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Preserving Harmony in Bali: An Environmental Philosophy  
Approach to Tackling Over-tourism

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The 11th International Conference on Nusantara Philosophy

Rangga Kala Mahaswa, Taufiqurrahman (eds)

# Preserving Harmony in Bali: An Environmental Philosophy Approach to Tackling Over-tourism

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## Abstract

Bali, a beautiful island in the Indonesian archipelago, has been a centre of world tourism for the last few decades. However, the influx of tourists has contributed significantly to the island's economic development; the phenomenon of 'over-tourism' has taken hold and has been in the spotlight in recent years. Over-tourism is characterized by several negative impacts, including environmental degradation, social disruption, and economic instability. This paper attempts to delve deeper into addressing that issue by using ecological epistemology as a foundation for understanding the interconnectedness of the natural and social worlds. It can be used to understand how over-tourism affects the environment, the local community, and the tourism industry. In addition, cybernetic epistemology is a framework for understanding how systems can rethink and adapt to changes. It can be used to understand how the tourism industry can be managed more sustainably. Therefore, in this context, ecological epistemology and cybernetic epistemology can be used to understand and address the issue of over-tourism in Bali. Furthermore, they offer different perspectives and methods that can be used to complement each other. By using both approaches, we can develop more comprehensive and effective solutions to this complex problem, especially in identifying the relevance of *Tri Hita Karana*'s local wisdom in dealing with over-tourism in Bali. *Tri Hita Karana* is a Balinese philosophy that emphasizes the harmony between humans, nature, and the gods. It could be argued that this local wisdom could be used to help address the challenges of over-tourism in Bali. Another point to consider through cybernetic epistemology is that we can also analyse the obligation of moral beings in protecting the environment, whether *Tri Hita Karana* is still relevant in over-tourism, how the epistemology of the environment becomes possible in *Tri Hita Karana*, and how moral action can be done to create harmonisation.

## Keywords

ecological epistemology, cybernetic epistemology, interconnectedness, tourism industry, over-tourism Bali

## 1 Introduction

The idyllic paradise of Bali, ensconced within the Indonesian archipelago, has long captured the imagination of travellers worldwide with its breathtaking landscapes, vibrant cultural heritage, and spiritual allure. However, this island jewel has undergone a profound transformation due to the surge in global tourism, propelling it into limelight as a top-tier travel destination. However, this exponential growth in visitor numbers has created a critical concern: over-tourism. This phenomenon, characterised by an unsustainable influx of tourists, encompasses a spectrum of challenges beyond mere crowd congestion, extending to environmental degradation, strain on infrastructure, cultural commodification, and social imbalances (UNWTO, 2018). The term "over-tourism" loosely encapsulates the problems arising from excessive consumption, overcrowding, and overuse of tourist sites (Volo, 2020). It symbolises the consequences of rapid, unsustainable tourism development, often externally driven and beyond the control of local destination communities (Milano, Cheer, & Novelli, 2018).

As tourist arrivals continue to soar, Bali's delicate ecosystem is under increasing pressure. Environmental degradation has emerged as a poignant consequence of the unchecked influx of tourists. Fragile ecosystems, such as coral reefs and rice terraces, suffer from excessive footfall, which leads to degradation and irreversible damage (Smith et al., 2020). The breakneck pace of infrastructure development, aimed at meeting burgeoning tourism demands, has outpaced the island's capacity, resulting in strained resources, traffic congestion, and inadequate waste management systems (Wang & Pfister, 2019).



Simultaneously, Bali's cultural landscape grapples with the perils of over-tourism. The commercialisation of local traditions to meet tourist expectations erodes authentic cultural practices and identities (Yan & Andriotis, 2021). Balinese communities find themselves at a crossroads, endeavouring to preserve their heritage while accommodating the demands of the rapidly evolving tourism industry.

The phenomenon of over-tourism in Bali presents a complex intersection between tourism practices and philosophical approaches that delve into ecological epistemology, cybernetic epistemology, and *Tri Hita Karana* (UNWTO, 2018; Volo, 2020; Milano et al., 2019). At its core, over-tourism encapsulates not merely the inundation of tourists in a specific destination, but also raises profound questions regarding our understanding of ecological systems, human-environment interactions, and the balance between cultural preservation and sustainable development (UNWTO, 2018; Volo, 2020).

Within the realm of philosophy, ecological epistemology emphasises the interconnectedness and interdependence between human beings and the environment they inhabit (Milano et al., 2019). In the context of Bali's over-tourism, ecological epistemology prompts contemplation about the intricate relationship between tourism activities and the island's delicate ecosystems. This calls for an understanding of how unchecked tourism growth impacts Bali's natural environment, including its fragile ecosystems, such as coral reefs and rice terraces, urging a reevaluation of human actions within these ecosystems (Smith et al., 2020).

Cybernetic epistemology, focusing on systems, feedback loops, and self-regulation, provides a lens through which to examine the complexities of Bali's tourism industry (Wang & Pfister, 2019). This philosophical approach highlights the need for effective management and adaptive strategies to address the consequences of over-tourism. Understanding Bali's tourism as a system within itself, cybernetic epistemology suggests the implementation of dynamic self-regulating mechanisms to mitigate the adverse effects of excessive tourist influx on the island's environment, culture, and infrastructure.

*Tri Hita Karana*, a Balinese philosophical concept, embodies the harmonious relationship between humans, nature, and the divine (Yan & Andriotis, 2021). In the context of over-tourism, *Tri Hita Karana* invites reflection on the challenges faced by Balinese communities in preserving their cultural heritage, while navigating the demands of an evolving tourism industry. It emphasises the significance of maintaining a balance between economic growth derived from tourism and the preservation of cultural traditions, fostering harmonious coexistence between tourists, locals, and the environment.

The convergence of these philosophical approaches with the issue of over-tourism in Bali underscores the need for a holistic and nuanced understanding of the challenges posed by excessive tourism (UNWTO, 2018; Volo, 2020). This prompts a re-evaluation of our relationship with the environment, the implementation of adaptive management strategies, and the pursuit of sustainable tourism practices that respect cultural integrity while ensuring the long-term well-being of both the destination and its inhabitants.

As we navigate the complexities of over-tourism in Bali, these philosophical approaches serve as guiding frameworks, urging us to contemplate not just the immediate consequences but also the profound implications for the interconnected web of human society, culture, and the environment.

The surge in global tourism has thrust Bali into a unique position, with its natural beauty and cultural richness attracting hordes of visitors. However, the unchecked influx of tourists has brought forth a range of challenges that threaten the essence of the island. The delicate ecosystem, once thriving, now faces degradation owing to excessive footfall and inadequate infrastructure. This environmental strain not only imperils Bali's natural wonders but also jeopardises the livelihoods of the local population dependent on these resources.

Moreover, the cultural integrity of Bali stands at a crossroads, torn between preserving its heritage and succumbing to the demands of the evolving tourism industry. The commodification of traditions to meet tourist expectations threatens the authenticity of Balinese culture, creating a precarious balance between economic gain and cultural preservation.

In conclusion, the allure of Bali as a global destination must be balanced by sustainable practices that safeguard its environment, preserve its rich culture, and ensure the well-being of its communities. Managing over-tourism requires a collaborative effort involving policymakers, local communities, and tourists themselves to embrace responsible and sustainable tourism practices that can help mitigate the adverse impacts while fostering the island's long-term viability as a captivating and culturally vibrant destination.

## 2 Methods

In this study, an extensive exploration of existing scholarly literature serves as the foundational framework to comprehensively grasp the underpinnings of our research. Employing a meticulous literature review, we meticulously scrutinised and synthesised prior academic works, scholarly articles, and established theories relevant to the subject matter. This methodological approach enabled us to derive insights, theoretical perspectives, and established concepts that were pivotal to constructing a robust theoretical foundation for our research enquiry.

Following the groundwork laid by the literature review, our study adopts a dual analytical approach involving descriptive and conceptual analyses. The descriptive analysis method encompasses meticulous examination and presentation of empirical data, observations, or phenomena related to the research topic. This analytical tool aids in elucidating and outlining salient features, characteristics, and patterns inherent to the subject matter under investigation.

Concurrently, our research incorporates conceptual analysis, which involves rigorous deconstruction and examination of key concepts, theories, or frameworks pertinent to our study area. Through this analytical approach, we dissect, evaluate, and refine the conceptual elements intrinsic to our research, thereby facilitating the construction and substantiation of our arguments based on a well-defined theoretical foundation.

By intertwining the insights gained from the literature review with the interpretative power of descriptive and conceptual analyses, our research endeavours to present a comprehensive, well-founded, and academically rigorous argumentative structure. This multifaceted analytical methodology not only facilitates a deeper understanding of the research problem but also contributes to the synthesis of cogent arguments supported by a robust theoretical and empirical framework.

## 3 An Ecological Epistemology Approach to the Issue of Over-tourism in Bali

The escalating challenge of over-tourism in Bali signifies a pervasive and unsustainable inundation of tourists on the Indonesian island, resulting in a myriad of adverse repercussions across the social, cultural, economic, and environmental spheres (Krisnadi & Maharani, 2021; Suyadnya, 2022). While tourism inherently bears the promise of economic prosperity, the trajectory and intensity of its expansion in Bali have burgeoned into a source of multifaceted challenges characteristic of the over-tourism paradigm.

Ecological Epistemology emerges as a philosophical framework that illuminates the intricate intersections between knowledge formation, perception, and the environment (Campbell, 2008; Carvalho, 2016). This philosophical lens accentuates the interdependence and interconnectedness that binds all elements of existence, highlighting the profound influence of human interactions within the environment in shaping our comprehension of the world.

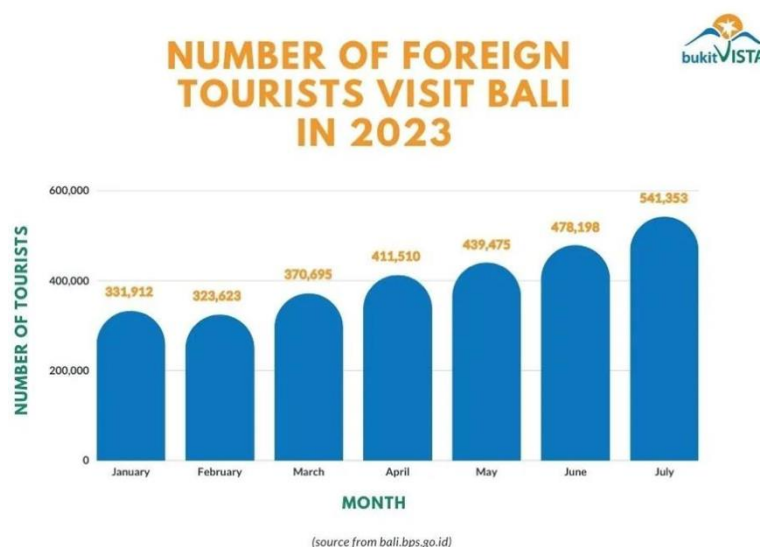


Fig 1. The Number of International Tourists Visiting Bali in 2023 Source: bukitvista.com

Within the context of over-tourism in Bali, the tenets of Ecological Epistemology offer a promising avenue to unravel the perceptual intricacies and understanding of this phenomenon. By underscoring the interconnections among environmental facets, ecosystems, and human engagement, this philosophical approach facilitates a nuanced examination of how over-tourism is perceived and comprehended within the Balinese context. This elucidates the reciprocal relationship between tourists, local communities, and the island's delicate ecosystems, shedding light on how these interactions shape the construction of knowledge and perceptions regarding the repercussions of excessive tourism influx.

Ecological Epistemology steers the analysis of over-tourism in Bali beyond the confines of quantifiable impacts, delving into qualitative dimensions. This accentuates the intricate interdependencies among the environment, culture, and human perceptions. This approach enables a comprehensive evaluation of how over-tourism is perceived, experienced, and cognitively processed by various stakeholders, offering a holistic understanding of this multifaceted issue.

The ecological fabric of Bali, once pristine, faces unprecedented stress owing to unbridled tourism growth. Coral reefs, rice terraces, and biodiversity-rich landscapes are enduring degradation owing to the unchecked influx of tourists (Smith et al., 2020). Ecological repercussions are multifaceted, encompassing habitat destruction, pollution, and strain on natural resources, all of which necessitate an in-depth comprehension of how human actions and environmental interactions intertwine within the over-tourism discourse.

Moreover, Ecological Epistemology's emphasis on interconnectedness underscores the intricate relationship between cultural heritage and the environment. Bali's unique cultural heritage, deeply entwined with its natural landscapes and religious practices, confronts erosion and commodification in the wake of tourism pressure (Yan & Andriotis, 2021). The influx of visitors drives shifts in cultural practices, altering the authentic fabric of Balinese traditions and demanding an exploration of how these cultural changes are perceived and interpreted within the context of ecological interdependencies.

In contemplating the economic aspects, Ecological Epistemology provides a lens to comprehend the uneven distribution of tourism-generated wealth and the consequences of over-reliance on tourism revenues for Bali's economic sustenance (Krisnadi & Maharani, 2021). This philosophical approach elucidates the intricate economic web interwoven with environmental sustainability, necessitating an informed understanding of the ramifications of over-tourism on the island's economic resilience.

Ecological Epistemology's holistic lens fosters a comprehensive examination of over-tourism in Bali. This accentuates the interconnectedness between environmental degradation, cultural erosion, economic imbalances, and human perceptions, offering a nuanced comprehension of this complex issue. Through this philosophical framework, the multifaceted layers of over-tourism in Bali emerge, presenting a mosaic of challenges that demand holistic interventions and sustainable management strategies to navigate the intricate interplay between tourism, culture, environment, and human perceptions.

Expanding on this discourse, empirical studies by Smith et al. (2020) reveal a distressing degradation of Bali's ecological systems due to tourism pressures, emphasising the need for a deeper understanding of ecological ramifications. Similarly, Yan and Andriotis (2021) highlight the cultural erosion faced by Balinese heritage due to over-tourism's influence, underscoring the critical intersection between cultural preservation and environmental sustainability.

The economic interplay in the over-tourism narrative, as explored by Krisnadi and Maharani (2021), underscores the complex web linking tourism-driven economic growth, resource distribution, and environmental sustainability in Bali. These researchers have emphasised the need for a holistic approach that integrates economic strategies within the framework of environmental sustainability.

The holistic analysis facilitated by Ecological Epistemology unravels the intricate relationships within the over-tourism paradigm in Bali. The interconnectedness between environmental degradation, cultural erosion, economic imbalances, and human perceptions is brought into sharp focus, demanding nuanced interventions that harmonise tourism development with cultural preservation and environmental sustainability.

In essence, the Ecological Epistemology approach offers a multidimensional lens to understand the complexity of over-tourism in Bali. By accentuating the interconnectedness between tourism, culture, the environment, and human perceptions, it lays the groundwork for informed policies and sustainable practices that mitigate adverse impacts while fostering a harmonious equilibrium between tourism development, cultural heritage, and environmental conservation in Bali.

Through synergistic collaboration between academic scholarship, policy formulation, and community engagement, this philosophical approach provides a blueprint for a more sustainable trajectory of tourism development in Bali. A holistic understanding facilitated by Ecological Epistemology paves the way for

multifaceted strategies aimed at fostering a balanced coexistence between tourism, culture, the environment, and societal well-being on the enchanting island of Bali.

### 3.1 Over-tourism and its Impact on the Tourism Industry

Over-tourism represents an overwhelming influx of tourists to a destination, leading to a range of adverse effects across diverse sectors (Gössling et al., 2018; Cohen, 2019). This phenomenon transcends mere overcrowding and significantly impacts various dimensions of the tourism industry, including societal, cultural, economic, and environmental aspects.

#### 1. *Gentrification: Socio-spatial Transformations*

Over-tourism often triggers gentrification, leading to socio-spatial transformations within tourist-centric areas (Gössling et al., 2018). As tourists flood specific locales, the demand for accommodations and amenities surges, triggering rising property prices and the displacement of residents. Ecological epistemology aids in understanding the socio-environmental interdependencies within these transformations, unravelling the intricate relationships between urban development, human displacement, and environmental changes in gentrified areas.

#### 2. *Gender Discrimination: Unequal Tourism Dynamics*

Gender discrimination is evident in the tourism industry, affecting both employees and travellers (Connell, 2019). Ecological epistemology sheds light on the gendered aspects of environmental interactions, recognising how societal power dynamics intersect with environmental management. This emphasises the need to explore the gendered impacts of overtourism, including unequal job opportunities, wage disparities, and social norms reinforcing gender roles in tourism-related activities.

#### 3. *Sex-tourism: Ethical and Social Implications*

The darker aspect of sex tourism is exacerbated in over-touristed areas, leading to ethical and social dilemmas (LaPensee, 2017). Ecological epistemology underscores the interconnectedness of cultural practices, human behaviour, and environmental settings. This allows us to analyse how cultural shifts, economic disparities, and environmental pressures contribute to the rise of sex tourism, emphasising the need for ethical and sustainable tourism practices.

#### 4. *Agricultural Suffering: Environmental and Economic Strains*

Over-tourism can significantly impact local agriculture, leading to environmental degradation and economic strain on farming communities (Sigala & Leslie, 2019). Ecological epistemology aids in the understanding of the delicate balance between tourism development and agricultural sustainability. It enables a comprehensive assessment of the ecological impacts of increased tourist footfall on agricultural lands, including soil degradation, water scarcity, and loss of traditional farming practices.

### 3.2 Over-tourism and Its Impact on the Environment

Over-tourism, characterised by excessive tourist activity, exerts profound environmental repercussions that encompass diverse facets, such as land use alterations, air pollution, beach erosion, and biodiversity depletion (Gössling et al., 2018; Cohen, 2019). These environmental changes emblematic of the overbearing influence of tourism activities on fragile ecosystems.

#### 1. *Land Use Changes: Altering Ecological Landscapes*

Over-tourism prompts significant alterations in land use patterns, leading to ecological transformations within tourist-intensive regions (Gössling et al., 2018). Ecological epistemology provides insights into the interconnectedness between human activities and environmental changes, facilitating the examination of how land-use alterations impact ecosystems. This underscores the need to assess the ecological consequences of land conversion for tourist infrastructure and urbanisation on biodiversity, soil quality, and landscape integrity.

#### 2. *Air Pollution: Environmental and Human Health Concerns*

The escalation of tourist-related activities often contributes to increased air pollution levels at destinations (Cohen, 2019). Ecological epistemology emphasizes the interdependence between human actions and the environment, enabling an analysis of how tourist-driven emissions affect the air quality and ecosystems. This underscores the importance of mitigating air pollution to preserve ecological balance and safeguard human health in tourism-affected areas.

#### 3. *Beach and Coastal Erosion: Vulnerability of Coastal Zones*

Over-tourism aggravates beach and coastal erosion due to increased foot traffic, infrastructure development, and improper waste disposal (Gössling et al., 2018). Ecological epistemology allows the examination of the complex relationships between human interventions, coastal dynamics, and ecosystem

resilience. This highlights the need for sustainable coastal management strategies to mitigate erosion risks, preserve coastal biodiversity, and protect vulnerable ecosystems.

#### 4. *Biodiversity Loss: Impacts on Ecosystem Health*

The influx of tourists can lead to significant biodiversity loss in ecologically sensitive areas (Cohen, 2019). Ecological epistemology underscores the intricate connections between human activities and biodiversity, emphasising the need to understand how over-tourism affects species abundance, habitat degradation, and ecosystem functioning. It emphasises conservation efforts, ecological restoration, and sustainable tourism practices to mitigate biodiversity decline.

Based on this exploration, it can be concluded that the environmental impact of over-tourism encompasses diverse dimensions, spanning land use alterations, air pollution, coastal erosion, and biodiversity loss. Ecological epistemology provides a comprehensive lens through which to understand these environmental changes, emphasising the interconnectedness between human actions, environmental dynamics, and ecosystem health. By recognising these relationships, ecological epistemology aids in devising sustainable tourism strategies that prioritise environmental conservation, ecosystem resilience, and the long-term well-being of destinations.

### 3.3 Over-tourism and Its Impact on the Local Community

Over-tourism, marked by an excessive influx of tourists, engenders multifaceted effects on local communities, including the loss of local identity, cultural erosion, and overcrowding (Gössling et al., 2018; Gössling et al., 2020). These impacts disrupt the sociocultural fabric, posing challenges to community resilience and cultural sustainability.

#### 1. *Loss of Local Identity: Socio-cultural Transformations*

Over-tourism often leads to the dilution of local identity as communities adapt to cater to tourist expectations (Gössling et al., 2018). Ecological epistemology highlights the interconnectedness between cultural heritage sites and their environmental settings. It facilitates an understanding of how human actions influence cultural landscapes, emphasising the need to preserve local authenticity amidst tourism-driven transformations.

#### 2. *Cultural Erosion: Challenges to Traditions*

The pressure of mass tourism often results in cultural erosion, which alters the traditional practices and values within local communities (Gössling et al., 2020). Ecological epistemology emphasises the interplay between human behaviour, cultural norms, and environmental contexts. This enables an analysis of how overtourism disrupts cultural continuity, emphasising the need to protect indigenous knowledge and traditions in tourism-affected areas.

#### 3. *Overcrowding: Societal Pressures and Challenges*

Over-tourism exacerbates overcrowding in communities, leading to social disruptions and challenges in resource allocation (Gössling et al., 2018). Ecological epistemology allows for an exploration of societal dynamics within environmental settings. It facilitates an examination of how overcrowding impacts community well-being, stressing the importance of sustainable tourism practices to mitigate the adverse effects of excessive numbers of tourists.

In conclusion, over-tourism significantly impacts local communities by eroding identity, undermining cultural heritage, and imposing societal pressures through overcrowding. Ecological epistemology offers a lens for understanding the intricate relationships between human actions, cultural dynamics, and environmental contexts. Recognising these relationships provides insights crucial for preserving local identities, safeguarding cultural heritage, and fostering community sustainability amidst the challenges posed by over-tourism.

## 4. Cybernetic Epistemology

### 4.1. Rethinking and Adapting to Changes through Cybernetic Epistemology

To rethink the environmental issues regarding over-tourism in Bali. This research uses the cybernetics epistemology approach because more than mainstream epistemology is needed to investigate the case holistically. The definition is taken from cybernetics, the closest meaning to circular feedback, such as feedback. In terms of epistemology, cybernetic epistemology emphasises the bidirectional notion of experience in the interaction between subject and object. The subject is not the only active agent who

perceives objects to gain knowledge. Despite this, objects such as the environment are dynamic and need to be recognised simultaneously. Moreover, this also affects the entire interaction with the subject owing to the circular feedback process. Consequently, the process could provide a more holistic view of obtaining knowledge from reality.

The second-order discipline, particularly cybernetic epistemology, plays a role in a more extensive understanding of the understanding process itself. The principle is to investigate the method used for the research. It also focuses on autonomy, self-organisation, cognition, and the role of the observer and reduces the metaphoric mechanism that is commonly used in the first order.

The core notion is the insight that no knowledge can be considered complete without including a description of the knower. That is, knowledge and knowers, observations and observers, thoughts and thinking are in a recursive loop—the process of knowledge generation is inextricably linked to the actual knowledge produced (Miller, 2014, p. 17). By doing so, it could shift to a new way of perceiving that leads to understanding the system. This enables us to gain the objective and subjective meaning that occurs in the system. Both perspectives are required to perpetuate complexity and subtlety.

Integration between subject and object diminishes dichotomy and transforms to unified as a knowledge of potential interaction also known as “knowledge as practice”. Potential practical effects can be found as habits in our daily lives. To have meaning, it should contain practical effects because this will make a difference to the organism and environment. Knowledge is not merely perceived; beyond that, knowledge can solve and preserve issues that happen in the surroundings.

The process of cybernetic epistemology also highlights the experiential holism that lives in a situation. It refers to John Dewey’s pragmatism, which consists of four criteria:

1. Provide purpose: An action should have unity and coherence in an experienced situation. The intention is to determine the unique meaning of each datum.
2. Provide meaning: relation between a sign, an object, and an interpretant
3. Resources for analysis: Observable things that occurred were analysed from the action of the agent and environment.
4. The possible result becomes intelligible: after integration, part of the subject and object as a whole then convert to the experience of the situation.

The result of a situation that comes from the interaction between the subject and object is not the foundation or starting point. Instead, the parts that emerge in certain situations are epistemologically basic. In addition, only some situations are epistemic because epistemic activity is highly specialised for obtaining meaning. However, habits enable us to lay down ends to achieve unity and coherence in a situation.

Reflecting on Bali’s over-tourism with cybernetic epistemology, it can be said that when confronted with this problem, we should observe it holistically and thoroughly. If we formulate the agent as a Bali citizen and the environment as Bali, we might understand the interaction that emerged in this context. Using this approach, we can understand the case more profoundly and suitably. This allows us to know that there are bidirectional when analysing agents and environments. The agent is also affected by its nature and not vice versa, because the organism is in a large environmental ecosystem.

Hence, this research harnesses cybernetic epistemology to comprehend and adapt to the current challenges in Bali. Considering the dynamics of social mobility, culture, and city development regarding tourism, it is imperative to discern the fundamental cause of the problem to achieve a comprehensive resolution.

## 4.2. Managing The Tourism Industry in a More Sustainable Way

The over-tourism in Bali affects many aspects, from social, and cultural, to the environment. In tackling this issue, we can start from the epistemology framework as the first mile. This research attempts to emphasise the importance of harmony between nature and people through cybernetic epistemology. Due to nature, people are always changing from time to time. Hence, there is no sophisticated solution to tackle over-tourism in Bali.

Nevertheless, this research could investigate and conduct experimentation to obtain a holistic view regarding the over-tourism problem in Bali. Utilise Pierce’s Belief-Doubt model as a framework for managing tourism more sustainably. The first stage was abduction. In the beginning, there was a new formation of nehabitsit in parallel with the introduction of a new hypothesis to explain why the previous reason failed. Here, in the context of Bali is glorifying economic development that leads to over-tourism. The second stage is called the pragmatic maxim. At this stage, the observer obtains the potential practical effects of the hypothesis that can be applied. This research proposes *Tri Hita Karana* (Bali’s local wisdom) as the pragmatic maxim. The notion is assumed that awakening local wisdom that aligns with society and



environment-based context could bring relevant meaning and practice it in everyday life. The last stage is induction. This consists of fieldwork and experimentation in the real world. It could happen when the beliefs guide desire and transform it into an action. After establishing *Tri Hita Karana*, the agent can explore through experience experimentation to take action that aligns with local wisdom to many aspects in creating harmony and sustainable tourism. All these stages examine variables to learn more about recent interactions that occur in the experience of interaction. Besides, epistemic value also contains objective ontology that might change over time.

### 4.3. The Role of Moral Being in Protecting the Environment

After obtaining certain knowledge, subjects also have moral implications for implementing what they know. The interaction that occurs between an agent and an object is essential. The pragmatic maxim also becomes a guide to a subject to act based on meaningful beliefs. The ability of means to end (habits) also has a role as an active means, and instruments of the surroundings become passive means.

The dynamic equilibrium of interaction between an organism and the environment generates harmony. As a subject, after gaining meaningful knowledge, it is also necessary to become a moral agent that practices meaningful action based on beliefs. By doing this, it also extends the interrelation between organisms and the environment.

## 5 *Tri Hita Karana*

### 5.1 *Tri Hita Karana*: A Moral Compass for Navigating Over-Tourism in Bali

This chapter explores the interplay between the ancient Hindu philosophical concept of *Tri Hita Karana* and the modern issue of over-tourism in Bali. *Tri Hita Karana*, emphasizing harmony among humans, nature, and the divine, provides a moral foundation to understand and address over-tourism. We will delve into the characteristics of *Tri Hita Karana*, its moral principles, and how it can guide ethical decisions, particularly in the context of over-tourism. Furthermore, it explores the integration of *Tri Hita Karana* with ecological and cybernetic epistemologies to foster sustainable tourism.

### 5.2 *Tri Hita Karana*: An In-Depth Exploration

Bali's magnetic charm extends beyond its picturesque landscape, delving into the intricate tapestry of spirituality and cultural richness. At the heart of Balinese philosophy is the profound concept of *Tri Hita Karana*, a term laden with philosophical depth and cultural significance. Rooted in Hinduism, *Tri Hita Karana* serves as a guiding principle that encapsulates the very essence of Balinese existence, emphasizing the intricate interplay between Parahyangan (the divine), Pawongan (the human), and Palemahan (the natural).

### 5.3 Philosophical Foundations: Interconnectedness and Harmony

*Tri Hita Karana*, at its core, embodies a worldview that perceives reality as an intricate web of interconnected elements. Drawing from Hindu cosmology, it is posited that harmony and balance can only be achieved when the divine, human, and natural realms are in equilibrium. *Parahyangan* underscores the relationship between individuals and the divine, highlighting the spiritual dimension of human existence. *Pawongan* emphasises the delicate balance in human relationships, fostering a sense of communal responsibility. Meanwhile, *Palemahan* directs attention to the interconnectedness with the natural world, stressing the need for environmental stewardship.

From an ecological standpoint, *Tri Hita Karana* aligns with ecological principles. The intricate dance between human, divine, and natural forces mirrors the delicate ecological balance required for a sustainable planet. The emphasis on *Palemahan* and its relationship with nature resonates with contemporary ecological discourse, advocating for the responsible stewardship of the environment. *Tri Hita Karana*, therefore, becomes not merely a cultural or religious concept but a resonant ecological philosophy.

In the realm of academic discourse, *Tri Hita Karana* invites interdisciplinary exploration. Philosophers delve into its metaphysical underpinnings, examining how the concept shapes Balinese ethics and worldviews. Environmental scientists scrutinise its ecological implications and question how such traditional wisdom can inform contemporary sustainability efforts. Anthropologists have unravelled its cultural manifestations by exploring how *Tri Hita Karana* influences social structures and community dynamics.

*Tri Hita Karana*, far from being a relic of the past, emerges as a living philosophy with profound implications for both academic inquiry and practical application. Its interdisciplinary nature, blending spirituality, ecology, and ethics, makes it a compelling subject for scholarly exploration. As Bali grapples with the challenges of the modern world, *Tri Hita Karana* stands as a beacon, offering not just cultural guidance but also a holistic worldview with relevance across scientific, philosophical, and academic domains.

#### 5.4 The Disharmony of Over-tourism: A Philosophical Inquiry

The escalating phenomenon of overtourism in Bali raises profound questions about the underlying principles guiding human behaviour and societal choices. At its core, over-tourism epitomises a disharmony that emerges when the pursuit of personal pleasure overrides ancient Balinese wisdom encapsulated in *Tri Hita Karana*. This chapter endeavours to delve into the philosophical underpinnings of the disharmony propagated by over-tourism.

*Tri Hita Karana*, deeply ingrained in Balinese philosophy, accentuates the interconnectedness of Parahyangan, Pawongan, and Palemahan—the divine, human, and natural realms. Over-tourism, by its very nature, disrupts this delicate equilibrium. The skewed focus on personal pleasure neglects the communal responsibility embedded in Pawongan, where a balance in human relationships is pivotal. Furthermore, disregard for Palemahan—its relationship with nature—undermines the ecological ethos inherent in *Tri Hita Karana*. It is here that the philosophical argument against over-tourism finds its foothold.

From a scientific standpoint, the repercussions of over-tourism extend far beyond philosophical discourse. The surge in tourist numbers strains local ecosystems, exacerbating issues such as waste management, resource depletion, and habitat destruction. The disharmony created by over-tourism resonates with ecological imbalances, disrupting the delicate equilibrium upon which ecosystems depend. This scientific perspective fortifies the philosophical argument by providing tangible evidence of the adverse effects of neglecting *Tri Hita Karana*'s principles.

Philosophically, over-tourism presents an ethical dilemma. The unbridled pursuit of personal pleasure, detached from communal and environmental considerations, mirrors an egocentric/hedonistic worldview. *Tri Hita Karana*, in contrast, advocates for a holistic approach to happiness—one that considers the well-being of the community and the environment. The philosophical argument against over-tourism, therefore, rests on the contention that true fulfillment arises from a harmonious existence that extends beyond individual pleasure.

*Tri Hita Karana*, a profound Hindu philosophical concept embedded in Balinese culture, advocates for a holistic approach to happiness. It is not merely about the quantifiable pleasure of an individual but a collective and harmonious existence that intertwines the divine, human, and natural realms.

In essence, the philosophical argument against over-tourism is rooted in the contention that true fulfillment is individual pleasure. *Tri Hita Karana* beckons us to consider the well-being of the community and the environment, weaving a tapestry of happiness that extends beyond personal gratification.

Balinese philosophy posits that genuine happiness arises when one aligns their pursuits with the interconnectedness of *Parahyangan* (divine), *Pawongan* (human), and *Palemahan* (nature).

When over-tourism disrupts this delicate balance, it infringes upon the very fabric of *Tri Hita Karana*, leading to disharmony and ethical concerns.

Therefore, philosophically, the argument against over-tourism is grounded in the idea that an exclusive focus on individual pleasure, divorced from communal and environmental considerations, negates the profound wisdom embedded in *Tri Hita Karana*. It invites reflection on whether our pursuit of happiness, in the context of tourism, should be redefined not as a selfish endeavour but as a harmonious coexistence with the divine, fellow humans, and the natural world. In this redefinition, lies the philosophical foundation for addressing the ethical challenges posed by over-tourism in Bali.

On the practical side, scientifically informed solutions to over-tourism must be intertwined with *Tri Hita Karana*. Sustainable tourism practices align with the ethical framework set by *Tri Hita Karana*, promoting a more balanced interaction between tourists and the environment. These solutions may include eco-friendly tourism initiatives, community-based tourism models, and strict regulations for managing visitor

influxes. By marrying scientific approaches with *Tri Hita Karana's* wisdom, Bali can strive towards an equilibrium that safeguards its cultural heritage and natural splendour.

In conclusion, the disharmony posed by over-tourism in Bali unravels as both a philosophical challenge and a scientific predicament. *Tri Hita Karana* emerges not merely as a cultural relic but as a profound guide to restoring equilibrium. Philosophical arguments against over-tourism underscore the need for a paradigm shift—an acknowledgement that true joy is found in harmonious coexistence with others and the environment. Scientifically, integrating *Tri Hita Karana* into tourism practices offers a tangible path toward sustainable and ethical solutions. As Bali navigates the complexities of modernity, a return to *Tri Hita Karana's* ancient wisdom could be a compass guiding the island back to a state of balance and harmony.

### 5.5 Dharma, Karma, and Seva: Unraveling the Moral Fabric of *Tri Hita Karana*

*Tri Hita Karana*, deeply embedded in the cultural and spiritual fabric of Bali, stands as a testament to the profound philosophy that governs the island's way of life. At its heart are three interconnected pillars: *Dharma*, *Karma*, and *Seva*, which form a moral foundation that guides individuals toward a harmonious existence with the divine, fellow humans, and the natural world. This section embarks on a philosophical exploration of these concepts within the framework of *Tri Hita Karana*, unravelling their profound implications and relevance to contemporary challenges, particularly the issues posed by over-tourism.

Dharma, originating from Sanskrit, encapsulates the ethical duties and responsibilities that govern human actions. Within the realms of *Tri Hita Karana*, Dharma extends beyond a personal code; it becomes a collective ethos guiding obligations toward the divine, fellow humans, and the environment. The Balinese concept of Dharma aligns with Hindu philosophical notions of duty, as expounded in *Bhagavad Gita*, where Lord Krishna advocates for adherence to righteous duties.

The ethical duty prescribed by *Dharma*, when transposed onto the canvas of over-tourism, beckons a recalibration of the tourist's relationship with the destination. It posits that both locals and the government have an obligation not just to seek personal pleasure, but to do so in a manner that respects the cultural and environmental sanctity of Bali. Thus, the philosophy of *Dharma* acts as a moral compass, navigating tourists away from exploitative practices and guiding them toward a more conscientious engagement with the island.

*Dharma* also manifests uniquely in each *Tri Hita Karana* component. *Dharma Palemahan* develops an intellectual understanding of our responsibility towards nature, transcending mere natural laws. *Dharma Pawongan* cultivates emotional intelligence, fostering empathy and cooperation. *Dharma Parahyangan* nurtures religious and spiritual awareness, promoting devotion and reverence. Together, they provide a comprehensive moral compass for navigating every aspect of our lives, including tourism.

Furthermore, *Tri Hita Karana* focuses on how true ethical responsibility arises not from adherence to external rules but from the individual's authentic choices. In the context of over-tourism, Dharma challenges tourists to authentically consider the consequences of their actions, fostering a sense of responsibility beyond mere compliance with rules.

Karma, intricately entwined with Dharma, introduced the philosophical dimension of cause and effect into *Tri Hita Karana*. This concept posits that every action, whether positive or negative, generates consequences that reverberate through an interconnected web of existence. In the ecological philosophy of deep ecology, advanced by Arne Naess (1973, as cited in Rothenberg, 2012, p. 738), one finds echoes of Karma's interconnectedness, emphasising the intrinsic value of all living forms.

Applied to the context of over-tourism, Karma serves as a poignant reminder that the consequences of individual actions extend beyond the traveller to the collective impact of the tourism industry. A systems thinking approach, as advocated by cybernetic epistemology, allows us to perceive the intricate relationships and feedback loops that amplify the consequences of over-tourism on Bali's environment and culture.

Existentially, *Karma* posits that individuals are not only responsible for their actions but also for the collective consequences. This existential responsibility, when applied to over-tourism, urges us to reflect not only on the immediate gratification of our desires but also on the broader implications for the destination and its inhabitants.

*Seva*, a principle resonating within Hindu philosophy, embodies the concept of selfless services rendered without the expectation of personal gain. Within *Tri Hita Karana*, *Seva* emerges as a guiding principle for harmonious living, encouraging individuals to act altruistically towards the welfare of others and the community.

The application of *Seva* to the discourse on over-tourism challenges the prevalent consumerist paradigm and encourages a shift toward a more altruistic engagement with the host community. *Seva* contends that

genuine ethical responsibility arises from a selfless engagement with others. In the context of tourism, *Seva* urges us to move beyond a transactional approach and actively seek ways to contribute to the welfare of the local community.

### 5.6 *Tri Hita Karana* as a Living Moral Doctrine

*Tri Hita Karana*, through the interplay of *Dharma*, *Karma*, and *Seva*, transcends its role as a cultural ethos and emerges as a living moral doctrine. This dynamic framework evolves with the changing needs of society, adapting to contemporary challenges such as over-tourism. It underlines that ethical principles should not be stagnant but should adapt to the evolving needs of society and finds resonance in the adaptive nature of *Tri Hita Karana*.

In essence, *Tri Hita Karana* serves not as a rigid set of rules but as a dynamic moral tapestry that responds to the ethical imperatives of the times. The fusion of *Dharma*, *Karma*, and *Seva* creates a holistic philosophy that offers profound insights for addressing the challenges posed by over-tourism in Bali.

In conclusion, the interconnected concepts of *Dharma*, *Karma*, and *Seva* within *Tri Hita Karana* provide a nuanced philosophical framework for addressing the ethical challenges of over-tourism. *Dharma* guides tourists to recognise their obligations beyond personal pleasure, *Karma* underscores the interconnected consequences of their actions, and *Seva* inspires selfless services for the well-being of all.

The application of these concepts involves a transformative shift in the mindset of tourists, industry stakeholders, and policymakers. It calls for an authentic examination of individual responsibilities and a collective commitment to fostering a tourism landscape that respects the delicate balance advocated by *Tri Hita Karana*.

As Bali grapples with the impacts of over-tourism, *Tri Hita Karana*'s profound philosophy stands as a beacon, offering not only a cultural guide but also a moral compass for navigating the complex terrain of contemporary tourism challenges. In the synthesis of duty, consequence, and selfless services, *Tri Hita Karana* invites us to reflect on our role as custodians of the planet and architects of a harmonious existence for generations to come.

## 6 Ecological and Cybernetic Epistemologies: A Harmonious Integration with *Tri Hita Karana*

In this part of the research, we will delve into the philosophy of *Tri Hita Karana* and its synergies with ecological and cybernetic epistemologies. It explores how this integration can provide a holistic framework for understanding and mitigating the challenges posed by over-tourism in Bali.

*Tri Hita Karana*, deeply rooted in Balinese culture, propounds the interconnectedness of *Parahyangan* (divine), *Pawongan* (human), and *Palemahan* (nature). Each facet represents a sphere of existence that fosters a thriving and sustainable way of life in harmonious balance. *Tri Hita Karana*, therefore, serves as an ethical blueprint, guiding individuals toward a life that transcends mere material pursuits, emphasizing respect for the divine, harmony with fellow humans, and a balanced coexistence with nature.

In the face of over-tourism, the Balinese philosophy becomes a poignant reminder that our actions should be guided by ethical considerations, transcending the transient pleasures of unchecked tourism. The principles of *Dharma*, *Karma*, and *Seva* provide a moral compass, urging individuals to acknowledge their responsibilities not only to themselves but also to the communities and environments they engage with.

That is why ecological epistemology rooted in the understanding of interconnectedness and interdependence aligns seamlessly with the *Palemahan* aspect of *Tri Hita Karana*. This philosophical perspective emphasises the intricate web of relationships that binds all living things, asserting that true knowledge comes from recognising and respecting these connections.

In the context of over-tourism, ecological epistemology encourages us to view Bali as an ecological system in which the well-being of one component is intricately tied to the well-being of the whole. It posits that humans are not conquerors of the land but plain members and citizens of it. Applied to Bali, this perspective challenges the exploitative mindset that often accompanies over-tourism and urges a shift toward a more sustainable and respectful engagement with the island.

Moreover, ecological epistemology emphasises the intrinsic value of all living forms. In the context of Bali, this philosophy calls for an understanding that the island's cultural and natural richness is not merely a resource for consumption, but a tapestry of life that deserves reverence and protection.

Cybernetic epistemology, on the other hand, introduces the concepts of feedback and adaptation into our understanding of knowledge. It posits that systems, including social and environmental systems, are dynamic and constantly evolving. Applied to *Tri Hita Karana*, cybernetics reinforces the idea that the ethical principles guiding Balinese life should not be static but adaptive and capable of responding to the evolving needs and challenges of the community.

In the realm of over-tourism, cybernetic epistemology urges a constant feedback loop wherein the impacts of tourism are continually assessed and strategies are adapted to mitigate negative consequences, suggesting that the mind should be understood as a systemic, interactive process. Similarly, the management of tourism in Bali should be approached as an evolving and interactive process, responsive to feedback from the environment, the local community, and tourists.

The integration of *Tri Hita Karana* with ecological and cybernetic epistemologies creates a comprehensive framework for understanding and addressing over-tourism. At its core, it involves recognising the interconnectedness of humans, nature, and the divine, while incorporating feedback mechanisms to adapt ethical principles to the changing landscape of tourism.

## 7 Conclusion: Navigating Harmony in the Face of Over-tourism

In the complex tapestry of Bali's ecological and cultural landscape, the principles of ecological and cybernetic epistemologies are intertwined seamlessly with the profound wisdom encapsulated in *Tri Hita Karana*. These philosophies provide a holistic and dynamic framework for comprehending and, more importantly, addressing the challenges presented by over-tourism in Bali.

Ecological epistemology serves as a lens through which we recognize the intricate connections between all elements in an ecosystem, humans included. In acknowledging this interconnectedness, we understand that tourism in Bali is not an isolated phenomenon but a thread woven into the broader ecological fabric. The repercussions of over-tourism reverberate beyond the natural environment, impacting the local culture, economy, and overall well-being of Bali's residents. This perspective prompts us to transcend narrow viewpoints and adopt a comprehensive understanding of the consequences of tourism.

In the realm of cybernetic epistemology, the bidirectional interaction between an agent (tourist) and an object (destination) takes centre stage. A meaningful exchange between these entities is the crux of knowledge acquisition. By shifting our perspective to a holistic understanding, cybernetics encourages us to view tourism not as a unidirectional transaction, but as a dynamic, evolving system. By recognising the bidirectional flow of influence between tourists and the destination, we gain insights into the complexities of the tourism ecosystem.

Furthermore, the implementation of practical measures derived from cybernetic insights becomes paramount in steering tourism towards sustainability. Understanding that our actions as tourists have reciprocal effects on a destination underscores the need for adaptive strategies. This bidirectional approach, inherent in cybernetic epistemology, has become a practical tool for steering tourism practices toward a more sustainable and balanced future.

Amidst these philosophical considerations, *Tri Hita Karana* stands as a moral compass that guides ethical decisions in all facets of life, particularly in the domain of tourism. This ancient Balinese wisdom offers practical insights for tourists planning visits to Bali. *Tri Hita Karana* encourages a mindful selection of accommodations, consideration of local cuisines, and thoughtful engagement in activities that respect and honor the local culture and environment.

*Tri Hita Karana's* application extends beyond tourists' individual choices. It prompts collective reflection on the impact of tourism on Bali's environment, culture, and people. By integrating *Tri Hita Karana's* moral foundation into the tourism narrative, we pave the way for conscientious tourism practices that prioritise harmony over-exploitation.

In the synthesis of ecological and cybernetic epistemologies with *Tri Hita Karana's* timeless moral guidance, a comprehensive approach to tackling over-tourism emerges. It is a call for a paradigm shift—a shift from viewing tourism as a one-dimensional transaction to recognising it as a dynamic, bidirectional interaction with profound ethical implications. As we navigate the challenges of over tourism, these philosophies may serve as beacons of wisdom, guiding us toward a future where tourism harmonises with the delicate balance of Bali's ecology, culture, and the well-being of its people.

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