral responsibility, not just a pragmatic strategy (Naess, 1985; Notonagoro, 1974; Poespowardojo & Seran, 2021); c) The Complex-Aware Pillar of Togetherness, which is sourced from the dialogue of Dark Ecology and the Precepts of Indonesian Unity. This pillar invites us to abandon ecological romanticism and honestly acknowledge that we are intertwined in a global *'mesh'* full of paradoxes. National and global unity must be understood as solidarity to collectively manage this complex and often 'dark' intertwining responsibly, thus leading to a clean and honest ecology (Leopold, 1949; Morton, 2016; Notonagoro, 1974); d) The Pillars of Anti-Domination and Gender Justice, which originated from the dialogue of Ecofeminism and the Precepts of Fair and Civilized Humanity. This pillar emphasizes that the logic of domination over nature and women is a mutually reinforcing unit. A civilized order must reject the dominance of patriarchy and capitalism, as well as encourage a sustainable approach centered on local wisdom, women's involvement, and the values of care, empathy, and balance to create a harmonious relationship between humans and nature (Notonagoro, 1974; Poespowardojo & Seran, 2021; Shiva, 1988).

These four pillars do not work alone. For example, efforts to realize Ecological Agrarian Reform (Pillar point a) must be carried out with an awareness of a complex global power network (Pillar point b), imbued with respect for the sacred value of land (Pillar point c), and designed to dismantle the domination structures that oppress women (Pillar point d). The synthesis of Pancasila-based Environmental Ethics is summarized in the table as follows.

Table 2. Synthesis of Pancasila Environmental Ethics and Policy Imputation

Global Paradigm	The Principles of Pancasila	Synthesis Principles (Ethical Pillars)	Policy Implications for Oil Palm Plantation and Forest Governance
Land Ethic (Aldo Leopold)	Social Justice and Citizenship	Nature as an extended member of the community.	Ecological Agrarian Reform that recognizes the right to manage communities over land and ecosystems. Integration of holistic ecosystem health indicators and agrarian conflict resolution.
Deep Ecology (Arne Naess)	Divinity	The intrinsic value of nature as a creation.	Protection of areas of high conservation and sacral value. Environmental education based on local wisdom and religion.
Dark Ecology (Timothy Morton)	Unity	Recognize and manage shared ecosystems.	An inclusive multistakeholder forum for oil palm plantation trade-off negotiations. Global supply chain transparency and intensification policies on degraded land.
Ecofeminism (Vandana Shiva)	Humanity	Reject patriarchal domination and corporate capitalism.	Women's quota and leadership in social forestry and access to ownership. Recognition of women's ecological knowledge in agroforestry design.

Source: Personal Documentation, 2026

The four implications contained in the table must be understood as an integrated whole. This synthesis provides a solution to overcome the need for a dichotomy between development and conservation. Environmental Ethics based on Pancasila invites all stakeholders to view oil palm plantations and forests not as two polar opposites, but as part of a complex network of life in the archipelago, whose management must be guided by the principles of justice, spirituality, awareness of global interconnectedness, and gender justice. Thus, Environmental Ethics based on Pancasila offers a deep and contextual moral compass for navigating Indonesia amid the challenges of the climate crisis and development pressures, affirming that ecological sustainability is an absolute requirement to achieve social justice, national unity, and a noble civilization in accordance with the ideals expected by the country's foundation.

4. Conclusion

Pancasila has a strong and relevant philosophical capacity to respond to contemporary ecological crises, especially the dilemma of deforestation and oil palm plantation management in Indonesia. Through a critical dialogue with four paradigms of global environmental ethics (Land Ethic, Deep Ecology, Dark Ecology, and Ecofeminism), this research constructs a contextual normative framework called Pancasila-based Environmental Ethics. This framework not only affirms the alignment of Pancasila values with global ecological principles, but also enriches and contextualizes them with Indonesia's distinctive dimensions such as kinship, spirituality, and gender justice. The resulting synthesis gives birth to four complementary ethical pillars: (1) Communal-Relational, which affirms nature as part of an expanded moral community; (2) Spiritual-Divine, which provides an ontological basis that nature conservation is a form of worship; (3) Conscious-Complex Networks, which invite honest recognition of global paradoxical intertwinedness, and; (4) Anti-Domination and Gender Justice, which demands the simultaneous liberation of nature and women from the same logic of oppression. These four pillars together form a moral compass that is much richer than the anthropocentric-instrumental approach that has been dominant so far.

The theoretical implications of this study show a significant contribution in proving that environmental ethics do not need to be universal and abstract, but on the contrary, can and should be integrated with specific local cultural values. Pancasila has proven to possess comparable philosophical depth and is capable of engaging in critical dialogue with Western and Indian theories, even enriching it with spiritual, collective, and relational dimensions that are typical of Indonesia. In practical implications, this research advocates for ecologically just agrarian reform, the incorporation of local spiritual beliefs into conservation strategies, the creation of inclusive multi-stakeholder platforms, and gender-transformative methodologies across the forestry and plantation industries. This research has limitations, namely that the proposed ethical framework still requires further empirical testing in the field, and the focus on philosophical dialogue has the potential to not fully uncover the technical, economic-political, and power dynamics of local power. Therefore, further research is recommended to: (1) Test and modify the Pancasila-based Environmental Ethics framework through field research in areas affected by palm oil conflicts; (2) Examine concrete policy instruments that can translate these ethical principles into government and corporate actions; (3) Exploring the potential of the fourth precept of Pancasila in forming a participatory governance and ecological democracy model, as well as; (4) Compare the resonance of this framework with the philosophical values of certain indigenous peoples in Indonesia to enrich and concretize principles that are still general.

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