

BLUE SECURITY

A MARITIME AFFAIRS SERIES

The Impact of Covid-19 on Maritime Piracy in the Singapore Strait:
A Routine Activity Theory Analysis
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The Blue Security Program engages with and facilitates high quality research on issues of critical maritime security across the Indo-Pacific. Bringing together leading regional experts in politics, international law and strategic studies, Blue Security focuses on three key pillars of maritime security: order, law and power.

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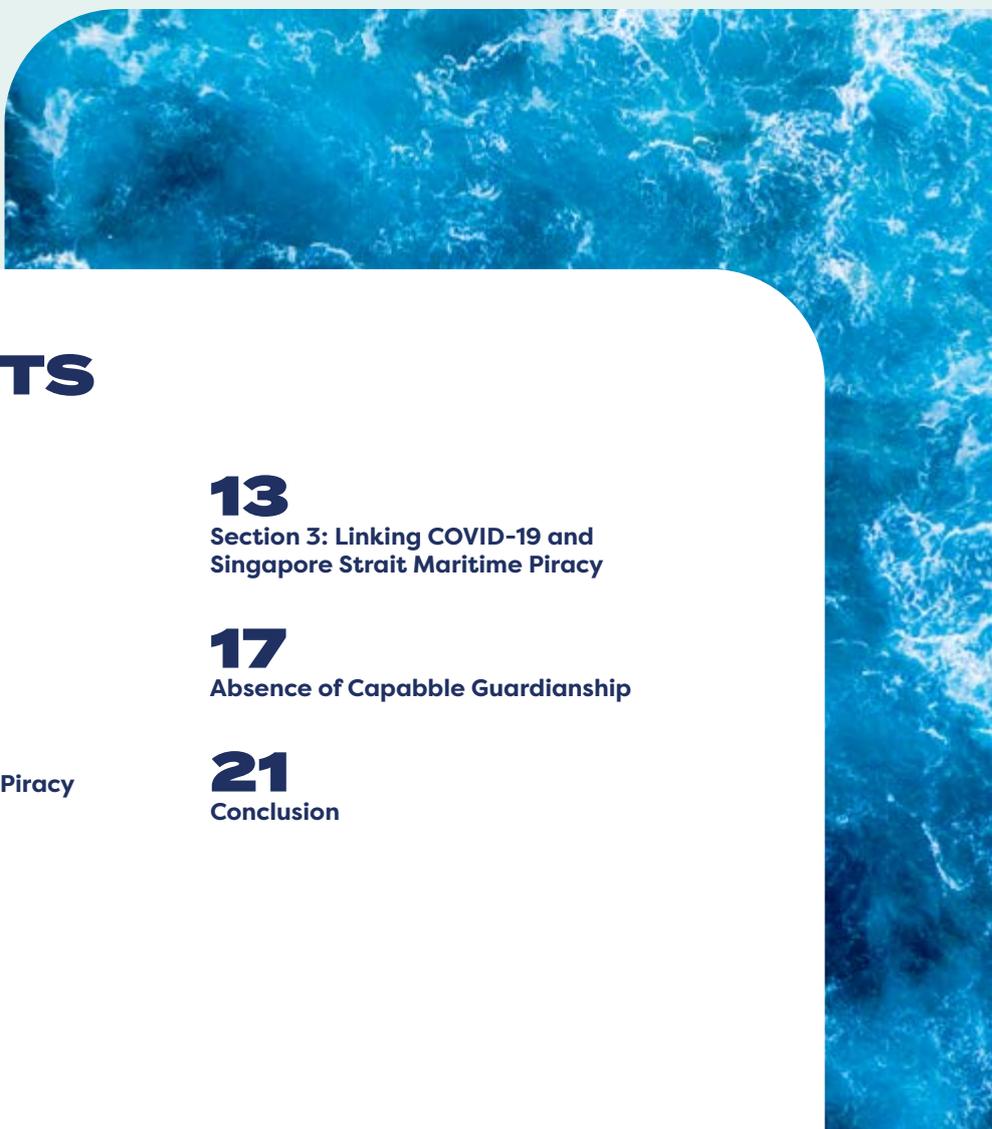
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INTRODUCTION

The COVID-19 pandemic triggered a global health and economic crisis, causing national restrictions leading to far-reaching implications for maritime transport and trade.

Restrictions and the socio-economic impacts of the pandemic disrupted ports, the fishing and shipping sector as well as the network of supply chains. This research examines the link between COVID-19 and increasing maritime piracy trends in Southeast Asia, a resulting spill over of socio-economic impacts on coastal and fishing communities. Drawing on piracy trend data collected by the International Maritime Bureau's Piracy Reporting Centre between 2019 and 2022, we find piracy and sea robbery attacks have been rising in the Singapore Strait since 2019, and look to routine activity theory to explain the spike in maritime piracy in the region.

Maritime piracy has existed since the emergence of seaborne trade, and Southeast Asia is no exception. Since World War Two, Asia established itself as an important global and economic centre of the world economy and a hub for 90% of the world's seaborne trade.¹ Globalisation paralleled with factors such as unsustainable economic growth, economic crises, and political disruptions resulted in subsequent increases of piracy and armed robbery attacks.² We refer to piracy as collectively defined by the United Nations Convention on the Law of the Sea (UNCLOS), and mirrored in the 2010 International Maritime Organization's definition of piracy and armed robbery against ships.³ Using piracy as an umbrella term, we define it as violent acts that take place on the high seas and within a state's internal waters, for private gains.⁴ The broader definition envelopes those criminal activities within and beyond territorial waters⁵, reflecting the occurrence of Southeast Asian⁶ attacks.⁷

Piracy has wide-ranging implications on security and safety at sea and on land.⁸ Securing Southeast Asia against piracy is paramount given its strategic shipping transit routes, network of port hubs, and important fishing grounds. However, it remains a threat, especially in the hotspots around Singapore and Indonesia.⁹ As such, we look to Cohen and Felson's routine activity theory to explain its occurrence. The theory implies that the triangulation of three elements lead to a crime: (1) the presence of motivated offenders; (2) access to suitable targets; and (3) absence of capable guardians.¹⁰ This theory has been successfully tested across crimes (including maritime piracy)¹¹ to explain their occurrence, which can in turn assist policymakers in determining how to prevent them.

In alignment with Sustainable Development Goals (SDGs) 8 (decent work and economic growth), 14 (life below water), and 16 (peace, justice and strong institutions) the uptick in piracy and its impact on Southeast Asia and beyond can be economically, politically, and socially damaging and therefore it should be among the core issues addressed by maritime security policy for the region. It is within this context we question the relationship between rising piracy in Southeast Asia, with particular focus on Singapore and Indonesia, and impacts of the COVID-19 pandemic.

We approached this research question from three prongs. First, we thematically analysed relevant literature to revisit known *motivations* of piracy specific to Singapore and Indonesia. In Section 2, we analysed reported piracy attacks the year immediately prior to and during the COVID-19 pandemic, between 2019 and 2022, to understand their *targets*. Coupling known causes and piracy trends, we inferred in Section 3 that COVID-19 led to an uptick of maritime piracy in Southeast Asia, and specifically within the Singapore Strait. We again drew on relevant literature to confirm this link between COVID-19 and piracy in the Singapore Strait and the waters around Indonesia due to *absence of capable guardians* and increased *motivation*.

This research examines the link between COVID-19 and increasing maritime piracy trends in Southeast Asia, a resulting spill over of socio-economic impacts on coastal and fishing communities.

METHODOLOGY

Section 1 of this research involves a review of the literature to determine known causes of piracy linked to Southeast Asia. We conducted a thematic keyword search through Google Scholar; the resulting thematic headings and relevant literature are presented in Section 1. Using keywords *maritime, piracy, Southeast Asia, Singapore, Indonesia and COVID-19*, we found 74 open-source, peer-reviewed articles for historical piracy patterns and causes. In Section 2, we drew upon piracy and armed robbery attack data collected by the International Maritime Bureau's Piracy Reporting Centre (IMB PRC). We focused on the period from 2019 to 2022, enabling a comparison of incident numbers from the initial onset of the pandemic to its culmination. Although other reporting bodies exist in the maritime space, such as the IMO or the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia, the IMB PRC adopts a broader definition using the UNCLOS and the IMO Resolution A.1025(26), including internal, archipelagic and territorial waters as well as the high seas, enabling broader data counting reflected in this

paper. It is acknowledged that all reported data sources may have limitations and geographical dissimilarities. To minimise these dissimilarities between datasets, we adopted only the IMB's international dataset. Within the IMB PRC reports, we focused on Indonesia and Singapore, obtaining data from the category 'Southeast Asia' and subcategories 'Indonesia' and 'Singapore Strait' (see Table 1).

In Section 3, we mirrored our method for the first section to examine factors relevant to Indonesia and Singapore, using keyword searches in Google Scholar including: *socioeconomic pressure; Southeast Asia fishing ports; COVID-19 piracy; maritime crime; fishing industry; shipping industry; law enforcement; and administrative capacity.*

SECTION 1: SOUTHEAST ASIAN PIRACY MOTIVATION

Southeast Asian waters hold international geostrategic positions, with vital routes for maritime trade and commerce.

Some 30% of global shipping trade transits the region; island states' reliance on seaborne trade and natural marine resources, such as fisheries, make waters foundational for their economies.¹² Due to globalisation, local disruptions to seaborne trade due to piracy can have global ramifications (such as rerouting delays) for regional and extra-regional powers, including adverse effects on regional security, economy and the welfare of maritime communities directly affected.¹³ Therefore, the importance of Southeast Asia makes it essential to review the recent trends of maritime piracy, and attempt to understand the causes.¹⁴ We thematically analyse historic causes for piracy increases in Southeast Asia, as well as literature gaps relating to global health crises. Drawing on Cohen and Felson's theory¹⁵, the literature suggests that the *motivations* of piracy include certain factors such as political and economic conditions that result in regulatory and surveillance issues, as well as increased pressure on maritime communities that may push some people towards crime.¹⁶

THE CAUSES OF PIRACY

Southeast Asia is prone to piracy due to a range of factors, including the geography of coastal states, economic pressures, and political will, that inhibit the capacity to effectively control or regulate maritime environments.¹⁷ Furthermore, major economic expansion in the 1990s including globalisation and unsustainable economic growth was conducive to the rise of modern-day piracy: uneven economic and political development meant that increasing sea traffic paralleled increasing regulatory issues.¹⁸ Rapid economic development without consummated political strategy to control expanding economies created the foundations of poverty, which in part stimulated the rise of piracy.¹⁹



GEOGRAPHY

Southeast Asia's sea lanes and archipelagic geography are characterised by extensive coastlines, thousands of islands, and congested maritime chokepoints such as the Malacca and Lombok-Makassar Straits, which provide criminals with target-rich environments and make waters conducive to piracy.²⁰

The geographic significance of these attacks is exhibited in the Singapore Strait and Malacca Strait, which represent the world's most congested waterways²¹ even during a downturn in maritime trade. Despite one-third of all global sea trade passing through these straits, they are characterised by numerous shallow points, shoals and narrow shipping lanes. This forces vessels to reduce speed to up to 10 knots, making ships travelling through the region a target for attack²² as pirates can board them more easily than speedboats. Despite peaks and troughs in attacks over the past quarter century, these factors indicate that Southeast Asia's maritime make-up create the ideal geographic conditions for operation and retreat, resulting in the region being a hotspot for piracy.²³

SOCIO-ECONOMIC FACTORS

The economic environment in the 1990s created 'push factors' towards piracy. Poor socio-economic conditions in coastal communities drove locals to engage in illegal maritime activity to sustain their households, while the growing volume of sea trade and commercial maritime traffic provided potential targets for pirates.²⁴ This was exemplified throughout economic downturns in global economic crises, such as the 1997 Asian financial crisis and the 2008 global financial crisis, which in Southeast Asia exacerbated the inequalities of rapid economic development and widened the income gap in coastal states. This caused a subsequent increase in piracy, including a 10-fold increase in Indonesian waters.²⁵ In tangent, large-scale commercial fishing in the 1990s resulted in overfishing and depleted fish stocks, making traditional occupations less lucrative; as a consequence, fishers turned to piracy while other economic opportunities declined.²⁶ In 1999 in Indonesia there was a sharp increase of incidents due to high unemployment rates and daily necessities requiring 62% of one's income.²⁷ These socio-economic conditions generated 'push' factors that made individuals seek alternate sources for their livelihood and incomes, with the main actors engaged in piracy being mostly unemployed shipyard workers, seafarers and fishers.²⁸ Economic crises, strain and social impacts provided a cause for piracy as it became a more 'feasible' option for communities.

GEO-POLITICAL FACTORS

There is a regime complexity in the governance of maritime security in Southeast Asia, which may spill over into piracy in the Singapore Strait. Inter-state maritime boundary disputes and delineated maritime boundaries inhibit effective legal and security regimes against piracy attacks; moreover, a legal and regulatory gap may motivate piracy.²⁹ These inconsistencies in governance result in geo-political tensions; states have different views about the appropriate responses against maritime piracy as dictated by their respective national security interests, a situation that can be taken advantage of by criminal elements.³⁰ Disequilibrium in the broader Southeast Asia region is seen in the issue of Malacca Strait sovereignty, where the International Criminal Court ruled Litigan and Sipadan in the Celebes Sea of Borneo to be Malaysia's territory, while Indonesia claimed various small islands in retaliation to assert and protect sovereignty.³¹ There is also an absence of maritime borders in Malaysia in the Sulawesi Sea, as well as the territorial sea of Timor Leste.³² While piracy in the South China Sea is not presently of concern, various coastal claimants and international user states have divergent trade and naval interests. This results in a variety of stakeholders with overlapping agendas in the South China Sea, which confuses the rights and responsibilities about security between states, as well as a focus on sovereignty and national interests instead of anti-piracy efforts.³³ As a consequence of these political dimensions, a major feature of regional politics is a mistrust between neighbouring states, which hinders transnational approaches to combat the dynamic nature of modern-day piracy. This may also be relevant to its increase in the Singapore Strait.³⁴

INSTITUTIONAL CAPACITY

The political and economic conditions, along with the geographic environment, may result in an inability of coastal states to effectively regulate waters known for piracy.³⁵ Firstly, economic crises decrease the availability of resources to finance military and naval operations, resulting in military funds being directed elsewhere and leaving stretches of international territorial waters without regular patrols, while the international arms market becomes saturated with automatic weapons.³⁶ Furthermore, gaps in a state's control of their political hegemony (mainly their control over violence within their defined borders) enable piracy in the operational space to re-emerge.³⁷ These weaknesses, paired with the increase in technology used by pirates, including advanced communication technology and navigational systems to execute regional operations, prevent institutions from providing the adequate legal infrastructure to the new scale of economic and piratic activity in Asia.³⁸ Therefore, economic conditions such as poverty and political instability create a lack of integrated institutional approaches that inhibit states' ability to maintain an effective maritime security regime, and may drive some coastal residents to resort to various maritime crimes for survival.³⁹

THE GAP IN THE LITERATURE

Finding that the *motivations* of piracy derive from political and economic factors, there are current gaps in the literature to explain whether the COVID-19 pandemic, which affected all aspects of Southeast Asian life and society, led to maritime piracy attacks.⁴⁰ Economically, the impact of COVID is theorised to resemble that of the 1997 Asian financial crisis and the 2007 global economic crisis: shutdowns in states dependent on tourism and trade in essential goods and services increased already high rates of poverty, unemployment levels, and economic inequalities.⁴¹ Similar to past economic downturns, there were questions on whether

COVID-19 would trigger disenfranchised people in coastal communities to supplement their income through illegitimate means, resulting in a rise of piracy incidences.⁴² Furthermore, the geo-politics in the region saw a change in the global order, such as the rise of protectionism, nationalism and increased competition between the United States and China that commentators speculated criminals and opportunists would exploit, contributing to an *absence of capable guardianship*.⁴³ Trend data in Section 2 will assist in explaining *access to suitable targets* in Southeast Asia during COVID-19.

SECTION 2: DATA ANALYSIS OF SUITABLE TARGETS

PAST TRENDS FOR MARITIME PIRACY IN SOUTHEAST ASIA

In the past 30 years, economic and political disruptions have resulted in peaks and troughs of piracy and armed robbery in Southeast Asia waters, characterised as a global theatre for contemporary piracy.⁴⁴ These included a steady rise in the number of incidents throughout the 1990s followed by a spike around the early 2000s,⁴⁵ with 60% of maritime piracy incidents between 1993–2015 occurring in Southeast Asia.⁴⁶ Throughout this time, there were various shifts in the distribution of attacks throughout hotspot regions of the Malacca Strait, the Singapore Strait, Indonesia and the South China Sea.⁴⁷ Between 1990 and 1992, the waters between Malacca and Singapore were identified as nexuses for piracy; however, joint anti-piracy patrols by Malaysian, Singaporean and Indonesian authorities through the Malacca Strait Patrol improved regional security measures, so piracy shifted towards the South China Sea.⁴⁸ From 1993 to 1995, more than 50% of reported attacks occurred in the South China Sea, but the fall of the Suharto regime resulted in Indonesian ports and territorial waters becoming the most pirate-prone.⁴⁹ Attacks in Southeast Asia increased until 2007, while 2015 marked the highest number of attacks, which slowly receded thereafter.⁵⁰ These dynamic distributions of piracy and its relationship with economic and political events result in the need to examine the historical causes of piracy in the region. True historically and in the present day, Southeast Asia provides pirates with *access to suitable targets* according to routine activity theory.⁵¹

SOUTHEAST ASIAN PIRACY TREND DATA

The IMB PRC reports that piracy attacks are increasing in Southeast Asia: from 53 actual and attempted attacks in 2019 up to 58 in 2022, there is a disproportionate concentration of attacks in Indonesian and Singaporean waters (see Table 1).⁵² These data confirm *access to suitable targets*.

As shown in Table 1, Southeast Asia recorded 44 actual attacks in 2019, which increased to 59 in 2020. This upwards trend waned slightly in 2021, with 53 actual attacks recorded, jumping up slightly again in 2022 with 58 actual attacks recorded.⁵³ Currently, attacks in the Singapore Strait reflect the highest number of reported attacks since 1991 and have been on an upward trend since the fourth quarter of 2019.⁵⁴ All 12 of 2019's attacks were in the fourth quarter, followed by 23 attacks in 2020, 35 in 2021 and 28 in 2022.⁵⁵ The region is now classified as risky waters.⁵⁶ In Indonesia, the number of attacks has been dynamic in comparison; there was a slight increase from 2019 (n=25) to 2020 (n=26), before a recording a decrease (2021: n=9; 2022: n=10).⁵⁷

Within the global context, piracy spiked then decreased; from 162 attacks globally in 2019 to 195 in 2020, before decreasing again to 132 attacks in 2021 and 115 in 2022.⁵⁸ Indonesia and Singapore have the highest concentration of piracy globally, and the Singapore Strait experienced the greatest increase (38%) from 12 attacks in 2019 to 38 in 2022. Collectively, these reported attacks indicate piracy is trending upwards; in 2022 the region recorded 60% of piracy attacks globally with the Singapore Strait alone, accounting for 33% of all global attacks in 2022.⁵⁹ COVID-19 is speculated to be the primary contributor to the spike in these piracy attacks. This research, therefore, aims to provide explanations of how and why the pandemic affected piracy incidents while observing developments in the Singapore Strait to find causes for their disproportionate increase.


TABLE 1: PIRACY ATTACKS FOR SOUTHEAST ASIA, 2019-2022⁶⁰

	2019		2020		2021		2022	
	Actual	Attempted	Actual	Attempted	Actual	Attempted	Actual	Attempted
Indonesia	20	5	25	1	8	1	10	0
Malacca Straits	0	0	0	0	1	0	0	0
Malaysia	11	0	4	0	2	0	3	1
Philippines	3	2	7	1	9	0	5	1
Singapore Strait	10	2	22	1	33	2	38	0
Thailand	0	0	1	0	0	0	0	0
Subtotal	44	9	59	3	53	3	56	2
Regional total	53		62		56		58	
Global	162		195		132		115	

SECTION 3: LINKING COVID-19 AND SINGAPORE STRAIT MARITIME PIRACY

Reflecting on recorded attacks between 2019 and 2022, the region experienced an upward trend in the Singapore Strait and Indonesian waters.⁶¹ This section considers the relationship between this trend and the impact of the COVID-19 pandemic, a global crisis that extended beyond health domains. Here, we examine the socioeconomic conditions, maritime trade impact, and administrative capacity during the pandemic, contrasting Indonesia and Singapore, to evaluate the piracy surge in the Singapore Strait.

SOCIO-ECONOMIC FACTORS

Past explanations for piracy propose that incidents are reflective of the socioeconomic conditions in the region, where economic downturns create 'push' factors for maritime crime.⁶² COVID-19 caused extreme stress on Southeast Asia's economic systems; the shutdowns caused a decrease of global trade and revenue, supply chain disruptions, decreased foreign investment, and stagnant economic output in regions reliant on trade and tourism, which led to Asia's first regional contraction in decades.⁶³

From 2020 to 2021, the value of goods exported from the 10 Association of Southeast Asian Nations states fell by 15%, and imports by 27%.⁶⁴ Within coastal communities, poverty, economic inequality, unemployment, and commodity prices increased, and households turned to illegitimate means of crime to supplement their loss of income.⁶⁵ As stipulated in the causes of past spikes of piracy, the lack of economic opportunities within economic contractions lead to alternate means of seeking income such as maritime piracy, as reflected in the current IMB PRC data.⁶⁶ These factors indicate that the pandemic-induced economic crisis generated the conditions for piracy to increase, whereby it 'pushed civilians into piracy' as economic difficulties impacted livelihoods.⁶⁷

MARITIME TRADE IMPACT

The maritime trade in Southeast Asia comprises several distinct elements which may all be relevant to the increase in piracy, and certainly may have been impacted by changes to and limitations of operations due to lockdowns during the COVID-19 pandemic.



FISHING INDUSTRY

Southeast Asia is a major contributor to the world's fisheries production; however, the COVID-19 pandemic has caused significant impacts on the fisheries sector, aquaculture, supply chains, and effectively the socioeconomic conditions and welfare of communities that rely on these industries.⁶⁸ This was mostly due to restrictions placed on fishing operations at sea caused by national lockdown measures, a decline in employment hours, and a reduced market value of seafood while there was a decreased demand by consumers.⁶⁹ The export potential of many industries, including fisheries, decreased, while economic strain was exacerbated by the inability to land catches, decreased market operating hours, and government restrictions.⁷⁰

The global economic downturn was felt especially in the small-scale fisheries and coastal fishing communities in Indonesia, where regulation No. 21/2020 implemented large-scale social restrictions that shut down fishery operations and market stalls on account of reduced demand.⁷¹ Between lockdown from March to May 2020, seafood supply declined as operational costs became higher than revenue due to transportation irregularity and uncertainty, increased fuel prices, and regulations for safety and health (for example, the need for disinfectants). Furthermore, the lower purchasing power of consumers and the closure of businesses forced local traders to sell fish at lower prices, and meant fishers had limited capital to fish, leading to increased unemployment.⁷² COVID-19 affected Indonesia's domestic value chain⁷³ with a 70% decline in fish supply in the culinary and hospitality sectors, and a 40% reduction in household fish consumption.⁷⁴ Reduced demand domestically and

internationally increased employment pressure on the fishing sector at sea and on land.

COVID-19 transmission and related restrictions negatively impacted the economic welfare of fishers, decreasing opportunities for income due to fish market closures and difficulty to sell landed catches.⁷⁵ Seafood exports declined as much as 70% during the early onset of COVID-19.⁷⁶ The result was increased financial vulnerability among small-scale fishing households in the region, who were unable to cushion the shocks of the fisheries market downturn.⁷⁷ One study on the welfare of the Indonesian fisheries sector observed fishers and fish farmers have been facing critical crises due to decreasing income and ongoing expenditures to meet family needs or production capital.⁷⁸ As such, approximately 2.7 million Indonesian fishers fell below the national poverty line and so do approximately 53% of families who live in coastal regions.⁷⁹ This increases their vulnerability to seeking income from alternate and potentially illegal sources, such as piracy.

Singapore experienced a similar trend whereby its fish production fell to 3,960 tonnes, its lowest level since 2014, due to lacklustre consumer demand stemming from COVID-19 lockdowns and border restrictions.⁸⁰ Further, a decrease in local seafood product production due to suppressed sales led the fishery sector to lower its output to keep pace with the decreased demand.⁸¹ A temporary closure of Jurong Fishery Port, Singapore's primary seafood import hub, forced the city-state to switch to alternative supply routes to meet local demand as the port receives about 30% of its seafood imports.⁸² In addition to reduced production, COVID-19 exacerbated fishing industry wage-related abuses, whereby fishing and seafood processing workers faced lower income and employment loss.⁸³

PORTS AND SHIPPING

The COVID-19 pandemic disrupted the operations of ports in Indonesia and Singapore, with governments adopting measures to cope with the crisis such as lockdowns, travel restrictions, the shutdown of workplaces and mandatory quarantine orders.⁸⁴ Reduced supply and restricted operations increased financial pressure to meet fixed costs.⁸⁵ These pressures were further compounded by supply chain disruptions due to factory and border closures and unbalanced supply and demand, leading to higher inventory, operating and shipping costs of goods to provide a financial buffer.⁸⁶

Singapore port is one of the world's busiest transshipment hubs,⁸⁷ and in 2020 it retained its position as the world's second-busiest container port and the number one bunkering port amid the pandemic.⁸⁸ With sustained maritime traffic in and around Singapore, the port remained open for cargo operations to ensure the continued flow of goods throughout the pandemic.⁸⁹ As such, Singapore's port sustained a key economic sector, despite global restrictions on trade and workforce lockdowns.

COVID-19 restrictions changed the global shipping industry, affecting all sectors from passenger vessels to container ships and oil tankers.⁹⁰ Indeed, a survey conducted to assess the impact of COVID-19 on ports found across the board a reduction in ship calls at each port; additional restrictions aboard ships; delays in port calls on account of additional procedures; decreased use of warehousing and high-capacity storage facilities; and shortages of port-related workers.⁹¹ Compared to other regions of the world, few ports within Southeast Asia participated; however there was commonality across experiences.

Indonesia imposed travel and trade restrictions in an effort to slow the COVID-19 virus, which caused considerable impact on its national sea transportation and maritime sectors as an archipelago with an extensive coastline.⁹² Global supply chains and shipping activity decreased alongside port operation capacities, delaying ship docking and decreasing the seafaring workforce to safeguard and prevent COVID-19.⁹³ Reductions in import/export volumes, due to around 40% lower export demand, compounded the pressure felt in the fisheries industry due to COVID-19 regulations.⁹⁴ For example, Sumatra's Jambi province shrimp-fishing community faced increased pressure when seafood exports to China declined, due to its reliance on the Chinese market.⁹⁵ Collectively, these port and shipping pressures increased economic vulnerability among the workforce within the industry.

SEAFARING

Indonesia's fisheries are vital to its economy, accounting for nearly 5% of gross domestic product, and contributing to national food security and employment in the country.⁹⁶ According to a 2020 study, Indonesia ranked eighth most fish-dependent nation in the world, with small-scale fisheries and aquaculture products accounting for 54% of all animal product consumed.⁹⁷ Furthermore, the capture fisheries sector provides direct jobs for more than 6 million Indonesians and indirect jobs for millions of others, with over 1.1 million registered Indonesian seafarers alone.⁹⁸ In terms of the fisheries sector, in 2020 there were 2.35 million fishers in Indonesia, with small-scale ones accounting for more than 90%.⁹⁹ Overall, the Indonesian Bureau of Statistics estimates that nearly 9 million people are involved in fisheries-related jobs.¹⁰⁰

The mental health and welfare of seafarers during the pandemic was significantly impacted.¹⁰¹ This was seen in the reduction of entry permits (visas) by other nations, which resulted in an estimated 300,000 seafarers stuck onboard globally and unable to return home.¹⁰² Furthermore, the latest 'Seafarer Happiness Index' for Q2 and Q3 of 2020 indicated that fatigue and financial woes impact seafarers aboard vessels and those ashore who need to earn a living, which showcases the negative impact of the pandemic on seafarers' mental health.¹⁰³

Collectively, given the close vicinity of the maritime borders between Singapore, Indonesia and Malaysia, the volume of maritime trade entering the region, despite its reduced rate, and the economic impact on countless people forced into poverty, points to an increased motivation to commit piracy.

ABSENCE OF CAPABLE GUARDIANSHIP

In attributing the main causes of maritime piracy increases to COVID-19 conditions, there is also the question of why the Singapore Strait is currently experiencing a six-year high as a piracy hotspot as opposed to other regions such as Indonesia, which have only faced a steady increase and a subsequent drop.¹⁰⁴

The Singapore Strait recorded 66% of Southeast Asia's 2022 piracy, and, being of geostrategic importance, analysing reasons for this disproportionate upsurge is paramount.¹⁰⁵ Drawing on the absence of capable guardianship element of routine activity theory¹⁰⁶, we trace the rise of piracy in the Singapore Strait to three main causes: (1) reduced administrative capacity; (2) the decentralised maritime security framework administered in the Singapore Strait as a result of its waters constituting the territorial zones of 3 littoral states; and (3) the geo-political developments within the North Natuna Sea contributing to the absence of capable guardianship in the region and leaving it vulnerable to piracy.



1. ADMINISTRATIVE CAPACITY

The weakening in institutional capacity of Southeast Asian states throughout COVID-19 led to limited ability to effectively mitigate piracy, contributing to its overall increase.¹⁰⁷ The economic downturn and the pandemic prompted a reallocation of resources from maritime security to healthcare and social security. The result was that regional navies, coast guards and other maritime law enforcement agencies responsible for maritime security surveillance operated on decreased funding.¹⁰⁸ Reduced routine port and maritime patrols and surveillance left the Singapore Strait vulnerable to piracy.¹⁰⁹ Specifically, Singapore reduced its defence budget by 2.4% in 2020, while Indonesia reduced it by almost 7%, directly impacting its maritime security and domain awareness.¹¹⁰ While alone these budget cuts do not directly constitute cause for piracy, they hamper regional maritime security efforts, placing increased pressure on shipping vessels to prevent piracy.

Shipping vessels must adopt onboard efforts to be resilient to piracy, certainly until naval support arrives. However, COVID-19 caused decreased revenue due to stagnating trade, which limited resources ordinarily allocated to onboard security measures against piracy attacks. This was further worsened by decreased seafaring crews to meet the COVID-19 health protocols introduced in 2020.¹¹¹ When this situation is compounded by other socioeconomic vulnerabilities, the potential to commit piracy increases.

2. DECENTRALISED MARITIME SECURITY FRAMEWORK

The Singapore Strait maritime security framework differs broadly in the approach administered, and specifically in regard to piracy. Indonesia is the largest archipelagic nation in the world and has sovereignty over 5.8 million square kilometres.¹¹² The Singapore Strait accounts for a third of global marine commerce and is composed of the territorial waters of the three littoral states of Singapore, Indonesia and Malaysia; each state is responsible for security in their respective waters.¹¹³ Singapore Strait's maritime security architecture, therefore, relies on the cooperative mechanisms between the three states, which becomes an issue due to sovereignty concerns and ambiguity over the laws for the 'right of hot pursuit'.¹¹⁴

Maritime surveillance in the Singapore Strait may be insufficient as restrictions and ambiguity allow suspects to flee, while in contrast, Indonesia may be able to monitor its waters through a streamlined unilateral approach.¹¹⁵ Furthermore, the pandemic hindered cooperative mechanisms due to a lack of resources and finance, which made countries look inwardly instead of regionally to mitigate the domestic effects of the pandemic, while alleviating piracy incidents requires effective coordination between countries and regional initiatives.¹¹⁶ Subregional mechanisms are essential for coordination and effective maritime surveillance is needed to adequately combat maritime piracy, and COVID-19.¹¹⁷

3. NORTH NATUNA SEA

The third factor that likely led to the rise in attacks in the Singapore Strait relates to the regional developments in the South China Sea. Past explanations have stipulated that geo-political developments contribute to increases in piracy.¹¹⁸ Even before the pandemic, the number of attacks in the Singapore Strait had increased; specifically, a spike in attacks was recorded which paralleled the growing tensions between Indonesia and China in the South China Sea in late 2019.¹¹⁹ The Indonesian Government countered China's claims that the Natuna Sea was within its nine-dash line by increasing military presence in December 2019, maintaining that the sea remains within Indonesia's exclusive economic zone.¹²⁰ Maritime patrols along the Singapore Strait reportedly decreased as the Indonesian navy deployed to the Natuna Sea, creating opportunities for maritime piracy within the Strait.¹²¹

Returning to Cohen and Felson's theory, various factors indicate that COVID-19 led to an absence of capable guardianship to maintain maritime security within Southeast Asia, and in particular in the Singapore Strait. Measures such as coastal surveillance were deprioritised by regional governments, as budget reallocations to mobilise COVID-19 had resulted in decreased administrative capacity, causing weaknesses of law enforcement at sea and a rise in piratical incidents.¹²²

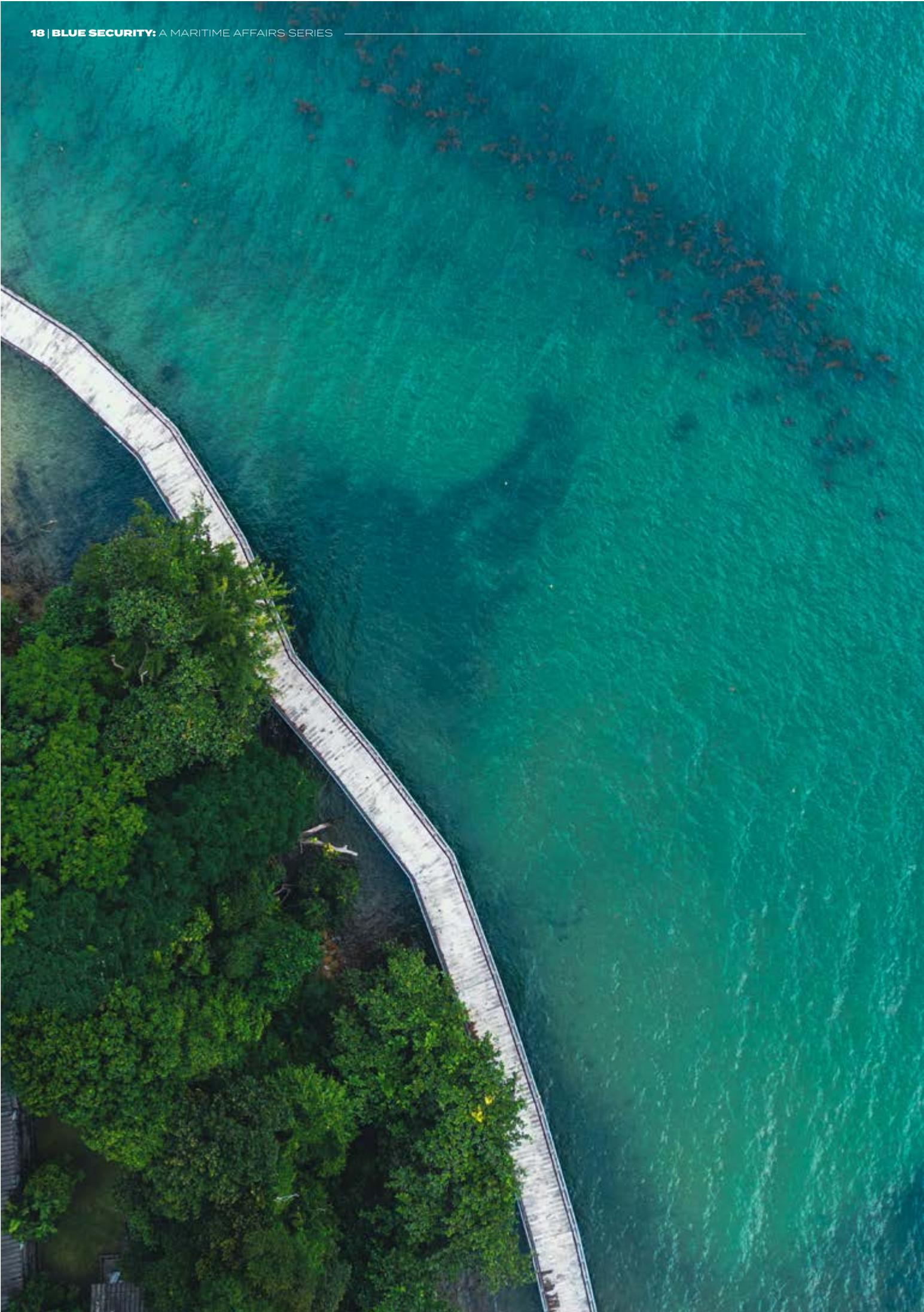
The uptick in piracy and its impact on Southeast Asia and beyond can be economically, politically, and socially damaging and therefore it should be among the core issues addressed by maritime security policy for the region.



CONCLUSION

With a growing global dependence on Southeast Asia's waters and dynamic trends of maritime piracy, examining Southeast Asia's maritime piracy through COVID-19 helps understand how the pandemic contributed to the current piracy trends. Through the lens of Cohen and Felson's routine activity theory¹²³, we showed that the triangulation of offender motivation (due to a downturn in the fisheries sector and socioeconomic pressures), access to suitable targets (given Singapore's continued importance as a commercial shipping hub), and absence of capable guardianship (due to the lowering of maritime security resources and reallocations of naval patrols), aggravated by the COVID-19 pandemic, led to the spike in piracy in the Singapore Strait.

Future research could ground-truth these findings and extend this study by determining how individual states within Southeast Asia can bolster their administration (including legal and enforcement) of maritime surveillance, with a focus on piracy, in readiness for future global health crises. Therefore, future monitoring and analysis of the implications of COVID-19 on piracy in the Singapore Strait, including the continuing socio-economic patterns, could clarify the long-term effects of global health crises on the maritime space and enable preventative approaches to be adopted.



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