

Gabriel Yit Vui Yong
A. K. M. Ahsan Ullah *Editors*

Brunei and the Future Transformation of Southeast Asia

 Springer

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Foreword

A country with less than half a million people, Brunei Darussalam may appear to most outsiders as a backwater or an end-of-career destination. There are no bustling towns, no towering skyscrapers, no trains, and no traffic jams that last over thirty minutes. Restaurants are rarely packed; shopping centers are seldom crowded. Thick forests, meandering rivers, and wide beaches envelop much of the landscape. Fully air-conditioned mosques are visible in almost every district. It is uncommon to find four to five cars in a single home, bought on festive occasions, or during unplanned showroom trips, or perhaps because petrol is cheaper than a can of Coca-Cola. A typical weekend is spent tracking in canopy walks, failing that, in wet markets, culminating in gatherings at the homes of relatives and friends, where laughter, gossip, and food are plenty. When asked about the day's highlight, many locals would happily respond: "I met the King!" As they do on many other days.

While such a characterization of the few surviving Asian monarchical states may be true, it belies the wider significance of this enigmatic domain. Brunei may be small when viewed from the perspective of numbers. It is boring if seen from the viewpoint of contentious politics. And yet, it is a social scientist's paradise, a philosopher's delight, and an analyst's puzzle. For geographers, conservationists, and experts in development studies, Brunei presents some conundrums to wrestle with: How has such a tiny oil-rich state sustained its operations with such a small citizenry? What measures have been taken to enhance its international standing? Why is the country redefining its image from a secularized territory to a Shari'a-oriented kingdom? Who are the key players shaping its destiny? The ruler, the elites, or the people? Where does the country situated itself in light of the rise of a highly conflictual, technologically driven, ecologically challenged, and increasingly mobile world? Does Brunei have an optimistic trajectory?

This collection of essays answers such questions. Together, the contributors explore Brunei's journeys through the prism of spaces and interfaces. They uncover the strategic spaces that Brunei occupies in an evolving world order and the ASEAN region in which it is firmly ensconced. This much-needed text explains how the country has morphed into a halal hub. It puts into sharp relief the effects of climate change and global connectivity on Brunei's natural environment. To be sure, Brunei is a

terrain exposed to a host of vulnerabilities, from energy to food and everyday governance. Its strategic position situated in-between two major sea routes works in its favour, allowing the country to capitalize on the revived Maritime Silk Road project with China as the most influential force. As most essays in this book clearly explain, Brunei has grown to become an interface of such initiatives and offers much more. Post-COVID-19 crisis, the government revitalized its age-old reputation as a magnet for economic migrants. Education and consumption, especially among the young, have risen exponentially because of such policies. Demographic changes, the entry of more women into the workforce, as well as transformations in global trade and capital markets, are encouraging the government to hasten the process of economic diversification.

Whether Brunei will build more stable and sustainable institutions to shed its old skin is a matter of speculation. Whether she is willing to reinvent fast enough and realize its spatial and interfacial capacities remains to be seen. I have had the benefit of working at Brunei's premium university. I have spoken at length with many high-ranking officials there. I have witnessed firsthand the everyday travails of ordinary Bruneians. The country is blessed with highly educated youth and committed individuals all too willing to see their homeland prosper. It is a realm saturated with a million potentials, endless resources, and extensive opportunities. Whichever direction the monarchical state is headed, it must begin its venture with ideas. This book is a minefield towards that end. It deserves to be trawled and utilized for practical solutions to common local and global concerns. It is an indispensable companion for those invested in the country's future. Indeed, *Brunei and the Future Transformation in Southeast Asia* is a manifesto for a nation that is constantly in motion.

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Preface

The future of Southeast Asia (SEA) is an unfolding narrative shaped by the aspirations of the diverse nations that have emerged from a few centuries of Western colonisation and the Second World War (WW2), and having to negotiate the challenges of the global order established. Among them, Brunei Darussalam, a small oil-rich country, is often overlooked due to its size and insignificance in regional and global affairs. However, its storied history and strategic location could offer valuable insights to navigating contemporary geopolitical and economic dynamics.

Prior to the arrival of the Europeans, it was a major thalassocracy and regional power. Its fortunes and drastic transformation are an outcome of interaction with external forces that it never adequately grasped until it was too late. Present-day Brunei is a modern nation state occupying only 5,765 km² split into two parts by Limbang (Malaysia). Yet, although its past glory was lost to the British, it was Britain that made it a wealthy modern state.

Brunei's story however would resonate with many in the region, and indeed across the globe. Many were once proud sovereign regions with rich cultural heritage that were drastically altered by colonisation. They are also grappling with their identity, trying to reconcile traditions and heritage with the modern world, which is irreversibly transformed and governed by global Capitalism and technological advancement.

Although SEA nations have evolved differently, each at their own pace and having to overcome unique challenges, countries do not develop uniformly. There are always regions within that lags, because of circumstances. A Bruneian perspective could offer insights into impacts of larger regional-global dynamics on local conditions. We decided to write Brunei and the Future Transformation of SEA, because of the tendency to in regional analysis to take the macro view, which renders local-micro issues inconspicuous.

The significance of this book lies in its focus on global-regional change. It addresses (a) the changing global political-economic order and (b) the Climate Crisis. The former refers to the inevitable transition from a unipolar world led by the USA to an emerging multipolar one being developed by the Global South. The latter, widely regarded as an existential crisis by its advocates, affects different parts of the planet

in different ways. Its impact on SEA could be anticipated with a good degree of certainty, which allows for appropriate adaptation.

This edited volume examines the implication of a changing global order on the region, from the vantage point of Brunei and other similarly small regions, such as parts of larger countries. It hopes to shed light on the repercussion of regional-global developments on small geographical regions, which are not adequately prepared to absorb the shocks. It takes a geographical perspective because regions have distinctive characteristics that ought to be considered in analysis and regional dynamics are not given due consideration.

The book contains a mix of empirical case studies and theoretical analyses pertaining to the themes highlighted. It addresses questions on sustainability, production networks and food security, migration and trade, and climate change. The contributors offer their thoughts based on extensive experience living and working in Brunei and in the region. As such, it offers a perspective that elucidates the nuances of the local and periphery as part of the larger in responding and adapting to the wider dynamics.

As a microcosm of regional dynamics, the case studies presented a lens through which broader transformations in SEA can be understood. This volume therefore fills an important gap in the scholarly literature, which addresses the third pillar of the Brundtland's Commission's definition of Sustainable Development, i.e., social justice and equity, which has not received adequate attention. We believe that this book will advance SEA studies and enrich debates on globalisation, regionalism and cultural identity in a time of profound change.

For Brunei, the insights offered in this book can serve as a resource for reflection and planning that better fits its context. In a world increasingly defined by technological innovation, environmental challenges and shifting geopolitical landscapes, the country needs to capitalise on its unique strengths while managing its vulnerabilities. This book aims to provide a platform for critical discussions on how Brunei and other small regions can adapt to and realise their unique potential to benefit from, and participate meaningfully in, regional and global progress.

For scholars and researchers, this book offers important insights from empirical evidence, theoretical frameworks and policy analyses that can inspire further research. It also highlights the importance of geographical considerations, particularly of regions and their distinctive characteristics, whether of nature, culture or human dynamics. Finally, it is hoped the book will make both a reflective and forward-looking contribution, and highlights the unlikely role of the less significant in elucidating the complexity of the challenges ahead.

The book will appeal to a wide audience, including academics, policy makers and professionals interested in SEA studies, international relations and socio-economic development. It offers a different perspective on the region and suggests how, despite

its diversity, SEA countries can address common challenges such as climate change, economic shocks and ride the digitalisation wave to achieve a sustainable future.

Gadong, Brunei Darussalam
2025

Gabriel Yit Vui Yong
A. K. M. Ahsan Ullah

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Abbreviations

3Rs	Reduce, Reuse, Recycle
AEC	ASEAN Economic Community
AFSIS	ASEAN Food Security Information System
AFTA	ASEAN Free Trade Area
AICHR	ASEAN Intergovernmental Commission on Human Rights
AIIB	Asian Infrastructure Investment Bank
APTERR	ASEAN Plus Three Emergency Rice Reserve
ASEAN	Association of Southeast Asian Nations
BIRC	Brunei Islamic Religious Council
BRI	Belt and Road Initiative
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CO ₂	Carbon Dioxide
COP	Conference of the Parties
CRMP	Coastal Resource Management Project
DAA	Department of Agriculture and Agrifood
DRRM	Disaster Risk Reduction and Management
FAO	Food and Agriculture Organization
FoMO	Fear of Missing Out
GDP	Gross Domestic Product
GMSL	Global Mean Sea Level
GPN	Global Production Networks
GVC	Global Value Chains
HACCP	Hazard Analysis and Critical Control Points
ICNS	Information-Communication Network and System
ICZM	Integrated Coastal Zone Management
IEA	International Energy Agency
ILO	International Labour Organization
IOM	International Organization for Migration
IPCC	Intergovernmental Panel on Climate Change
ISO	International Standards Organization

MABIMS	Ministers of Religious Affairs of Brunei, Indonesia, Malaysia, and Singapore
MSR	Maritime Silk Road
NDP	National Development Plan
NDRRMP	National Disaster Risk Reduction and Management Plan
NELM	New Economics of Labour Migration
NLD	National League for Democracy
PMB	Pulau Muara Besar
POEA	Philippine Overseas Employment Administration
RCEP	Regional Comprehensive Economic Partnership
RCP	Representative Concentration Pathways
SDG	Sustainable Development Goals
SEA	Southeast Asia
SLR	Sea Level Rise
SPA-FS	Strategic Plan of Action on Food Security
SSP	Shared Socioeconomic Pathways
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
WCED	World Commission on Environment and Development
WFS	Women-Friendly Spaces
WW2	Second World War

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Chapter 1

Introduction: Southeast Asia from a Brunei Perspective



Gabriel Yit Vui Yong and A. K. M. Ahsan Ullah

Abstract This introductory chapter presents the concept of the book, Brunei and the Future Transformation of Southeast Asia. It explains the choice of Brunei as a focus, not to serve as a model or exemplar, but as a vantage point to view the global changes that are unfolding before us, and consider our readiness to navigate the challenges anticipated. The main aim is to consider details to understanding realities of smaller areas, which are typically ignored because of the tendency to focus on more important and salient features. The rationale for adopting a geographical approach is then explained and elaborated. Geographical applications of ‘regions’ are illustrated, using the following themes: physical environment; ecosystems; pre-modern regions; colonial blocs; independent countries; and ASEAN. It concludes by providing brief overviews of the chapters: Changing Realities (Chap. 2); Climate Change and Sea Level Rise in Southeast Asia: Current Knowledge and Future Projections (Chap. 3); Changing Global Order and Climate: A Comparative Analysis of Cartesian and Organismic Perspectives (Chap. 4); Food Security Using Rice Production in Brunei Darussalam as a Case Study (Chap. 5); ASEAN’s Halal Production Networks: Towards Regional Integration and Effective Industrial Governing (Chap. 6); Young Consumers’ Understanding of Sustainable Consumption (Chap. 7); Politics and Security in Southeast Asia (Chap. 8); Unpacking Women’s Participation in Disaster Management: Insights from the Philippines and Its Diaspora (Chap. 9); Brunei and the Maritime Silk Road (Chap. 10); Southeast Asia: Mobility, Development and Long-term Plan (Chap. 11); and Migration Routes in Southeast Asia: How Economy Shapes the Routes (Chap. 12).

Keywords Southeast Asia · Brunei · Vantage point · Geographical approach · Smaller areas

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Introduction

This volume examines the future transformation of Southeast Asia (SEA) using Brunei as a vantage point. It covers interrelated themes of strategic importance in the context of heightened geopolitical tensions, conflicts and trade wars, against a backdrop of unfolding climate change and advancing technology, particularly in the field of automation, new energy and artificial intelligence (AI), which are transforming social-cultural and economic landscapes. Of the eleven countries in the region, ten had suffered as well as benefited from Western colonisation (Kratosa, 2021). Although Thailand was never colonised, it also underwent significant internal transformation as a consequence of Western pressure in the nineteenth–twentieth centuries, which forced it to align with the modernisation process, resulting in the loss of territory to Britain and France (Chakrabarty, 2010). In the period following the Second World War (WW2), SEA countries regained independence through the United Nations' (UN) decolonisation initiative under resolution 1514(XV), adopted on 14 December 1960: Declaration on the Granting of Independence to Colonial Countries and Peoples¹ (UN General Assembly, 1960); the UN was formed only 15 years earlier in 1945 in response to the two global wars, with a charter to maintain international peace and security, promote friendly relations among countries, encourage social progress and better living standards, and protect human rights (UN Charter, n.d.).

Brunei, a small oil state on the northwest coast of Borneo, is an unlikely focus, given its relative insignificance in the global arena and academic literature. It is often omitted in ASEAN reports,² due to lack of data and participation in the processes concerned. As a young nation-state, which has regained its independence from Great Britain just 40 years ago in 1984, Brunei is still in its nascent stage of nation building. Its modern façade and the extravagant lifestyle of the elite class have tended to draw attention away from the reality on the ground, where it shares a world of inequality and numerous development and sustainability issues with other countries in the world. Only locals and visitors who have spent time with communities outside the bubbles of expatriate professionals and politicians are aware and can relate to similar situations that exist throughout the region, even in countries that are advanced, economically robust, and highly developed. This book presents studies based on the experiences and thoughts by academics who have lived and worked in Brunei for extended periods. Some are locals, born and bred in various parts of the country. The volume is augmented by articles on other countries in the region, and the region overall. The purpose is to improve clarity of regional characteristics and issues to address the focus of the book, which is: the future transformation of SEA.

This introductory chapter will therefore begin with an overview of SEA countries, followed by an elaboration of the overall approach, i.e., employing a geographical perspective to elucidate the complex dynamics and unfolding transitions in the world

¹ <https://legal.un.org/avl/ha/dicc/dicc.html>.

² <https://asean.org/library-of-asec/>.

and region. It then filled in details of geographical regions, beginning with the physical environment, followed by the historical development of its people, culture and their diversity, to the range of issues and challenges confronting the region and members states at this juncture in its history. It will conclude by introducing the chapters and highlighting the salient points and relevance.

Brunei in Southeast Asia

In 1967, five SEA countries (Indonesia, Malaysia, Philippines, Singapore and Thailand) founded the Association of Southeast Asian Nations (ASEAN) to promote regional stability, economic growth, and cultural exchange.³ Another five others joined later: Brunei (1984); Vietnam (1995); Lao PDR and Myanmar (1997); and Cambodia (1999). Timor-Leste, which regained independence in 2002 from Indonesia, after initially declaring the same from Portugal in 1975, has applied to joined ASEAN in 2002, but is still in the process of achieving full membership. Since its formation, ASEAN has made significant strides in regional cooperation and integration, including forming partnerships with Japan, South Korea, and China, and navigating numerous political, economic and global challenges, such as the 1997–1998 financial crisis (Kittiprapas, 2000) and Covid-19 pandemic, which lasted from 2019 until 2023 (Ullah & Chattoraj, 2022; Ullah et al., 2024). On 20 November 2007, ASEAN adopted a Charter to consolidate its gains and guide development (ASEAN, 2007), which came into force on December 15 of the following year.

According to its 2024 statistical highlights,⁴ ASEAN has a population of 676.6 million in 2023, which accounted for 8.5% of the world's population. Indonesia is the largest country by land area and population with the largest economy in terms of nominal gross domestic product at current prices (see Table 1.1). The next most populous, with over 100 million, are the Philippines and Vietnam, each with similar land area of over 300 thousand km². Myanmar and Thailand, which are larger, at about 700 and 500 thousand km² respectively, have population of 56 million and 65 million, the latter having about 10 million more people. Lao PDR and Cambodia are quite large in area, but have relatively small population. At the bottom, the smallest country by area and population is Singapore and Brunei respectively. In terms of Life Expectancy (Expect. in Table 1.1), Singapore has the highest at 83.0 years while Myanmar has the lowest at 67.4 years. Apart from Lao PDR, the rest have Life Expectancy in the 72–76 range. The countries with the highest percentage of grey population (>65 years in Table 1.1) are Thailand (13.4%), Singapore (12.1%) and Vietnam (9.2%). Lao PDR has the lowest at 4.8%.

ASEAN is a demographically young region, where almost half of the people are below 30 years old. It has also urbanised rapidly, such that almost half its population are urban, compared to about 30% in 1967, when it was formed. Indonesia has

³ <https://asean.org/about-asean>.

⁴ <https://www.aseanstats.org/publication/ash-2024/>.

Table 1.1 Key statistics, ASEAN, 2022–2023

Country	Area (km ²)	Population (000)	% 65 yrs	Life expect. (Yrs)	GDP current prices (USD billions)	GDP grow. (%) Const. Prices	CO ₂ (Mt)	% Reg.
Brunei	5765	450.5	6.9	76.2	15.1	1.4	9.1	0.5
Cambodia	181,035	17,091.5	6.6	73.3	42.0	5.0	14.7	0.9
Indonesia	1,892,410	278,696.2	7.0	73.9	1371.1	5.0	651.7	38.7
Lao PDR	236,800	7545.8	4.8	68.0	14.2	4.2	18.8	1.1
Malaysia	330,411	33,379.5	7.4	74.8	396.3	3.6	241.1	14.3
Myanmar	676,577	56,243.0	7.3	67.4	64.4	3.3	25.9	1.5
Philippines	300,000	111,912.4	5.9	72.7	437.2	5.5	137.5	8.2
Singapore	734	5917.6	12.1	83.0	501.3	1.1	46.6	2.8
Thailand	497,407	65,083.8	13.4	76.2	514.9	1.9	250.0	14.9
Vietnam	331,344	100,309.2	9.2	74.5	429.5	5.0	286.6	17.0

Sources ASEAN Statistical Highlights 2024; IEA Greenhouse Gas Emissions from Energy in 2022, <https://www.iea.org/data-and-statistics/data-product/co2-emissions-from-fuel-combustion>

the largest economy, with GDP in current prices of USD 1,371.1 billion in 2023. It leads a cluster of five countries by 2.7–3.5 times: Thailand, Singapore, Philippines, Vietnam and Malaysia, with GDP ranging from USD 515 to 396 billion. The second largest country by area, Myanmar, has the third smallest economy, while Brunei, often misperceived as a wealthy country has the second smallest economy at USD 15 billion. However, in terms of growth rate based on GDP at constant prices, i.e., excluding inflation and other extraneous factors, four countries (Philippines, Indonesia, Vietnam and Cambodia) recorded a rate of 5% or more, with the Philippines leading the pack. The country with the smallest economy, Lao PDR, has a growth rate of 4.2%, indicating upward mobility in economic development. Singapore, Brunei and Thailand appear to be experiencing considerable lag in growth.

With regards to CO₂ emission from fuel combustion (IEA, 2022), ASEAN contributes 4.5% of the global emission of 37,400 million tonnes (Mt) annually. Indonesia is the largest emitter, with 651.7 Mt, or 38.7% of regional (Reg.) contribution in 2022. It is followed by Vietnam, Thailand and Malaysia, which produced half as much as Indonesia individually. As expected, Brunei is the lowest emitter, despite being an oil producer, due to its small size, accounting for only 0.5% of ASEAN's total emission. In contrast, Singapore, nearly eight times smaller than Brunei, but with a population that is thirteen times larger, produced five times more CO₂. The less urbanised–industrialised member states (Cambodia, Lao PDR and Myanmar) accounted for 0.9–1.5% of regional emissions each. Modern development and population are therefore major factors.

It can be seen from Table 1.1 that Indonesia is the most sustainable country in ASEAN in terms of economic size, growth and Life Expectancy (a proxy for

quality of life). Despite its large CO₂ emission, its per capita emission is only 2.3 tonnes (t), which is ranked 7th in the region. The small nation of Brunei, with its small sluggish economy and low emission in absolute terms, has a per capita CO₂ emission rate of 20.3 t, an order of magnitude greater than Indonesia. The Philippines and Cambodia appear to be on the right path, with low per capita CO₂ emissions (0.9 and 0.5, respectively), similar life expectancies of 73 years, and GDP growth of 5.5% and 5.0%, respectively. Vietnam is doing similarly well with GDP growth at 5.0%, life expectancy of 74.5 years and per capita CO₂ emission of 2.9 t. Singapore and Malaysia have relatively high emissions (7.9 and 7.7), but the former encountering slowing growth while the latter is growing by 3.6%. It is clear that Brunei is not a leader or model in ASEAN. It is interesting to note however that Singapore, the other small state, which is widely regarded as most advanced in the region and a leader in sustainable development, shares some unsustainable statistics with Brunei. There is therefore much to study in order to understand realities beyond superficial characterisation from cursory reference to published information.

Method: A Geographical Perspective

Geography seeks to understand patterns by synthesising knowledge from different perspectives. Geomorphology, ecology and other environmental sciences are necessary to understand how the physical geographic context responds to human activities and to anticipate the changes (Haggart, 2001). This applies to understanding environmental impacts and climate change, which are supported by a growing number of global monitoring systems that continuously provide important synoptic data for analysis and modelling. On the ground, geographers study the dynamic interplay between people, technology, development and the environment in conjunction with culture, economy and political relations (Purvis & Grainger, 2004; Sachs, 2020). Geospatial technology and systems, which have become indispensable in commerce, finance, economics and management, are also important geographical research tools. Maps, a means of visualising and presenting spatial information, are essential elements in the human sphere. Globalisation has led to the convergence of disciplines and enhanced the role of geography in research that involves a spatial dimension, from local to regional and global scale. It provides a suitable methodology for studying globalisation and geopolitics (Blouet & Blouet, 2001).

From a geographical perspective, the world is a mosaic of many distinct 'regions' defined by unique cultural and physical characteristics (Nijman et al., 2020). They are given meaning through human agency, identifying some as countries, states, private property and so on, including larger geographical extent, such as SEA. Regions are dynamic. They change in character as well as in extent primarily in response to the human stories that play out within and between them, such as trade; wars; and conquests. Human mobility, interaction with environment, technology, and inter-regional relationships are key drivers of transformation. Regions in SEA have changed dramatically with the rise and fall of kingdoms. In the sixteenth

century, European colonial powers began introducing and imposing systems and structures on various regions (polities, kingdoms, parts of kingdoms, etc.), effectively erasing the old and reconfigured them to align with colonial systems to facilitate exploitation and transference of resources back to their home territories. These structures have been further developed into the current global systems governing financial transaction, trade and international relations. In SEA, structures implemented by Western powers continue to serve as guides as they develop and participate in the global systems established. However, historical structures, much of which were established by religion and past polities and cultures, co-exist with the modern systems, and their interference contributes to inefficiencies due to incongruence between the overlapping systems.

Regions are defined based on commonalities, such as, location, culture, history and political-economic alliance. Geographical analysis differentiates between distinct regions based on one or more aspects of interest. Further details could be provided by sub-disciplines such as geomorphology, climatology and biogeography for physical regions. Additionally, as regions are dynamic, i.e., they change in extent and characteristics over time, due to external forces, including planetary dynamics, and the developmental trajectories of the different parts of regions as well as their interactions, it is important to understand specific controlling factors in particular regions or sets of contiguous regions. This introductory chapter will therefore examine SEA from this perspective. ASEAN is important as a region. However, Table 1.1 suggests that differences and clusters exist.

Physical Regions

Gupta (2005) provides an excellent description of SEA's environmental regions. The north-west region is part of the Asian land mass, comprising present-day Myanmar, Lao PDR, Thailand, Vietnam, and the Malaysian peninsula. Eastwards, the region comprises mainly islands, most of which are volcanic, created by the convergence of tectonic plates in the western part of the Pacific Ring of Fire. The two archipelagic countries are Indonesia and the Philippines. Borneo is located off the active plate margins at the southern edge of the South China Sea (SCS). This large island is shared by Brunei, Malaysia (Sabah and Sarawak) and Indonesia (Kalimantan). Singapore is the small island off the southern tip of Peninsular Malaysia.

SEA is located within the Tropics of Cancer and Capricorn, east of the Greenwich meridian between the longitudes of 100–150°E. Several parts of Indonesia straddle the Equator, and Brunei, Singapore, Malaysia and Timor-Leste are close enough to it to be affected by the fluctuation of the Inter-Tropical Convergence Zone (ITCZ), which migrates to the north and south of the equator during the Boreal summer and winter respectively. This region, classified as “Humid Tropical” under the Köppen climate classification, is characteristically warm and wet throughout the year, with high humidity and precipitation. It coincides with the Rainforest in the World Wildlife

Fund (WWF) ecoregions classification. Due to differences in climate, there is a subdivision, with a wetter zone around the Equatorial belt (Tropical Moist Broadleaf Forests, or Indo-Malayan Rainforest), where there is no distinct dry season, and one with lower rainfall and a distinct dry season (Tropical Deciduous Forests) (Olson, 2001). The forests are also taller and evergreen in the equatorial region, while deciduous species are found in the drier region further north. Due to the high solar energy input and precipitation ranging from 1750 to over 6000 mm annually, natural vegetation grows rapidly, some developing into colossal trees. Wetlands are characterised by swamp forest (mangrove, peat swamps, freshwater swamps, and mixed) instead of marsh.

The SCS is the central physical feature. It is bounded by archipelagos, large islands and peninsulas, and the southwestern part of the Asian mainland in the north-west corner. The SCS is connected to China at its northern edge and to the Pacific, the Indian and Southern Oceans to the east, west and south respectively. The coastal regions around SCS form a distinct ecological as well as cultural region, the latter a product of people interacting with the natural environment. This region includes the continental shelves created by sea level rise during the first 5,000–7,000 years of the current Holocene epoch, which began c.10,000 years ago, with the last retreat of Pleistocene glaciers. The SCS is a distinct marine region with respect to ecology and fisheries. The Sulu, Celebes and Banda seas to the southeast are also important but distinct marine regions in SEA. The coastal waters of Southeast Asia are characterised by rich biodiversity, including extensive coral reefs, mangroves, and seagrass beds. These ecosystems are among the most diverse in the world, supporting a wide variety of marine species and habitats. The region is particularly known for its high levels of endemism and the presence of numerous species that are not found elsewhere. The Indo-Pacific marine region is a biodiversity hotspot. It contains the Coral Triangle.⁵

The region's geology is the outcome of complex interaction of tectonic plates, volcanic activity, and sedimentary processes, because it lies at the convergence of several major tectonic plates (Indo-Australian, Eurasian, and Pacific). In the western region, the Himalayan orogeny created prominent features, e.g., the Thai highlands and mountain ranges of Myanmar, from folding and faulting. A line of active volcanoes, e.g. the Sunda Arc, marks the boundary between the Indo-Australian and Eurasian plates. Indonesia and the Philippines have numerous volcanoes, which produced fertile soils, unique ecosystems and contributed to productive agriculture. However, in contrast, much of coastal SEA consists of extensive lowland areas, composed of sedimentary deposits. River systems, e.g., the Mekong and the Irrawaddy, have shaped the physical landscape through erosion and sedimentation, creating vast deltas and floodplains that support rich agricultural land. Additionally, limestone formations are prevalent, particularly in regions in Thailand, Vietnam and Malaysia, producing spectacular karst landscapes with dramatic cliffs and caves. The physical landform is composed of a mosaic of regions of interest to geomorphologists, biogeographers and environmental scientists.

⁵ <https://www.coraltriangleinitiative.org/>.

SEA has rich mineral resources due to its geology. They include tin, gold, coal and petroleum. Extensive gravel, sand and clay deposits are also valuable for economic development. It is the presence of natural resources—minerals, spices, and jungle products—that drew the European to the region in the sixteenth century.

Changes Through History

SEA is largely a maritime region with the SCS at its centre. As the name of the sea suggests, it lies south of China, and occupies a strategic position in maritime trade, including the ancient Chinese maritime ‘silk road’. The people and cultures are therefore inextricably linked to maritime trade (Billé et al., 2022). It brought religion (Hinduism, Buddhism and Islam) to the region and established several thalassocracies: Srivijaya (c.700–c.1400), Majapahit (1293–c.1500) and Brunei (1368–1888). The Buddhist kingdom of Srivijaya on Sumatra controlled the Strait of Malacca and thus the trade between the Indian Ocean and the SCS. The Javanese kingdom of Majapahit ruled over the Indonesian archipelago. The Sultanate of Brunei was the bastion of Islam in the region in the fifteenth–sixteenth centuries. Its capital was “built entirely over the water” in the Inner Brunei Bay (Pigafetta, 1521, in Nicholl, 1975:11). Archaeological evidence shows that the region’s coastal communities engaged in small-scale maritime trade as early as the fourth-century BCE via ports in present-day Malaysia, Cambodia, Thailand and Vietnam (UNESCO, n.d.). Maritime trade facilitated the spread of knowledge and skills as well as the establishment of local production and innovation centres in SEA (ibid.; Billé et al., 2022).

Historically, two distinct sub-regions, Nusantara and Indochina, co-existed in premodern SEA. Both played significant roles in the history, trade, and culture of the region. Nusantara refers to the Malay world, encompassing the Indonesian archipelago and surrounding islands. It also include the Malay Peninsula and parts of the Philippines. It is a region with a diverse range of ethnic groups, cultures, and politics that interacted with one another and with neighbouring regions. Indochina is a land region, comprising modern-day Vietnam, Laos, Cambodia, Thailand, and parts of Myanmar. It has strong historical ties to Indian and Chinese empires and cultures. The two regions were connected through maritime trade and cultural exchanges. The Malacca Strait was a vital artery linking the Nusantara islands with the Indochinese mainland. It facilitated the diffusion of religion, art, language, and political influence across both regions. In the sixteenth century, the established trade routes brought Western Europeans to its shores. Portugal, Spain, and later, Britain, the Netherlands and France, colonised much of the region, ruled over the populace, and exploited its resources.

Western colonisation profoundly altered the socio-economic, political, and cultural landscape of Nusantara, impacting its diverse societies (Kratosa, 2021). The Portuguese, Dutch, and British, in particular, introduced significant changes in the region. In the seventeenth century, the Dutch established the Dutch East India Company, which gained control over vast territories in present-day Indonesia