

Master's Degree programme

in Economics, Finance and Sustainability (Sustainable Finance)

Final Thesis

SEP in the **SET**

Exploring the Role of Sufficiency Economy Philosophy in Shaping Sustainability Reporting of Thai Listed Companies

Supervisor

Professor Francesco Scarpa

Graduand

Marina Manti Matriculation Number 898796

Academic Year

2023 / 2024

To the land of smiling people, whose warmth and hospitality reflect the profound interconnectedness of humanity

Tables of Contents

Abstract	7
List of Tables	8
Glossary of Abbreviations	9
Introduction	. 10
Chapter I: Theravada Buddhism	. 12
1.1 The Teaching of the Elders	. 14
Chapter II: Sustainable Development	. 19
2.2 Sustainability and Buddhism	. 22
Chapter III: Focus on Thailand	. 24
3.1 Thailand's commitment to sustainability	. 26
3.2 Sustainability Reporting framework in Thailand	. 30
Chapter IV: Sufficiency Economy Philosophy	. 33
4.1 SEP in practice in the E-San region	. 41
Chapter V: ESG dimension and the SEP	. 43
5.1 Environment	. 43
5.1.1 SEP and Waste	. 47
5.2 Social	. 50
5.2.1 SEP and gender equality	. 51
5.2.2 SEP and Human rights	. 53
5.3 Governance	. 55
5.3.1 SEP and good governance	. 56
Chapter VI: SEP in the SET50	. 61
6.1 To what extent do the business practices of companies listed in the SET50 index reflect the principles of the Sufficiency Economy Philosophy (SEP)?	. 61
6.1.1 Methodology	. 62
6.1.2 Rational behind the choice of the SEP principles	. 73
6.1.2 Results	. 75
6.2 Is there a significant correlation between the adherence and internalisation of the Sufficiency Economy Philosophy (SEP) principles and the ESG scores of companies?	. 79
6.2.1 Results	. 80
6.3 How significantly does alignment with SEP principles impact a company's econom- performance?	nic . 82

6.3.1 Results	84
6.4 Contribution of the analysis	87
6.5 Limitation of the analysis	88
Conclusion	90
Sources	93
Appendix 1. Material topics and metrics according with the Sustainability Reportin	σ
	-
Guide	
• • •	101
Guide	101 104

Abstract

This study explores the intersection of the Sufficiency Economy Philosophy (SEP) and sustainable development, with a particular focus on the business practices of companies listed in the SET50 index and their Environmental, Social, and Governance (ESG) performance. First, we examine how the principles of SEP align with the broader concepts of sustainable development, emphasizing the potential for SEP to contribute to long-term economic, social, and environmental stability. Second, we investigate the extent to which SET50 companies integrate SEP principles into their business practices, providing a comprehensive analysis of their adherence to these sustainability-oriented guidelines. Next, we analyse the correlation between adherence to SEP principles and ESG scores among these companies, aiming to determine whether a commitment to SEP is associated with higher ESG performance. Finally, we explore the relationship between a company's alignment with the principles of the SEP and its corresponding economic performance.

The research reveals a strong correlation between SEP principles and company sustainability disclosures, reflected in an average SEP score of 7.45. However, the correlation between the SEP Score and the S&P ESG Score indicates an average ranking difference of 13 positions, suggesting a notable yet imperfect alignment between the internalization of SEP principles and ESG performance. Additionally, the correlation analysis between SEP scores and various financial performance metrics reveals weak positive correlations with Return on Equity (ROE), Price-to-Earnings (P/E) ratio, and Net Profit among the analysed companies.

These findings contribute to the understanding of how philosophies such as SEP, rooted in traditional values, can influence contemporary corporate sustainability practices and performance metrics.

List of Tables

Table 1. Content Index	64
Table 2. Final Dataset	77
Table 3. ESG Score vs SEP Score	80
Table 4. Correlation with Economic Performance	86

Glossary of Abbreviations

Definition	Acronyms	
Sufficiency Economy Philosophy	SEP	
Association of Southeast Asian Nations	ASEAN	
Conference of Parties	COP	
Environment, Social and Governance	ESG	
Global Reporting Initiative	GRI	
Gross Domestic Product	GDP	
Human Development Index	HDI	
Millenium Development Goals	MDGs	
Municipal Solid Waste	MSW	
National Economic and Social Development Plan	NESDP	
National Biodiversity Strategy and Action Plan	NBSAP	
Not in Education, Employment or Training	NEET	
Organization for Economic Co-operation and	OFCD	
Development	OECD	
Pollution Control Development	PCD	
Security Exchange Commission	SEC	
Stock Exchange of Thailand	SET	
Sustainability Accounting Standards Board	SASB	
Sustainable Development Goals	SDGs	
United Nation	UNFCCC	
United Nation Conference on Trade and	LINICTAD	
Development	UNCTAD	
Universal Declaration of Human Rights	UDHR	
Universal Health Coverage	UHC	
World Commission on Environment and Development	WCED	

Introduction

Institutional theory acknowledges the role of formal institutions in shaping societal behaviours, suggesting that different formal institutions result in different behavioural patterns. When applied in the sustainable development realm, this means that the level of acceptance and development of the sustainability framework might change in different institutional context. Campbell (2007) notes that "socially responsible behaviour" refers to a sociocultural notion, meaning different things to different people at different times and places (Campbell, 2007).

Even though formal institutions are known to have an impact on behaviour, in so far they create a mandatory framework through legal regulations, little is known about the influence of informal institutions, which usually tend to shape behaviour by providing a meta-cognitive tool.

Following Helmke and Levitsky's definition, informal institutions are socially shared rules, usually unwritten, created, communicated, and enforced outside of officially sanctioned channels (Helmke & Levitsky, 2004).

Institutional theory agree that informal institutions revolve around moral norms, which are culturally informed social structures formed over time within specific societal systems (Thorntonilliam, Ocasio, & Lounsbury, 2015). At the individual level, these moral norms influence people's mindset, governing perceptions of "right or wrong," "good or bad," and "just or unjust" (Helmke & Levitsky, 2004). Rather than enforcing compliance like formal laws, moral norms serve as normative criteria guiding mindful and rightful actions.

If informal institutions can shape behavioural patterns, it is interesting exploring how they contribute to shaping a country's sustainability framework beyond formal regulations.

With over 98% of its population identifying as religious (92.5% Buddhist) in 2021, Thailand provides an ideal context to investigate how the sustainability framework is perceived in a country where religion acts as one of the primary behavioural guides (Statista, 2021).

This research seeks to explore this relationship by addressing a series of distinct research questions. The first question explores how the Sufficiency Economy Philosophy (SEP) aligns with the principles of sustainable development. This inquiry seeks to uncover the

conceptual and practical intersections between SEP, a philosophy rooted in Thai Theravada Buddhism, and the globally recognized principles of sustainable development.

The second question investigates to what extent the business practices of companies listed in the SET50 index reflect the principles of the Sufficiency Economy Philosophy. This involves a thorough analysis of corporate practices, policies, and reporting to determine the practical application of SEP in a business context, focusing on leading Thai companies as represented by the SET50 index.

The third question examines if there is a significant correlation between the adherence and internalization of SEP principles and the ESG scores of companies. This question investigates whether companies that integrate SEP principles into their core operations and culture achieve higher ESG scores.

The fourth research question seeks to explore the relationship between a company's alignment with the principles of the SEP and its corresponding economic performance. Specifically, it aims to assess whether companies that demonstrate a stronger adherence to SEP principles experience tangible economic benefits.

By analysing data to identify any significant relationships, the research aims to provide insights into the effectiveness of SEP as a driver of corporate sustainability performance.

In this research, Chapter I introduces the core principles of Buddhism, with a particular focus on Theravada Buddhism, which is the predominant form practiced in Thailand. Chapter II examines the concept of sustainable development and its alignment with Buddhist teachings. Chapter III offers an overview of Thailand's economic-political situation, while Chapter IV delves into the concept of the Sufficiency Economy Philosophy. Chapter V elucidates the relationship between SEP and the notion of sustainable development, emphasizing how SEP can contribute to the broader development of society. Finally, Chapter VI presents the research questions guiding this study.

Chapter I: Theravada Buddhism

Originating in Southeast Asia between the late 6th century and early 4th century BCE, Buddhism is one of the world's most ancient and significant religions. At the core of its doctrine lies the belief that human existence is a cycle of suffering and rebirth. However, this seemingly pessimistic view is counterbalanced by the optimistic prospect of attaining enlightenment, commonly known as *nirvana*, which offers a means to escape the cycle of suffering and rebirth permanently.

Far from being a purely theoretical or abstract philosophy, Buddhism has been embraced from its inception as a practical and attainable path for understanding and engaging with the world.

Born in what is now southern Nepal, on the northern edge of the Ganges River basin, Siddhartha Gautama, better known as The Buddha (Sanskrit: "Awakened One"), was the first to reach this state of enlightenment. While the exact dates of his birth and death remain the subject of scholarly debate, the majority of experts agree that the historical Buddha lived between the late 6th and early 4th centuries BCE.

The Buddha was born into the ruling Shakya clan¹ and belonged to the *Kshatriya*, or warrior, caste. According to legend, his mother, Maha Maya, experienced a prophetic dream in which an elephant entered her womb. Ten lunar months later, while walking in the garden of Lumbini, she gave birth to her son, who miraculously emerged from beneath her right arm (O'Brien, 2024).

At the age of 16, Siddhartha married Princess Yashodhara, with whom he had a son. After years of living in luxury and opulence, at the age of 29, he had a transformative experience when, during chariot rides beyond the palace walls, he encountered the stark realities of human suffering. This profound realization prompted him to renounce his privileged life and pursue the path of an ascetic in search of liberation from suffering.

For the following six years, Siddhartha studied meditation under various teachers and engaged in extreme self-mortification. However, he eventually realized that such severe asceticism was not the proper path to liberation. Abandoning these practices, he continued

¹ Reason way the Budha is also called Shakyamuni, "the sage of the Shakya clan."

his spiritual journey, and while meditating beneath a tree (later known as the Bodhi Tree), he attained enlightenment.

For the subsequent 45 years, the Buddha travelled throughout northeastern India, disseminating his teachings, establishing monastic orders for monks and nuns, and gaining the support of kings and merchants. He passed away around the age of 80. After his death, his body was cremated, and his relics were enshrined in *stupas*, funerary monuments that became revered sites of veneration.

Information about the Buddha's life is primarily derived from Buddhist texts, the earliest of which were composed several centuries after his death, shortly before the beginning of the Common Era. Much of the teachings attributed to the Buddha were transmitted orally by his disciples, often introduced with the phrase "evam me sutam" ("thus have I heard").

Unlike the Western monotheistic religious traditions, Buddhism does not posit the existence of a supreme deity or god. As a result, it is often described as either atheistic² (in a non-materialistic sense) or nontheistic³. However, Buddhism does acknowledge the existence of supernatural beings known as *devas*, who can either aid or obstruct individuals on their path to enlightenment. These beings, while possessing extraordinary powers, are not considered creators or eternal entities. Like humans, they too are subject to the cycle of rebirth, and unlike the virtuous deities of Greek mythology, *devas* are not necessarily morally superior beings.

In contrast to Christianity, which posits the existence of a singular, supreme being as the creator of the world and reality, Buddhist ontology is rooted in the doctrine of dependent origination. According to this doctrine, all phenomena arise in dependence on other phenomena, and thus, the notion of a primordial, unmoved creator is not recognized.

Buddhist cosmology, moreover, should not be understood as a literal description of the physical structure of the universe. Instead, it reflects a specific way of perceiving reality, often referred to as the perspective of the "divine eye." Within this framework, beings may be reborn into various forms, including devas (heavenly beings), humans, animals, asuras (demons), and pretas (hungry ghosts).

-

² Atheism refers to an absence of belief in the existence of deities.

³ Nontheism is a range of both religious and non-religious attitudes characterized by the absence of espoused belief in the existence of God or gods. Different from atheism, it has generally been used to describe apathy or silence towards the subject of gods.

Rebirth occurs within six realms of existence: three favourable realms (the heavenly, demi-god, and human realms) and three unfavourable ones (the animal, ghost, and hell realms). However, unlike the concept of eternal damnation found in Christianity's depiction of the afterlife in hell, the Buddhist hell is not a permanent state but a temporary one.

Furthermore, while Christianity holds that the world exists independently of human beings (as God is believed to have created the Earth before animals and humans), Buddhism, according with the dependent origination idea, maintains that the world exists only insofar as there are sentient beings who inhabit it. A world comes into existence when the first sentient being is born and ceases to exist when the last being dies. This understanding is closely tied to mental states: while humans and animals may share the same physical environments, they belong to different worlds because their minds perceive and react to those environments in fundamentally distinct ways.

1.1 The Teaching of the Elders

Theravada Buddhism, often referred to as the "Teaching of the Elders", can be considered one of the oldest and most traditional forms of Buddhism since it maintains a close adherence to the original teachings (the *Tipitaka*) and practices of Siddhartha Gautama.

The development of Theravada Buddhism as a distinct school of thought began around the 3rd century BCE during the reign of King Ashoka the Great in India, and after the purification of the *Sangha* (Buddhist community), which was believed to be infested with corrupt monks at that time.

Today, Theravada Buddhism is predominantly practiced in Sri Lanka, Myanmar (Burma), Thailand, Laos, and Cambodia. It also has a significant presence in Malaysia, Indonesia, Bangladesh, and parts of Vietnam.

The main difference between Theravada Buddhism and other forms of Buddhism, such as Mahayana and Vajrayana, lies in its strict adherence to the original teachings and practices. Theravada emphasizes individual enlightenment through one's efforts, meditation, and adherence to the monastic code (*Vinaya*) and it tends to focus on the historical Buddha as the primary teacher and exemplar.

In contrast, Mahayana Buddhism, which developed later, includes a broader array of texts and teachings and emphasizes the role of *bodhisattvas*, enlightened beings who delay

their final enlightenment to help others achieve it. Finally, Vajrayana, or Tibetan Buddhism, incorporates esoteric practices and rituals, including the use of mantras, mudras, and mandalas, and places a strong emphasis on the guidance of spiritual teachers (*lamas*).



1. Wat Pho, also known as the Temple of Reclining Buddha, is a Buddhist temple complex located in Bangkok. Source: Photograph by the author, 2023.

The core idea of Theravada Buddhism centres around the Four Noble Truths (*cattāri ariyasaccāni*), delivered by the Buddha shortly after his awakening and which represent the fundamental principles of the *Dhamma* (the nature).

The first truth asserts that "to live is to suffer", encapsulating the inevitability of encountering pain, frustration, and grief throughout life. This suffering, or dukkha, is an intrinsic part of human existence and encompasses both physical and mental discomfort.

The second truth identifies desire, or *tanha*, as the root cause of suffering. This desire extends beyond mere longing for material possessions; it includes attachment to people, experiences, and even ideas. These attachments are ultimately futile, as everything in life is impermanent and subject to change.

The third truth highlights the possibility of ending suffering by eliminating desire. This requires a profound understanding and acceptance of the impermanent nature of the world. By letting go of attachments and desires, individuals can achieve a state of liberation and inner peace, known as *nirvana*.

The fourth truth outlines the path to overcome desire and attain enlightenment, the *magga*. This path, known as the Noble Eightfold Path, consists of eight interrelated practices necessary to achieve enlightenment and liberation from the cycle of rebirth (*samsara*): Right Understanding, Right Intent, Right Speech, Right Action, Right Livelihood, Right Effort, Right Mindfulness, and Right Concentration. By following this path, individuals can cultivate the wisdom and mental discipline necessary to transcend suffering and achieve spiritual awakening.

Once individuals realize that harmful actions inevitably lead to harmful outcomes, and wholesome actions ultimately lead to beneficial results, they naturally develop a desire to live a skilful, morally upright life. This initial understanding builds confidence, inclining individuals to trust more deeply in the Buddha's teachings.

A person becomes a "Buddhist" upon expressing an inner resolve to "take refuge" in the Triple Gem: the *Buddha* (both the historical Buddha and one's own innate potential for Awakening), the *Dhamma* (both the teachings of the historical Buddha and the ultimate Truth they point to), and the *Sangha* (both the monastic community that has preserved and practiced the teachings since the Buddha's time).

The *Sangha* is a core principle of Buddhism and refers to the Buddhist community comprehending men and woman who follow the teaching of the Buddha. The term *Sangha*, derived from Sanskrit and Pāli and means "collection" or "assemblage", traditionally denotes a group of people living together for a specific purpose.

Over time, it has acquired two distinct referents. Primarily, the term refers to monks and nuns who have renounced worldly life, symbolically referred to as those who have "left home" and "gone into homelessness".

However, the term *Sangha* also possesses a broader connotation. Pāli texts describe the "fourfold" *Sangha*, which encompasses *bhikkhus* (monks), *bhikkhunīs* (nuns), *upāsaka* (laymen), and *upāsikā* (laywomen). Thus, it includes all individuals who follow the teachings of the Buddha.

There are two significant points to consider regarding the composition of the Sangha in this broader sense. First, determining who qualifies as a lay Buddhist can be challenging, especially since Buddhists often engage with other religious systems, such as Daoism in China or Shinto in Japan. Second, while monks, nuns, laymen, and laywomen form the

core of the Sangha, these are not the only positions within it. The Sangha also includes novices (monastics who have taken the lower ordination, committing to ten precepts) and lay postulants (laity who formally follow a specific teacher or adopt one or more of the *panca sila*, the five precepts).

From a practical perspective, Theravada Buddhism is highly traditional, emphasizing the importance of personal effort. This involves the diligent practice of morality (*sila*) and concentration (*samādhi*) to gradually and reliably cultivate wisdom (*panna*).

Theravada Buddhist monks in South-East Asia explored the construction of our world and the coexistence of individual entities in mutual relationships with it (Harvey, 2012). They believe that no entity is entirely free from others and that all individuals are tightly interconnected and interdependent (Rahula, What the Buddha Taught, 1974). Among Buddhist scholars and monks, the concept is formally theorized as dependent co-arising or dependent origination (*Pratītyasamutpada* in Pali).

Like other Buddhists, Theravadins believe that the number of Cosmo is infinite. Moreover, they share the near-universal Buddhist view that the Cosmo inhabited by humankind, like all cosmos, has three planes of existence: the realm of desire (Pali and Sanskrit: *kamaloka*), the lowest of the planes; the realm of material form (Pali and Sanskrit: *rupa-loka*), which is associated with meditational states in which sensuous desire is reduced to a minimum; and the realm of immateriality or formlessness (Pali and Sanskrit: arupa-loka), which is associated with meditational states that are even more exalted (Gethin, 1998).

In Buddhism, individuals are defined by 5 *skandhas*, or aggregates, which make up our individual self or being. These include: *rupa*, materiality; *vedana*, feelings of pleasure or pain or the absence of either; *sanna*, cognitive perception; *sankhara*, mental formations that condition one's psychological activities and *vinnana*, consciousness (Lion's Roar, n.d.).

Theravada Buddhists maintain that understanding the interdependence and functioning of these components, along with the ability to regulate them, is essential for reaching the state of an *arhat*, the worthy one. A person is thus viewed as an aggregate of interconnected elements, governed by the law of karma and subject to the resulting positive or negative consequences. This view rejects the existence of a permanent, metaphysical self or "I," instead positing a temporal psychosomatic aggregate capable of making choices and performing actions that generate consequences (Gethin, 1998).

To help achieving enlightenment, two basic forms of meditation have been practiced in the Theravada tradition.

In close connection with the Hindu tradition of yoga, the Theravadin meditation practice known as *jhanic meditation* follows a path of moral and intellectual purification. Following L. Brasington description, in the initial stage, the meditator seeks to detach from sensual desires and impure mental states through reflective contemplation, ultimately achieving a state of satisfaction and joy. In the second stage, intellectual activity subsides, giving way to a profound inner tranquillity, where the mind experiences "one-pointedness" (focused concentration), accompanied by joy and a pleasant calm.

In the third stage, all emotions, including joy, dissipate, leaving the meditator indifferent to external and internal phenomena. By the fourth stage, even satisfaction, emotional inclination, pain, and serenity are transcended, allowing the meditator to enter a state of supreme purity, indifference, and pure consciousness.

After reaching this fourth stage, where all awareness of form ceases and perception no longer holds sway, the meditator focuses on and rests in the boundlessness of space. By transcending this stage, the meditator contemplates the limitless nature of consciousness and attains it. Progressing further, by concentrating on the absence of all things, the meditator reaches a state of nothingness. Ultimately, the meditator attains the highest state, where perception and non-perception cease to exist altogether (Brasington, 2002).

The second form of Theravada meditation is known as *vipassana* (Pali: "inner vision" or "insight meditation"). This practice demands deep concentration, which cultivates a state of one-pointedness in the mind, enabling the meditator to perceive the fundamental truths of existence: the impermanence of all reality, the pervasive nature of suffering, and the absence of a permanent self (Vipassana Meditation, n.d.).

In Theravada texts both *jhanic* and *vipassana* forms of meditation are recommended and are often combined in various ways.

In the 20th century, there was an increasing emphasis on *vipassana* practices, and *vipassana* meditation movements became extremely important in Asia and among Buddhist groups in the West.

Chapter II: Sustainable Development

In their seminal work *Limits to Growth*, published in 1972, Meadows et al. posited that the trajectories of human population growth, resource consumption, and economic expansion would inevitably exceed the Earth's carrying capacity. This carrying capacity is defined as the maximum number of individuals that the planet can indefinitely sustain given the finite availability of natural resources (Meadows, Dennis, Randers, & III, 1972). They pointed out that the current growth model would result in an overshoot situation, whereby human demands surpass the planet's capacity for regeneration.

From the Seventies, the achievement of the passage from a consumerist economy, based on the culture of having, towards a sustainable economy, has become one of the main goals of every international actor.

After decades of effort in raising living standards conditions, several countries are still handling extreme poverty. It appeared that economic development at the cost of social equity and health did not lead to long-lasting prosperity as was expected. It was necessary to seek out some new ways of harmonization between ecology and prosperity.

In 1987, the World Commission for Environment and Development (WCED) provided a definition of sustainable development that significantly influenced the global political and business agenda. They defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Report of the World Commission on Environment and Development, 1987).

Underneath the definition lie two key concepts. The first is the concept of needs, particularly the essential needs of the world's poor, to which overriding priority should be given. This concept emphasizes that development efforts should first and foremost address the fundamental requirements for a decent standard of living, such as food, clean water, shelter, education, and healthcare.

The second concept refers to the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs. This highlights the constraints placed on the environment's capacity to satisfy current and future needs due to technological and social factors. It underscores the importance of considering ecological boundaries and the sustainability of natural resources. This involves recognizing that the environment has finite resources and capacities, which

necessitates careful management and innovative solutions to ensure that development can be sustained without depleting these resources or causing irreversible damage.

In 2015, a consensus was reached among 195 nations under the auspices of the United Nations (UN) to develop comprehensive guidelines aimed at facilitating transformative global change. These guidelines were intended to support both sovereign states and private entities in their efforts to achieve sustainable development and foster a better world for future generations.

The United Nations has utilized these foundational insights to develop a comprehensive document titled "Transforming our World: the 2030 Agenda for Sustainable Development", commonly referred to as Agenda 2030. The primary premise of this initiative is that sustainability encompasses not only environmental issues but also economic and social dimensions. This perspective underscores the necessity of a multidisciplinary and integrated approach to address significant changes in the socioeconomic paradigm.

The Agenda 2030 delineates 17 Sustainable Development Goals (SDGs), which the UN defines as "the blueprint to achieve a better and more sustainable future for all". These goals are part of a broader action plan that identifies 169 specific targets to be achieved by the year 2030. The formulation of these goals was influenced by the objectives articulated in the UN Resolution (A/RES/66/288) titled "The Future We Want" (United Nations - General Assembly, 2012). This resolution, a non-binding document, was developed following the UN Conference on Sustainable Development held in 2012 and it was intended to supersede the Millennium Development Goals (MDGs), which were originally set to be accomplished by 2015 (United Nations, n.d.).

Both the Millennium Development Goals and the Sustainable Development Goals represent sequential strategies within the global agenda for sustainability. However, they exhibit substantial differences in both their scope and target demographics. The MDGs, comprising eight specific objectives, primarily differentiated their expectations between developed and developing countries, thereby delineating distinct responsibilities and benchmarks for each group. In contrast, the SDGs encompass a broader array of 17 goals and are characterized by their universal applicability. This universal approach signifies an inclusive framework wherein all nations, irrespective of their development status, are equally accountable for the attainment of these goals. Thus, while both frameworks aim

to advance global sustainability, their methodologies and the extent of their inclusiveness diverge markedly. The 17 SDGs are:

- 1. No poverty
- 2. Zero hunger
- 3. Good health and well-being
- 4. Quality education
- 5. Gender equality
- 6. Clean water and sanitation
- 7. Affordable and clean energy
- 8. Decent work and economic growth
- Industry, innovation and infrastructure

- 10. Reduced inequalities
- 11. Sustainable cities and communities
- 12. Responsible consumption and production
- 13. Climate action
- 14. Life below water
- 15. Life on land
- 16. Peace, justice and strong institutions
- 17. Partnership for goals

All the SDGs can be clustered into five groups, which constitute "the five Ps" of sustainable development: People, Planet, Prosperity, Peace and Partnership (European Commission, n.d.).

The objective of the Agenda was to integrate social and economic considerations with environmental concerns, recognizing the necessity of addressing all these aspects through a systematic and synergistic approach to achieve prosperity. This integration facilitated the development of a new definition of progress and well-being, surpassing the traditional metrics of wealth and economic growth typically measured by the Gross Domestic Product (GDP) index.

According to the SDG ranking, which assesses countries based on their overall progress towards achieving the SDGs, Finland ranks the highest with a score of 86.35, while South Sudan is positioned at the bottom with 40.14. In the context of East and South Asia, Thailand leads with a score of 74.67, surpassing even that of the United States, which stands at 74.43 (Jeffrey Sachs, The SDGs and the UN Summit for the Future. Sustainable Development Report 2024, 2024). These results derive from Thailand strong performance in areas such as poverty reduction, education and health.

Thailand's high score underscores the increasing involvement of Southeast Asian countries in the implementation of the global agenda. If more than 50 years ago, sustainable development was not a topic in the agenda of the Association of South East

Asian Nations (ASEAN) countries, today, all then members are committed to achieve the SDGs.

However, despite the progress made in the region, it's unlikely that the Southeast Asian countries will achieve any of the 17 SDGs by 2030 (UN ESCAP, 2020). According to the KMPG report: "The ASEAN way & sustainable development", the two SDGs the most potential to be realised in the region are "quality education" and "industry, innovation and infrastructure" (KPMG, 2021).

2.2 Sustainability and Buddhism

Beginning with the translation of the word *Dharma* (*Dharma* in Pali), which forms the foundational root of the Buddha's teachings and means "sustain", we can elucidate several points of connection between Buddhism and the concept of sustainable development.

Sustainability and Buddhism share a profound interconnection rooted in their fundamental principles and practices. At the heart of Buddhism lies a deep reverence for all forms of life and a recognition of the interconnectedness of existence. This perspective emphasizes the importance of living in harmony with nature and promoting the well-being of all beings, not only in the present but also for future generations.

Central to Buddhist teachings is the concept of "dependent origination", which underscores how every action we take has consequences that ripple through the web of life. This principle encourages practitioners to consider the environmental and ethical implications of their choices, fostering a mindset that values sustainability and responsible stewardship of resources. Buddhism holds that everything derives from the interaction of causes and conditions; therefore, there is no place for an intrinsic, independent "I".

Thai venerable Monk Phra Shakyavongsvisuddhi, Deputy Rector for Foreign Affairs of Thailand, more explicitly stated the principle of dependent co-arising in connecting Buddhism to sustainability (Song, 2020):

"Buddhism sees that everything in this earth is existed nature and it operates according to the law of causality. Human is just part of this natural law of causality. Human beings are part of nature just like any other creatures or environment. [...] Equally, any changes in nature do have direct impact upon

human life both internally and externally as well as on relationship between human and nature."

Moreover, Buddhist ethics, encapsulated in principles such as non-harming (*ahimsa*), compassion (*karuna*), generosity (*dana*) and moderation (*mattannuta*), provide a moral framework that aligns closely with sustainable practices. These principles advocate for equitable and just societies where the well-being of all individuals is considered. By fostering a sense of shared responsibility and community, Buddhism contributes to the social pillars of sustainable development, which seek to reduce inequality and promote social justice.

Additionally, mindfulness (*sati*) and ethical conduct (*sīla*), cornerstones of Buddhist practice, cultivate awareness of the present moment and foster a deeper connection with the natural world. This heightened awareness encourages individuals to appreciate the beauty and fragility of ecosystems, motivating efforts to conserve and protect them for future generations.

Moreover, the concept of right livelihood (*sammā ājīva*), one of the steps of the Noble Eightfold Path, underscores the importance of engaging in work that is ethically sound and environmentally sustainable. This principle encourages individuals to pursue livelihoods that contribute positively to society and the environment, thereby supporting economic sustainability.

After demonstrating the correlation between Buddhist teachings and the international framework of sustainable development, the following chapter delves into the influence of Theravada Buddhism in Thailand on the acceptance and integration of sustainability principles. Specifically, the chapter explores how the Sufficiency Economy Philosophy (SEP), deeply rooted in Theravada Buddhist values, serves as a vehicle for embedding sustainable practices within the Thai socio-economic context.

Chapter III: Focus on Thailand

Renowned for its stunning beaches, delicious cuisine, and bustling cities, the Kingdom of Thailand, situated in Southeast Asia, is a constitutional monarchy characterized by its extensive cultural heritage and notable economic progression.

The monarchy stands as a pivotal institution within Thai society, with the King assuming the role of head of state and embodying national unity. The present monarch, King Maha Vajiralongkorn (Rama X), assumed the throne in 2016 after the demise of his father, King Bhumibol Adulyadej, whose reign extended for seven decades.

Prior to becoming a constitutional monarchy, Thailand was an absolute monarchy until the revolution of 1932. Despite this shift, political power has frequently been dominated by the military, which has seized control through various coups.



2.Historic City of Ayutthaya, founded in 1350, was Thailand's capital before Bangkok. Source: Photograph by the author, 2023.

Unlike many Southeast Asian nations that experienced Western colonization, Siam, known as Thailand since 1939, remained free from European colonial rule. This lack of foreign dominion helps explain the strong preservation of Thai cultural traditions.

In contrast, it's neighbour Vietnam faced both French and American influence, and therefore saw significant changes in its cultural practices. For instance, the adoption of the Latin alphabet and the incorporation of foreign elements into traditional Vietnamese cuisine, such as Bánh Mì, a baguette-based dish, illustrate the lasting impact of colonial and external powers on Vietnamese culture.

Thailand has a population of approximately 70 million people, making it one of the most populous countries in Southeast Asia (Worldometer, 2024). The demographic composition of the region displays notable diversity, characterized predominantly by ethnic Thais alongside substantial populations of Chinese, Malays, and diverse hill tribes.

The official language is Thai, and Buddhism, specifically Theravada Buddhism, is the predominant religion, practiced by around 93% of the population (Statista, 2021).

The country stands as the second-largest economy in Southeast Asia, surpassed only by Indonesia. Characterized by an efficiency-driven framework, Thailand's economic system operates under a mixed model that amalgamates free-market dynamics with substantial governmental intervention (Office of the National Economic and Social Development Council, 2023).

The Thai economy is primarily driven by key sectors such as manufacturing, agriculture, and tourism, with tourism contributing significantly to national revenue due to Thailand's rich natural landscapes, historical sites, and vibrant urban centres. In conjunction with these sectors, substantial and ongoing investments are directed towards strengthening the foundational components essential for sustainable economic growth. These investments focus on improving basic infrastructure, advancing educational systems, aligning labour training programs with industry needs, enhancing labour market efficiency, expanding market capacity, promoting financial market development, and increasing technological readiness across various industries.

Despite ongoing advancements in these areas, Thailand continues to face challenges. The slow pace of efficiency improvements has caused Thailand to lag behind several countries that have attained high-income status. Consequently, Thailand has remained among the upper middle-income countries for an extended period, despite its success in maintaining economic stability. Structural issues, including excessive reliance on foreign countries for capital, technology, production, and exports, as well as limited bargaining power in the global value chain, persist. These factors, combined with limited economic productivity, render the Thai economy vulnerable to changes and hinders its ability to elevate its income level (Yarrow, 2022).

Thailand, despite facing structural challenges, remains well-positioned to seize economic opportunities due to its natural resources and strategic location within Southeast Asia.

The advent of the digital age, with the increase demand for clean energy and electric vehicles (EVs), will create new jobs requiring technological skills (Industry Team, 2024). Thailand, as an automotive hub, is promoting EV production and adoption through various government policies and incentives, though challenges like inadequate charging infrastructure still hinder progress (Uchida, 2022). These circumstances provide Thailand with the opportunity to transform its economic structure by shifting resources from a traditional production base to a future-oriented economy that generates higher value-added and contributes to sustainable development, in line with the approaches and goals of the National Strategy.

Internationally, Thailand maintains a policy of strategic alignment, balancing relations between major powers such as the United States and China. It is a founding member of the Association of Southeast Asian Nations (ASEAN) and plays a proactive role in regional diplomacy and economic cooperation. Additionally, Thailand has been an active participant in various international organizations, including the United Nations, where it contributes to peacekeeping operations and development programs.

Despite Thailand's economic and diplomatic achievements, it continues to grapple with significant internal challenges, primarily related to political instability. The country has experienced frequent changes in government, numerous military coups, and widespread public protests over the past few decades. This instability reflects deep divisions between rural and urban populations, particularly on governance and democratic principles, with urban elites and middle classes often supporting more centralized governance, and rural areas, especially in the north and northeast, having pushed for populist policies that favour their economic interests.

Additionally, the insurgency in Thailand's southern provinces, where ethnic Malay Muslims form the majority, has been a persistent issue, resulting in periodic violence. (Mahmud, 2024).

3.1 Thailand's commitment to sustainability

In recent years, the Thai government has recognized the importance of sustainable development and has integrated it into national policies and strategies.

Thailand has been facing different challenges, prominently including environmental degradation. The accelerated pace of industrialization and urban expansion in Thailand has precipitated significant deforestation, resulting in adverse impacts on biodiversity and amplifying contributions to global climate dynamics (Helal Uddin, 2024).

Moreover, urban centres like Bangkok are beset by pronounced air pollution challenges, exacerbated by persistent issues such as traffic congestion and emissions from industrial activities (Haile, 2024). Concurrently, water pollution stemming from agricultural runoff, industrial effluents, and inadequate wastewater management systems represents a pressing concern, posing substantial risks to both public health and ecological integrity within the nation (Thunn, 2024).

In addition to environmental concern, social issues in Thailand encompass multifaceted challenges that contribute to societal complexities. Foremost among these is income inequality, which persists notably between urban centres and rural locales. These disparities contribute to unequal access to resources such as education and healthcare, with rural populations often at a disadvantage.

Despite efforts like Thailand's Universal Coverage Scheme (UCS), rural areas still face higher healthcare costs, and a shortage of healthcare professionals compared to urban regions, where services are more accessible (Viroj Tangcharoensathien, 2003). This gap exacerbates social inequality, as those in rural areas have fewer opportunities for quality care and financial security from healthcare expenditures.

In education, rural populations face challenges related to infrastructure, teacher quality, and resource allocation, further widening the inequality gap. Financial barriers, limited exposure to career opportunities, and societal stereotypes contribute to lower educational outcomes for students in these regions (Tachachatwanich, 2024).

Additionally, Thailand's large informal labour sector, including workers in industries like street food vending and transportation, operates largely outside formal regulatory frameworks, limiting their access to social protections such as healthcare, pensions, and unemployment benefits. This further complicates efforts to improve social cohesion and protect vulnerable workers in the informal economy.

In response to these challenges, the Thai government has implemented several key policies and initiatives, among which the National Economic and Social Development Plan (NESDP) represents a crucial one. The NESDP represents a series of strategic frameworks aimed at guiding the country's development and planning of all the administrative actions. The thirteen NESDP (2023-2027) specifically emphasized green growth, technological development, sustainable use of natural resources and mitigation of climate disaster (Office of the National Economic and Social Development Council, 2023). The plan includes 13 key milestone:

- Milestone 1: Thailand is a leading country in high-value agricultural produce and processed agricultural products;
- Milestone 2: Thailand is a sustainable quality-oriented tourist destination;
- Milestone 3: Thailand is the world's important electric vehicle manufacturing base;
- Milestone 4: Thailand is a high-value medical and wellness hub;
- Milestone 5: Thailand is the region's key strategic trade, investment and logistics gateway;
- Milestone 6: Thailand is ASEAN's hub for digital and smart electronics industry;
- Milestone 7: Thailand has strong, high-potential and competitive SMEs;
- Milestone 8: Thailand has smart cities as well as safe and livable regions with sustainable growth;
- Milestone 9: Thailand has less intergenerational poverty and adequate,
 appropriate social protection;
- Milestone 10: Thailand is a circular economy and low-carbon society;
- Milestone 11: Thailand Can Mitigate Risks and Impacts of Natural Disaster and Climate Change;
- Milestone 12: Thailand has a high-capability workforce committed to lifelong learning and responsive to future developments;
- Milestone 13: Thailand has a modern, efficient, and responsive public sector.

To date, Thailand has developed four National Biodiversity strategy and Action Plans (NBSAPs), all of which have been integrated into Thailand's NESDP (Office of Natural Resources and Environmental Policy and Planning, 2009). In order to implement the protection and restoration of conservation areas, in 2009 was introduced the National Biodiversity Policy.

Additionally, in 2017 the government has enacted the Environmental Quality Management Plan, which focuses on improving air and water quality, waste management, and conservation of natural resources (Office of Natual Resources and Environmental Policy and Planning, 2017).

The plan identified five main issues:

- 1. Promoting sustainable consumption and production through strategies that target behavioural changes in both producers and consumers;
- 2. Management of waste at source by raising public awareness and fostering a waste-conscious society;
- 3. Promoting environmentally sustainable cities;
- 4. Strengthening responsiveness to climate change;
- 5. Organizational management of the Department of Environmental Quality Promotion.

To mitigate social inequalities, Thailand has implemented various policies aimed at improving education, healthcare, and social welfare. As previously mentioned, a notable initiative is the Universal Health Coverage (UHC) scheme, introduced in 2002, which strives to ensure affordable healthcare for all citizens and led to significant improvements in public health outcomes.

A significant advancement in addressing social challenges occurred on June 18, 2024, when Thailand became the first Southeast Asian nation to legalize same-sex marriage. This landmark decision represents a critical step towards equality and the recognition of LGBTQ+ rights within the region.

Thailand's dedication to sustainable development is evident through its active participation in international agreements and organizations, notably the Paris Agreement. In alignment with the Paris Agreement's objectives, Thailand has committed to peaking its greenhouse gas emissions by 2030, with an ambitious goal of achieving net-zero emissions in the latter half of the 21st century and carbon neutrality by 2065. To realize these objectives, Thailand emphasizes the necessity for augmented international cooperation and support, specifically in the realms of finance, technology transfer, and capacity-building (Ministry of natural resources and environment, 2021).

Furthermore, the Royal Thai Government signed the United Nations Sustainable Development Cooperation Framework 2022-2026 in January 2022, marking a significant commitment to aligning national policies with global sustainable development targets.

According to the Sustainable Development Report 2024, which evaluates countries' progress towards achieving the Sustainable Development Goals, Thailand is ranked 45rd out of 166 countries (Jeffrey Sachs, The SDGs and the UN Summit for the Future. Sustainable Development Report 2024, 2024). Thailand's SDG ranking reflects the country's notable efforts and achievements in several areas, particularly in SDG 1 (No Poverty) and SDG 4 (Quality Education).

The country has made significant progress in reducing poverty through targeted social programs and expanding access to education. However, challenges remain in other areas, such as SDG 2 (Zero Hunger), where issues related to food security and nutrition persist. In particular, Thailand has seen a significant increase in both the number of children under 5 years of age suffering from stunting and the prevalence of obesity (BMI >30) among the adult population. These trends highlight key challenges in SDG 2, as malnutrition persists in multiple forms (Jeffrey Sachs, Sustainable Development Report 2024 Thailand, 2024).

Environmental sustainability also presents hurdles for Thailand, especially in SDG 14 (Life Below Water), due to unsustainable practices within the fishing industry, which have led to overfishing and damage to marine ecosystems. In SDG 15 (Life on Land), the country struggles with managing biodiversity and combating deforestation, which threaten critical ecosystems and wildlife habitats.

In addition to environmental concerns, ongoing issues in SDG 16 (Peace, Justice, and Strong Institutions) include limitations in press freedom, restricted access to affordable justice, and delays in administrative proceedings. These factors point to the need for governance reforms to enhance transparency, strengthen institutions, and ensure equitable legal processes, all of which are crucial for Thailand's continued progress on the SDGs.

3.2 Sustainability Reporting framework in Thailand

In 2022, the Thailand Securities and Exchange Commission (SEC) mandated listed companies to include comprehensive sustainability-related information in their "Form 56-1 One Report" (The Securities and Exchange Commission, 2021). This directive

stipulates that, as per the Annual Report Form 56-1, Section 3, companies must furnish comprehensive disclosures encompassing several critical dimensions of sustainability.

The first aspect of disclosure pertains to the company's sustainable management policy and objectives. This encompasses how sustainability principles are integrated into the overarching business strategy and growth trajectory.

Considerations should extend to corporate governance, environmental and social issues, as well as both short-term and long-term objectives.

Secondly, companies must detail their management of impacts within the business value chain, elucidating the characteristics of this chain, the effects of their activities on stakeholders, and the strategies employed to meet their expectations.

Thirdly, environmental sustainability management necessitates reporting on policies, guidelines, and operational outcomes relating to environmental sustainability. This includes commitments to waste reduction, transitions to renewable energy, and short-term or long-term environmental management objectives. Additionally, detailed action plans, results, and outcomes concerning the company's environmental footprint, including greenhouse gas emissions, must be disclosed as material information.

Lastly, social sustainability management entails disclosing policies, guidelines, and objectives concerning fair labour practices, human rights, community engagement, and responsible production methods.

In the event of non-compliance by a company, the sustainability report must include clarifications, explanations, and future preventive measures to be implemented by the company. If a company lacks sufficient or complete information, it is required to disclose "have not prepared".

In order to enrich the information of the document, the Form 56-1 suggests companies to report according with the Global Reporting Initiative (GRI) Standards.

To support the sustainability reporting framework, and to help companies enhance their reports with a standardize approach, the Stock Exchange of Thailand (SET) published a Sustainability Reporting Guide.

According to the Guide, companies should adhere to the sustainability reporting principles outlined below (The Stock Exchange of Thailand, 2019):

- 1. The information reported should be material;
- 2. The information reported are updated regularly;
- 3. The information are accurate, complete and impartial;
- 4. Companies should present quantitative information.

Based on the material topics specified in international sustainability standards such as GRI and Sustainability Accounting Standards Board (SASB), the SET has identified the ESG + Economic topics, and respective metrics, that companies are required to report on.⁴

⁴ Further information on the material topic and respective metrics in the Appendix 1: Material topics and metrics according with the Sustainability Reporting Guide.

Chapter IV: Sufficiency Economy Philosophy

A discussion of sustainable development in Thailand is inextricably linked to the Sufficiency Economy Philosophy, a framework deeply rooted in Buddhist principles.

In the 1990s, Thailand pursued rapid economic expansion with ambitions to join the ranks of the "Asian Tigers." However, in 1997, the Southeast Asian region experienced a significant financial and economic crisis, which was triggered by unsustainable consumer spending and excessive corporate borrowing. Thailand, with its high levels of foreign debt and speculative investments, was the first country to be severely impacted by the crisis, marking the beginning of what became known as the Asian Financial Crisis.

In response to the economic downturn, the Thai government introduced the Sufficiency Economy Philosophy (SEP) as a new economic policy, setting the course for the country's future development.

The SEP was officially introduced by Thai King Bhumibol Adulyadej in a royal speech on December the 4th, 1997.⁵ Sufficiency Economy can be defined as:

"A philosophy that stresses the middle path as the overriding principle for appropriate conduct by the populace at all levels. This applies to conduct at the level of the individual, families, and communities, as well as to the choice of a balanced development strategy for the nation so as to modernize in line with the forces of globalization while shielding against inevitable shocks and excesses that arise.

'Sufficiency' means moderation and due consideration in all modes of conduct, as well as the need for sufficient protection from internal and external shocks.

To achieve this, the application of knowledge (reasonableness) with prudence (self-immunity) is essential. In particular, great care is needed in the utilization of untested theories and methodologies for planning and implementation.

-

⁵ It is important to note that the King's words are highly valued by the Thai people, not only because they revere their King, but also because His Majesty has been committed to lifelong learning and continuous development for the well-being of the Thai people (Curry & Sura, 2007).

At the same time, it is essential to strengthen the moral fiber of the nation, so that everyone, particularly political and public officials, technocrats, businessmen and financiers, adhere first and foremost to the principles of honesty and integrity.

In addition, a balanced approach combining patience, perseverance, diligence, wisdom and prudence is indispensable to cope appropriately with the critical challenges arising from extensive and rapid socio-economic, environmental and cultural changes occurring as a result of globalization" (Sufficiency Economy Organisation, 1999).

His Majesty the King Bhumibol Adulyadej, also elaborated on the meaning of self-sufficiency:

"Having enough to live on and to live for means self-sufficiency. If everybody has enough to live on and to live for, that is good. And if the whole nation reaches that status, that is even better... Formerly, Thailand had enough to live on and to live for... Self-Sufficiency, in English, means that whatever we produce, we have enough for our own use. We do not have to borrow from other people. We can rely on ourselves; as people say, we can stand on our own legs.

But self-sufficiency carries a broader meaning. It means having enough and being satisfied with the situation. If people are satisfied with their needs, they will be less greedy. With less greed, they will cause less trouble to other people... If any country values this idea: the idea of doing just to have enough, which means being satisfied at a moderate level, being honest and not being greedy, its people will be happy... Being self-sufficient does not restrict people from having a lot, or possessing luxurious items, but it implies that one must not take advantage of others. Everything must be within limits" (The Chaipattana Foundation Journal, 1999).

Initially conceived as a national economic policy, the Sufficiency Economy Philosophy quickly evolved into a fundamental framework influencing both public and private sectors within Thai context.

The significance of this approach was underscored during the United Nations Conference on Trade and Development (UNCTAD), where His Majesty King Bhumibol Adulyadej was recognized as the "Developer King", reflecting the global acknowledgement of his

contributions in environmental conservations and development of rural areas (UN News, 2006).

When the SEP was introduced to Thai society, it was met with widespread approval by the population. Numerous scholars attribute this favourable reception to the deeply rooted Buddhist beliefs prevalent among the Thai populace. These scholars argue that the principles of SEP closely align with traditional Buddhist values, which emphasize moderation, ethical conduct, and mindful living (O'Sullivan & Pisalyaput, 2015).

As we can deduct from the speech reported above, the Buddhist idea of the middle path finds references in the SEP through three different practical principles, which constitute the three primary elements of the SEP:

- 1. Moderation
- 2. Reasonableness (Application of knowledge)
- 3. Self-immunity (Prudence)

The concept of *moderation* in the Sufficiency Economy Philosophy is rooted in the Buddhist principle of the middle path, which is a fundamental moral precept in daily Buddhist practice and serves as a normative criterion in various aspects of Thai society (Song, 2020) (Pisalyaput, 2015).

Historically, most local communities in Thailand have been centred around Buddhist temples. Within these communities, individuals practice the middle path through various meditative methods aimed at reducing desire, self-interest, and overindulgence, while promoting appropriate consumption and satisfaction. This practice is often observed when community members and Buddhist monks together strive to realize that the notion of self-interest is illusory (Keown, 1991).

Theoretically, practitioners attempt to deconstruct the self-concept through meditation by dissolving the linguistic and cognitive boundaries between the self and other entities (Rahula, What the Buddha taught, 1974). This deconstruction of the self-concept elucidates the moderation element of the SEP, as it diminishes the egoistic tendencies to exploit public resources excessively.

Buddhist scholars argue that dissolving the boundaries between the self and the world challenges the utilitarian economic approach, which posits that maximizing individual utility alone ensures happiness. From a Buddhist perspective, an individual's utility is

inseparable from that of others. Thus, the first element of the SEP, moderation, is understood as a product of meditative practice and the realization of "non-self".

Empirical research highlights moderation as a core philosophical vision adopted by Thai firms to achieve both financial and socioecological sustainability. For instance, Kantabutra's analysis of 112 Thai firms reveals that moderation is one of the five highlevel elements of sustainable practices based on the SEP framework (Katanabutra, 2011).

Similarly, Kantabutra's (2014) analysis of 294 Thai firms finds that adopting the moderation principle leads to corporate sustainability in Thailand (Kantabutra, Measuring corporate sustainability: A Thai approach, 2014). The notion of moderation is thus reflected in and adopted by Thai firms as a substantive corporate code of conduct, helping them to achieve financial and socioecological sustainability.

The second element of the SEP framework, *reasonableness*, elucidates the interconnectedness between the self and the world. This principle posits that individuals must understand how their actions can impact even unseen entities and eventually return to themselves through a cyclical process. Overindulgence by one individual is inevitably linked to the suffering of others and, through a long-term cyclical mechanism, to the suffering of the individual. In Buddhism, this cyclical thinking is encapsulated in the concept of Karma (*Kamma* in Pali).

Karma, literally meaning a deed or action intended to occur, also signifies the outcome of that action, which influences an individual's future happiness or suffering. According to the Buddhist approach, the concept of Karma delineates the relationships among entities, thereby deterring wrongdoing.

Kantabutra's (2019) study on the sustainability practices of Thai small and medium enterprises (SMEs) vividly illustrates how Karma is integrated into management philosophies. The study found that Thai SMEs address sustainability issues, including employee well-being and environmental concerns, as fundamental organizational values (Kantabutra, Achieving corporate sustainability: Toward a practical theory, 2019). In this context, Karma plays a pivotal role in shaping the human resource management strategies of these SMEs.

For instance, a director of Dhanabadee Ceramic, a Thai SME interviewed by the authors, stated, "We don't lay off employees because we regard everyone as a partner. Everyone

should not be put in trouble. When we are happy, we are happy together. When we are in difficulty, we try to help each other" (Kantabutra, 2019). This statement underscores the role of Karma in fostering a collaborative and supportive work environment.

The third component of the SEP is termed *self-immunity*, signifying the capacity of individuals and organizations to shield themselves from external disruptions and shocks. This concept is particularly pertinent to the sustainability of rural economies in Thailand, fostering resilience among local communities to effectively respond to external shocks and swiftly restore equilibrium.

From a Buddhist perspective, self-immunity arises from the cultivation of mindfulness and the understanding of Karma (Gunaratana, 2002) (Kabat-Zinn, 1982). While Karma offers a worldview, mindfulness is a daily practice enabling meditation practitioners to perceive new stimuli in non-routine ways, thus enabling prompt responses to external threats and risks. Mindful individuals are adept at recognizing abnormal environmental and social changes swiftly and decisively and assigning appropriate meanings to them (Purser, 2015).

By measuring 14 questionnaires, Kantabutra (2019b) illustrated how Thai social enterprises cultivate "prudence (self-immunity)", operationalized as "resilience development," with positive correlations to socioeconomic performance.

In general, the principle of self-reliance in the SEP, encompasses five dimensions:

- 1. State of Mind: Cultivating strength, self-reliance, compassion, and adaptability;
- 2. Social Affairs: Promoting mutual assistance, community strengthening, unity maintenance, and fostering a learning culture based on a stable foundation;
- 3. Natural Resource and Environmental Management: Efficient and careful utilization of national resources to sustainably benefit and progressively develop the nation's stability;
- 4. Technology: Appropriately utilizing technological advancements while encouraging innovations rooted in local wisdom;
- 5. Economic Affairs: Increasing income, reducing expenditure, and striving for a dignified standard of living (Moore, 2019).

These aspects collectively reflect Thailand's commitment to embedding self-reliance and sustainability principles into its socio-economic fabric.

According to the SEP, to achieve a robust and sustainable economy, two fundamental conditions must be met: knowledge and morality (O'Sullivan & Pisalyaput, 2015).

Knowledge pertains to the comprehensive understanding of academic methodologies and the capability to integrate and apply this knowledge judiciously in both planning and implementation processes.

Morality, on the other hand, encompasses adherence to ethical principles, integrity, patience, perseverance, and the practice of intelligent living.

These two conditions are interdependent, as the effective application of knowledge requires a moral foundation to ensure that decisions and actions are guided by ethical considerations and contribute to the greater good.

For sufficiency to be realized, individuals must utilize their knowledge, discretion, and attentiveness to apply various disciplines to their life planning and daily living. Simultaneously, it is crucial to fortify the mentality of all citizens, particularly state officials, theorists, and businesspeople. These groups must embody ethical behaviour, honesty, knowledge, patience, diligence, intelligence, and caution to effectively respond to the rapid and extensive changes in culture, society, and the environment (Camelia Voinea, 2023).

The "3 Pillars, 2 Conditions" framework facilitates the balanced, stable, and sustainable development of the economy, society, culture, and natural resource management (Office of the National Economic and Social Development Board, 2007).

The Sufficiency Economy has the potential to alleviate poverty and reduce the economic vulnerability of the poor by promoting moderation in consumption and reasonableness in decision-making regarding consumption and borrowing. It can also drive community empowerment and strengthen the local economy by encouraging communities to collaboratively pursue optimal production goals. For example, the King's initiative in the Sufficiency Economy program has enabled various local communities to specialize in certain agricultural products and trade with their neighbours (UNESCO - ESCO, 2013).

Furthermore, the Sufficiency Economy is crucial for improving governance standards in public administration by reducing the greed of government officials, thereby diminishing corruption.

Additionally, it guides for macroeconomic policymaking to protect a country from economic shocks and to develop strategies for more equitable and sustainable growth, with self-immunity playing a key role in minimizing adverse side effects (Keyes, Hart, & Ruangtorsak, 2007).

Since it's chaired the G-77 in 2016, Thailand is promoting the SEP as a development model to the international community, especially in country such as Cambodia, Indonesia, Timor-Leste and Tonga.



3. Sufficiency economy philosophy for sustainable development goals of Thailand. Edited by Open Development Thailand (ODT), from TSDF (ODT 2018). Source: Thailand Sustainable Development Foundation, www.tsdf.or.th

The SEP was implemented in various facets of life even before the adoption of the Sustainable Development Goals. As matter of fact, both the SEP and SDGs have been incorporated into Thailand's 20-Year National Strategy Framework and the 12th National Economic and Social Development Plan (2017–2021). Consequently, the plans and budgets of all government agencies have been aligned with the principles of SEP and the SDGs.

In particular, the 12th NESDP states that:

"Important development principles in the Twelfth Plan include the "Sufficiency Economy Philosophy", "Sustainable Development", and "Human-Centred

Development", all of which have been included and adhered to in the past Ninth to Eleventh Plans" (Office of the National Economic and Social Development Council, 2016).

It is generally believed that the Sufficiency Economy Philosophy has been implemented primarily theoretically, with little practical application across various levels and sectors, despite efforts by the Thai public sector to adopt and practice it. Specifically, the critics point out that the SEP has only ever been used in local small villages, akin to a "Gandhian economy" ⁶, which has historically relied more on family-run and small-scale businesses than on the national economy.

However, an example of the incorporation of the Sufficiency Economy Philosophy into Thailand's national policies is the Thailand 4.0 project. Thailand 4.0 embodies SEP's emphasis on creating a value-based economy by leveraging emerging technological advancements while ensuring environmentally sustainable practices. The primary objective of this initiative is to lift Thailand out of the middle-income trap previously mentioned and elevate it to a high-income status.

Additionally, in order to research and implement the application of the SEP in the *Muban* (lowest administrative sub-division of Thailand), six Royal Study Development Centres were established around the Country. The *Muban* is at the heart of the SEP and it's critical for the survival of the entire nation because it represents the basis unit of the entire society. If the *Muban* efficiency falls, resulting weakness, the entire nation suffers the consequences.

-

⁶ The Gandhian economics process has been based on the simplicity of decentralisation cooperation, self-sufficiency, non-violence and human value (Unacademy, n.d.).

⁷ To achieve the goals of the Thailand 4.0 policy, reforms will be implemented in Thailand's existing five key industries, known as the "First S-Curve": automotive, electronics, affluent medical and wellness tourism, agriculture and biotechnology, and food. Additionally, the policy will promote the development of five new industries, referred to as the "New S-Curve": robotics, aviation and logistics, biofuels and biochemicals, the digital industry, and the medical hub, where Thailand has significant potential for success (Ministry of Industry, 2017).

⁸ These include the Khao Hin Sorn Royal Development Study Centre (Changwat Chachoengsao), the Puparn Royal Development Study Centre (Changwat Sakon Nakhon), Huai Hong Khrai Royal Development Study Centre (Changwat Chiang Mai), the Huai Sai Royal Development Study Centre (Changwat Phetchaburi), the Kung Krabaen Bay Royal Development Study Centre (Changwat Chanthaburi), and the Pikun Thong Royal Development Study Centre (Changwat Narathiwat).

Another criticism to the SEP, concerns the idea of self-immunity advocates for Thailand's protectionism and isolationism and stands in opposition to capitalism (Piboolsravut, 2004). However, this critique does not hold when considering Thailand's openness to trade and integration into the global economy. The SEP does not advocate for isolationism; rather, it emphasizes resilience and prudent decision-making in the face of global economic uncertainties, enabling sustainable development without rejecting external engagement.

Finally, although several scholars view the Sufficiency Economy Philosophy (SEP) as an outdated model of development, insufficiently aligned with contemporary economic theory, it can be reconciled with neo-classical economics. As Susangkarn argues, the SEP principle of moderation corresponds with the concept of diminishing marginal utility, while reasonableness aligns with the principle of rationality (Board N. E., 2000).

4.1 SEP in practice in the E-San region

In the past, the Northeastern Region (E-San) was perceived as a primitive area inhabited by impoverished people. However, in recent times, the region has evolved into a strategic centre for socio-economic development within the Greater Mekong, a transnational area of the Mekong River basin in Southeast Asia. This region has become a significant source of food globally and is characterized by vibrant economic, political, and socio-cultural dynamics.

In this region, a notable example of Sufficiency Economy activities is the Ban Huai Yang Seed and Plant Breeding Group. Located in Lao Phon Kho Subdistrict, Khok Si Suphan District, Sakon Nakhon Province, this group embodies the philosophy of Sufficiency Economy in their vision: "create jobs, increase revenues, disseminate knowledge, develop, and harmonize to live peacefully and sufficiently" (Office of the National Economic and Social Development Board, 2020).

Some insights on the implementation of the SEP in this area are further provided by Phukamchanoad's research (Phukamchanoad P., The innovative approach to sufficiency economy in Thailand's northeastern region provinces, 2022).

The study, which surveyed more than 54 sub districts in five provinces of Upper Northeastern Thailand, explored three main topics: the sufficient way of living and the application of the Sufficiency Economy Philosophy at the household level; the attitudes

of community leaders towards the Sufficiency Economy Philosophy; and innovative approaches to implementing the Sufficiency Economy in model villages.

The study's findings indicate that adherence to the Sufficiency Economy Philosophy enables communities to live sustainably by reducing expenses, fostering mutual assistance, and saving money through village commercial banks and the "Saccha" saving groups.

Chapter V: ESG dimension and the SEP

As previously articulated, the foundational elements of the Sufficiency Economy Philosophy (SEP) exhibit a notable correlation with Buddhist principles, particularly in relation to sustainability. This section seeks to further elucidate this relationship by conducting an in-depth analysis of the sustainability framework's three dimensions, environmental, social, and governance (ESG), within the context of Thailand.

5.1 Environment

According to the United Nations Convention on Biological Diversity (2013), Thailand, due to its strategic location in the heart of the Indochinese region, is one of the most biodiversity-rich countries in the world.

The country boasts 15 mountain regions, and its watersheds and main river basins, connected to the Mekong River, the Gulf of Thailand, and the Andaman Sea, serve as a convergence point for various plant species. These include temperate and sub-alpine flora from China and the Himalayas, as well as tropical species from Indochina and other parts of Asia.

As a result, Thailand is recognized as one of the world's most biologically diverse regions and is home to approximately 15,000 plant species, accounting for 8% of the world's total. The nation also harbours a significant number of threatened species, including 121 mammals, 184 birds, 33 reptiles, 5 amphibians, 218 fish species, and over 1,131 plant species. Wild elephant population is estimated to range between 1,975 and 2,380 individuals, while wild buffaloes are limited to 50–70, tigers number between 200 and 500, and both gaur and banteng populations are estimated at around 200 (Convention on Biological Diversity, 2013).

Thailand's natural resources and environmental capital constitute a fundamental pillar for sustainable economic development. However, economic activities that excessively exploit natural resources for production and consumption, generated waste and pollution beyond the local ecosystem's carrying capacity, leading to the deterioration of these resources and the environment.

Over the past several decades, Thailand's economic development has been characterized by a focus on the benefits of economic growth, often at the expense of sustainability. Consequently, Thailand has experienced rapid degradation of its natural resources and increasingly severe environmental problems stemming from waste, pollution and, depending on the region and the seasons, flood and drought.

An evaluation of Thailand's principal natural resources reveals that its forest resources exhibit relative stability. Currently, forested areas constitute approximately 31 to 33 percent of the nation's total land area, owing in part to ongoing reforestation efforts aimed at replenishing annually depleted forest zones (Office of the National Economic and Social Development Council, 2023). However, these figures fall short of the target outlined in the 12th Plan, which aimed for a forest cover of 40 percent across the country's landmass.

Regarding water resources, Thailand has been consistently enhancing both its surface water and underground water sources. However, the escalating economic activities in agriculture, industry, tourism, and household consumption have led to heightened water demands. This, coupled with the deterioration of natural water sources and annual fluctuations in rainfall, has resulted in declining reservoir levels, more frequent and severe droughts and increasing floating of the Menam Chao Phraya.

Technological advancements offer promising solutions for enhancing water management practices. For instance, employing water-saving technologies in production processes and implementing/repairing water pipes to avoid leaks can significantly aid in addressing these issues.



4. Starting on the left: Koh Phi Phi, Monkey Beach and Riley Beach. Source: Photograph by the author, 2023.

Marine and coastal resources play a crucial role in biodiversity conservation as habitats for marine flora and fauna, while also supporting vital economic activities such as transportation, tourism, and fisheries.

Thailand's extensive 3,151-kilometer coastal area faces risks from natural phenomena and human activities, including discharge of toxic waste and pollutants into the sea and improper disposal of plastic waste. These factors collectively pose significant threats to marine and coastal resources, potentially upsetting natural balance in coral reefs and exacerbating coastal erosion in numerous areas. In order to protect the beauty of coastal area, Thailand's government has identified 26 Marine National Park and several protected beach such as the Monkey Bay in Koh Phi Phi and the Riley Beach in Krabi.

According with the United Nations Convention on Biological Diversity (2013), along Thailand's 3,151 km of coastline, mangrove forests account for approximately 36% of the total area. These forests are currently under significant threat due to illegal logging, shrimp farming, and the expansion of residential and industrial developments. Similar faith it's shared by beach forests, which have been severely degraded by tourism, community encroachment, and port activities.

Presently, only a few thriving beach forests remain, most of which are protected within national marine parks, such as the Ang Thong National Marine Park.

Air pollution presents a critical challenge in Thailand, largely driven by fine particulate matter (PM2.5) predominantly originated from the open burning of waste, vehicular emissions, industrial activities, and forest fires. These sources collectively contribute to severe environmental and public health issues, as PM2.5 particles are well-documented for their role in causing respiratory diseases and exacerbating chronic conditions. The problem of poor air quality is particularly acute during the drought season, especially in urban and industrial areas characterized by high population density and heavy traffic.

Bangkok is particularly vulnerable to deteriorating air quality. However, this issue is not confined solely to large urban areas; industrial regions, such as Rayong province, have faced persistent challenges with air pollution too. Since 2012, this province has consistently recorded benzene levels that exceed permissible safety standards, highlighting the severity of industrial emissions in certain areas. This enduring problem underscores the critical need for comprehensive measures to mitigate air quality degradation and safeguard public health across the country.

Regarding Greenhouse Gas Emissions (GHG), Thailand has committed to reducing its emissions and implementing climate change measures post-2020. The target aims to achieve a 20 to 25 percent reduction in GHG emissions by 2030 compared to a business-as-usual scenario, amounting to a total not exceeding 444 million tons of carbon dioxide equivalent.

Despite a consistent upward trend in GHG emissions from various sectors since 2013, Thailand's emissions remain below projected business-as-usual levels. Notably, in 2018, Thailand's GHG emissions were 16 percent lower than anticipated, marking an unexpected achievement under the 12th Plan (Office of the National Economic and Social Development Council, 2023).

However, to attain Thailand's target of carbon neutrality by 2050 and achieve net zero GHG emissions by 2065, as articulated by the Thai Prime Minister at the 26th Conference of the Parties (COP 26) of the United Nations Framework Convention on Climate Change (UNFCCC), more ambitious short-term targets and robust long-term strategies are imperative (Ministry of Foreign Affairs, Kingdom of Thailand, 2021). This includes aiming for a 40 percent reduction in GHG emissions by 2030, necessitating rigorous planning and implementation of comprehensive measures.

Waste constitutes a big challenge too. According to the World Bank database, in 2022, Thailand produced approximately 27.9 million tons of municipal solid waste⁹, marking an upsurge attributable to expanding urbanization due to the transition from agriculture to urban lifestyles, and consequent changes in societal habits (World Bank Group, 2022).

Considering Thailand's waste management problems, throughout the country, issues persist such as the prevalence of open-air dumps and the absence of street litter bins. Additionally, there are impractical waste recycling systems, excessive use of plastic grocery bags, plastic straws, and glass containers for bubble tea. This critical issue is closely tied to the Thai tradition of consuming food delivered and at night markets, which contributes to the increased use of plastic bags and disposable utensils. This, is further

Agency, 1976).

_

⁹ According to the Resource Conservation and Recovery Act (RCRA) of the United States, "solid waste" encompasses various materials such as garbage, refuse, sludge from wastewater and water supply treatment plants, and other discarded substances originating from industrial, commercial, mining, agricultural, and community activities (U.S. Environmental Protection

incentivise by the significant lack of education among Thai people regarding recycling practices and proper waste sorting, compounded by poor consumption behaviours.

For this reason, the Department of Environment Quality Promotion has developed an educational booklet titled "Mission Zero Waste" for school use (Department of Environmental Quality Promotion, 2017). This resource offers practical advice to young people on methods to reduce, reuse, and recycle waste.

Additionally, it introduces the "Zero Waste Community" award, which recognizes villages that have made significant strides in waste reduction. In 2017, over 700 villages participated in the competition, culminating in a victory for two villages in Buriram Province (Kansuntisukmongkol, 2017). These villages achieved waste reduction by implementing rigorous recycling practices for plastic, paper, and glass, and converting organic waste into fermented fertilizer and natural pesticides, thereby replacing chemical inputs in local agriculture.

In Thailand, the management of municipal solid waste and industrial waste is structured by the Royal Thai Government, with roles distributed among the central government, regional administrations, and local authorities.

On one side, the central government is tasked with formulating regulations, policies, and standards to drive waste management initiatives. On another side, regional governments play a pivotal role in coordinating efforts between the central and local levels. Meanwhile, local governments assume direct responsibility for waste management within their respective jurisdictions, although they do not handle waste disposal themselves. Instead, this function is outsourced to private companies licensed by the Pollution Control Department (PCD).

5.1.1 SEP and Waste

The linear model of consumption, which dominates contemporary economies, follows a straightforward trajectory: resources are extracted from the Earth, processed into products, utilized, and eventually discarded as waste. This "take-make-dispose" approach, while convenient and ingrained in consumer culture, poses significant challenges that render it inherently unsustainable.

At its core, the linear model hinges on the relentless extraction of finite natural resources. This continuous depletion of raw materials is occurring at rates that outpace the Earth's

capacity to regenerate them, leading to concerns about resource scarcity and environmental degradation. Moreover, the extraction and processing of these resources often involve energy-intensive processes, contributing to greenhouse gas emissions and exacerbating climate change.

Unfortunately, the consequences of this linear system extend beyond resource depletion: it generates vast quantities of waste throughout its lifecycle, from manufacturing byproducts to end-of-life disposal. Much of this waste is non-biodegradable and persists in the environment, polluting ecosystems and posing health risks to humans and wildlife alike.

Although the linear economic model was traditionally considered efficient, recent findings challenge this notion. Economically, the linear model fails to account for the significant value embedded in materials discarded as waste, leading to missed opportunities for resource recovery. Additionally, it imposes substantial costs related to waste management and environmental remediation.

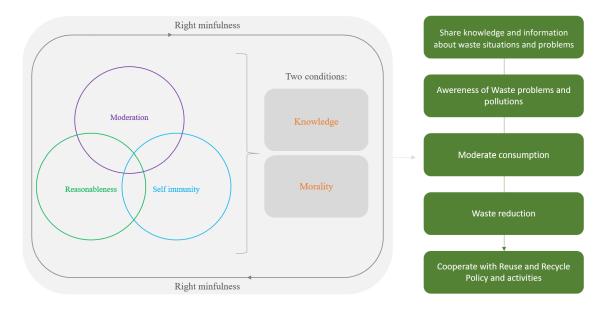
The economic inefficiencies of the linear model are becoming increasingly apparent as businesses and policymakers recognize the financial and environmental advantages of adopting circular economy principles, which promote the reuse and recycling of materials to extend their value and reduce waste.

Furthermore, the linear model fosters a culture of unsustainable consumption patterns. It encourages a "throwaway" mentality where products are designed with planned obsolescence, encouraging frequent replacement rather than durability and reparability.

Without any expectations, Buddhism aligns with the fundamental concept of consumption but offers a deeper perspective focused on human well-being. Consumption, in this context, is understood traditionally and purely as meeting needs while enhancing quality of life. Thus, Buddhism shares the recognition that consumption is inherent to human nature as it satisfies needs, yet it opposes overconsumption, which exceeds natural needs and seeks to fulfil artificial desires. The excessiveness of these desires results in waste, and mindfulness enables consumers to consciously navigate their choices (Sivaraksa, 2011).

If excessive consumption is identified as a primary contributor to waste production, then moderate consumption should be viewed as the initial step towards reforming waste management within the Sufficiency Economy Philosophy framework.

By integrating the principles of mindfulness, which empower consumers to remain attentive to waste issues, and the Sufficiency Economy, waste management can be significantly enhanced. Communities can collaborate effectively under the principles of Reduce, Reuse, Recycle (3R) when they are informed about waste problems, comprehend the environmental impacts of waste pollution, and maintain a strong commitment to environmental stewardship (Sheate, 2020).



5. Right Mindfulness and SEP for Waste Management (Author Elaboration)

From the perspective of social practices, sufficiency encompasses a range of daily behaviours aimed at reducing demands on energy, materials, land, water, and other natural resources while promoting well-being for all within the limits of our planet.

Sufficiency is not necessarily as radical or unappealing as commonly perceived, making it a viable yet often overlooked strategy for promoting sustainability and facilitating the transition to an effective circular economy. Even minor interventions can have significant impacts, transforming consumption patterns by challenging the prevailing notion of endless availability and embracing concepts of "enoughness" and resistance to overconsumption.

5.2 Social

As mentioned in previous chapters, Thailand continues to grapple with various societal issues, including significant challenges related to gender equality and poverty-related problems.

During the 12th NESDP, Thailand decreased the number of poor from 8.6% in 2016 to 6.84% in 2020 (Office of the National Economic and Social Development Council, 2023). However, despite a general increase in national income, the inefficient allocation of resources resulted in an unequal distribution of benefits, situation further enhanced by the COVID-19 pandemic, which exacerbated the likelihood of intergenerational poverty.

This situation has underscored structural issues within Thai society, such as disparities in access to quality education and skill development, technology, infrastructure, and public services. The disparity encompasses a significant income gap between the rich and the poor, and highlights a spatial disparity arising from the growth and concentration of economic activities in Bangkok, where the majority of activities are part of the second and third sector, and its surrounding areas, which rely on agriculture activities.

Regarding its population structure, Thailand has been classified as an aging society since 2005. According with the Office of the National Economic and Social Development Council, by 2020, the elderly population exceeded 11.6 million, representing 17.57 percent of the total population, with this trend expected to continue. It is anticipated that by 2023, coinciding with the implementation of the 13th Plan, Thailand will become a *Complete Aged Society*, with individuals over 60 years old comprising as much as 20.1 percent of the total population with an important decline in the proportion of school-age and working-age individuals. This demographic is projected to decrease steadily, accounting for only 20.66 percent of the total population by 2027, a reduction of over 715,000 people during the period of the 13th Plan (Office of the National Economic and Social Development Council, 2023).

According to the Human Development Index (HDI) of the Organization for Economic Cooperation and Development (OECD), the Thai population across all age groups has experienced a general increase in capability (United Nations, 2024). However, there is a concerning decline in reading and educational attainment, accompanied by a rise in the number of youth classified as "Not in Education, Employment, or Training" (NEETs).

Therefore, the qualitative development of human capital remains a significant challenge for the country, primarily due to an educational system that produces low educational achievement and is lacking in synchronization with the labour market.

5.2.1 SEP and gender equality

Despite progress in certain areas, gender-based disparities persist across multiple facets of Thai society. Women often face unequal access to economic opportunities, educational attainment, and decision-making roles, where the women's representation in senior leadership positions in business and politics remains low.

Violence against women also poses a serious issue, with domestic violence being prevalent and underreported due to stigma and fear of reprisal. Efforts to address these issues include legal reforms, awareness campaigns, and initiatives promoting women's rights and empowerment have been made, however, implementation and enforcement gaps persist, hindering effective progress towards gender equality.

There is a widespread consensus that Buddhism lacks a reformist agenda or an explicit feminist theory. However, in contrast to other major Western religions, women have historically held significant roles within Buddhism as lay disciples and later as monastics, influencing both the Order and the societies where Buddhism took root (Dewaraja, 1994).

Notably, the inclusion of women in Buddhist teachings and practices over 2,500 years ago was remarkable given the patriarchal context of that era, where women had limited rights in education and religious affairs.

Dewaraja (1994) further observes that unlike in other major religions, marriage in Buddhism is purely secular and it's therefore viewed more as a social or civil contract with mutual obligations than a divine union (Sasanarakkha Buddhist Sanctuary, 2022).

Furthermore, Buddhism's lack of a central creator results in no sacredness attributed to the human body (Gross 1993) and no strict delineation between what is natural or unnatural, thereby accommodating practices like contraception (Kewon, 1995), recognizing homosexuality and allowing changing in gender identity (Silva P. D., 2003) (Hughes, 2007).

Moving beyond mere ambivalence, Sponberg (1992, p. 8) explores early Buddhism and identifies four distinct attitudes: Soteriological inclusiveness, institutional androcentrism, ascetic misogyny, and soteriological androgyny (Sponberg, 1992).

While core Buddhist doctrine and its path to salvation are inherently inclusive and do not discriminate based on gender, institutionalization introduced societal perspectives of male superiority, reflecting prevalent cultural and ascetic misogynistic attitudes towards women.

Sponberg (1992) identifies attempts within the $P\bar{a}li~Canon^{10}$ to reconcile these conflicting attitudes by incorporating a more inclusive perspective that aligns with Buddhism's original acceptance of both genders as equals on the path to salvation, a perspective that endures today. While some parts of the Canon, particularly certain commentaries, exhibit ambivalent and at times patriarchal or even misogynistic views towards women, there is a compelling argument that at its core, Buddhist doctrine, once stripped of societal and cultural influences, is devoid of gender bias.

Moreover, Buddha emphasized multiple times that his followers included both men and women from both lay and monastic communities.

Women have historically played a pivotal role in both advocating and spreading the *Dhamma* from the era of the Buddha to the present day. Furthermore, foundational Buddhist principles such as *pratītyasamutpāda*, dependent origination, *ahimsā* (non-harm), *mettā* (loving-kindness), *karunā* (compassion), and the precepts universally reject any form of discrimination or harm towards others.

According to Gross (1993, p. 24), "the Dharma transcends gender", advocating for an inclusive approach that embraces individuals of all genders, including male, female, transgender, and intersex. Gender distinction is therefore relevant only in the conventional world bot not in the ultimate truth.

The perception that early Buddhism demonstrates a pronounced patriarchal and possibly misogynistic stance towards women primarily stems from accounts of the Buddha initially declining the request of his aunt and foster mother, *Prajāpati Gautami*, and her female followers to join the monastic community (Rinpoche, 2018). According to the Pāli Canon, it was *Venerable Ananda*¹¹ who eventually persuaded the Buddha by presenting a compelling argument on behalf of women, prompting the Buddha to acknowledge their equal potential to achieve enlightenment (Silva S., 2024).

-

¹⁰ The Pāli Canon is the standard collection of scriptures in the Theravada Buddhist tradition.

¹¹ Ānanda was the primary attendant of the Buddha and one of his ten principal disciples.

One plausible rationale for the Buddha's initial hesitation in admitting women into the monastic Order is rooted in the imperative of celibacy, which is fundamental to monastic life since sexual instincts represent a form of desire. It was feared that introducing women could potentially compromise this celibate lifestyle, thus shortening the longevity of the Order (BDEA/Buddhanet, 2008).

Furthermore, scholars also highlight another factor contributing to this perception: in some Buddhist societies, there persists a belief that a female birth is a consequence of less favourable karma compared to a male birth. This belief endures partly due to the notion, found in post-canonical texts like the *Jataka Stories*, that only males can aspire to attain Buddhahood. These stories depict the Bodhisatta consistently avoiding rebirth as a female even among animals before ultimately being reborn as male (Sirimanne, 2016).

The Sufficiency Economy Philosophy and Buddhism intersect in profound ways that contribute to the reduction of gender inequalities within societies. Both philosophies emphasize a holistic approach to human well-being, encompassing not just material prosperity but also mental, emotional, and spiritual fulfilment. This holistic view challenges the narrow focus on economic indicators alone and encourages societies to value all dimensions of human life equally, regardless of gender.

Central to both SEP and Buddhism is a strong ethical framework. Buddhism promotes ethical conduct (*sila*) and compassion (*karuna*) towards all beings, emphasizing the inherent dignity and equality of every individual. Similarly, SEP advocates for sustainable and balanced development that respects local cultures and environments, promoting inclusive growth and community empowerment. Moreover, both philosophies reject hierarchical structures and discrimination based on superficial attributes such as gender.

In practical terms, SEP's emphasis on sustainable development aligns with Buddhism's call for mindful consumption and stewardship of resources, creating opportunities for economic empowerment among marginalized groups, including women.

5.2.2 SEP and Human rights

Another important social aspect within Thai society relates to Human Rights. In Thailand, the enforcement of human rights faces a complex landscape shaped by both progress and challenges. In the last years, the country has made strides in adopting international human

rights norms and standards, as evidenced by its ratification of key human rights treaties and periodic engagement with international human rights mechanisms.

However, despite these positive steps, significant challenges persist. Laws and regulations, including the Computer Crimes Act and the Public Assembly Act, have been criticized for their potential to stifle dissent and limit peaceful activism, contributing to limit freedom of expression, association, and assembly.

Furthermore, there are ongoing concerns regarding the protection of vulnerable groups, including migrant workers, refugees, and stateless persons, which often face legal and social barriers that undermine their access to basic rights such as healthcare, education, and employment.

The principles of human rights find expression, whether explicit or implicit, in the teachings of most religions worldwide, including Buddhism. In *Pali*, although there exists no single term directly translating to *rights* as subjective entitlements, the concept is conveyed through various terms analogous to how Latin uses words like *librettos*, *jurisdictio*, and *dominium*. Hence, the essence of rights is understood and applied conceptually rather than through specific vocabulary (Barua, 2023).

As D. Barua (2023) affirmed, Buddhism regards human rights as an extension of natural law, embodying the crystallization or formalization of mutual respect and concern inherent in human nature. This perspective is in harmony with Article 1 of the Universal Declaration of Human Rights (UDHR), affirming that all human beings are born free and equal in dignity and rights.

Reflecting on the 50th anniversary of the UDHR in 1998, the Dalai Lama emphasized the imperative for Buddhists to actively promote peace and human rights. His speech underscored Buddhism's historical stance on human rights, particularly its condemnation of slavery and insistence that Buddhist monks should neither own slaves nor accumulate wealth, demonstrating a deep-rooted commitment to equality and freedom (UN Meeting Coverage and Press Releases, 1998).

Buddhism and the Sufficiency Economy Philosophy offer profound insights and practical approaches that can significantly contribute to the enforcement and respect of human rights.

Firstly, Buddhism's core teachings emphasize compassion, non-violence, and the interconnectedness of all beings. These principles form a solid foundation for human rights, as they foster empathy and respect for the dignity and equality of every individual.

Buddhism teaches that suffering is universal, and that alleviating suffering requires addressing the root causes of injustice and inequality. By promoting these values, Buddhism encourages societies to prioritize the well-being and rights of all members, regardless of social status, ethnicity, or beliefs.

Moreover, Buddhism's ethical framework, guided by principles such as the Eightfold Path and the Five Precepts, provides a moral compass for adherents to live harmoniously and ethically. These teachings underscore the importance of personal integrity, honesty, and social responsibility, values that are essential for upholding human rights both at individual and societal levels. By cultivating mindfulness and ethical conduct, Buddhism fosters a culture where human rights are not just respected but actively upheld as a fundamental aspect of a just and compassionate society.

5.3 Governance

According to the Brundtland Commission's report "Our Common Future" (1987), governance is defined as "the framework of institutions and decision-making processes through which societies manage their common affairs" (Report of the World Commission on Environment and Development, 1987).

In Thailand, despite efforts to strength governance framework and institution, governance faces significant challenges primarily revolving around issues of conflict of interest, corruption, and bribery.

Conflict of interest arises when individuals holding positions of authority or responsibility use their influence for personal gain or advantage, often at the expense of public interest (McCombs School of Business, n.d.). In Thailand, this issue has been evident in various sectors, including politics, business, and public administration, where decision-making processes may be influenced by personal relationships or financial incentives rather than merit or ethical considerations.

Corruption is another critical issue affecting governance in Thailand. It refers to the abuse of entrusted power for private gain, whether through bribery, nepotism, embezzlement, or other forms of dishonest conduct (Merriam-Webster, n.d.).

Despite measures such as the establishment of the National Anti-Corruption Commission (NACC) and efforts to streamline public services with online systems, corruption continues to be pervasive in the country. This is partly due to entrenched patronage networks within both political and security institutions, making it challenging to fully enforce anti-corruption laws.

As showed by the Transparency International Corruption Perception Index, Thailand' scores have reflected these ongoing struggles, showing minimal improvement over the years (OECD Integrity review of Thailand, 2018) (Thompson, 2018).

Bribery, specifically, remains a pervasive challenge within Thailand's governance landscape. It involves the offering, giving, receiving, or soliciting of something of value to influence the actions or decisions of public officials or private individuals in positions of authority (Britannica, 2024). Despite legal frameworks aimed at combating bribery, enforcement and accountability measures have often been insufficient, allowing corrupt practices to persist in various sectors.

For example, while there are severe penalties under laws like the Submission of Bids Act, which penaltizes bid rigging and corruption in public procurement processes, the effective enforcement of these laws remains a significant challenge (CMS, 2024) (Anasura, 2022).

Addressing these governance challenges in Thailand requires concerted efforts to strengthen institutional integrity, enhance transparency, and enforce stringent anti-corruption measures.

5.3.1 SEP and good governance

According to the *Dhammasattha*¹², "the righteous ruler governs solely with righteousness, venerates it, practices it, pays homage to it, extols it, and administers his realm in accordance with its principles" (Mahamakut Buddhist University, 1982).

Deeply rooted in Thai Theravada Buddhism's tradition, evident across various scriptures including the *Tripitaka*, the principles of good governance underscore the importance of

Asia (modern Laos, Burma, Cambodia, Thailand, and Yunnan) principally written in Pali.

¹² Dhammasattha ("treatise on the law") is the Pali name of a genre of literature found in the Indianized kingdoms of Western mainland Southeast

leaders exemplifying virtues such as honesty, integrity, compassion, responsibility, and support for society's well-being.

As demonstrated by Sukhumpont (2024), the principles of good governance encompass six vital components:

- 1. Rule of law: This principle entails the enactment of laws, rules, and regulations that are equitable and just, ensuring equal application to all without discrimination. The concept of equal treatment under the law is reflected in Buddhism, encapsulated by the term *Vinaya* and denoting the rules outlined for the Sangha, where the Buddha established disciplinary standards with impartiality and fairness, devoid of prejudice.
- 2. Merit: This principle, presented in moral codes like the *Dasarajadhamma*, involves the recognition and praise of virtue and merit, emphasizing righteousness and goodness above other considerations.
- 3. Transparency: Buddhism values the establishment of mutual trust through transparency and the SEP apply this concept to organisations by enhancing their information disclosing and facilitating public access to them. In Buddhist teachings, adherence to ethical conduct aimed to increase transparency involve:
 - a. Bodily Action (*Kayakamma*): Ethical conduct in actions, including refraining from taking life, or others' properties, and engaging in sexual misconduct;
 - b. Verbal Actions (*Vajikamma*): Ethical conduct in speech, which entails refraining from false, divisive, harsh, and idle chatter;
 - c. Mental Action (*Manokamma*): Ethical conduct in thoughts, characterized by refraining from coveting others' possessions, harbouring ill will, bias, or prejudice.
- 4. Participation: This involves offering opportunities for individuals to express their ideas, formulate plans and policies, and make decisions on significant matters. In Buddhism, it is taught that every individual is born with responsibilities towards themselves, their families, and society and the Seven Conditions of Welfare (*Satta Aparihani Dhamma*), which serves as a guideline, underscore the importance of community involvement in decision-making, which is fundamental to achieving prosperity. The Seven Conditions of Welfare are:

- a. as long as the Vajjian people meet frequently and hold many meetings;
- b. as long as they meet together in unity, rise in unity and perform their duties in unity;
- as long as they enact nothing not enacted, abrogate nothing that has already been enacted, and act in accordance with the already established ancient *Vajjian* principles;
- d. as long as they support, respect, venerate and honor the *Vajjian* elders, and pay regard to their worthy speech;
- e. as long as no women or girls of their families are detained by force or abduction;
- f. as long as they support, respect, venerate, and honour those objects of worship and do not neglect those righteous ceremonies held before;
- g. as long as the rightful protection, defense and support for the *Arahants* shall be provided by the *Vajjian* people so that *Arahants* who have not come may enter the realm and those who have entered the realm may live in peace (Payutto P. A., 2015).
- 5. Accountability: It emphasizes the courage to acknowledge the outcomes of one's actions. In Buddhism, the principle of accountability asserts that everyone is inherently responsible for their own life and belongings, as well as for the lives and belongings of others. The principle of accountability is extended also to the Buddhist rulers, which need to follow the Twelve Duties of the Ruler (*Cakkavatti-Dharmas*), including:
 - a. Providing for the welfare and well-being of people within and outside the realm, without neglect;
 - b. Establishing friendly relations with other countries;
 - c. Taking care of the royal family;
 - d. Supporting the Sangha clergy (monastic community), government officials, and city dwellers;
 - e. Providing for the rural population;
 - f. Supporting virtuous religious individuals;
 - g. Preserving herds of cattle, birds, and wildlife from extinction;
 - h. Prohibiting the populace from engaging in immoral behavior and disciplining them by setting a good example;

- i. Caring for the destitute to prevent them from committing crimes and dishonest acts in the society;
- j. Approaching virtuous individuals to learn about merit and demerit, practicing charity, and abstaining from vices;
- k. Restraining desires from reaching places where the king should not visit;
- 1. Suppressing greed and preventing the pursuit of undeserved gains.

6. Economy: In alignment of the Buddhist principle of moderation, the concept of economy refers to the efficient utilization of limited resources for maximal benefit, advocating against extravagant living and promoting their prudent management and judicious use.

In the realm of economic governance, Buddhist principles advocate for policies that foster fairness and equity in occupations, as well as enhance knowledge and capability in conducting business. These principles aim to improve the ethical conduct of economic activities, ensuring both the right and freedom to engage in business activities responsibly.

Good governance embodies a fundamental concept that signifies the efficiency and effectiveness of contemporary management practices while ensuring mechanisms for control and monitoring to uphold transparency in business operations (Sukhumpont, 2024).

The principles of good governance rooted in Buddhism can enhance administrative discipline and consistency, thereby mitigating misconduct and corruption.

On a private level, adhering to this principle, led individuals to embody compassion, and transparency, and fosters a harmonious and fair community.

In this context, the SEP can serve as a guiding principle to achieve greater transparency and reduce corruption, bribery and conflict of interests. (Kwanmuang, 2005). One key aspect of the SEP is its emphasis on self-reliance and community empowerment. When applied to governance, this principle encourages policies that empower local communities and reduce dependency on centralized authority. Decentralization of power can mitigate the concentration of resources that often breeds corruption, as local communities are better positioned to monitor and hold accountable their leaders.

Furthermore, SEP promotes resilience against economic and political shocks by diversifying livelihoods and investments. This resilience reduces the vulnerability of institutions to external pressures, thereby safeguarding against corruption that may arise from undue influence or coercion.

Chapter VI: SEP in the SET50

In previous chapters, this research explored how Buddhism, as a foundational philosophy, has shaped Thailand's national economic strategies, the Sufficiency Economy Philosophy, aimed at fostering sustainable development. While prior research has examined the role of SEP in driving Thailand's sustainable development, there remains a significant gap in the quantitative analysis of how Thai listed companies integrate SEP principles into their business practices.

This research aims to bridge this gap by investigating the degree of alignment between the business practices of companies listed in the SET50 index and the principles of the SEP. In this study, the "SEP score" is used to quantify this alignment, measuring how closely these companies adhere to SEP's core values.

Moreover, this research seeks to establish whether companies that closely follow SEP principles also exhibit stronger ESG performance. Therefore, the second research question examines the correlation between SEP scores and ESG scores to explore this potential link.

Finally, recognizing that SEP also aims to promote economic prosperity, this study investigates whether companies with higher SEP scores demonstrate better financial performance. This comprehensive approach aims to provide valuable insights into how traditional philosophical frameworks can drive both sustainability and profitability in the modern corporate landscape.

6.1 To what extent do the business practices of companies listed in the SET50 index reflect the principles of the Sufficiency Economy Philosophy (SEP)?

With the first research question, we investigate the alignment of companies listed in the Stock Exchange of Thailand with the Sufficiency Economy Philosophy.¹³

The research sample consists of companies listed in the SET50 index, which represents the top 50 large-market capitalization securities with high trading liquidity on the Stock Exchange of Thailand (SET) (Stock Exchange of Thailand, n.d.). The analysis focused

_

¹³ A comprehensive list of the analysed companies can be found in Appendix 3.

on scrutinizing primary documents such as annual reports (specifically Form 56-1 One Report), sustainability reports, and other relevant disclosures containing ESG information.

Data collection for this study was centred on the year 2023. In cases where 2023 data was not available, we used the earliest accessible year's data.

The document and data review process spanned from August 2023 to September 2024, allowing for a thorough and detailed analysis of the relevant information.

6.1.1 Methodology

To carry out the research, an Excel database was constructed to organize and analyse the data.

The first step involved developing a content index that connects Buddhist principles, the Sufficiency Economy Philosophy (SEP), and the Global Reporting Initiative (GRI) standards. The GRI standards were used due to the Stock Exchange of Thailand's preference for companies to report sustainability information based on this internationally recognized guideline. This content index provided the foundation for assessing the alignment between SET50 companies and SEP principles.

As shown in *Table 1*, the first column lists ten key principles of the Sufficiency Economy Philosophy. The rationale for selecting these specific principles will be discussed in detail in *Paragraph 6.1.2*.

To further enrich the analysis, the second column delineates the corresponding Buddhist values that underpin each SEP principle.

This link illustrates the philosophical alignment between Buddhism and the SEP, reinforcing the interconnectedness of ethical conduct within the context of economic decision-making. Through this lens, the SEP is contextualized as more than an economic model, but as a holistic approach rooted in Buddhist ethics. These Buddhist values not only serve as the theoretical foundation for the SEP framework but also offer a deeper understanding of how the SEP integrates moral and ethical considerations into business practices.

In the third column, each SEP principle is matched with relevant GRI standards. These GRI standards represent the specific sustainability disclosures that align with the

corresponding SEP principle, with the rationale for their connection detailed in column five.

Some SEP principles correspond to multiple GRI standards, reflecting the comprehensive nature of sustainability practices. For example, GRI 203-1 (Indirect Economic Impacts), GRI 412 (Human Rights Assessment), GRI 417 (Marketing and Labelling), GRI 206 (Anti-competitive Behaviour), GRI 101 (Biodiversity), and GRI 305 (Emissions) are linked to more than one SEP principle, demonstrating their wide-ranging applicability in evaluating corporate sustainability.

The fourth column adds another layer of alignment by linking SEP principles to the SET sustainability reporting guidelines, thus ensuring consistency with SET-specific expectations for corporate sustainability reporting.

Table 1. Content Index

SEP Principle	Buddhist Principle	GRI	SET Sustainability Reporting Guide	Rationale
Reasonableness	Right View Right Intention Dhamma (Dharma, the law of nature) Sati (mindfulness)	GRI 2-22 to 2-27: General Disclosures	Sustainability Policy and Strategy Sustainability Risk Management	The SEP principle of reasonableness can be linked with GRI 2-22 to GRI 2-27. In the SEP framework, reasonableness calls for thoughtful, balanced decision-making that considers long-term social and environmental impacts. This principle aligns with the Buddhist concepts of mindfulness, right view, right intentions, and Dhamma, which all emphasize ethical conduct and clarity of purpose. GRI standards 2-22 to 2-27 focus on strategy, policies, and practices disclosures, including policy commitments, sustainable development strategies, and processes for remediating negative impacts. These disclosures require companies to critically reflect on the ethical foundations of their business models and demonstrate how they implement responsible governance practices. This directly mirrors the SEP's principle of reasonableness, where ethical and thoughtful decision-making is central to achieving sustainable outcomes.
Knowledge	Panna (wisdom)	GRI 203-2 Indirect Economic Impacts GRI 404: Training and Education	Innovation Development Fair Labor Practices	GRI 203-2, which addresses indirect economic impacts, serves as an additional indicator of how investments in knowledge can lead to broader societal benefits. This standard reflects how a company's activities can contribute to regional economic development and foster innovation. An example of a significant indirect economic impact includes the enhancement of skills and knowledge within a professional community, which could attract additional skilled workers to a geographic area. These workers, in turn, drive local demand for new educational institutions, thereby creating a cycle of continuous learning and development that aligns with the SEP principle of knowledge. Furthermore, GRI 404 (Training and Education) focuses on training and education within organizations, which directly aligning to the SEP principle of knowledge since it emphasizes company's efforts to provide training and education to their workforce. In the context of SEP, knowledge is not merely about gaining information but also about understanding how to apply that

Morality		GRI 205: Anti- corruption GRI 206: Anti- competitive Behaviour	Policy structure and Governance System Policy structure and Governance System	The Sufficiency Economy Philosophy principle of morality can be linked to several GRI standards, specifically GRI 408, GRI 409, GRI 412, GRI 417, GRI 206, and GRI 205, as these standards reflect the ethical dimensions of corporate behaviour, resonating with Buddhist teachings such as karma, ethical guide and conduct, and mental action. GRI 408 (Child Labor) and GRI 409 (Forced or Compulsory Labor) address fundamental human
	Sila (ethical conduct)	GRI 408: Child Labor	Human Rights	rights issues by requiring companies to disclose significant risks related to forced or compulsory labour and child labour. The SEP principle of morality emphasizes the ethical treatment and respect for all individuals in every context and by linking these GRI standards to the SEP principle, companies demonstrate their commitment to avoiding exploitative practices and ensuring that their
	Kamma (karma) Manokamma (mental action)	GRI 409: Forced or Compulsory Labor	Human Rights	operations uphold human dignity, particularly for vulnerable categories. This aligns with the Buddhist value of karma and ethical conduct, reinforcing the moral imperative to treat all people justly. This idea is also shared with GRI 412 (Human Rights). GRI 417 (Marketing and Labeling) relates to a company's responsibility to communicate truthfully
	Kusalakammabhat ta (ethical guide)	GRI 412: Human Rights Assessment	Human Rights	and transparently with consumers. This standard aligns with the SEP principle of morality by emphasizing ethical marketing practices, ensuring that businesses act with honesty and integrity in their representations of products and services. This reflects the Buddhist principle of <i>sila</i> , which advocates for honesty and ethical behavior in all forms of communication. GRI 206 (Anti-competitive Behaviour) and GRI 205 (Anti-corruption) focus on fair competition and
		GRI 417: Marketing and Labelling	Responsibility to Costumer / Consumers	ethical business practices. These standards resonate with the SEP principle of morality, as they discourage anti-competitive practices, corruption, and monopoly behaviours, advocating for fair play and legal compliance. This aligns with the moral foundation of SEP and Buddhist ethics, which stress the importance of fair treatment, justice, and the avoidance of harmful actions for personal or organizational gain.

	Karuna (compassion) Metta (love and kindness)	GRI 401: Employment GRI 402: Labor/Manage ment Relations GRI 403-1 to 8: Occupational Health and Safety 2018 GRI 405: Diversity and	Fair Labor Practices Fair Labor Practices Fair Labor Practices Fair Labor Practices	Different GRI standards align with the Sufficiency Economy Philosophy principle of compassion due to the emphasis in Buddhism on the interconnectedness of all beings. The Buddhist understanding of samsara and the non-existence of an independent "I" fosters a sense of compassion towards both humans and nature, recognizing that well-being is shared across all living entities. GRI 401 (Employment) addresses fair employment practices by promoting conditions that respect human rights and dignity in the workplace. This standard aligns with the SEP principle of compassion, ensuring that employees are valued, treated ethically, and that their well-being is prioritized. GRI 402 (Labor/Management Relations), GRI 403-1 to 8 (Occupational Health and Safety), GRI 405 (Diversity and Equal Opportunity), and GRI 406 (Non-discrimination) all focus on the well-
Compassion	Kamma (karma) Samsara (cycle of rebirth) Ahimsa (non-harming)	Equal Opportunity GRI 406: Non- discrimination GRI 411: Rights of Indigenous Peoples	Practices Responsibility to Communities/Soci eties Human Rights	being of employees. First, GRI 402 requires companies to disclose labour/management relationships, fostering constructive dialogue and ensuring that employees' rights are respected. Moreover, GRI 403 addresses the health, safety, and well-being of employees, aligning with the Buddhist principle of ahimsa (non-harming), as it emphasizes the importance of providing a safe and healthy working environment. Additionally, GRI 405 promotes diversity and inclusion in the workplace, reflecting the compassionate belief that all individuals, regardless of background, deserve equal opportunities and respect. Finally, GRI 406 focuses on non-discrimination, ensuring that companies do not engage in practices that exclude vulnerable categories.
		GRI 413: Local Communities GRI 101: Biodiversity 2024	Responsibility to Communities/Soci eties Policy structure and Governance System	The respect and compassion go beyond employees to include Indigenous people (GRI 411) and local communities (GRI 413). GRI 411 and GRI 413 emphasize the need to respect the rights of Indigenous peoples and foster positive relationships with local communities. Compassion involves recognizing the needs and rights of these populations and contributing to their well-being, therefore companies are encouraged to engage in ethical practices that protect and support the communities they interact with, ensuring their actions do not cause harm or exploitation.

			Environmental Policy and Compliance Standards	Finally, GRI 101 highlights the extension of compassion beyond human interactions to encompass all living beings and ecosystems. This standard underscores the importance of biodiversity and the responsibility to protect and sustain natural habitats and it aligns with the Buddhist view of interconnectedness, which teaches that harming one part of the ecosystem ultimately harms all.
Self-immunity	Upekkha (equanimity) Khanti (patience and endurance)	GRI 2-27: General Disclosures (Compliance with laws and regulations)	Policy structure and Governance System	The SEP principle of self-immunity is fundamentally concerned with a company's resilience and ability to withstand external shocks while maintaining stability. This principle can be linked to GRI 305 (Emissions), GRI 101 (Biodiversity), and GRI 2-27 (Compliance with law and regulations). GRI 2-27 focuses on compliance with laws and regulations, emphasizing the importance of adhering to legal standards issued by various authorities. A company that embraces self-immunity
		GRI 101: Biodiversity 2024	Environmental Policy and Compliance Standards	understands the importance of compliance, recognizing that maintaining legal and ethical standards fosters trust and strengthens relationships with customers, investors, and communities. This proactive approach to legal conformity helps the company build resilience and minimize risks. GRI 101 emphasizes the importance of preserving ecosystems and natural resources, which are
		GRI 305: Emissions	Environmental Policy and Compliance Standards	essential for long-term business sustainability. The alignment with the SEP principle of self-immunity is clear, as maintaining healthy ecosystems and responsibly managing natural resources is critical for a company's ability to sustain its operations.
			Energy Management	Similarly, GRI 305 focuses on an organization's greenhouse gas emissions and its overall environmental impact. This standard aligns with the SEP principle of self-immunity, as reducing emissions and addressing environmental concerns is a crucial step in building resilience. By actively
			Greenhouse Gas Management	working to lower emissions, companies are not only mitigating environmental risks but also enhancing their capacity to adapt to regulatory changes and climate-related challenges. The reduction of emissions demonstrates a company's commitment to protecting itself from long-term environmental risks, ensuring its survival and thriving in a low-carbon future.

		GRI 2-22 to	Policy structure	The SEP principle of geosocial development aligns with various GRI standards, reflecting a
		27: General	and Governance	company's responsibility towards broader social and environmental well-being.
		Disclosures		company o responsionity to wards orouge seems and environmental well being.
			System	GRI 2-22 to 2-27 (General Disclosures) cover governance, policies, and practices related to
		GRI 206:	Policy structure	
		Anti-	and Governance	sustainability. Specifically, GRI 2-23 (Policy Commitments) and GRI 2-24 (Embedding Policy
		competitive	System	Commitments) highlight a company's commitment to responsible business conduct across its
		Behaviour		operations and business relationships. These disclosures align with the SEP principle of geosocial
		GRI 308:	Policy structure	development by encouraging companies to demonstrate their contributions to society transparently.
		Supplier	and Governance	
		Environmenta		GRI 206 (Anti-competitive Behaviour) fosters fair competition and aims to guarantee the
		1 Assessment	System	development of all companies in the market, aligning with the geosocial development principle.
		GRI 411:		
	Indigenous	Human Rights	GRI 415 (Public Policy) addresses a company's engagement with public policy development and	
Cassasial	Geosocial Dana (generosity	People		lobbying, including disclosures on political contributions. This standard is connected to geosocial
				development as it identifies how organizations influence political causes and public policy. In
development and charity)	GRI 413:	Responsibility to	alignment with Buddhist values of generosity and charity, companies are encouraged to contribute	
		Local	Communities/Soci eties	positively to policy development, ensuring their activities support societal well-being rather than
		Communities		purely self-serving interests.
		GRI 414:		
		Supplier	Responsibility to Communities/Soci eties	GRI 308 (Supplier Environmental Assessment) and GRI 414 (Supplier Social Assessment) focus on
		Social		how companies assess and manage the environmental and social impacts of their supply chains and
		Assessment		they are directly connected to geosocial development as they require companies to disclose the extent
				to which suppliers are screened using environmental and social criteria.
			Policy structure	GRI 411 (Rights of Indigenous Peoples) and GRI 413 (Local Communities) further link with
		GRI 415:	and Governance	geosocial development by emphasizing the protection of Indigenous rights and the well-being of
		Public Policy		local communities. These standards resonate with the Buddhist principles of generosity and charity,
			System	
				advocating for the equitable treatment and inclusion of marginalized groups, and ensuring that
				companies actively contribute to the socio-economic development of the regions where they operate.

	Satta Aparihani Dhamma (seven condition of welfare) Dana (generosity	GRI 206: Anti- competitive Behaviour	Policy structure and Governance System	The SEP principle of broad stakeholder focus emphasizes the importance of considering the needs and interests of all stakeholders, not just shareholders.
		GRI 411: Indigenous People	deeple GRI 412: Iuman rights sssessments GRI 413: oocal	GRI 206 (Anti-competitive Behavior) encourages companies to operate fairly and transparently in competitive practices, which aligns with a broad stakeholder focus by ensuring that companies respect the rights and interests of competitors, reflecting the Buddhist value of truthfulness and promoting equitable treatment in business dealings. GRI 411 (Rights of Indigenous Peoples), GRI 412 (Human Rights), and GRI 413 (Local Communities) emphasize the necessity of respecting the rights of various stakeholders, including indigenous peoples, local communities, and marginalized groups. A broad stakeholder focus requires companies to actively engage with these communities, ensuring that their perspectives, rights, and needs are considered and addressed.
		GRI 412: Human rights assessments		
Broad Stakeholder focus	and charity) Sangha (Buddhist community)	GRI 413: Local communities		
Pratitya (dependorigina Sacca (Pratityasamutpada (dependent origination)	GRI 417: Marketing and Labelling	Responsibility to Costumer/Consu mers	GRI 417 (Marketing and Labeling), GRI 416 (Customer Health and Safety), and GRI 418 (Customer Privacy) focus on customer-related aspects. First, GRI 417 promotes transparency and accuracy in marketing communications, ensuring that customers receive truthful and clear information about
	Sacca (honesty and truthfulness)	GRI 418: Customer Privacy	Responsibility to Costumer/Consu mers	products and services. This reflects the Buddhist emphasis on honesty and right speech, encouraging companies to build trust with their consumers through integrity in their marketing practices. Next, GRI 416 addresses the importance of ensuring customer health and safety in products and services while GRI 418 emphasizes the protection of customer privacy and data, aligning with the principle
		GRI 416: Customer Health and Safety	Responsibility to Costumer/Consu mers	of non-harming, ensuring that businesses handle personal data ethically and responsibly, reinforcing customer trust and loyalty.

Perseverance	Virya (effort) Adhitthana (determination) Magga (path to enlightenment)	GRI 305: Emissions	Environmental Policy and Compliance Standards Greenhouse Gas Management Energy Management	Perseverance emphasizes the importance of sustained effort and commitment to achieving long-term goals. This principle aligns closely with the Buddhist view of the "Seven Conditions of Effort", which underscore the necessity of determination and diligence on the path to enlightenment. Linking this to GRI 305, which focuses on emissions, highlights the role of companies in taking consistent and proactive measures to reduce their environmental impact. Just as perseverance in Buddhism encourages individuals to overcome obstacles on their path, companies must demonstrate ongoing commitment to lowering emissions, improving energy efficiency, and mitigating climate change.
Moderation	Madhyamaka (middle way) Mattannuta (moderation) Panna (wisdom) Nekkhamma (renunciation)	GRI 302: Energy GRI 303: Water and Effluents 2018	Greenhouse Gas Management Energy Management Water Management	The SEP principle of moderation can be effectively linked with various GRI standards, specifically GRI 302 (Energy), GRI 303 (Water and Effluents), and GRI 306 (Waste), due to their shared emphasis on responsible resource management and sustainable practices. These standards reflect the essence of moderation as outlined in both SEP and Buddhist philosophy. For example, GRI 303-1 require companies to disclose about how the organization interacts with water, including how and where water is withdrawn, consumed, and discharged, and the water-related impacts the organization has caused or contributed to, or that are directly linked to its operations, products, or services by its business relationships. Additionally, companies need to provide an explanation of the process for setting water-related goals and targets and how they relate to public policy. The principle of moderation is directly relevant here, as it encourages companies to minimize waste
	(ichunciation)	GRI 306: Effluents and Waste Management	generation and adopt practices that support recycling and reusing materials. This aligns with the Buddhist concept of the Middle Way, which advocates for balance and restraint. It urges businesses to avoid overconsumption and seek sustainable energy solutions that reduce environmental impacts.	

				The SEP principle of resilience can be effectively linked with GRI 203-2 (Significant indirect economic impacts) because both concepts emphasize the importance of sustainable practices that
	Adhitthana			contribute to long-term stability and adaptability within communities and economies.
	(determination)			
		GRI 203-2		Resilience, as defined within the Sufficiency Economy Philosophy, involves the capacity of
Resilience	Upekkha	Indirect	Innovation	individuals and organizations to withstand and recover from adverse conditions. This principle
Resilience	(equanimity)	Economic	Development	aligns closely with the Buddhist values of determination, equanimity, patience, and endurance since
		Impacts		these values encourage a mindset that fosters perseverance in the face of challenges.
	Khanti (patience			
	and endurance)			The alignment between resilience and GRI 203-2 reflects a proactive approach to sustainability since
				the standard reflects how a company's activities can contribute to regional economic development
				and foster innovation.

The second step of the research involved gathering data from the companies listed in the SET50. Each company was listed in the database along with its full name and its industry classification based on the environmental sensitivity of their industry: 64% of the companies were classified as environmentally sensitive, while the remaining 36% belonged to other industries. Most of the companies analysed operate in the "Energy and Utilities" Sector.

For each company, the primary source of sustainability information was identified. In 86% of cases, the data came from the company's 2023 Sustainability Report. A smaller portion of companies (6%) disclosed their sustainability practices on their Form 56-1 filings while 4% in their Integrated Report, and 2% on their website. Further details can be found in Appendix III.

Out of the 50 companies in the sample, two were excluded from the analysis. COM7 Public Company Limited was not considered because its Sustainability Report was available only in Thai language, complicating the accurate understanding of the information reported. The other company, Siam Global House Public Company Limited, was excluded due to its non-compliance with GRI standards for reporting.

The analysis identified two instances where the same sustainability report was shared between companies. Krung Thai Bank Public Company Limited and Krungthai Card Public Company Limited share the same sustainability report. Similarly, PTT Oil and Retail Business Public Company Limited, PTT Public Company Limited, PTT Exploration and Production Public Company Limited, and PTT Global Chemical Public Company Limited present a single sustainability report. However, since the economic performance and ESG scores of each company differed, they were not excluded from the sample and were analysed separately.

In the third step, each GRI standard identified in the Content Index was assigned a total value of 1. When multiple disclosure requirements were associated with a particular GRI standard, an average value was assigned to each component. For example, GRI 2, which encompasses several disclosure requirements (from GRI 2-22 to GRI 2-27), was divided equally, with each requirement given a value of 0.16 (1/6). This averaging system was applied consistently across all GRI standards identified in the Content Index to ensure uniformity in scoring. See Appendix III for further clarification.

The final phase of the methodology involved calculating the value of the 10 SEP principles for each company. Each SEP principle was assigned a total value of 1, and the GRI standards corresponding to each principle were assigned an average value, which was used to determine the score for that principle. For example, the principle of "Compassion" is associated with eight different GRI standards, so each GRI was assigned a value of 0.125 (1/8). The resulting dataset provides a comprehensive SEP score for each company, expressed as the sum of scores for each of the ten SEP principles and representing its degree of alignment with the Sufficiency Economy Philosophy.

6.1.2 Rational behind the choice of the SEP principles

The selection of the SEP principles results from an analysis of the existing literature in this field of research, supplemented by personal considerations.

Specifically, five out of the ten principles were derived from the research by Kantabutra and Siebenhüner, which explored the philosophical connections between business practices and corporate sustainability performance. Their study, involving 112 Thai businesses of varying sizes, provided a foundational framework for understanding how the Sufficiency Economy Philosophy can be applied to corporate settings. (Katanabutra, 2011).

In their research, Kantabutra and Siebenhüner identified five key indicators that statistically predict corporate sustainability.

While not explicitly included in the Sufficiency Economy Philosophy, the principle of *geosocial development* was considered in this study due to its connection to ethical responsibility toward a broad spectrum of stakeholders, aimed at achieving sustainable development.

Similarly, the principle of *broad stakeholder focus* (or sharing) ¹⁴ was included, as it encompasses both the actions of giving and receiving, aligning with the Buddhist principle of generosity. This indicator relates to corporate social sustainability by

¹⁴ Recently, Kantabutra has replaced "broad stakeholder focus" with a new predictor with similar meaning, "sharing", as part of these indicators (Kantabutra, Achieving corporate sustainability: Toward a practical theory, 2019).

promoting a deeper understanding of and engagement with various stakeholders, including competitors, local communities, consumers, and employees.

Perseverance, defined as continuous effort toward a goal despite adversity, was taken into consideration since it represents another key virtue of the Sufficiency Economy Philosophy. It is reflected in the business practices of many companies, as perseverance is essential for both early-stage and established companies when faced with unexpected challenges.

Moderation was considered too, since it's closely aligns with the concept of sufficiency. In fact, the term "sufficiency" implies a balanced approach, avoiding both deficiency and excess as also stated by the Buddhist principle of the Middle Path.

Finally, *resilience* was included due to its role in cultivating self-immunity. In organizational contexts, resilience extends beyond recovery from crises; it encompasses a company's ability to dynamically reinvent its business model in response to changing external conditions. This adaptability is key to long-term sustainability and success.

The virtues of moderation, resilience, and perseverance clearly originate from the Sufficiency Economy Philosophy. However, *geosocial development*, as mentioned before, and *broad stakeholder* focus are not directly drawn from it. They were included due to their emphasis on ethical responsibility toward society, aligning with the foundational principles of SEP.

Despite the significant contributions of Kantabutra and Siebenhüner's works, the absence of *reasonableness*, one of the principal elements of the SEP, as an indicator, warrants further discussion. This can be attributed to the fact that, although reasonableness remains important, it was not statistically significant in the Thai sample from Kantabutra's study.

To extend the analysis conducted by Kantabutra and Siebenhüner, this research considers five additional indicators.

The first indicator is *reasonableness*, which, as articulated in the Sufficiency Economy Philosophy, emphasizes the importance of making balanced and judicious decisions. This indicator underscores the need for individuals and organizations to adopt a thoughtful approach in their actions, weighing both short-term gains and long-term impacts.

The second indicator is *knowledge*, a critical asset for sustainable development within the Sufficiency Economy Philosophy framework. Knowledge involves the continuous

acquisition of relevant information and the application of wisdom in decision-making processes and in an organizational context, it serves as a strategic resource, empowering innovation, adaptability, and competitive advantage.

Morality, the third additional principle, underscores the ethical standards that guide individuals and organizations in their conduct. It highlights values such as integrity, honesty, and accountability, which are essential for achieving long-term sustainability.

Compassion was included due to its focus on a holistic approach to development, one that considers the well-being of all stakeholders, including communities and the environment.

Lastly, *Self-immunity* refers to the capacity of organizations to protect themselves from external shocks, risks, or negative influences; it emphasizes proactive measures that companies can take to fortify their economic, social, and environmental foundations against potential threats.

Together, these ten SEP principles represent the foundation upon which the Sufficiency Economy Philosophy is built, providing a comprehensive framework for sustainable corporate practices.

6.1.2 Results

As shown in *Table 2*, the findings reveal a strong alignment between the business practices of SET50 companies and the Sufficiency Economy Philosophy, with an average score of 7.47. This suggests that many companies have successfully integrated key SEP principles into their operational and strategic frameworks.

The correlation is particularly high for companies like DELTA (electronics) and MINT (tourism and leisure), both achieving a 100% alignment.

The only notable exception is LH, operating in the real estate sector, which has a SEP score of 3.98, indicating a lower alignment with SEP principles compared to the other companies.

In terms of the ten SEP principles, *Reasonableness* emerges as the most widely reported, with 96% of companies incorporating it into their practices. This high level of assimilation contrasts with prior research by Kantabutra and Siebenhüner (2011), where reasonableness was not the leading indicator. However, in this study, its prominence reflects a trend among Thai companies to critically reflect on the ethical foundations of

their business models. This result can also be attributed to Thailand's regulatory framework, which has been actively working to increase and deepen disclosure requirements for Thai companies.

Following reasonableness, *Perseverance* is reported by 90% of companies, emphasizing the proactive measures taken by Thai businesses to protect the environment. These measures contribute to climate change mitigation and adaptation efforts, particularly through emissions management.

The third most reported principle is *Moderation* (81%), which emphasizes responsible resource management, such as the efficient use of energy and water, as well as waste reduction. Rooted in the *Middle Path* philosophy, moderation is deeply ingrained in Thai society, which helps explain its widespread integration into business practices and national policies.

Despite the importance that Buddhism places on principles such as non-harming and compassion, *Morality* (52%) and *Broad Stakeholder Focus* (53%) are the least reported indicators. This is particularly evident in the low reporting on GRI 412, which assesses human rights practices, highlighting Thailand's ongoing challenges in this field.

Table 2. Final Dataset

Company	Reasonableness	Knowledge	Morality	Compassion	Self- immunity	Geosocial development	Broad stakeholder focus	Perseverance	Moderation	Resilience		all SEP
ADVANC	1.00	0.50	0.38	0.75	0.67	0.29	0.19	1.00	0.80	0.00	5.57	56%
AOT	1.00	0.33	0.64	0.58	0.53	0.64	0.60	0.60	0.60	0.00	5.53	55%
AWC	1.00	1.00	0.33	0.97	0.92	0.86	0.71	1.00	0.87	1.00	8.66	87%
BANPU	1.00	1.00	0.67	1.00	1.00	1.00	0.57	1.00	1.00	1.00	9.24	92%
BBL	1.00	1.00	0.17	0.63	0.67	0.57	0.29	1.00	1.00	1.00	7.32	73%
BDMS	0.92	0.50	0.21	0.26	0.60	0.27	0.40	0.80	0.73	0.00	4.69	47%
BEM	1.00	1.00	0.33	0.65	0.83	0.43	0.43	1.00	0.73	1.00	7.40	74%
BGRIM	1.00	0.50	0.96	0.88	1.00	1.00	1.00	1.00	1.00	1.00	9.33	93%
ВН	1.00	0.50	0.26	0.31	0.67	0.29	0.31	1.00	0.60	0.00	4.94	49%
BTS	1.00	1.00	0.33	0.50	0.67	0.71	0.29	1.00	1.00	1.00	7.50	75%
CBG	1.00	0.50	0.67	0.94	0.83	0.86	0.71	1.00	1.00	0.00	7.51	75%
CENTEL	1.00	1.00	0.50	0.73	0.67	0.71	0.43	1.00	0.93	1.00	7.98	80%
CPALL	1.00	1.00	0.88	0.95	0.92	1.00	0.90	1.00	0.93	1.00	9.58	96%
CPF	1.00	1.00	0.96	0.63	0.77	0.57	0.67	0.80	0.80	1.00	8.19	82%
CPN	1.00	1.00	0.83	0.97	0.92	1.00	0.86	1.00	0.93	1.00	9.51	95%
CRC	1.00	0.33	0.28	0.21	0.67	0.43	0.43	1.00	0.67	0.00	5.01	50%
DELTA	1.00	1.00	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	9.96	100%
EA	1.00	0.83	0.06	0.58	0.60	0.57	0.29	0.80	0.33	1.00	6.06	61%
EGCO	1.00	0.50	0.28	0.78	0.92	0.93	0.50	1.00	0.80	0.00	6.70	67%
GPSC	1.00	1.00	0.50	0.75	1.00	0.93	0.57	1.00	1.00	1.00	8.75	88%
GULF	1.00	0.50	0.33	0.88	1.00	0.86	0.43	1.00	1.00	0.00	6.99	70%
HMPRO	1.00	1.00	0.67	0.65	1.00	0.71	0.71	1.00	1.00	1.00	8.74	87%

INTUCH	1.00	0.50	0.22	0.38	0.67	0.29	0.14	1.00	0.20	1.00	5.39	54%
IVL	1.00	1.00	0.90	0.81	0.83	1.00	1.00	1.00	0.87	1.00	9.41	94%
KBANK	1.00	1.00	0.61	0.44	0.77	0.43	0.24	0.80	0.87	1.00	7.15	71%
KTB	1.00	0.50	0.50	0.50	0.67	0.14	0.14	1.00	0.93	0.00	5.39	54%
KTC	1.00	0.50	0.50	0.50	0.67	0.14	0.14	1.00	0.93	0.00	5.39	54%
LH	0.58	0.50	0.36	0.30	0.33	0.37	0.38	0.00	0.13	1.00	3.96	40%
MINT	1.00	1.00	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	9.96	100%
MTC	1.00	0.50	0.83	1.00	1.00	1.00	0.86	1.00	1.00	0.00	8.19	82%
OR	1.00	1.00	0.83	0.97	0.85	1.00	0.86	0.80	1.00	1.00	9.31	93%
OSP	1.00	0.83	0.06	0.35	0.67	0.43	0.26	1.00	0.87	1.00	6.47	65%
PTT	1.00	1.00	0.83	0.97	0.85	1.00	0.86	0.80	1.00	1.00	9.31	93%
PTTEP	1.00	1.00	0.83	0.97	0.85	1.00	0.86	0.80	1.00	1.00	9.31	93%
PTTGC	1.00	1.00	0.83	0.97	0.85	1.00	0.86	0.80	1.00	1.00	9.31	93%
RATCH	1.00	1.00	0.88	0.94	1.00	1.00	0.90	1.00	1.00	1.00	9.72	97%
SAWAD	1.00	0.50	0.17	0.50	0.53	0.36	0.26	0.60	0.47	1.00	5.39	54%
SCB	1.00	0.83	0.28	0.35	0.60	0.43	0.29	0.80	0.53	1.00	6.11	61%
SCC	1.00	1.00	0.83	0.83	1.00	1.00	0.86	1.00	1.00	1.00	9.52	95%
SCGP	1.00	1.00	0.83	0.83	1.00	1.00	0.86	1.00	0.93	1.00	9.46	95%
TISCO	1.00	1.00	0.17	0.50	0.67	0.36	0.26	1.00	0.53	1.00	6.49	65%
TLI	0.75	1.00	0.22	0.46	0.67	0.25	0.24	1.00	0.60	1.00	6.19	62%
TOP	1.00	0.67	0.33	0.91	0.75	0.86	0.29	1.00	1.00	1.00	7.80	78%
TRUE	1.00	1.00	0.49	0.61	0.75	0.93	0.55	1.00	0.67	1.00	7.99	80%
TTB	1.00	0.50	0.28	0.59	0.67	0.29	0.38	1.00	0.73	0.00	5.44	54%
TU	1.00	0.83	0.67	1.00	1.00	1.00	0.50	1.00	1.00	1.00	9.00	90%
WHA	1.00	0.00	0.33	0.25	0.67	0.29	0.14	1.00	0.67	0.00	4.35	43%
	96%	76%	52%	68%	77%	67%	53%	90%	81%	71%		

6.2 Is there a significant correlation between the adherence and internalisation of the Sufficiency Economy Philosophy (SEP) principles and the ESG scores of companies?

ESG scores, as a widely accepted metric for assessing corporate sustainability performance, provide a structured way to evaluate how companies manage environmental, social, and governance-related risks and opportunities. Therefore, the second research question in this thesis seeks to explore whether there is a significant correlation between the adherence and internalization of the SEP principles and the Environmental, Social, and Governance scores of companies.

To ensure reliable ESG scores, this research utilizes the S&P Global database, a leading provider of ESG ratings. The S&P Global ESG Score evaluates a company's management of material ESG risks, opportunities, and impacts by drawing from a diverse range of data sources, including company disclosures, media and stakeholder analysis, modelling approaches, and direct engagement through the Corporate Sustainability Assessment (CSA), including 62 industry-specific questionnaires, designed to capture nuanced ESG data across different sectors.

The scoring process is based on a 0-100 scale, with 100 representing the highest level of performance. The assessment encompasses over 1,000 data points across multiple ESG dimensions, including environmental impact (e.g., emissions, energy consumption, and resource use), social responsibility (e.g., labour practices, diversity, and community engagement), and governance (e.g., corporate transparency, risk management, and ethical practices). These comprehensive evaluations provide a robust measure of a company's sustainability performance, offering critical insights into how firms are navigating the complex ESG landscape (S&P Global, n.d.).

To ensure the robustness of the results of the first research question, this research double-checks the findings by correlating the SEP scores (developed through the methodology described earlier) with the ESG scores from S&P.

This cross-verification is critical because it provides a broader understanding of sustainability beyond just one framework.

6.2.1 Results

To assess the degree of alignment between the SEP score and the ESG score, companies were ranked on a scale from 1 to 48.

As highlighted by *Table 3*, there is an average ranking difference of 13 positions between the SEP ranking and the S&P ESG ranking among the analysed companies. This difference reflects a notable, though imperfect, alignment between the internalization of SEP principles and ESG performance. Only in one instance, TMBThanachart Bank Public Company Limited, do the rankings align perfectly, with the company placed 33rd in both the SEP and ESG ranking systems.

Two additional cases are worth mentioning since they demonstrate a strong correlation between the two systems: Thai Oil Public Company Limited and CP All Public Company Limited, both of which show only a one-point difference between their SEP and ESG rankings.

However, an outlier is RATCH Group Public Company Limited, which exhibits a significant discrepancy, with a 36-point ranking difference. Despite achieving a high SEP score of 9.72, its ESG score stands at 62, below the average ESG score of 69.59 reported by the companies in the sample. This misalignment highlights the potential disconnect between a company's sustainability disclosures and its actual performance in terms of ESG metrics.

Table 3. ESG Score vs SEP Score

SYMBOL	SEP Score	SEP Ranking (out of 48)	ESG Score (S&P Database)	ESG Ranking (out of 48)	Ranking difference
ADVANC	5.57	31	85	9	22
AOT	5.53	32	78	19	13
AWC	8.66	13	78	20	7
BANPU	9.24	9	72	26	17
BBL	7.32	22	69	31	9
BDMS	4.69	39	72	27	12
BEM	7.40	21	27	48	27
BGRIM	9.33	7	85	10	3
ВН	4.94	38	36	43	5
BTS	7.50	20	83	13	7
CBG	7.51	19	68	32	13
CENTEL	7.98	17	62	37	20

CPALL	9.58	3	88	4	1
CPF	8.19	15	85	11	4
CPN	9.51	4	84	12	8
CRC	5.01	37	77	21	16
DELTA	9.96	1	76	23	22
EA	6.06	30	87	5	25
EGCO	6.70	25	83	14	11
GPSC	8.75	11	86	6	5
GULF	6.99	24	66	35	11
HMPRO	8.74	12	79	18	6
INTUCH	5.39	34	34	44	10
IVL	9.41	6	73	25	19
KBANK	7.15	23	86	7	16
KTB	5.39	35	61	39	4
KTC	5.39	35	70	30	5
LH	3.96	41	32	45	4
MINT	9.96	1	71	28	27
MTC	8.19	14	41	42	28
OR	9.31	8	89	3	5
OSP	6.47	27	65	36	9
PTT	9.31	8	71	29	21
PTTEP	9.31	8	67	34	26
PTTGC	9.31	8	90	2	6
RATCH	9.72	2	62	38	36
SAWAD	5.39	36	24	49	13
SCB	6.11	29	77	22	7
SCC	9.52	4	83	15	11
SCGP	9.46	5	86	8	3
TISCO	6.49	26	32	46	20
TLI	6.19	28	31	47	19
TOP	7.80	18	80	17	1
TRUE	7.99	16	95	1	15
TTB	5.44	33	68	33	0
TU	9.00	10	81	16	6
WHA	4.35	40	76	24	16
				Average distan	ce 13

The 13-position difference can be attributed to several factors. First, there is a divergence in the methodological approaches. The S&P ESG ranking primarily focuses on evaluating risks and opportunities related to ESG factors. These factors can vary significantly across different industries and regions, and the S&P ESG ranking seeks to quantify how well

companies manage these risks and capitalize on opportunities to ensure sustainable growth.

In contrast, the SEP score measures the degree of alignment with SEP principles, which are more philosophical and holistic in nature. SEP emphasizes ethical considerations, moderation, and long-term sustainability based on Buddhist values, making it a more principles-driven framework.

The difference in rankings between the SEP score and the S&P ESG score can be attributed not only to the varying methodologies behind the two systems but also to the distinct objectives they serve. The S&P ESG Score assesses corporate performance based on the achievement of specific ESG outcomes, risks and opportunities, focusing on quantifiable metrics. In contrast, the SEP score evaluates the degree of alignment between business practices and the philosophical framework of the Sufficiency Economy Philosophy, which emphasizes ethical conduct, moderation, and long-term sustainability.

The SEP score uses the Global Reporting Initiative (GRI) standards as a bridging tool to assess how well companies align with SEP principles in their sustainability reports. Therefore, while the ESG score measures actual ESG outcomes, the SEP score reflects the extent to which companies have internalized and integrated a broader, value-driven model into their operations.

Additionally, the scope of these two frameworks differs significantly. The S&P ESG ranking is an international standard, designed to evaluate companies based on global sustainability practices and expectations. Meanwhile, the SEP framework is country-specific, deeply rooted in Thailand's cultural and philosophical context. This regional specificity means that companies with strong alignment to SEP principles may not fully align with the international ESG standards, and vice versa, further contributing to the ranking disparity.

6.3 How significantly does alignment with SEP principles impact a company's economic performance?

The third research question addresses the potential impact of alignment with the Sufficiency Economy Philosophy principles on a company's economic performance. By examining how adherence to these principles influences financial outcomes, this research

aims to uncover whether companies that integrate SEP into their business practices are also able to achieve economic profitability.

To measure economic performance, we focus on three key financial indicators: Return on Equity (ROE), Price-to-Earnings Ratio (P/E), and Net Profit. These indicators, obtained from the Stock Exchange of Thailand (SET), provide a well-rounded view of a company's financial health.

ROE is a measure of financial performance that calculates how efficiently a company uses its shareholders' equity to generate profits. It is an important metric because it shows the return generated for investors based on the capital they have invested. Generally, high ROE indicates that the company is effectively using its equity base to drive growth and profitability, which is often seen as a sign of sound management. ROE is expressed as a percentage and is calculated as follows:

$$ROE = \frac{Net\ Income}{Shareholder's Equity}$$

Price-to-Earnings Ratio (P/E) compares a company's stock price to its earnings per share (EPS). This ratio is widely used by investors to evaluate whether a stock is overvalued or undervalued in the market. A lower P/E ratio may suggest that a company is undervalued, or it could reflect weaker growth prospects, while a higher P/E ratio indicates investor confidence in the company's future earnings potential. The P/E ratio is calculated as follow:

$$P/E = \frac{Current\ price}{Earning\ per\ share}$$

where EPS serves as an indicator of financial health and refers to the amount of a company's profit allocated to each outstanding share of a company's common stock.

Net Profit reflects the overall profitability of a company after all expenses, taxes, and interest have been deducted from revenue. It is the ultimate measure of financial success, indicating the company's ability to generate surplus earnings.

These three economic indicators were chosen for their relevance in assessing both short-term profitability and long-term financial sustainability.

6.3.1 Results

The correlation analysis between the SEP scores and various financial performance metrics was based on the economic data pertains to the year 2023. The number, where not expressed as percentage, refers to Thai Baht (THB). The data was obtained from the SET website.

As showed in *Table 4*, the results indicate a weak positive correlation between SEP scores and ROE, with a coefficient of 0.098, suggesting that, in general, companies that demonstrate higher adherence to SEP principles tend to exhibit slightly elevated ROE values. However, this relationship is not robust enough to be considered statistically significant, indicating that other factors may play a more substantial role in influencing ROE beyond alignment with SEP principles.

This weak link can also be explained by the fact that SEP emphasizes values such as moderation and perseverance, which may not immediately translate into higher short-term profits but focus instead on long-term resilience and profitability.

Furthermore, the Thai economy is characterized by structural issues such as dependence on foreign capital and technology. These factors can limit the direct financial outcomes of SEP adherence, as many Thai companies operate within a globalized market where external factors like global supply chains and foreign investor expectations play significant roles in determining profitability.

Finally, the weak correlation also reflects the fact that SEP and financial performance metrics such as ROE serve different objectives. While SEP is philosophically grounded in Buddhist principles, ROE is a measure of financial efficiency and profitability, which might not capture the full range of benefits that SEP-driven strategies provide, particularly in terms of social or environmental gains. This could explain why, despite SEP alignment, some companies may not show strong financial returns when measured by conventional metrics like ROE.

Similarly, the correlation with the Price-to-Earnings ratio stands at 0.033, further reinforcing the weak positive correlation observed before between economic performance and SEP adherence.

This weak correlation may be explained by the fact that P/E ratio is primarily influenced by investor sentiment, which usually prioritize immediate gain and therefore look to short-term financial performance, rather than long-term sustainability practices.

The correlation with Net Profit is also minimal, showing a coefficient of 0.159. This suggests that companies with higher adherence to SEP principles tend to experience slightly higher net profits, although the relationship is not strong enough to imply a direct cause-and-effect link.

This positive correlation may reflect the growing recognition among consumers and investors of the value of sustainability and ethical business practices. Companies that align with SEP principles, and therefore internalise principle such as morality and compassion, may benefit from enhanced reputation and customer loyalty, which can positively influence their profitability over time.

However, the relatively low correlation also suggests that while there may be some positive association between SEP adherence and profitability, other factors, like market conditions and the overall economic environment, still play a significant role in determining net profit.

Furthermore, the dynamic nature of Thailand's economy, characterized by structural challenges and varying consumer preferences, means that companies must navigate a complex landscape where the immediate financial returns of sustainability efforts may not always be evident.

In summary, while the correlation of 0.159 suggests a modest link between SEP alignment and Net Profit, it underscores the importance of considering the broader economic and market context in which Thai companies operate.

Overall, the weak positive correlations across ROE, P/E, and Net Profit metrics imply that while there is a slight tendency for companies with higher SEP scores to achieve better financial performance, the strength of these relationships remains low. This suggests that adherence to the principles of the Sufficiency Economy Philosophy may not significantly impact financial outcomes.

These findings highlight the need to consider broader influences on financial performance. Consequently, further analysis may be warranted to explore additional variables that could affect these financial metrics, including industry-specific influences and operational efficiencies.

Table 4. Correlation with Economic Performance

SYMBOL	SEP Score	ROE %	P/E	Net Profit	ROE Correlation	P/E Correlation	Net Profit Correlation
ADVANC	5.57	33	21.92	29,086.11	0.098403133	0.033223	0.159635
AOT	5.53	8.3	97.1	8,790.87			
AWC	8.66	5.92	22.4	5,037.86			
BANPU	9.24	4.37	10.73	5,434.06			
BBL	7.32	8.05	7.41	41,635.52			
BDMS	4.69	15.51	32.58	14,375.27			
BEM	7.40	9.29	37.7	3,478.65			
BGRIM	9.33	5.55	81.05	1,884.60			
ВН	4.94	32.21	25.86	7,006.45			
BTS	7.50	3.11	38.45	1,836.48			
CBG	7.51	21.89	38.84	2,286.20			
CENTEL	7.98	43.75	44.7	1,248.10			
CPALL	9.58	17.46	31.2	18,482.13			
CPF	8.19	5.93	11.01	13,969.55			
CPN	9.51	17.34	22.62	15,061.62			
CRC	5.01	12.41	30.19	8,016.31			
DELTA	9.96	30.15	61.32	18,422.54			
EA	6.06	18.87	19.08	7,606.17			
EGCO	6.70	2.29	12.05	2,683.10			
GPSC	8.75	3.5	49.19	3,694.22			
GULF	6.99	13.07	33.68	14,857.73			
HMPRO	8.74	6,441.77	23.98	6,441.56			
INTUCH	5.39	34.51	19.57	13,138.58			
IVL	9.41	17.99	-	31,006.08			
KBANK	7.15	8.19	8.83	42,405.04			
KTB	5.39	9.4	6.66	36,615.91			
KTC	5.39	21.77	15.58	7,295.39			
LH	3.96	14.52	16.28	7,481.89			
MINT	9.96	7.32	26.06	5,407.06			
MTC	8.19	16.08	20.35	4,906.47			
OR	9.31	10.41	22.56	11,094.07			
OSP	6.47	13.81	28.66	2,402.10			
PTT	9.31	10.31	10.51	112,023.41			
PTTEP	9.31	15.87	8.02	76,706.39			
PTTGC	9.31	0.34	-	999.13			
RATCH	9.72	5.27	15.18	5,167.25			
SAWAD	5.39	18.58	11.24	5,000.80			
SCB	6.11	9.27	9	43,521.33			
SCC	9.52	7.02	13.5	25,914.98			

SCGP	9.46	6.01	34.5	5,248.13		
TISCO	6.49	17.13	10.91	7,301.11		
TLI	6.19	9.58	11.67	9,706.66		
TOP	7.80	12.09	7.31	19,443.17		
TRUE	7.99	-	-17.00	-15537.00		
TTB	5.44	8.24	9.3	18,462.18		
TU	9.00	10.2	14.87	-13933.00		
WHA	4.35	13.51	16.32	4,425.74		

6.4 Contribution of the analysis

This research has the potential to make significant contributions to studies on sustainable development and business practices in developing countries by addressing several key areas.

First, it fills an important gap in the existing literature by providing a quantitative analysis of how Thai companies are implementing the Sufficiency Economy Philosophy in their business practices. While SEP has been extensively studied in the context of Thailand's national development, its application within the private sector remains underexplored. By focusing on companies listed in the SET50 index, this research offers new insights into how traditional philosophies can be integrated into corporate strategies, thereby enriching the broader conversation on sustainable business practices in developing economies.

Furthermore, this study highlights the importance of culturally driven models of development. Much of the existing research on sustainable development is framed around global frameworks like ESG criteria or the Sustainable Development Goals, which may not always resonate with local contexts. By examining SEP, a philosophy rooted in Buddhist principles and tailored to Thailand's specific socio-economic conditions, this research introduces a fresh perspective. The findings could inspire other developing countries (such as Sri Lanka, Cambodia and Laos) to adopt or adapt similar culturally relevant models, offering alternatives to the more universal development strategies often promoted by global institutions.

Additionally, this research deepens our understanding of how businesses in developing economies can pursue sustainability. Developing countries often face unique challenges, such as resource dependency, environmental degradation, and income inequality and by analysing the alignment between SEP principles, ESG performance, and financial outcomes in Thai companies, this study provides a valuable case study on how businesses can integrate sustainable practices while maintaining economic stability.

Lastly, this research expands the scope of sustainability studies by moving beyond the typical focus on developed countries. It brings into focus a developing country context and incorporates a uniquely local philosophy, enriching the global discourse on sustainable business practices.

6.5 Limitation of the analysis

There are several potential limitations to this research that should be considered.

First, one key limitation is the cultural and philosophical specificity of the study. The focus on the SEP may limit the generalizability of the findings to other countries since this framework offers valuable insights into Thailand's development model but may not easily apply to companies in other contexts that do not share similar cultural or philosophical underpinnings. As a result, the transferability of the research to other economies could be constrained.

Another potential limitation is the challenge of measuring adherence to philosophical principles like the Sufficiency Economy Philosophy. This research uses a "SEP score" to quantify alignment with the philosophy, but defining and quantifying abstract concepts such as reasonableness, moderation, or compassion can be difficult. These are subjective and qualitative values that may not lend themselves well to numerical measurement, potentially leading to biases or inconsistencies in how SEP adherence is assessed.

In addition, the use of GRI in assessing the SEP introduces several limitations. First, GRI framework is designed within a Western context that may not fully resonate with the cultural and philosophical values inherent in SEP, which is rooted in Thai Theravada Buddhism and emphasizes principles such as morality, compassion and perseverance. As a result, the application of GRI standards in environments that do not share these underlying values can lead to misinterpretations or inadequacies in capturing the essence of SEP principles.

Additionally, while the decision to use GRI standards stems from the recommendations of the SET, this choice may not be the most appropriate for capturing the full scope of sustainability practices in the Thai context. Other frameworks, such as the SDGs and the SASB, could offer alternative or complementary perspectives that might align more closely with the philosophical underpinnings of the Sufficiency Economy Philosophy.

The discuss surrounding the use GRI underscores a broader challenge in measuring philosophical principles. The SEP score employed in this research seeks to operationalize abstract values; however, these concepts are subjective and qualitative, making them difficult to measure accurately. The risk of biases or inconsistencies in how these principles are interpreted and assessed is significant. For example, different evaluators may have varying perceptions of what constitutes "moderation" in business practices, potentially leading to discrepancies in scoring (Mason, 2017).

Another limitation of this study pertains to its scope, particularly its focus on companies listed in the SET50. While these firms are significant and influential within the Thai economy, they may not adequately represent the broader business landscape, especially small and medium-sized enterprises (SMEs). SMEs often operate under family business models and are more closely tied to traditional practices, which may not align with the corporate governance structures and operational strategies of larger firms.

SMEs constitute a substantial portion of the Thai economy and play a crucial role in employment and innovation. Research has shown that the business practices of SMEs often reflect a different set of values and priorities compared to larger corporations. For instance, family businesses may prioritize community relationships and local engagement, which can diverge from the performance metrics often emphasized by large publicly listed companies (Farif Kellermanns, 2004).

An additional constraint of this research derives from the seeks to investigate the correlation between SEP scores and ESG performance, as well as between SEP scores and financial outcomes; a correlation that does not necessarily indicate causation. There may be other external factors influencing a company's ESG or financial performance, such as market conditions, government policies, or industry trends, which the study does not account for.

A further drawback of this analysis involves the time constraints. The data collected for this research represents a snapshot in time and may not capture long-term trends or changes in corporate behaviour. Business practices, particularly those related to sustainability, can evolve rapidly in response to market conditions, regulatory changes, or societal expectations and as such, the findings may not fully reflect the future trajectory of these companies.

In summary, while this research offers valuable insights into the integration of SEP in business practices, these limitations should be taken into account, as they may impact the study's conclusions and generalizability.

Conclusion

After a deep dive into the interconnection between sustainable development and Buddhism, this paper investigated how the Sufficiency Economy Philosophy, which derives its fundamentals from Theravada Buddhism, can be applied in the modern fight against unsustainable practices.

Specifically, after presenting an overview of the Kingdom of Thailand, the research endeavoured to explain how SEP can be understood as a framework to address some of the Environmental, Social, and Governance risks arising in Thailand.

The empirical analysis revealed a noteworthy alignment between the business practices of SET50 companies and the principles of the SEP, with a notable average score of 7.47, underscoring a trend in the internalization of key aspects of the SEP within company business practices.

The research's correlation analysis of the SEP with financial indicators such as ROE, P/E ratio, and Net Profit highlights the complexity of measuring the economic impact of adhering to philosophical principles. While the correlations were generally weak, they suggest that further exploration is needed to understand better how sustainable practices influence financial performance in the Thai context.

By linking a profound religious philosophy with economic principles, this study has emphasized the role of informal institutions in facilitating the acceptance and implementation of sustainable development practices in developing countries; demonstrating that the integration of cultural and religious principles can play a significant role in promoting sustainable practices and resolving ESG challenges. As Thailand continues its journey toward sustainable development, the principles of the Sufficiency Economy Philosophy offer valuable insights that can guide businesses, policymakers, and communities in fostering a more sustainable future.

Despite this research's efforts to address the existing gaps in analysing the Sufficiency Economy Philosophy, various domains still require further exploration.

One potential area for deeper inquiry is a Comparative Analysis of SMEs and Large Firms. The close relationship between family-oriented businesses and traditional values rooted in Buddhism suggests that exploring how these companies adhere to SEP principles could yield interesting insights. This analysis could follow the methodology employed by

Kantabutra and Siebenhüner (2011), but considering all ten SEP principles identified in the framework proposed in this study. In addition to quantitative analysis, conducting a series of interviews with business owners would help elucidate this correlation and provide qualitative context to the numerical data, thus enriching the overall findings.

Another promising avenue for improvement involves conducting a longitudinal study to track changes in corporate practices and financial performance over time. This approach would provide insights into how adherence to SEP principles impacts business performance, allowing for a more nuanced understanding of the long-term benefits of integrating sustainability practices.

These follow-up analyses would not only enhance the understanding of the Sufficiency Economy Philosophy's impact on sustainable practices but also contribute to the broader discourse on sustainability in developing economies.

Acknowledgments

Ai miei genitori, Stefania e Mariano, la cui amorevole presenza ha sempre illuminato il mio cammino. Grazie per il vostro sostegno incondizionato e per avermi permesso di seguire il sentiero della mia vita. La vostra costante presenza e il vostro incoraggiamento in ogni mia scelta hanno reso possibile tutto ciò che ho realizzato.

A mio fratello Carlo, che con la sua simpatia e leggerezza ha arricchito la mia vita.

Ai miei amici di sempre, che hanno riempito i miei giorni di gioia e risate. Grazie per farmi sorridere sempre.

A tutte le persone che ho incontrato lungo questo cammino universitario, a quelle che ho perso e a quelle che sono rimaste. Voi avete reso questa esperienza indimenticabile e mi avete fatto sentire a casa, anche quando a casa non ero.

Al Professore F. Scarpa, il cui supporto durante la stesura di questo elaborato mi ha permesso di esplorare un tema tanto raro quanto a me caro. Grazie per aver creduto in me e per avermi guidato con saggezza e pazienza.

Sources

- Anasura, A. T. (2022, March 18). *Overview of Anticorruption Laws in Thailand*. Retrieved from Tilleke & Gibbins: https://www.tilleke.com/insights/overview-of-anticorruption-laws-in-thailand/
- Badge, U. (2014). Essential elements of human rights in Buddhism. *Journal of Law and Conflict Resolutions*, 6(2), 32-38.
- Barua, D. (2023, October 27). A Buddhist Understanding of the Dharma and Human Rights.

 Retrieved from Buddhistdoor Global: https://www.buddhistdoor.net/features/a-buddhist-understanding-of-the-dharma-and-human-rights/
- BDEA/Buddhanet. (2008). 'The order of monks and nuns', Buddhist studies: The Buddha and his disciples. Retrieved from www.Buddhanet.net/e-learning/Buddhism/disciples07.htm
- Board, N. E. (2000). Sufficiency Economy. Bangkok, Thailand.
- Board, N. E. (2007). Thailand's economic and social development: current agenda, paper presented at the NESDB. Bangkok, Thailand.
- Brasington, L. (2002). *Instructions for Entering Jhāna*. Retrieved from Barre Center for Buddhist Studies: https://www.buddhistinquiry.org/article/instructions-for-entering-jhana/
- Britannica. (2024). Bribery. Retrieved from https://www.britannica.com/topic/bribery
- Camelia Voinea, M. N. (2023). The State and the Citizen: Overview of a complex relationship from a paradigmatic perspective. *Qual Quant*, 1-17.
- Campbell, L. (2007). Why Would Corporations Behave in Socially Responsible Ways? An Institutional Theory of Corporate Social Responsibility. *The Academy of Management Review*, 946-967. doi://doi.org/10.5465/amr.2007.25275684
- CMS. (2024). Anti-bribery and corruption laws in Thailand. Retrieved from CMS law tax future: For example, while there are severe penalties under laws like the Submission of Bids Act, which penalizes bid rigging and corruption in public procurement processes, the effective enforcement of these laws is a significant challenge. Corruption distorts f
- Curry, R., & Sura, K. (2007). Human Resource Development (HRD) theory and Thailand's Sufficiency Economy concept and its 'OTP' program. *Journal of Third World Studies, 24-2,* 86-94.
- Darlington, S. (1998). The ordination of a tree: The Buddhist ecology movement in Thailand. *Ethnology*, *37*, 1–15.
- Department of Environmental Quality Promotion. (2017). Mission Zero Waste. Bangkok.
- Dewaraja, L. (1994). The position of women in Buddhism.
- European Commission. (n.d.). Sustainable Development Goals. Retrieved from https://international-partnerships.ec.europa.eu/policies/sustainable-development-goals_en

- Farif Kellermanns, a. K. (2004). Feuding families: When conflict does a family firm good. Entrepreneurship Theory and Practice, 28(3), 241-258.
- Gethin, R. (1998). The Foundations of Buddhism. Oxford: OXFORD UNIVERSITY PRESS.
- Gregory, J., & Sabra, S. (2008, June). Engaged Buddhism and Deep Ecology: Beyond the Science/Religion Divide. *Human Architecture: Journal of the Sociology of Self-Knolwdge*, 6(9).
- Gross, R. (1993). Buddhism after patriarchy: a feminist history, analysis, and reconstruction of Buddhism. State University of New York Press.
- Gunaratana, B. (2002). Mindfulness in plain English.
- Haile, N. (2024, February 26). *Air Pollution In Thailand: The unsafe living conditions in Bangkok*. Retrieved from Air Pollution In Thailand: https://storymaps.arcgis.com/stories/3702b1c72b294846b192cc55342100ef
- Harvey, N. (2012). Nominal group technique (NGT): An effective method of obtaining group consensus. *International Journal of Nursing Practice*, 188-194.
- Hecker, H. (1994). *'Buddhist women at the time of the Buddha*. Retrieved from http://www.accesstoinsight.org/lib/authors/hecker/wheel292.html
- Helal Uddin, S. A. (2024). Investigating the relationship between environmental quality and tourism industry in Thailand. *Environment, Development and Sustainability*.
- Helmke, G., & Levitsky, S. (2004). Informal Institutions and Comparative Politics: A Research Agenda. 2, 725-740.
- Hughes, J. (2007). Buddhist Bioethics. Principles of Health Care Ethics.
- Hussain, D., & Bari, A. (2022, May 10). Environment and Buddhism. *International Journal of Multidisciplinary Educational Research*, 4(2).
- Industry Team. (2024, January 10). *THAILAND INDUSTRY OUTLOOK 2024-2026*. Retrieved from Krungsri: https://www.krungsri.com/en/research/industry/summary-outlook/industry-outlook-2024-2026
- Jeffrey Sachs, G. L. (2024). Sustainable Development Report 2024 Thailand. Paris: Dublin University Press. Retrieved from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://dashboards.sdgindex.org/static/profiles/pdfs/SDR-2024-thailand.pdf
- Jeffrey Sachs, G. L. (2024). The SDGs and the UN Summit for the Future. Sustainable

 Development Report 2024. Paris: Dublin University Press. Retrieved from chromeextension://efaidnbmnnnibpcajpcglclefindmkaj/https://s3.amazonaws.com/sustainableedevelopment.report/2024/sustainable-development-report-2024.pdf
- Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General Hospital Psychiatry*, *4*(1), 33-47.

- Kansuntisukmongkol, K. (2017). Philosophy of sufficiency economy for community-based adaptation to climate change: Lessons learned from Thai change: Lessons learned from Thai casestudies. *Kasetsart Journal of Social Sciences*, 38, 56-61.
- Kantabutra, S. (2014). Measuring corporate sustainability: A Thai approach. *Measuring Business Excellence*, 73-88. doi:10.1108/MBE-02-2013-0015
- Kantabutra, S. (2019). Achieving corporate sustainability: Toward a practical theory. Sustainability, 11(15), 1-39. doi:10.3390/su11154155
- Katanabutra, S. a. (2011, November/December). Predicting Corporate Sustainability: A Thai Approach. *Journal of Applied Business Research (JABR), 27(6),* 123-134. doi:10.19030/jabr.v27i6.6471
- Keown, D. (1991). The nature of Buddhist ethics.
- Kewon, J. H. (1995). Buddhism and medical ethics: A bibliographic introduction. *Journal of Buddhist Ethics*, 2, 105-124.
- Keyes, N., Hart, C., & Ruangtorsak, P. (2007). *Thailand's Sufficiency Economy in action.* . Press Release UNDP.
- Khaw-ngern, C. (2021). Mindulness and Sufficinecy Economy: Framewrok for Waste Managment Reform. *Psychology and Education*, *58*(1), 1373-1379.
- Kitiasa, P. (2014). Towards the New Isan Way: Isan Becoming: Agrarian Change and the Sense of Mobile Community in Northeastern Thailand. Bangkok: Viphasa.
- KPMG. (2021). The ASEAN way & sustainable development.
- Kwanmuang, S. (2005). *Good governance*. Retrieved from Retrieved from http://ci.psru.ac.th/article/
- Levitsky, S., & Helmeke, G. (2004). Informal institutions and comparative policies: A research agenda. *Perspective on Politics*, 2(4), 725-740.
- Lion's Roar. (n.d.). *Buddhism A-Z*. Retrieved from Lion's Roar: Buddhist wisdom for our time: https://www.lionsroar.com/buddhism/five-skandhas/
- Mahamakut Buddhist University. (1982). Thai version Tipitak. Bangkok: Bangkok: Mahamakut Buddhist University Press.
- Mahmood, A., & Ditta, Z. (2021). Does Country Level Sustainability Reporting Affect Sustainable Development of a Country? Evidence from Developed and Developing Countries. *Pakistan Journal of Commerce and Social Sciences, 15 (4),* 796-812.
- Mahmud, A. H. (2024, April 02). *Political Islam: As insurgency drags on in Thailand's Deep South, a new generation is swept up in the conflict*. Retrieved from cna: https://www.channelnewsasia.com/asia/thailand-insurgency-deep-south-separatist-political-islam-4214591
- Mason, C. (2017). Measuring social and environmental impacts: A practical guide for non-profits and businesses. *Impact Measurement and Accountability*, *5*(2), 43-61.
- McCombs School of Business. (n.d.). *Conflict of Interest*. Retrieved from Ethics Unwrapped: https://ethicsunwrapped.utexas.edu/glossary/conflict-of-interest

- Meadows, H. D., Dennis, Randers, J., & III, W. B. (1972). The Limits to Growth. Club of Rome.
- Merriam-Webster. (n.d.). *Corruption*. Retrieved from https://www.merriam-webster.com/dictionary/corruption#:~:text=a,the%20corruption%20of%20government%20officials
- Ministry of Foreign Affairs, Kingdom of Thailand. (2021). Glasgow. Retrieved from https://www.mfa.go.th/en/content/cop26-glasgow?page=5d5bd3cb15e39c306002a9ac&menu=5d5bd3cb15e39c306002a9ad
- Ministry of Industry. (2017). *Thailand 4.0: The Next Revolution*. Retrieved from https://www.industry.go.th/web-upload/1xff0d34e409a13ef56eea54c52a291126/m_magazine/12668/373/file_download/b29e16008a87c72b354efebef853a428.pdf
- Ministry of natural resources and environment . (2021). *Mid-century, Long-term Low Greenhouse Gas Emission Development Strategy*.
- Moore, C. (2019, April 15). What is Self-Reliance and How to Develop It? Retrieved from https://positivepsychology.com/self-reliance/
- O'Brien, B. (2024, May 22). Who Was the Buddha? Retrieved from Lion's Roars: Buddhist wisdom for our time: https://www.lionsroar.com/who-was-the-buddha/
- OECD Integrity review of Thailand. (2018). An overview of governance and corruption in Thailand. Retrieved from https://read.oecd-ilibrary.org/governance/oecd-integrity-review-of-thailand/an-overview-of-governance-and-corruption-in-thailand_9789264291928-4-en#page1
- Office of Natual Resources and Environmental Policy and Planning. (2017). *Thailand Environmental Quality Managment Plan (2017-2021)*. Bangkok.
- Office of the National Economic and Social Development Board. (2007). *Philosophy of Sufficiency Economy*. Bangkok: 21 Century.
- Office of the National Economic and Social Development Board. (2020). *The Royal Initiative for Sustainable Development*. Bangkok: Sahamit Printing and Publishing.
- Office of the National Economic and Social Development Council. (2016). *The 12th National Economic and Social Development Plan (2017-2021).* Bangkok. Retrieved from https://www.nesdc.go.th/article_attach/article_file_20230615134223.pdf
- Office of the National Economic and Social Development Council. (2023). *The 13th National Economic and Social Development Plan 2023-2027.* Bangkok.
- O'Sullivan, P., & Pisalyaput, N. (2015). The sufficiency economy: a Thai response to financial excesses. *The philosophy, politics and economics of finance in the 21st century: from hubris to disgrace*, 300-309.
- Payutto, P. (2015). Dictionary of Buddhism. Bangkok: Pet and Home Press.
- Payutto, P. A. (2015). Dictionary of Buddhism. Bangkok: Pet and Home Press.
- Perera LPN. (1991). Buddhsim and Human Rights. A Buddisht Commentary on the UDHR. Karunaratne & Sons, 145.

- Phukamchanoad, P. (2020). Sabai-Dee E-San" Social Development Approach to People's State Powers' Interdependent Parallel-Farming Way of Living. Bangkok: Suan Sunandha Rajabhat University.
- Phukamchanoad, P. (2022). The innovative approach to sufficiency economy in Thailand's northeastern region provinces. *Journal of Community Positive Practices, XXXII(1)*, 20-33. doi:https://doi.org/10.35782/JCPP.2022.1.02
- Phukamchanoad, P. (2022). The innovative approach to Sufficiency Economy in Thailand'sNortheast Region Provinces. *Journal of Community Positive Practices*, 22(1), 20-30.
- Piboolsravut, P. (2004). *Sufficiency Economy*. ASEAN Economic Bulletin. Retrieved from http://www.jstor.org/stable/25773806
- Pisalyaput, P. O. (2015). The sufficiency economy: A Thai response to financial excesses.
- Premkumar, R. (2017, Feb). The feasibility of the solution for the problems of sustainable development in th elight of dialectic of enlightenment (DE) and buddhism in world: a philosophical analysis. *Asian Journal of Sciences and Humanities*, 6(1).
- Purser, R. (2015). Mindfulness revisited: A Buddhist-based conceptualization. *Journal of Management Inquiry,*, 24(1), 3-24.
- Rahula, W. (1974). What the Buddha taught.
- Rahula, W. (1974). What the Buddha Taught. New York: Grove Press.
- Report of the World Commission on Environment and Development. (1987). *Our Common Future*. Retrieved from https://sustainabledevelopment.un.org/content/documents/5987our-commonfuture.pdf
- Rinpoche, A. T. (2018, August 23). *The Past and the Future of Women in Buddhism*. Retrieved from Buddhistdoor global: https://www.buddhistdoor.net/features/the-past-and-the-future-of-women-in-buddhism/
- S&P Global. (n.d.). ESG Scores and Raw Data. Retrieved from https://www.spglobal.com/en
- Sachayansrisakul, N. (2012). Sufficiency Economy: A reasonable approach for Thailand's Future. *NIDA Development Journal*.
- Sasanarakkha Buddhist Sanctuary. (2022). *Sigalovada Sutta: Responsibilities of a Spouse*. Retrieved from https://sasanarakkha.org/2004/03/06/responsibilities-of-a-spouse/
- Sathirathai, S., & Piboolsravut, P. (2004). *Sufficiency Economy and a Healthy Community*. Bangkok, Thailand.
- Schumacher, E. (1974). Small is beautiful. Abacus, UK.
- Sheate, U. T. (2020, July 2). The Way Forward in Mindfulness and Sustainability: a Critical Review and Research Agenda. *Journal of Cognitive Enhancement*, *5*, 118-139.
- Silva, P. D. (2003). Homosexuality and Theravada Buddhism . *Buddha Dharma Education Association*.

- Silva, S. d. (2024). *The place of women in buddhism*. Retrieved from Alliance for Buddhism: https://bhikkhuni.net/the-place-of-women-in-buddhism/
- Sirimanne, C. R. (2016). Buddhism and Women-The Dhamma Has No Gender. *Journal of International Women's Studies, 18(1),* 273-292. Retrieved from https://vc.bridgew.edu/jiws/vol18/iss1/17
- Sivaraksa, S. (2011). *The Wisdom of Sustainability: Buddhist Economics for the 21st Century.*Souvenir Press.
- Song, H.-C. (2020, June). Sufficiency economy philosophy: Buddhism-based sustainability framework in Thailand. *Business Strategy and the Environment*. doi:10.1002/bse.2553
- Sponberg, A. (1992). Attitudes toward women and the feminine in early Buddhism. *Buddhism, sexuality, and gender*, 8.
- Statista. (2021). Share of Thai population in 2021, by religion. Retrieved from https://www.statista.com/statistics/1256547/thailand-population-by-religion/
- Stock Exchange of Thailand. (n.d.). SET50 Index and SET50FF Index Series. Retrieved from https://www.set.or.th/en/market/index/set50/profile
- Sufficiency Economy Organisation. (1999). . What is Sufficiency Economy? 1-30.
- Sukhumpont, C. (2024). Good Governance Principles in Buddhism for Business and Politics Administration. *Migration Letters*, *21*, 818-827.
- Suttipun, M. (2015, May 16). Sustainable Development Reporting: Evidence from Thailand. *Asia Social Science*.
- Suwarno, A. S. (2023, March 06). *Plastic Pollution in Thailand Mangrove Forest Reflecting the Situation in Southeast Asia*. Retrieved from Regional Knowledge Centre for Marine Plastics Debris: https://rkcmpd-eria.org/news/plastic-pollution-in-thailand-mangrove-forest-reflecting-the-situation-in-southeast-asia
- Tachachatwanich, P. (2024, January 8). How Socioeconomic Status Affects Thai Education Inequity and How Stakeholders in the Community Can Address It. Retrieved from beacon venture capital: https://www.beaconvc.fund/research/how-socioeconomic-status-affects-thai-education-inequity-and-how-stakeholders-in-the-community-can-address-it
- The Chaipattana Foundation Journal. (1999). Self-sufficient Economy. *The Chaipattana Foundation Journal*.
- The Securities and Exchange Commission. (2021). *Annual Registration Statement / Form 56-1 One Report*. Bangkok, Thailand.
- The Siam Cement. (2019). *Sustainability Highlights 2019*. Retrieved from //scc.listedcompany.com/misc/sustainabilit
- The Stock Exchange of Thailand. (2019). Sustainability Reporting Guide for Listed Companies. Bangkok.
- Thompson, N. (2018, April 5). *Corruption in Thailand: Running in Place*. Retrieved from The Diplomat: https://thediplomat.com/2018/04/corruption-in-thailand-running-in-place/

- Thorntonilliam, P. H., Ocasio, M., & Lounsbury, M. (2015). *The Institutional Logics Perspective*. doi:10.1002/9781118900772.etrds0187
- Thunn. (2024, April 29). *Deforestation in Thailand: challenges and solutions for forest conservation*. Retrieved from Thaiger: https://thethaiger.com/guides/deforestation-in-thailand-challenges-and-solutions-for-forest-conservation
- U.S. Environmental Protection Agency. (1976). Resource Conservation and Recovery Act.
- Uchida, A. P. (2022, November). *Unleashing Thailand's electric mobility potential*. Retrieved from Arthur Little: https://www.adlittle.com/en/insights/report/unleashing-thailand%E2%80%99s-electric-mobility-potential
- UN ESCAP. (2020). Asia and the pacific SDG progress report.
- UN Meeting Coverage and Press Releases . (1998, December 10). MARKING FIFTIETH

 ANNIVERSARY OF UNIVERSAL DECLARATION OF HUMAN RIGHTS, ASSEMBLY NOTES

 NEED TO OVERCOME OBSTACLES TO THEIR FULL ENJOYMENT. Retrieved from
 GA/9533: https://press.un.org/en/1998/19981210.ga9533.html
- UN News. (2006, May 26). With new Human Development award, Annan hails Thai King as example for the world. Retrieved from United Nations: https://news.un.org/en/story/2006/05/180192
- Unacademy. (n.d.). Economic Planning-The Gandhian Model of Growth. Retrieved from https://unacademy.com/content/ssc/study-material/indian-economy/economic-planning-the-gandhian-model-of-growth/#:~:text=The%20Gandhian%20economics%20process%20has,with%20the%20 sacrifice%20truth%20Incorporation.
- UNESCO ESCO. (2013). Towards a Sufficiency Economy: A New Ethical Paradigm for Sustainability. Paris: Unesco Future Lecture.
- United Nations General Assembly. (2012). *The future we want*. Retrieved from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://documents.un.org/doc/undoc/gen/n11/476/10/pdf/n1147610.pdf
- United Nations. (2023). *The Sustainable evelopment Goals Report*. Retrieved from https://unstats.un.org/sdgs/report/2023/
- United Nations. (2024). *Human Development Index*. Retrieved from Human Development Report: https://hdr.undp.org/data-center/human-development-index#/indicies/HDI
- United Nations. (n.d.). *Millenium development goals*. Retrieved from https://www.un.org/millenniumgoals/
- Verma, M. K. (2018). Buddhist way of sustainable development: theory and practice. In *Buddhist approach to responible consumption and sustainable development.*
- Vipassana Meditation. (n.d.). Retrieved from https://www.dhamma.org/en/about/vipassana
- Viroj Tangcharoensathien, W. P. (2003). Thailand Universal Coverage Scheme.
- World Bank Group. (2022). Retrieved from https://www.worldbank.org/en/home

- Worldometer. (2024). *Thailand Population* . Retrieved from https://www.worldometers.info/world-population/thailand-population/
- Yarrow, R. (2022, October 24). Why is Thailand's economy stuck in the middle-income trap?

 Retrieved from ThailandBusinessNews: https://www.thailand-businessnews.com/opinion/93582-why-is-thailands-economy-stuck-in-the-middle-income-trap

Appendix 1. Material topics and metrics according with the Sustainability Reporting Guide

Envi	ronment	Explanation	Metrics	
E1	Environmental Policy and Compliance Standards	An environmental policy outlines a company's approach to energy management and resource use efficiency, which are essential for businesses in any industry.	-	Environmental management policy and guidelines Compliance with international energy management principles and standards Other
E2	Energy Management	The efficient sourcing and consumption of electricity, fossil fuels, and other energy sources show that a company is effectively managing costs and putting in efforts to reduce their reliance on wasteful and non-renewable energy sources.	- - -	Energy management plan Energy consumption Renewable energy consumption Energy intensity Energy management target
Е3	Water Management	The efficient sourcing and consumption of water show that a company is managing costs in its business processes and reducing the risks of water shortages.	- - - -	Water management plan Volume of water consumption Water use target Water intensity Percentage of wastewater treated before discharged
E4	Waste Management	Efforts to reduce waste from business operations demonstrate a company's ability to use resources efficiently, as well as its efforts to reduce the potential negative impacts of its business processes on communities and societies.	- - - -	Waste management plan Volume of waste generated Waste management target Volume of waste that is reused and/or recycled
E5	Greenhouse Gas Management	Efforts to control and continuously reduce greenhouse gas emissions will help a company to mitigate the impacts and severity of climate change and natural disasters on its business activities.	- - -	Greenhouse gas management plan Scope 1 and 2 greenhouse gas emissions External verification of greenhouse emissions data Other
S1	Human Rights	Business activities can impact the qualities of life and human rights of many groups of stakeholders. To treat all stakeholders fairly, companies must first demonstrate an understanding of their stakeholders, adopt a positive mindset in their conduct, and operate in a way that does not violate human rights.	-	Human right policy and guidelines Human rights due diligence and protection measures Number of cases of human rights violations, and explanations of remediation and mitigation measures
S2	Fair Labor Practices	The fair treatment of employees – from recruitment to retirement – demonstrates that a company is committed to engaging and building relationships with its employees. This also helps to reduce the risk of Labor conflicts.	- - -	Number of employees by gender, age group, level and location Gender pay gap Employee development target Occupational safety, health and environment

S3	Responsibility to Costumer/Consumers Responsibility to Communities/Societies	Responsibility to customers and consumers is about a company's commitment to offering reliable products and/or services that increase their satisfaction and trust. Responsibility to communities and societies is about a company's commitment to protecting them from negative business impacts. In addition, by regularly engaging in community/social development activities, companies are demonstrating their dedication to sustainably improving the qualities of life of people in society.	improvement plans or activities - Other - Consumer data protection policy and guidelines - Number of incidents of consumer data breaches, and remediation measures - Other - Policy on developing and engaging with communities/societies affected by the business - Number of conflicts with communities/societies, and remediation measures - Other
G1	Policy, Structure and Governance System	A good corporate governance structure and management system are indicators that a company has internal control mechanisms that promote fairness and transparency. The system and structure should also stipulate how the Board of Directors and leadership will lead the organization towards success, as well as consider benefits to shareholders and responsibility to stakeholders.	 Profiles of individual directors Number of female directors Number of board meetings Audit committee performance Policy and criteria for director renumeration Director development policy Other
G2	Sustainability Policy and Strategy	An organization's sustainability policy and strategy are indicators of its commitment to sustainable business governance and growth, alongside social and environmental progress.	 Sustainability policy and targets at the organisation level Material sustainability topics Other
G3	Sustainability Risk Management	An approach to risk and opportunity management for economic, social and environmental changes reveals whether a company has an adequate internal control system. This will help stakeholders to have confidence in a company's ability to respond to and effectively manage those risks.	 Sustainability risk management policy and guidelines ESG risks and opportunities Emerging risks Business continuity plan (BCP) Standards on sustainability risk management
G4	Sustainable Supply Chain Management	Sustainable supply chain management is about managing a supply chain effectively and transparently, as well as engaging with suppliers. This covers the process from supplier selection to procurement, evaluation, and promoting supplier compliance	 Sustainable chain management policy and guidelines Sustainable supply chain management plan Other

		with a company's sustainable business approach.	
G5	Innovation Development	Innovation development demonstrates how a company is committed to increasing their competitiveness in the midst of economic, social and environmental change, in order to respond to the needs of stakeholders and create value for the business and society.	 Innovation development policy and guidelines at the organisation level Process to develop and promote an innovative culture Spending on innovation research and development Other

Appendix 2. Buddhish Glossary

Buddhism Expression	Meaning
Adhitthana	Determination and resolution
Ahimsa	Non-harming
Arhat	Worthy one
Arupa-loka	Realm of immateriality
Asuras	Demons
Ayatana	Sense base
Bhikkhu	Monks
Bhikkhunī	Nuns
Bodhisattvas	Enlightened being who delay their final enlightenment to help other achieve theirs
Cattri Ariya Saccani	4 Nobel Thruth
Dana	Generosity and Charity
Dasa Raja Dharma	Rules for Good Governance
Devos	Supernatural being subject to the cycle of rebirth
Dhamma (Dharma)	The law of the Nature
Dukkha	Suffering
Jhanic	Purification
Kalavathi - Dharmas	12 Duties of the Ruler
Kama-loka	Realm of desire
Kamma	Karma
Karuna	Compassion
Kayakamma	Bodily action
Khanti	Patience, tolerance and endurance
Kusalakammabhatta	Ethical Guide
Lamas	In Tibetan Buddhism, spiritual teacher
Magga	Path to Enlightenment
Majjhimā-paṭipadā	Middle way
Manokamma	Mental action
Mattaññutā	Moderation
Metta	Loving / Kindness
Nekkhamma	Renunciation
Pali Canon	Collection of scriptures in the Theravada Buddhist
Pancasila	5 Precepts
Panna	Wisdom
Paramiyo	Perfection
Pratītyasamutpāda	Dependent origination
Pretas	Hungry ghosts
Rupa	Materiality

Rupa-loka	Realm of material form
Sacca	Honesty and truthfulness
Samadhi	Concentration
Samsara	Cycle of Rebirth
Sangha	Buddhist Community
Sankhara	Mental formations that condition one's psychological activities
Sanna	Cognitive perception
Sati	Mindfulness
Satta Aparihani Dhamma	Seven Condition of Welfare
Siddartha Gautma	The original Buddha
Sigalovada Sutta	31 st Sutta
Sila	Morality/Ethical Conduct
Skandha	Components that make up our individual self or being
Sutta	Buddhist scripture
Taṇhā	Desire
Theravada Buddhism	School of Buddhism that draws its scriptural inspiration from the Tipitaka, or Pali canon
Tipitaka	Traditional term for ancient collections of Buddhist sacred scriptures
Upasaka	Layman
Upasika	Laywomen
Upekkha	Equanimity and serenity
Vedana	Feelings
Vinaya	Monastic Code, literally "to lead"
Vinnana	Consciousness
Vipassana	Inner vision / Insight meditation
Viraya	Persistent effort and diligence
Wajikamma	Verbal action

Appendix 3. List of companies

				Industry (IND)			
N.	SYMBOL	SET50 Company	Industry	Environmentally sensitive industry	Other industry	Document	Link	Year
1	ADVANC	ADVANCED INFO SERVICE PUBLIC COMPANY LIMITED	Information & Communication	X		Sustainability Report	https://investor.ais.co.th/misc/sustainability/20240223-advanc-srd-2023-en.pdf	2023
2	AOT	AIRPORTS OF THAILAND PUBLIC COMPANY LIMITED	Transportation & Logistics	X		Sustainable Development Report	https://corporate.airportthai.co.th/storage/2 024/01/AOT-SD-report-2023.pdf	2023
3	AWC	ASSET WORLD CORP PUBLIC COMPANY LIMITED	Property Development	X		Sustainability Report	https://www.assetworldcorp- th.com/en/flipbook/767/sustainability- report-2023	2023
4	BANPU	BANPU PUBLIC COMPANY LIMITED	Energy & Utilities	X		Sustainability Report	https://www.banpu.com/upload/sd- report/Banpu-SD-Report-2023-EN.pdf	2023
5	BBL	BANGKOK BANK PUBLIC COMPANY LIMITED	Banking		X	Sustainability Report	https://www.bangkokbank.com/- /media/files/investor- relations/sustainability- report/2023/sr2023 en.pdf	2023
6	BDMS	BANGKOK DUSIT MEDICAL SERVICES PUBLIC COMPANY LIMITED	Health Care Service	Х		Sustainability Report	https://bdms.listedcompany.com/misc/flipb ook/index.html?id=276329	2023
7	BEM	BANGKOK EXPRESSWAY AND METRO PUBLIC COMPANY LIMITED	Transportation & Logistics	X		Sustainability Report	https://bem.listedcompany.com/misc/sd- report/sd2023-en/index.html	2023
8	BGRIM	B. GRIMM POWER PUBLIC COMPANY LIMITED	Energy & Utilities	X		Sustainability Report	https://www.bgrimmpower.com/en/flipbook/ 445/sustainability-report-2023	202 3

9	ВН	BUMRUNGRAD HOSPITAL PUBLIC COMPANY LIMITED	Health Care Service	X		Sustainability Report	https://investor.bumrungrad.com/misc/flipbo ok/index.html?id=277986	202 3
10	BTS	BTS GROUP HOLDINGS PUBLIC COMPANY LIMITED	Transportation & Logistics	X		Sustainability Report	https://www.btsgroup.co.th/en/document/vie wer/flipbook/943/sustainability-report- 202324.html	202 3/2 024
11	CBG	CARABAO GROUP PUBLIC COMPANY LIMITED	Food & Beverage		X	Sustainability Report	https://www.carabaogroup.com/en/pdf/CBG- Sustainability-Report-2023.pdf	202 3
12	CENTEL	CENTRAL PLAZA HOTEL PUBLIC COMPANY LIMITED	Tourism & Leisure		X	Sustainability Report	https://centel.listedcompany.com/misc/flipbook/index.html?id=277771	202 3
13	СОМ7	COM7 PUBLIC COMPANY LIMITED	Commerce		X	Sustainability Report	https://www.irplus.in.th/Listed/COMSEVEN/pdf/SD_Report_66.PDF	202 3
14	CPALL	CP ALL PUBLIC COMPANY LIMITED	Commerce		X	Sustainability Report	https://www.cpall.co.th/en/sustain/sd-report	202 3
15	CPF	CHAROEN POKPHAND FOODS PUBLIC COMPANY LIMITED	Food & Beverage		X	Sustainability Report	https://www.cpfworldwide.com/storage/susta inability report/CPF SR2023 EN.pdf	202 3
16	CPN	CENTRAL PATTANA PUBLIC COMPANY LIMITED	Property Development	X		Sustainability Performance Report	https://www.centralpattana.co.th/storage/do wnload/sustainability/reporting- library/en/2023-sustainability-performance- en.pdf	202
17	CRC	CENTRAL RETAIL CORPORATION PUBLIC COMPANY LIMITED	Commerce		X	Sustainability Report	https://www.centralretail.com/en/document/ viewer/flipbook/770/sustainability-report- 2023	202 3
18	DELTA	DELTA ELECTRONICS (THAILAND) PUBLIC COMPANY LIMITED	Electronic Components	X		Sustainable Development Report	https://deltathailand.com/en/pdf/sustainable/ SDR2024 EN.pdf	202 4
19	EA	ENERGY ABSOLUTE PUBLIC COMPANY LIMITED	Energy & Utilities	X		Sustainability Report	https://www.energyabsolute.co.th/images/sd/ EA_SD2023EN.pdf	202 3

20	EGCO	ELECTRICITY GENERATING PUBLIC COMPANY LIMITED	Energy & Utilities	X		Sustainability Report	https://sustainability.egco.com/storage/docu ment/sustainability-reports/2023/egco- ar2023-en.pdf	202
21	GLOBAL	SIAM GLOBAL HOUSE PUBLIC COMPANY LIMITED	Commerce		X	Website	https://globalhouse.co.th/	202 3
22	GPSC	GLOBAL POWER SYNERGY PUBLIC COMPANY LIMITED	Energy & Utilities	X		Integrated Sustainability Report	https://www.gpscgroup.com/storage/downloa d/sd-report/gpsd-sd-report-2023- en/index.html	202 3
23	GULF	GULF ENERGY DEVELOPMENT PUBLIC COMPANY LIMITED	Energy & Utilities	X		Sustainability Report	https://hub.optiwise.io/en/documents/10803 2/flipbook	202 3
24	HMPRO	HOME PRODUCT CENTER PUBLIC COMPANY LIMITED	Commerce		X	Sustainability Report	https://hmpro.listedcompany.com/misc/flipbook/index.html?id=277368	202 3
25	INTUCH	INTOUCH HOLDINGS PUBLIC COMPANY LIMITED	Information & Communication	X		Form 56-1 and Website	https://www.intouchcompany.com/wp- content/uploads/2024/05/FORM-56-1-ONE- REPORT-2023.pdf	202 3
26	IVL	INDORAMA VENTURES PUBLIC COMPANY LIMITED	Petrochemicals & Chemicals	X		Sustainability Report	https://sustainability.indoramaventures.com/e n/flipbook/storage/content/sustainability- report/en/sustainability-report-2023/doc-e- book.pdf	202 3
27	KBANK	KASIKORNBANK PUBLIC COMPANY LIMITED	Banking		X	Sustainability Report	https://www.kasikornbank.com/en/sustainable-development/SDAnnualReports/y2023-sd-en.pdf	202 3
28	КТВ	KRUNG THAI BANK PUBLIC COMPANY LIMITED	Banking		X	Sustainability Report	https://krungthai.com/Download/CSR/CSRDownload_76SR2023_KTB_EN-310524.pdf	202 3
29	KTC	KRUNGTHAI CARD PUBLIC COMPANY LIMITED	Finance & Securities	X		Sustainability Report	https://krungthai.com/Download/CSR/CSRDownload_76SR2023_KTB_EN-310524.pdf	202 3
30	LH	LAND AND HOUSES PUBLIC COMPANY LIMITED	Property Development	X		Form 56-1 and Website	https://www.lhbank.co.th/getattachment/ad3 e8092-f9a1-4f07-8cac- d72c38947d06/investor-relations-	202 3

							sustainability-business-sustainability-report-	
		LUNOR					<u>Content-business-sustainability-report</u>	
31	MINT	MINOR INTERNATIONAL PUBLIC COMPANY LIMITED	Tourism & Leisure		X	Sustainability Report	https://www.minor.com/storage/download/sustainability-reports/2023/mint-sd-en.pdf	202 3
32	MTC	MUANGTHAI CAPITAL PUBLIC COMPANY LIMITED	Finance & Securities	X		Sustainability Report	https://hub.optiwise.io/en/documents/96113/ flipbook	202
33	OR	PTT OIL AND RETAIL BUSINESS PUBLIC COMPANY LIMITED	Energy & Utilities	X		Sustainability Report	https://www.pttor.com/en/sustainability/sust ainability_page/Sustainability-at-OR	202 3
34	OSP	OSOTSPA PUBLIC COMPANY LIMITED	Food & Beverage		X	Form 56-1 and Website	https://hub.optiwise.io/en/documents/10946 5/flipbook	202 3
35	PTT	PTT PUBLIC COMPANY LIMITED	Energy & Utilities	X		Sustainability Report	https://www.pttor.com/en/sustainability/sustainability_page/Sustainability-at-OR	202 3
36	PTTEP	PTT EXPLORATION AND PRODUCTION PUBLIC COMPANY LIMITED	Energy & Utilities	X		Sustainability Report	https://www.pttor.com/en/sustainability/sust ainability_page/Sustainability-at-OR	202 3
37	PTTGC	PTT GLOBAL CHEMICAL PUBLIC COMPANY LIMITED	Petrochemicals & Chemicals	X		Sustainability Report	https://www.pttor.com/en/sustainability/sust ainability_page/Sustainability-at-OR	202 3
38	RATCH	RATCH GROUP PUBLIC COMPANY LIMITED	Energy & Utilities	Х		Sustainability Report	https://www.ratch.co.th/storage/content/inve stor-relations/downloads/sustainability- report/sd-report-2023-en/index.html	202 3
39	SAWAD	SRISAWAD CORPORATION PUBLIC COMPANY LIMITED	Finance & Securities	Х		Sustainability Report	https://investor.sawad.co.th/en/flipbook/156/ sustainability-report-2023	202
40	SCB	SCB X PUBLIC COMPANY LIMITED	Banking		X	Sustainability Report	https://www.scbx.com/wp- content/uploads/2024/09/SCBX- SR2023 ENG.pdf	202 3
41	SCC	THE SIAM CEMENT PUBLIC COMPANY LIMITED	Construction Materials	X		Sustainability Report	https://www.scg.com/pdf/en/SD2023.pdf	202 3

42	SCGP	SCG PACKAGING PUBLIC COMPANY LIMITED	Packaging	X		Sustainability Report	https://sustainability.scgpackaging.com/storag e/downloads/sd- reports/files/flipbook/index.html?file=sd- report-2023-en	202
44	TISCO	TISCO FINANCIAL GROUP PUBLIC COMPANY LIMITED	Banking		X	Sustainability Report	https://www.tisco.co.th/content/dam/tiscoba nk/download/sd/2023-sustainability-report- en.pdf	202 3
45	TLI	THAI LIFE INSURANCE PUBLIC COMPANY LIMITED	Insurance	X		Sustainability Report	https://investor.thailife.com/en/document/vie wer/flipbook/96846/sustainability-reports- 2023	202 3
46	ТОР	THAI OIL PUBLIC COMPANY LIMITED	Energy & Utilities	Х		Integrated Report	https://www.thaioilgroup.com/upload/media file/202403071631 Thaioil_IR2023_EN_Final_ 20240307.pdf	202 3
47	TRUE	TRUE CORPORATION PUBLIC COMPANY LIMITED	Information & Communication	X		Sustainability Report	https://www.true.th/true- corporation/site/assets/truecorp/pdf/en/true- sustainability-report-2022-en.pdf	202
48	ТТВ	TMBTHANACHAR T BANK PUBLIC COMPANY LIMITED	Banking		X	Sustainability Report	https://media.ttbbank.com/1/sustainability/report-en-2023.pdf	202 3
49	TU	THAI UNION GROUP PUBLIC COMPANY LIMITED	Food & Beverage		X	Sustainability Report	https://www.thaiunion.com/en/sustainability/report	202 3
50	WHA	WHA CORPORATION PUBLIC COMPANY LIMITED	Property Development	Х		Sustainability Report	https://www.wha- group.com/Uploads/elFinder/pdf/sd/sd- report-2023-en/index.html	202 3

Appendix 4. Company analysis (example)

	Document	Year	GRI 2: General Disclosure							GRI 205: Anti-corruption				GRI 302: Energy					
SYMBOL			2- 22	2- 23	2- 24	2- 25	2- 26	2- 27		205-	205-	205-3		302- 1	302- 2	302- 3	302- 4	302- 5	
ADVANC	Sustainability Report	2023	1	1	1	1	1	1	100%				0%	1			1		40%
AOT	Sustainable Development Report	2023	1	1	1	1	1	1	100%			1	33%	1		1			40%
AWC	Sustainability Report	2023	1	1	1	1	1	1	100%	1	1	1	100%	1	1	1			60%
BANPU	Sustainability Report	2023	1	1	1	1	1	1	100%	1	1	1	100%	1	1	1	1	1	100%
BBL	Sustainability Report	2023	1	1	1	1	1	1	100%	1	1	1	100%	1	1	1	1	1	100%
BDMS	Sustainability Report	2023	1	1	0,5	1	1	1	92%				0%	1		1			40%