

Digital Press Social Sciences and Humanities

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The 11th International Conference on Nusantara Philosophy

Rangga Kala Mahaswa, Taufiqurrahman (eds)

Local Epistemic Consciousness as A Basis for Attaching Responsibility for Marine Conservation in the Indonesian Coastal Region

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Abstract

The sea is the primary resource that needs to be maintained by all people based on its benefits. However, marine conservation efforts are only carried out by individuals related to them, especially local coastal communities. This condition implies that conservation efforts are never carried out optimally due to a lack of consciousness. This research aims to utilize the structure of epistemic consciousness as a means to convey social responsibility for protecting the marine environment. This research will employ a philosophical hermeneutics approach involving epistemology, ethics, human philosophy, and psychotherapy. The results of this research demonstrate that epistemic consciousness in an individual can enhance their abilities and understanding in adapting their knowledge framework to environmental conservation efforts. This consciousness is also capable of guiding an individual's responsibility in processing information and making decisions in specific contexts, especially in the local sense. Instilling a sense of responsibility can be achieved through the use of taglines and the symbolization of religious beliefs and traditional customs.

Keywords:

local epistemic consciousness, social responsibility, marine conservation, coastal region

1 Introduction

Indonesia, endowed with a myriad of maritime resources, encompasses a unique geographical expanse, boasting more than 17,500 islands and a coastline that stretches over 108,000 kilometres (Fajri Chikmawati, 2019, p. 398). This extensive archipelago contributes to the nation's significant position in the global maritime landscape, supported by a complex marine ecosystem. The intricate interplay between these ecological riches and economic activities forms a critical nexus, one that necessitates a nuanced understanding of sustainable resource management. The economic impact of Indonesia's fishing industry emerges as a pivotal facet of the nation's fiscal landscape. As per data from the CEIC, the fishing sector played a substantial role, contributing over 27 billion US dollars to the country's GDP in 2019 (CEIC, 2019, p. 1). However, this economic prowess raises questions about the sustainable utilization of marine resources and the efficacy of conservation measures. The pressing challenge lies in aligning the burgeoning demand for these resources with strategic and effective conservation actions to preserve the delicate balance of the marine ecosystem.

Furthermore, a noteworthy development unfolded in 2020, as reported by the Indonesian Institute of Sciences (LIPI). The imposition of COVID-19 restrictions triggered a surge in online shopping, resulting in a conspicuous escalation in plastic consumption (Universitas Muhammadiyah Bandung et al., 2022, p. 306). Regrettably, a substantial portion of this plastic found its way into the ocean, exacerbating the persistent issue of marine pollution. This juncture underscores the interconnectedness of global events, consumer behavior, and environmental consequences, emphasizing the imperative for comprehensive policies that integrate economic sustainability with environmental conservation to safeguard Indonesia's marine heritage for future generations.

The issue of broad societal consciousness of societal responsibility for marine conservation is critical, with current consciousness primarily concentrated on governmental bodies, non-governmental

organizations (NGOs), and coastal communities. Despite the fundamental connection that exists between human activities and the health of marine ecosystems, there is a widespread lack of broader societal engagement in the marine conservation discourse. These gaps impede the development of collective responsibility and collaborative efforts, both of which are required for the effective preservation of marine environments.

The current state of marine conservation reflects a significant need for prioritizing sustainable practices. Despite conservation efforts, the need for a comprehensive approach, such as the inconsistent prioritization of marine ecosystems' long-term health and resilience, is evident. In a comprehensive context, this should involve an integrated strategy incorporating sustainable practices into every aspect of conservation, from policy formulation to on-the-ground implementation. This holistic perspective necessitates establishing and enforcing robust marine protected areas, sustainable fisheries management to address overfishing, and proactive measures to mitigate pollution and climate change impacts. It also emphasizes collaborative efforts among governments, NGOs, scientific communities, and local stakeholders to understand marine ecosystems comprehensively. This approach aims to bridge gaps in current conservation practices by integrating traditional ecological knowledge and promoting community engagement. A comprehensive and long-term framework is crucial to address the diverse challenges marine environments face and ensure their sustainable health for the future.

Furthermore, the absence of well-defined plans for the long-term restoration of specific marine environments, such as mangroves and coral reefs, contributes to the complexity of marine conservation issues. These critical ecosystems play a pivotal role in maintaining biodiversity and supporting fisheries, but their ecological functions are jeopardized due to a lack of clear strategies for their long-term restoration. Concurrently, issues such as overfishing, uneven conservation planning, and inconsistencies in marine conservation laws exacerbate the challenges. The need for a more systematic, integrated, and scientifically informed approach to marine conservation becomes evident, emphasizing the critical importance of addressing these multifaceted issues to ensure the long-term health and sustainability of marine ecosystems.

This research underscores the imperative for epistemic consciousness due to the intricate nature of marine conservation challenges. The multifaceted issues within this field demand a depth of understanding that surpasses conventional scientific knowledge. Epistemic consciousness becomes indispensable as it encourages an integrative approach, incorporating diverse perspectives such as traditional ecological knowledge and local community insights. By recognizing and valuing these multiple knowledge systems, the research aims to unravel the complexity of factors contributing to the degradation of marine ecosystems. Moreover, epistemic consciousness advocates for interdisciplinary collaboration, ensuring the research framework is comprehensive and inclusive. The significance of this consciousness lies in its ability to bridge gaps between scientific understanding and contextual nuances, ultimately contributing to the development of more effective and sustainable solutions for the long-term health and resilience of marine environments. For an overview of how the research issues are identified, refer to Fig. 1, which illustrates the problem framework.

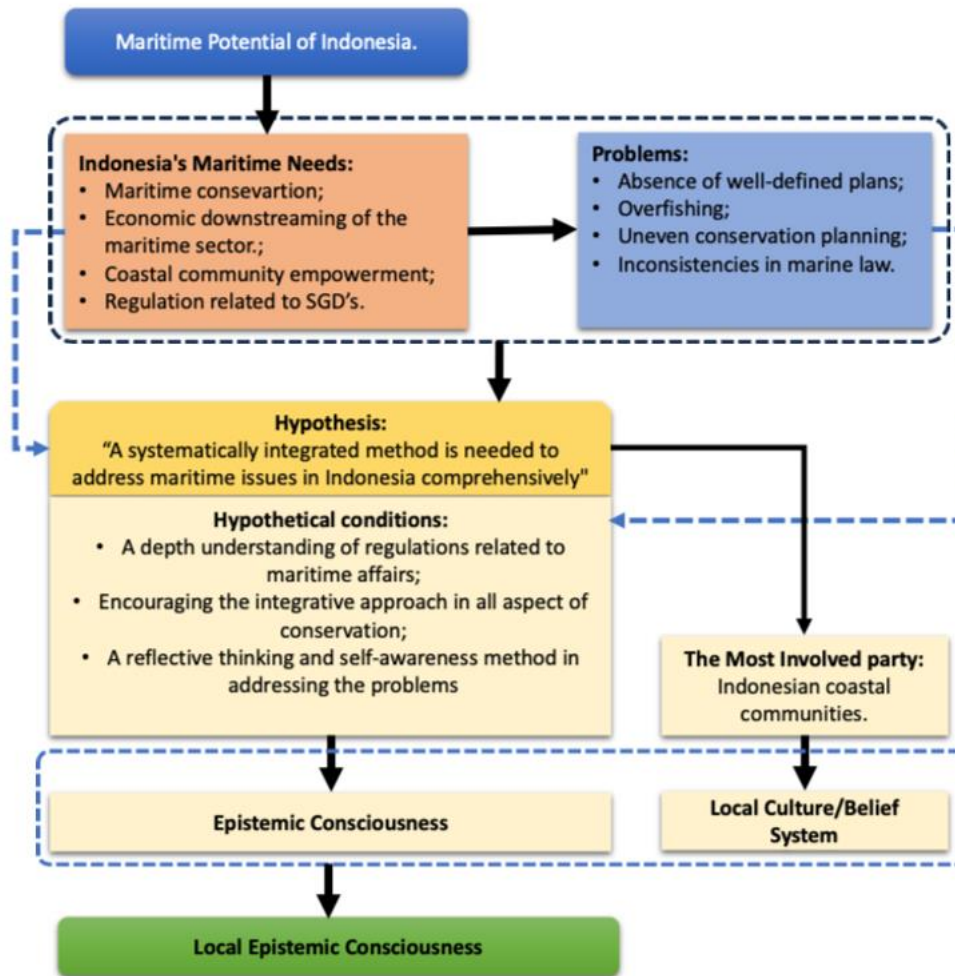


Fig 1. Research Problem Framework

2 Methods

This research seeks to investigate marine conservation through a hermeneutic-philosophical view, with a comprehensive literature review as the primary methodology. The selection of the philosophical hermeneutics approach includes multiple components such as epistemology, ethics, human philosophy, and social psychology. This research begins with a meticulous examination of social responsibility dimensions, to raise awareness about the critical need for marine conservation.

In-depth, the research focuses on the potential development of epistemic responsibility in response to the needs of coastal community development. This investigation necessitates a nuanced understanding of and adaptation to the dominant local cultures, while also acknowledging the intricate interplay between knowledge systems and community dynamics.

The following phase entails integrating imperatives for marine conservation within the framework of a research-based epistemic consciousness schema developed primarily through a comprehensive review of the literature. The study includes a review of religious and local wisdom studies to help substantiate the hypotheses. This investigation is aimed at uncovering the structural integration of symbolic elements within human collective consciousness, providing a comprehensive view of the multifaceted connections between cultural beliefs, marine conservation, and community practices.

The last section of the research process addresses coastal communities, with an in-depth analysis of religious and local wisdom. This focused analysis seeks to reveal the structural integration of symbolic elements within the community's collective consciousness, shedding light on the rich tapestry of cultural knowledge and its implications for effective marine conservation strategies.

3 Discussion

A comprehensive and timely discussion of epistemic consciousness of responsibility for marine conservation is required. A multifaceted approach is needed to begin this dialogue, beginning with an examination of the urgency of social responsibility and the underlying societal issues in this context. Understanding the epistemic dimensions of responsibility in marine conservation necessitates delving into a broad spectrum of perspectives and considerations.

This discussion intends to explore the intricate interplay between societal consciousness, ethical considerations, and the challenges of addressing environmental concerns. This intention delves into the dynamics shaping consciousness and values within the broader social context, emphasizing the need for a comprehensive understanding. It seeks to contribute to holistic approaches for effectively addressing environmental issues by uncovering ethical implications and encouraging profound societal consciousness. This discussion aims to contribute to a nuanced understanding of the complexities surrounding the imperative to protect our oceans by exploring the critical intersection of epistemic consciousness, social responsibility, and marine conservation.

3.1 Social Responsibility and Marine Management Problems

The Dimensions of Social Responsibility encompass a multifaceted and intricate framework that goes beyond philanthropy or legal compliance. This construct delineates a company's ethical and moral obligations to make a beneficial contribution to societal well-being, which transcends economic interests. One fundamental dimension is the economic aspect of responsibility for society, through which businesses are expected to generate profits ethically and sustainably (Duc Tai, 2022). Fair business practices, adherence to legal standards, and consideration of stakeholders' interests are all required. Beyond economic considerations, companies are required to participate in philanthropic initiatives, which comprise the second dimension. Philanthropy entails making voluntary contributions to societal causes that demonstrate a commitment to community well-being and environmental sustainability (Feliu & Botero, 2016, p. 121). A strategic and thoughtful philanthropic approach aligns corporate objectives with societal needs, fostering goodwill and social capital.

Furthermore, the environmental dimension within the realm of social responsibility emphasizes the obligation of organizations to minimize their ecological footprint and contribute to environmental preservation. This involves sustainable resource management, pollution control measures, and initiatives aimed at mitigating climate change impacts. A thorough analysis of an organization's environmental impact and the implementation of eco-friendly practices are integral components of this dimension. The intersectionality of these three dimensions—economic, philanthropic, and environmental—creates a comprehensive understanding of social responsibility, emphasizing the intricate balance required for sustainable and ethical corporate conduct.

In the context of marine conservation, the principles of social responsibility take on added significance as they directly impact the delicate balance of our oceans. The economic dimension requires organizations to assess the ecological impact of their activities on marine ecosystems, emphasizing sustainable practices in fisheries and coastal development (Nurhayati et al., 2019, p. 2).

Philanthropic endeavors, within the sphere of marine conservation, extend beyond mere financial contributions to actively participating in initiatives that protect marine biodiversity, support local fishing communities, and combat plastic pollution. Simultaneously, the environmental dimension compels organizations to integrate responsible waste management and pollution control measures to preserve the health and resilience of marine environments (Phelan et al., 2020, p. 3). The nexus between social responsibility and marine conservation underscores the pivotal role that businesses play in safeguarding our oceans, emphasizing the need for a comprehensive and conscientious approach to fulfilling ethical obligations to both society and the marine ecosystem.

The intricate relationship between social responsibility and marine management signifies a complex interplay deeply rooted in the environmental impact of human behaviour. This is particularly evident in the various stressors that afflict marine ecosystems, encompassing habitat loss, pollution, overexploitation, invasive species, and climate change (Côté et al., 2016, p. 2). The increasing global reach and intensity of these stressors emphasize the gravity of anthropogenic impacts on marine environments.

The pressures of habitat loss entail the degradation and destruction of critical marine habitats, amplifying the vulnerability of numerous species and disrupting intricate ecological balances. Pollution, stemming from diverse sources such as industrial discharges and plastic waste, poses a pervasive threat to

marine ecosystems, affecting water quality, marine life, and overall ecosystem health. Overexploitation or overfishing, driven by unsustainable fishing practices, exacerbates the depletion of marine resources, challenging the resilience of fisheries and marine biodiversity. Invasive species, introduced through human activities, disrupt indigenous ecosystems and outcompete native species, further compounding the challenges faced by marine management. Climate change, manifested through rising sea temperatures and ocean acidification, presents a global-scale threat, imperilling the stability and health of marine ecosystems (Côté et al., 2016, p. 5). The profound analysis of these interconnected stressors illuminates the inextricable link between social responsibility and the imperative for strategic and science-based marine management to mitigate the escalating environmental pressures facing our oceans.

Human behaviour and the environment have obvious ecological consequences, such as population declines, shifted ecosystem functions, and disrupted food webs (Hallam & Harris, 2023, p. 5745). Anthropogenic activities such as resource depletion, habitat destruction, and the application of hazardous chemicals have resulted in significant population declines in a wide range of species, posing a direct threat to biodiversity. At the same time, these behaviours have caused changes in ecosystem functions, reshaping the dynamics and equilibrium of complex environmental systems. The consequences include disruptions in food webs, with species interactions disrupted, affecting trophic structures, and causing ecological instability (Lee et al., 2023, p. 5). This ecological scenario highlights the significance of a nuanced understanding of human behaviour and transformative changes in our approach to nature to effectively mitigate these environmental impacts and ensure the sustainability of our natural ecosystems.

Recognizing the escalating challenges in marine conservation, experts deemed it essential to address the issue more seriously. One notable initiative involves proposing a pragmatic framework encapsulated in the Twelve Recommendations for Advancing Marine Conservation in European and Contiguous Seas. The core of these recommendations is the pivotal role of public participation, underscoring the necessity for broad community engagement to rally support and cultivate a shared understanding of marine conservation endeavours (Katsanevakis et al., 2020, p. 3). The establishment of a network of marine protected areas aligns seamlessly with the urgent need to bolster conservation initiatives in European and contiguous seas, with the primary goal of safeguarding crucial habitats and promoting the preservation of biodiversity. This comprehensive approach reflects the pressing importance of protecting increasingly threatened marine environments and fostering holistic conservation efforts.

Likewise, the inclusion of climate *refugia* strategies aligns with the forward-looking nature of recommendations, acknowledging the pressing influence of climate change on marine ecosystems and emphasizing the importance of adaptive measures. The concept of land-freshwater-sea planning encapsulates the holistic approach recommended for marine conservation, advocating for an integrated strategy that considers the interconnectedness of terrestrial, freshwater, and marine ecosystems (Peel & Lloyd, 2004, p. 362; Jacoby et al., 2022, p. 1). Transboundary collaboration mirrors the global perspective of the recommendations, recognizing the shared responsibility and interconnected nature of marine ecosystems across borders.

The need for a comprehensive understanding of the relationship between social responsibility and environmental issues, as reflected in the European recommendations elucidated by Katsanevakis in the previous lines, becomes evident when contemplating the escalating challenges in marine conservation. The need for a more profound and epistemically conscious strategy is underscored despite acknowledging the pivotal role of public participation and community engagement in the proposed pragmatic framework. The insufficiency of relying solely on social responsibility emphasizes the imperative of incorporating a more in-depth approach and epistemic consciousness.

3.2 The Significance of the Consciousness Theory to the Social and Local Responsibility

According to Thomas Nagel's philosophical viewpoint, an organism is said to have a conscious mental state only when there is a subjective experiential aspect, implying that there is a qualitative subjective experience inherent in being that specific organism. According to Nagel, the essence of consciousness is found in the subjective nature of experience, emphasizing the intrinsic and individualized nature of mental states within organisms (Sundström, 2002, p. 95). This conceptualization emphasizes the significance of recognizing the distinct phenomenological dimension associated with each organism's consciousness,

thereby contributing to the ongoing debate on the nature of subjective experience in the realm of philosophy of mind.

The question arises: Why opt for "consciousness" instead of "awareness"? Vinod D. Deshmukh posits in his paper that consciousness is a dualistic cognitive process, while awareness is nondual, spontaneous, and nonlocal (Deshmukh, 2022, p. 144). However, other papers such as Nicola Lacey's work titled "Responsibility without Consciousness" and writings by other authors treat the terms consciousness and awareness as interchangeable (Lacey, 2016, p. 235). Therefore, consciousness inherently encompasses a broader domain in structurally addressing all aspects. Meanwhile, awareness tends to be associated with everything spontaneous and potentially intuitive. If the issue at hand pertains to social conditions, such as responsibility, the reflective nature of consciousness is undoubtedly more aptly required.

Additional insights from Ned Block elucidate that the principal model of consciousness is denoted as phenomenal consciousness. Block describes this as the subjective experience characterized by the phrase "that there is something 'it is like' to be in that state." Phenomenal consciousness, according to Block, delves into the qualitative and experiential dimensions, emphasizing the unique nature of subjective consciousness associated with different states of being (Schlicht, 2012, p. 315). This conceptualization by Block contributes significantly to our understanding of consciousness, particularly in exploring the intricacies of subjective experiences within various states of consciousness.

As defined in contemporary philosophical discourse, phenomenal consciousness is concerned with subjective experience. It encompasses the qualitative, first-person aspects of consciousness, such as the vivid perception of colours such as the serene blue of the sky, the sensory encounter with pain, and the gustatory delight felt while savouring delicious food. This model emphasizes the inherent nature of individualized, consciousness, highlighting the distinct "what it is like" quality associated with various perceptual encounters (Overgaard, 2018, p. 1).

Access consciousness, on the other hand, adds a new dimension to cognitive functioning. It is more concerned with the availability of information for cognitive processing than with the qualitative richness of subjective experience. Cognitive operations such as recalling a phone number from memory or comprehending spoken language are examples of access consciousness (Overgaard, 2018, p. 2). This consciousness dimension focuses on the cognitive accessibility and manipulability of information, which contributes to a thorough understanding of the multifaceted nature of consciousness. Together, these two models offer a nuanced framework for investigating the intricate interplay between subjective experience and cognitive functionality within the context of consciousness research.

To summarize, the discourse on consciousness revolves around two fundamental types: phenomenal consciousness, which includes the qualitative richness of subjective experience such as seeing colours or feeling sensations, and access consciousness, which focuses on cognitive processing and information availability such as recalling a phone number or understanding spoken language. In discussions of consciousness, this dual framework provides a nuanced understanding of the complex interplay between subjective consciousness and cognitive functionality.

The tendency to contrast the two distinct types of consciousness, phenomenal and access consciousness, causes a detrimental pause in the discussion of communal responsibility. By focusing on the distinctions between these cognitive dimensions, we risk diverting attention away from the interconnectedness of subjective experience and cognitive processing and toward the larger societal context. This dichotomy may unintentionally foster a fragmented understanding of consciousness, potentially undermining a holistic view of communal responsibility (Derome, 2023, p. 4). Instead, a more holistic approach that acknowledges the symbiotic relationship between individual conscious experiences and collective societal obligations is required. Scholars and thinkers can contribute to a more comprehensive understanding of how consciousness interacts with and shapes our communal responsibilities by bridging this conceptual gap.

Considering this, the current proposition asserts that, to be effective, epistemic consciousness should be developed through the integration of both types of consciousness (PC and AC). This proposal contends that a complete understanding of consciousness requires acknowledging the symbiotic relationship between the qualitative richness of individual experiences and the cognitive operations that facilitate information access. Individuals can develop a more nuanced and integrated epistemic consciousness by combining these cognitive dimensions, fostering a deeper understanding of both personal experiences and communal responsibilities within a larger societal framework. This approach is consistent with the overarching theme of bridging conceptual gaps in the consciousness discourse to promote a holistic view of communal responsibility. The concept of epistemic consciousness emerges as the most logical choice for addressing the complexities of human consciousness. The epistemic consciousness is based on four essential requirements for epistemic validity, i.e., awareness of one's actions, awareness of moral significance, awareness of consequences, and awareness of alternatives (Fernando Rudy-Hiller, 2022, p. 3).

Neil Campbell Manson asserts that epistemic consciousness provides a conceptual framework for characterizing our first-person knowledge without imposing the constraint that such understanding necessarily hinges upon subjective experiential views alone. The perspective on epistemic consciousness invites us to acknowledge that there is a classification within the realm of human mental states (Manson, 2002, p. 430). Manson indicates that humans can know their minds. This condition implies that individuals can comprehend a structure of consciousness without being confined to subjectivity alone, thereby reflecting a review of the mind system itself.

Epistemic consciousness is strongly linked to the accepted cultural system in the context of Indonesian conservation efforts. More social structures, such as religion and locally rooted beliefs, are still required by the framework of social responsibility based on communal consciousness and refined by epistemic consciousness. Religion or belief systems play an important role in shaping the structure of human culture's experiences, beliefs, and behaviours (Villani et al., 2019, p. 2)). These factors all contribute significantly to the development of societal consciousness, which is critical to the overall success of conservation initiatives. The relationship between epistemic consciousness and cultural systems demonstrates the importance of considering these complex dynamics when developing effective environmental preservation strategies in the Indonesian context.

According to Clifford Geertz, religion functions as a "system of symbols," forming conceptions of a general order of existence and shaping long-lasting emotional states and motivations. Even in states of heightened consciousness, human civilization exhibits a proclivity for irrational fears about improbable and non-imminent events (Pace, 2017, p. 352). This paradox emphasizes the complex interplay of cognitive awareness, emotional responses, and symbolic constructs within religious systems. Geertz's point of view invites a high-level examination of religion's complex relationship with the human psyche, portraying religion not only as a conceptual framework for comprehending existence but also as a dynamic force modulating emotional experiences and motivations. Recognizing inherent human tendencies emphasizes the importance of developing a thorough understanding of the complex dynamics that shape the cognitive-emotional landscape.

Moreover, investigation into the intricacies of cultural dynamics reveals that they extend far beyond surface agreements. While simulations may achieve a superficial level of consensus, the local system, acting as a supplement to religion, reflects a more profound cultural reality. Local culture is a tangible expression of enduring belief systems, norms, and traditions within a community, surpassing the surface-level agreements that simulations might attain. In contrast to the limitations of achieving only surface-level agreement, folk psychology's understanding of locality provides a nuanced and complex comprehension of cultural impact. This underscores the profound influence of culture on human existence, emphasizing that the actual depth of cultural dynamics lies beyond the surface-level simulations and requires a more profound exploration of the intricate interplay of beliefs and traditions within a community (Wilkinson, 2014, p. 5).

3.3 Local Epistemic Consciousness in Coastal Region for Marine Conservation

As elucidated in the narrative, the profound significance of local epistemic consciousness is related to the fundamental goal of coastal communities in sustainable marine environments. This epistemic consciousness reflects a deep understanding and knowledge system within these communities, reflecting their close relationship with coastal ecosystems. Local epistemic consciousness is essential for sustainable implementation and conservation efforts. These communities' intricate knowledge goes beyond acknowledging environmental concerns; it encapsulates a holistic understanding of the interplay between ecological, social, and economic factors.

A philosophical inquiry into the extraction of a harmonious guidance pattern that resonates with the inherent capacities and preferences of these communities is at the heart of the quest for coastal community development. This reflective journey concludes with an enlightening solution embodied in the *Tri Hita Karana* concept observed within Bali's Hindu community. This paradigm, in essence, transcends the mundane and delves into the profound interconnectedness of human existence with the divine, other beings, and the environment.

Tri Hita Karana is a beacon of enlightenment rooted in the ancient wisdom of Balinese philosophy, illuminating the path toward a holistic approach to community well-being. It invites us to consider the intricate embrace between humanity and its surroundings, as well as a philosophical discussion on the integration of social, spiritual, and environmental dimensions. As a result, the *Tri Hita Karana* concept emerges as a philosophical testament, providing universal insights for coastal communities around the

world to navigate the profound complexities of sustainable development with wisdom, reverence, and interconnected consciousness.

As previously stated, acknowledging the powerful influence of local context prompts a critical examination of the universality of the "Tri Hita Karana" concept. While this framework has proven effective within the Hindu community of Bali, its compatibility with other cultures and belief systems remains unknown. A thorough understanding of the cultural complexities that shape the epistemological landscapes of various communities is required for a deep examination of this issue.

The "Tri Hita Karana" concept, at its core, represents a holistic philosophy encapsulated in three interconnected concepts: "*Parahyangan*" (Divinity), "*Pawongan*" (Humanity), and "*Palemahan*" (Environment). This philosophical basis reflects a deep belief in the coexistence of the divine, human, and natural realms. However, adapting such a culturally specific concept to the diverse tapestry of global belief systems and worldviews poses a challenge.

Implementing the "*Tri Hita Karana*" concept requires the system to implicate the local customs and religious beliefs. The intention can be achieved through the strategic use of taglines and symbolic representations aligned with the distinct ethos of each community. This approach acknowledges the importance of cultural sensitivity in the implementation of philosophical frameworks, recognizing that the translation of ideals into practice necessitates a careful balance of universality and cultural specificity.

Moreover, the interplay between individual moral preferences, subjective experiences, and government regulatory discourse is pivotal when implementing philosophical frameworks. Recognizing the significance of epistemic consciousness becomes essential in this context. The four key features of epistemic consciousness—self-consciousness, understanding the moral significance, assessing consequences, and considering alternatives—should align positively with government regulations. These regulations must be anchored in locally subjective traditions or belief systems. This integration ensures a cohesive and contextually relevant approach, bridging the gap between personal moral inclinations, subjective experiences, and the broader regulatory framework established by the government. Acknowledging that personal preferences form the highly subjective basis for an individual's decision-making, a large-scale management scheme, such as that owned by the government, is required to guide this process effectively.

The previous structured narration exemplifies a meticulous alignment of philosophical ideals, which encapsulate fundamental principles and values guiding individuals and societies in understanding the nature of existence, morality, and human conduct, with the complex intricacies of individual communities. Considering the specific nuances of local contexts ensures that philosophical frameworks are not imposed but rather integrated organically. This approach facilitates a more sustainable and enduring incorporation of these ideals into diverse global contexts. It recognizes the need for flexibility, adaptability, and cultural sensitivity in the implementation of philosophical frameworks, emphasizing a harmonious integration that resonates with the unique characteristics of each community.

4 Conclusion

Environmental studies emphasize the intricate interplay between human behaviour and the sustainability of the environment. Human behaviour characterized by exploitative tendencies can lead to significant environmental transformations; thus, it is imperative to have a comprehensive understanding of the environmental consequences of human actions. The noticeable interconnectedness among marine ecosystems, the demand for clean water, and the state of terrestrial conditions underscore a shared responsibility, particularly for those who derive pragmatic benefits from the behaviours mentioned earlier. This nexus highlights the necessity of fostering sustainable practices and mitigating the potential detrimental impact on the interconnected systems of marine conservation. In this regard, a multidisciplinary approach is needed to address environmental sustainability challenges, focusing on exploring the complexity of human-environment interactions and developing effective strategies for mitigating environmental degradation.

Shared responsibilities are complex, requiring a framework that involves human consciousness. Phenomenal consciousness and access consciousness are both individually subjective and qualitative. Therefore, it is crucial to consider social responsibility holistically for a fully realized and structured awareness. This consideration leads to the concept of epistemic consciousness, which represents the

foundational structuring of human beings in the social dimension. When patterns align between the epistemic structure of human consciousness and the structural framework of belief systems (such as religion), as shown through cognitive awareness, emotional responses, and symbolic constructs, a complementary relationship is established between these two modes.

Epistemic consciousness, as exemplified in the "Tri Hita Karana" concept, underscores the necessity for comprehensive social involvement in conservation efforts, particularly regarding the marine environment. Fragmented awareness proves inadequate for effective initiatives, necessitating the establishment of standards or formal structures to complement belief systems. In this context, government regulations, along with their budgetary allocations, serve as the vessel for epistemic consciousness. Activities such as the integration of "green" initiatives into sustainable development planning documents must be activated as the foundation for the epistemic awareness movement. Additionally, local concepts like "Tri Hita Karana" should never be disregarded in marine conservation campaigns in Indonesia. This reflects the intrinsic nature of conservation as something innate, sacred, and revered.

However, for these initiatives to fully realize their potential, a more comprehensive understanding of the technical aspects of conservation is necessary, particularly in governmental decision-making. The internalization involves paying close attention to critical ecosystems such as mangrove forests, strategically constructing boat moorings, and establishing connections between fish ponds and coastal vegetation. By taking an integrated approach, we can ensure the long-term viability of marine life and promote peaceful coexistence between coastal communities and their surrounding ecosystems. In essence, achieving proper environmental awareness requires a combination of philosophical insight, local engagement, and technical expertise, resulting in a holistic perspective that recognizes humanity's intricate interconnectedness with the natural world.

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