



DOI: <https://doi.org/10.24833/0869-0049-2022-4-34-43>

Research article
Received 15 July 2022
Approved 20 October 2022

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THE LEGALITY OF PASSAGE OF NUCLEAR-POWERED SUBMARINES: ARE MALAYSIA AND INDONESIA IN CATCH-22?

INTRODUCTION. Southeast Asia is home to some of the most important sea lines of communications (SLOCs) which are not only significant maritime conduits for merchant vessels, but military vessels of the superpower nations as well. While there have never been any casualties involving nuclear-powered submarines in this region, the fact remains that the number of such vessels traversing Southeast Asian SLOCs is predicted to rise in years to come.

MATERIALS AND METHODS. This research is a result of analysis of international treaties applied to navigation of nuclear-powered submarines. Some of the materials used for preparing this paper include 1) the UN Convention on the Law of the Sea 1982; 2) AUKUS pact. The methodological basis of the research consists of traditional methods: general scientific methods (in this case, based on general principles of law) and specific methods.

RESEARCH RESULTS. Other than China, Australia is another State within this region projected to own nuclear-powered submarines by 2040 through AUKUS. These developments have raised concerns among leaders of Southeast Asian nations, particularly Malaysia and Indonesia, the caretaker States of the Straits of Malacca and Singapore as well as the

Indonesian archipelagic sea lanes. These maritime waterways are traversed by thousands of vessels each year, including nuclear-powered submarines belonging to nations already possessing them.

DISCUSSION AND CONCLUSIONS. This article concludes by reiterating that international law should provide an equitable balance between navigational rights and protection of the marine environment particularly in sea lines of communications which are subjected to liberal navigational rights, in relation to nuclear-powered submarines.

KEYWORDS: Sea Lines of Communications, Navigational Rights, Marine Environmental Protection, Nuclear and Hazardous Substances

FOR CITATION: Rusli M. H. M. The Legality of Passage of the Nuclear-Powered Submarines: Are Malaysia and Indonesia in Catch-22? – *Moscow Journal of International Law*. 2022. No. 4. P. 34–43. DOI: <https://doi.org/10.24833/0869-0049-2022-4-34-43>

The author declares the absence of conflict of interest.

DOI: <https://doi.org/10.24833/0869-0049-2022-4-34-43>

Исследовательская статья
Поступила в редакцию: 15.07.2022
Принята к публикации: 20.10.2022

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ПРАВОМЕРНОСТЬ ПРОХОДА АТОМНЫХ ПОДВОДНЫХ ЛОДОК: МАЛАЙЗИЯ И ИНДОНЕЗИЯ В ЗАМКНУТОМ КРУГЕ?

ВВЕДЕНИЕ. В Юго-Восточной Азии расположены одни из самых важных морских линий связи (МЛС), которые являются не только важными морскими маршрутами для торговых судов, но и для военных судов сверхдержав. Хотя в этом регионе еще не было зафиксировано ни одной аварии с участием атомных подводных лодок, остается фактом, что количество таких судов, проходящих через морскую линию связи Юго-Восточной Азии, по прогнозам, будет расти в ближайшие годы.

МАТЕРИАЛЫ И МЕТОДЫ. Данное исследование является результатом анализа международных договоров, применяемых к навигации атомных подводных лодок. При подготовке данной работы были использованы следующие материалы: 1) Конвенция ООН по морскому праву 1982 года; 2) пакт АУКУС (Австралия, Соединенное Королевство, США). Методологическую основу исследования составляют традиционные методы: общенаучные методы (в данном случае основанные на общих принципах права) и специальные методы.

РЕЗУЛЬТАТЫ ИССЛЕДОВАНИЯ. Кроме Китая, Австралия является еще одним государством в этом регионе, которое, согласно прогнозам, будет иметь атомные подводные лодки к 2040 году благодаря АУКУС. Эти события вызвали обеспокоенность лидеров стран Юго-Восточ-

ной Азии, особенно Малайзии и Индонезии – государств, ответственных за обеспечение безопасности в Малаккском и Сингапурском проливах, а также индонезийских архипелажных морских коридоров. Эти морские пути ежегодно пересекают тысячи судов, включая атомные подводные лодки, принадлежащие государствам, уже обладающим ими.

ОБСУЖДЕНИЕ И ВЫВОДЫ. В заключение в статье подчеркивается, что международное право должно обеспечивать справедливый баланс между правами судоходства и защитой морской среды, особенно на морских линиях связи, на которые распространяется свобода судоходства, в отношении атомных подводных лодок.

КЛЮЧЕВЫЕ СЛОВА: морские линии связи, права судоходства, защита морской среды, ядерные и опасные вещества

ДЛЯ ЦИТИРОВАНИЯ: Русли М.Х.М. 2022. Правомерность прохода атомных подводных лодок: Малайзия и Индонезия в замкнутом круге? – Московский журнал международного права. № 4. С. 34–43. DOI: <https://doi.org/10.24833/0869-0049-2022-4-34-43>

Автор заявляет об отсутствии конфликта интересов.

1. Introduction

Southeast Asia is home to significant maritime highways namely the Straits of Malacca and Singapore and Indonesia's archipelagic sea lanes¹. The closure of these important shipping ways would not only violate international law, but would also affect the well-being of the global economy [Rahman, Saharudiin and Rasdi 2014].

As crucial maritime superhighways, thousands of vessels traverse these waterways each year including that of vessels carrying hazardous nuclear substances including Japanese vessels carrying nuclear waste bound for reprocessing facilities in Europe [Song 2007:97] as well as nuclear-powered submarines belonging to superpower nations of the world [Valencia 1990].

2. Navigational Regimes

When a ship merely navigates through the territorial sea of a state without entering any of its ports, that state is regarded as a coastal state [Martin 2010]. The coastal state has sovereign rights over its territorial sea, which is subject to the right of innocent passage², a passage regime where the coastal state has the power to regulate but not to control [Boyle 1985:357]. The powers of coastal state to take action against recalcitrant vessels are subject to the jurisdictional balance, which, based on the practice of international law, leans heavily in favour of navigational interests³.

Unlike the innocent passage regime which can be temporarily suspended⁴, states bordering straits

possess more limited powers as they legally have no right under the international law to impede navigation⁵. Archipelagic states too, have limited powers to obstruct passage of vessels passing through its archipelagic sea lanes. Submarines are not required to surface whilst exercising transit passage or archipelagic sea lanes passage as prescribed by the UNCLOS⁶.

Malaysia and Indonesia have expressed uneasiness that the tripartite security pact between Australia, the United Kingdom and the United States of America (AUKUS) which was announced in September 2021 would enable Australia to construct at least eight nuclear-powered submarines through this trilateral security partnership⁷.

Australia has reiterated that the development of its nuclear-powered submarines program is not in contravention of international law⁸. Developing nuclear-powered submarines is not in any way similar to developing nuclear weapons. Australia is projected to possess its first nuclear-powered submarine by the year 2040⁹.

This means that apart from the existing nuclear-powered submarines navigating Southeast Asia's sea lines of communications, Australia eventually will be doing the same in the next two decades.

Given the fact that the unimpeded transit passage and archipelagic sea lanes passage (ASLP) regime apply to the Straits of Malacca and Singapore and Indonesian archipelagic sea lanes (ASLs) respectively, Malaysia and Indonesia have the reasons to get all worked up¹⁰.

International law has placed the obligation on Malaysia and Indonesia to allow its territorial sea

¹ Rusli M.H. bin M. Maritime Highways of Southeast Asia: Alternative Straits?. – *RSIS Commentaries*. February 10, 2012. URL: <https://www.rsis.edu.sg/rsis-publication/rsis/1686-maritime-highways-of-southeast/#.YeeDEXpBzIU> (accessed 26.04.2022).

² The right of innocent passage is clearly fixed in UNCLOS (Section 3).

³ Ibid.

⁴ Article 25(3) of the UNCLOS stipulates that coastal State may temporarily suspend passage of vessels through its territorial sea if such suspension is essential for the protection of its security.

⁵ Article 44 of the UNCLOS mentions clearly that there shall be no suspension of transit passage.

⁶ See Articles 39(1) (c) and 54 of the UNCLOS.

⁷ Why is southeast Asia so concerned about AUKUS and Australia's plans for nuclear submarines?. – *The Conversation*. September 20, 2021. URL: <https://theconversation.com/why-is-southeast-asia-so-concerned-about-aukus-and-australias-plans-for-nuclear-submarines-168260> (accessed 26.04.2022).

⁸ Musto R.A. Does AUKUS Violate the Pledge of a Nuclear-Free South Pacific? China Thinks It Might. – *The Diplomat*. October 16, 2021. URL: <https://thediplomat.com/2021/10/does-aukus-violate-the-pledge-of-a-nuclear-free-south-pacific-china-thinks-it-might/> (accessed 26.04.2022).

⁹ Coughlan M. Australia in deal for nuclear submarines. – *The Canberra Times*. September 16, 2021. URL: <https://www.canberratimes.com.au/story/7432533/australia-in-deal-for-nuclear-submarines/> (accessed 26.04.2022).

¹⁰ Rusli M.H.M., Zaideen I.M.M. AUKUS and Malaysia: Cats on hot bricks?. – *New Straits Times*. October 8, 2021. URL: <https://www.nst.com.my/opinion/columnists/2021/10/734789/aukus-and-malaysia-cats-hot-bricks> (accessed 26.04.2022). <https://www.canberratimes.com.au/story/7432533/australia-in-deal-for-nuclear-submarines/>

within the Straits of Malacca and Singapore to be open for international navigation, including to that of vessels carrying hazardous nuclear substances as well as nuclear-powered submarines¹¹. Indonesia too, has to keep its ASLs open for unobstructed international traffic¹².

Would such navigation be detrimental to these nations' security? Would this in any way adversely affect the pristine marine environment of the Straits of Malacca and Singapore? What are the remedies applicable to coastal States to prevent unwarranted maritime collision involving vessels carrying hazardous nuclear substances?

This article answers these questions by looking at the navigational regimes applicable by foreign vessels under international law. Although international law provides unimpeded passage through important sea lines of communications, coastal States should be provided with adequate measures to ensure their respective maritime domains would not be adversely affected in the unwarranted event of accidental spillage or meltdown.

3. Southeast Asia's Crucial Sea Lines of Communications

The Straits of Malacca and Singapore route is the shortest maritime passageway connecting oil exporter nations in West Asia to its East Asian consumers [Rothwell 2012a]. In 2017, Singapore-based Nippon Maritime Centre reported that one vessel leaves or enters the Straits of Malacca and Singapore every six minutes¹³.

The Straits of Malacca and Singapore are now the second busiest shipping way after the Dover Strait, a narrow sea route separating England from mainland Europe [Zaideen 2019:236]. An estimated 15 million barrels of oil pass the Straits of Malacca and Singapore daily¹⁴.

Statistical data have shown that most of the world's busiest ports are located in East Asian countries including China and South Korea, with Singapore ranked as the busiest, as shown in the following Table 1:

Container Traffic (TEU- Twenty-Foot Equivalent Units) 2020			
Rank	Port	Country	TEUs (Million)
1.	Shanghai	China	43.5
2.	Singapore	Singapore	36.60
3.	Ningbo-Zhoushan	China	28.72
4.	Shenzhen	China	26.55
5.	Guangzhou	China	23.19
6.	Busan	South Korea	21.59
7.	Qingdao	China	22.00
8.	Hong Kong	China	20.07
9.	Tianjin	China	18.35
10.	Rotterdam	Netherlands	14.35
11.	Jebel Ali	United Arab Emirates	13.5
12.	Port Klang	Malaysia	13.24

Table 1. World's Top 12 Busiest Ports 2020
(Source: World Shipping Council¹⁵)

Note: Ports in bold are located along the Straits of Malacca and Singapore

¹¹ Article 44 of the Law of the Sea Convention stipulates that "States bordering straits shall not hamper transit passage... There shall be no suspension of transit passage".

¹² Article 53 (3) of the Law of the Sea Convention prescribes that all ships and aircrafts enjoy the right of an unobstructed transit through archipelagic sea lanes.

¹³ Hand M. Exclusive: Malacca Straits VLCC traffic doubles in a decade as shipping traffic hits all-time high in 2017. – *Seatrade Maritime News*. February 19, 2018. URL: <https://www.seatrade-maritime.com/asia/exclusive-malacca-straits-vlcc-traffic-doubles-decade-shipping-traffic-hits-all-time-high-2017> (accessed 26.04.2022).

¹⁴ Strait of Malacca Key Chokepoint for Oil Trade. – *The Maritime Executive*. August 27, 2018. URL: <https://www.maritime-executive.com/article/strait-of-malacca-key-chokepoint-for-oil-trade> (accessed 26.04.2022).

¹⁵ The Top 50 Container Ports. URL: <https://www.worldshipping.org/top-50-ports> (accessed 26.04.2022).

If for any reasons these Straits are not made available for international navigation, shipping companies will have no other choice but to traverse through Indonesian archipelagic straits of Lombok and Makassar, translating into higher shipping costs that may affect the well-being of global economy [Rusli, Bautista, Wan Talaat 2014:103].

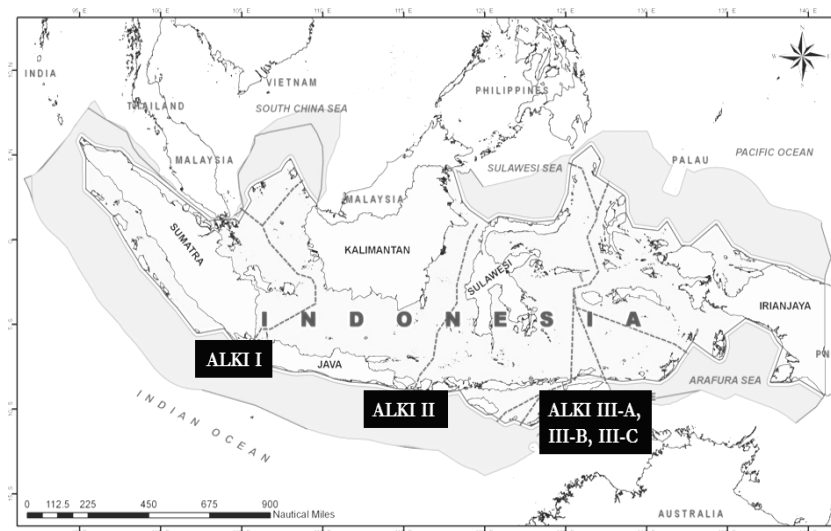
As the largest archipelagic state in the world, Indonesia has many islands separated by interconnecting waterways. These waterways have been described as international straits in the past, and with

the implementation of the UNCLOS in 1994, these straits are now incorporated as part of Indonesian archipelagic waters. Vessels may sail through the interconnecting waterways of the Indonesian archipelago under the regime of Archipelagic Sea Lanes Passage as these routes have already been designated by Indonesia as archipelagic sea lanes (ASLs), or *Alur Laut Kepulauan Indonesia* (ALKI)¹⁶. Table 2 lists five ALKIs that have been designated through Indonesian archipelagic waters.

ALKI	Route
ALKI I	Sunda Strait–Karimata Strait–Natuna Sea–South China Sea
ALKI II	Lombok Strait–Makassar Strait–Sulawesi Sea
ALKI III-A	Sawu Sea–Ombai Strait–Banda Sea (western part of Burn Island)–Seram Sea (eastern part of Monole Island)–Maluku Sea–Pacific Ocean
ALKI III-B	Timor Sea–Leti Strait–Banda Sea (western part of Burn Island)–Seram Sea (eastern part of Mongole Island)–Maluku Sea–Pacific Ocean
ALKI III-C	Arafura Sea–Banda Sea (western part of Buru Island)–Seram Sea (eastern part of Mongole Island)–Maluku Sea–Pacific Ocean

Table 2: Indonesian Archipelagic Sea Lanes
[Campbell 2005:115]

These routes are illustrated in Map 1:



Map 1: Illustration of the Designated ASLs (ALKI) within Indonesian Archipelagic Waters
(Source: [Campbell 2005])

¹⁶ The navigational regime of foreign vessels through archipelagic waters is governed by Part IV of the UNCLOS. An archipelagic State may designate 'archipelagic sea lanes' within its archipelagic waters. Foreign vessels may exercise the 'archipelagic sea lanes passage' within these archipelagic sea lanes, a navigational regime that allows for an unobstructed passage through archipelagic waters.

Among these archipelagic sea lanes, the Sunda, Lombok–Makassar and Ombai–Wetar routes are important alternative sea lines of communication to the Straits of Malacca and Singapore [Rusli, Bautista, Wan Talaat 2014:103].

Currently, the Sunda Strait remains an important waterway for ships travelling from the Cape route to East Asia, as well as for vessels sailing from Australian ports to Southeast Asian or East Asian destinations [Beckman, Liliansa 2019:318]. However, the Sunda Strait is less navigationally convenient than the Straits of Malacca and Singapore as it contains many hazards, including strong tidal flows which vary according to time and season, sandbank formations along the waterway, a live volcano, poor visibility during squalls and the existence of numerous oil drilling platforms and small islands and

reefs which may disrupt safe navigation [Giachetti et al. 2012: 79].

The other important sea lines of communication that are alternatives to the Straits of Malacca and Singapore are the Lombok and Makassar Straits. While little east-west traffic transits Lombok–Makassar, it is still an important route for Australian north-south trade¹⁷. Annually, the Lombok–Makassar Strait carries approximately a total of 36 million tonnes of cargo worth U.S. \$40 billion in resources [Sea Lane Security...2016: 41-55].

Table 3 summarises details of navigational traffic in three different important sea lines of communications in South East Asia, namely the Straits of Malacca and Singapore, the Sunda Strait and the Straits of Lombok and Makassar, based on data collected in 2019:

Straits/Descriptions	Straits of Malacca and Singapore	Sunda Strait	Straits of Lombok and Makassar
No. of approximate shipping passages (yearly)	100, 000	53, 000	16, 800
Under Keel Clearance (m)	3.5	Unlimited	Unlimited
Annual Total Value of Cargo (USD)	390 billion	5 billion	40 billion

Table 3: Brief Description of Important Sea Lines of Communications in South East Asia [Rustam 2018:83]¹⁸

The Ombai–Wetar Straits route is another alternative shipping route situated within Indonesian archipelagic waters. This route is used generally by local shipping, including vessels travelling between Australia and the Java Sea. The extremely deep channels of the Ombai–Wetar Straits provide undetected access routes for submarines between the

Pacific Ocean and the Indian Ocean, making them the second-most important straits route after the Gibraltar Strait in the world for American defense interests¹⁹.

The following Table 4 indicates the types of vessels navigating the Straits of Malacca and Singapore:

Type of Vessel	Year								
	2009	2010	2011	2012	2013	2014	2015	2016	2017
VLCC/Deep Draft CR	2,027	3,163	3,303	3,301	3,487	3,477	3,788	3,851	3,753
Tanker Vessel	11,474	13,343	14,726	14,591	15,667	16,403	14,759	14,784	14,931
LNG/LPG Carrier	2,473	2,962	3,086	3,141	3,277	3,343	3,099	3,297	3,413
Cargo Vessel	5,674	6,603	6,476	6,065	6,193	6,624	6,340	6,477	8,467
Container Vessel	14,521	18,238	20,101	20,091	19,575	20,187	20,818	22,615	23,736
Bulk Carrier	3,438	4,708	5,370	5,754	6,256	6,531	7,394	8,129	9,684
RORO/Car Carrier	1,129	1,761	1,764	1,980	2,182	2,440	2,515	2,863	3,137
Passenger Vessel	1,919	3,301	3,151	3,490	3,033	2,338	2,299	2,009	1,870

¹⁷ Rusli M.H. bin M. Op. cit.

¹⁸ McBeth J. China, Indonesia on a Collision Course at Sea. – *Asia Times*. January 15, 2021. URL: https://asiatimes.com/2021/01/china-indonesia-on-a-collision-course-at-sea_trashed/ (accessed 26.04.2022); Iqbal M. 53 Ribu Kapal Lintasi Selat Sunda, Kemenhub Ajukan Alur Laut Baru. – *Detikfinance*. January 18, 2019. URL: <https://finance.detik.com/berita-ekonomi-bisnis/d-4390704/53-ribu-kapal-lintasi-selat-sunda-kemenhub-ajukan-alur-laut-baru> (accessed 26.04.2022).

¹⁹ McBeth J.Op. cit.

Type of Vessel	Year								
	2009	2010	2011	2012	2013	2014	2015	2016	2017
Livestock Carrier	42	70	108	108	80	46	45	51	51
Tug/Tow Vessel	566	774	610	422	478	568	420	372	444
Gov/Navy Vessel	93	117	155	111	120	130	153	81	95
Fishing Vessel	52	44	60	38	35	67	34	39	36
Others	457	828	854	942	1,951	982	957	1,081	1,101
Total	43,965	55,912	59,314	60,034	62,334	63,136	62,621	65,649	70,718

Table 4. Distribution of various vessels passing off One Fathom Bank in the Strait of Malacca
(Source: Marine Department of Malaysia²⁰)

Table 4 displays that the Strait of Malacca is, on average, navigated by 100 naval vessels each year, including that of nuclear-powered submarines flying Chinese²¹, Indian²² and American flags, among others [Mian, Ramana, Nayyar 2019:184].

4. Nuclear-Powered Submarines

The first nuclear-powered submarine, USS Nautilus plied the oceans back in 1955. During the Cold War, the Americans and the Soviets built more than 400 nuclear-powered submarines²³.

Today, there are more nations possessing nuclear-powered submarines namely, the United Kingdom, France, China, Russia, India and the United States of America. According to Al-Jazeera, it is estimated that China is in possession of 12 nuclear submarines, Russia with 29, the UK with 11, France with 8 and India possessing only one²⁴. The American military still tops the chart with a fleet of over 60 nuclear-powered submarines.

Several other countries including Argentina, Brazil and Australia have ongoing projects in different phases to construct nuclear-powered submarines.

5. Implications of Radioactive Pollution

According to the website of the World Nuclear Association, the safety record of the US nuclear navy is impeccable, attributed to a high level of standardisation in naval power plants and their maintenance²⁵. Nevertheless, early Soviet endeavours resulted in a number of serious mishaps, resulting in radiation leaks.

For instance, the K-278, a Soviet nuclear-powered submarine sank into the bottom of the Norwegian Sea in 1989 after it caught fire. A joint Russian-Norwegian expedition in 2019 found that particular submarine was leaking radiation up to 800,000 times above normal levels²⁶.

The sunken submarines will contaminate the waters if left as they are. These submarines contain large amount of spent nuclear fuel or radioactive waste which will eventually leak into the surrounding affecting the marine environment²⁷.

Radioactive wastes are more hazardous than other wastes as these discharges emit dangerous radiations. These materials can remain radioactive and dangerous to human health for thousands of years²⁸.

²⁰ Marine Department of Malaysia. URL: <https://www.marine.gov.my/jlm/> (accessed 26.04.2022).

²¹ Taylor R. China's Submarines Add Nuclear-Strike Capability, Altering Strategic Balance. – *The Wall Street Journal*. October 24, 2014. URL: <https://www.wsj.com/articles/chinas-submarine-fleet-adds-nuclear-strike-capability-altering-strategic-balance-undersea-1414164738> (accessed 26.04.2022).

²² Nuclear Submarine INS Chakra Spotted in Straits of Malacca Escorted by Russian Naval Ships. – *Youtube.com*. June 6, 2021. URL: <https://www.youtube.com/watch?v=jKSdkXkJAeA> (accessed 26.04.2022).

²³ Luhn A. Russia's 'slow-motion Chernobyl' at sea. – *BBC*. September 2, 2020. URL: <https://www.bbc.com/future/article/20200901-the-radioactive-risk-of-sunken-nuclear-soviet-submarines> (accessed 26.04.2022).

²⁴ Haddad M. Infographic: Are nuclear submarines better?. – *Al-Jazeera*. September 21, 2021. URL: <https://www.aljazeera.com/news/2021/9/21/infographic-how-many-submarines-does-each-country-have-interactive> (accessed 26.04.2022).

²⁵ World Nuclear Association: Nuclear-Powered Ships. November 2021. URL: <https://world-nuclear.org/information-library/non-power-nuclear-applications/transport/nuclear-powered-ships.aspx> (accessed 26.04.2022).

²⁶ Russia to Measure Radioactivity at Sunk Nuclear Sub. – *The Moscow Times*. May 19, 2021. URL: <https://www.themoscow-times.com/2021/05/19/russia-to-measure-radioactivity-at-sunk-nuclear-sub-a73949> (accessed 26.04.2022).

²⁷ Luhn A. Op. cit.

²⁸ World Nuclear Association: Radioactive Waste – Myths and Realities. January 2022. URL: <https://world-nuclear.org/information-library/nuclear-fuel-cycle/nuclear-wastes/radioactive-wastes-myths-and-realities.aspx> (accessed 26.04.2022).

Japan has announced its plan in 2021 to release radioactive water from the Fukushima Nuclear Plant into the Pacific Ocean²⁹. Once radioactive water is dumped into waters off the coast of Fukushima, the strong currents would disseminate radioactive materials to most parts of the Pacific Ocean within 57 days of discharge and would reach all oceans of the world within a decade.

This would bring about adverse implications in various aspects including global fish migration, pelagic fisheries, human health and ecological security.

Although sunken nuclear-powered submarines do not carry as much radioactive wastes as that of Fukushima Nuclear Plant or Chernobyl, the fact remains that the number of nuclear-powered submarines traversing the congested Southeast Asian SLOCs will increase in years to come.

So far, there have been nine incidents of sunken nuclear submarines worldwide, either by accident or scuttling³⁰. Fortunately, none of these incidents have taken place within Southeast Asian waters.

These sunken nuclear submarines may pose threats to the marine environment leaking radiation into the sea³¹. In addition, the recent incident involving an American nuclear-powered submarine ran smack into an undersea mountain in the South China Sea have raised concerns of a potential maritime accident or worse, a nuclear meltdown³².

An article published in the South China Morning Post reported that the alleged “undersea mountain” was actually an abandoned oil rig³³.

Needless to say, this recent development is not something to be taken lightly.

6. International Law

As stipulated in the landmark case of Corfu Channel (United Kingdom of Great Britain and Northern Ireland v Albania)³⁴, the right of innocent passage is applicable for foreign military vessels to pass through territorial sea belonging to another State during peace time [Rothwell 2012b:184]. This means that foreign vessels may pass through territorial sea belonging to another State without prior authorisation only for purpose of continuous and expeditious navigation.

The UNCLOS is clear that nuclear-powered submarines are to carry documents and observe special precautionary measures established for such ships by international agreements³⁵.

Nonetheless, it is apparent that majority of Southeast Asian SLOCs are either straits used for international navigation or ASLs.

Part III of the UNCLOS describes the application of transit passage, whilst Article 233 of Part XII of the UNCLOS provides safeguards concerning the marine environment applicable to straits used for international navigation. The already limited regulatory powers conferred by Article 42(1) (a) & (b) of the UNCLOS are made even more limited by the application of Article 233 of the UNLOCS [Rusli 2012:79-94].

Article 236 of the UNCLOS however, stipulates that Part XII of the Convention does not apply to any warship, naval auxiliary or vessels which are sovereign immune. As a result, Part XII of the UNCLOS does not apply to nuclear-powered submarines. Be that as it may, States are still required to act

²⁹ McCurry J. UN to review Japan's plan to release Fukushima water into Pacific. – *The Guardian*, February 18, 2022. URL: <https://www.theguardian.com/environment/2022/feb/18/un-to-review-japans-plan-to-release-fukushima-water-into-pacific> (accessed 26.04.2022).

³⁰ Archus D. How many nuclear submarines have been sunk? – *Naval Post*. April 26, 2020. URL: <https://navalpost.com/how-many-nuclear-submarines-have-been-sunk/> (accessed 26.04.2022).

³¹ Rogers J. Sunken nuclear submarine leaking radiation into sea up to 800,000 times normal level. – *NY Post*. July 11, 2019. URL: <https://nypost.com/2019/07/11/sunken-nuclear-submarine-leaking-radiation-into-sea-up-to-800000-times-normal-level/> (accessed 26.04.2022).

³² Lendon B. How did a \$3 billion US Navy submarine hit an undersea mountain?. – *CNN*. November 4, 2021. URL: <https://edition.cnn.com/2021/11/04/asia/submarine-uss-connecticut-accident-undersea-mountain-hnk-intl-ml-dst/index.html> (accessed 26.04.2022).

³³ Huang K. US nuclear sub ‘may have hit an oil rig’ in South China Sea. – *South China Morning Post*. November 13, 2021. URL: <https://www.scmp.com/news/china/military/article/3155777/us-nuclear-sub-may-have-hit-oil-rig-south-china-sea> (accessed 26.04.2022).

³⁴ This case was the first international law case brought before the ICJ. <https://www.scmp.com/news/china/military/article/3155777/us-nuclear-sub-may-have-hit-oil-rig-south-china-sea> (accessed 26.04.2022).

³⁵ See Article 23 of the UNCLOS.

in a manner consistent, so far as is reasonable and practicable with the UNCLOS.

Similarly, the UNCLOS also confers unobstructed right of navigation to vessels navigating via ASLs, which runs through Indonesian archipelagic waters, indicated in Map 1.

Unlike the innocent passage regime, which is subject to suspension, the main restriction imposed by international law is that the littoral states have no powers to suspend or impede the passage of ships navigating through the Straits of Malacca and Singapore and the Indonesian ASLs.

7. Conclusion

The UNCLOS was drafted in the 70s, back in the days where nuclear-powered submarines were not as many as they are today. Navigation of nuclear-powered vessels poses more risks if compared to conventional non-nuclear-powered ships.

Without doubt, this region would be experiencing an increase of transiting traffic involving

military vessels including that of nuclear-powered submarines. In order to protect their interests as coastal States, Malaysia and Indonesia should come up with a proposal that navigation of nuclear-powered submarines through Southeast Asian SLOCs, should be subjected to stricter requirements.

Both maritime and coastal States should work together in coming up with the best way for the interests of free navigation and protection of the security of the States bordering these SLOCs. Based on current state practice, maritime States have always propagated for freedom of navigation and are against any attempts at hampering navigation.

Be that as it may, it would be challenging for Kuala Lumpur and Jakarta to propose enforcement mechanism for these so-called “stricter requirements” due to the limited regulatory powers conferred to the littoral States under international law.

One way or another, this really is a catch-22 situation for Malaysia and Indonesia.

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