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Evaluation Of Marine Pollution (MARPOL) 73/78 Annex I-VI Policy on Maritime Environmental Protection in Indonesia Case Study on *Traffic Separation Scheme (TSS)* Strait of Malacca and Singapore

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Abstract: The Straits of Malacca and Singapore are the second busiest routes in the world that are used as international navigation routes that have the potential to be contaminated by cross-border oil spills. Various international legal instruments such as MARPOL 73/78 Annex I to VI regulate the prevention, reduction and control of pollution at sea. This study attempts to further evaluate the policies taken by Indonesia in order to control pollution in the Straits of Malacca and Singapore due to ship accidents. To overcome this problem, Indonesia as a country of law needs to immediately consider accommodation and integration of policy elements in determining laws and regulations, especially those related to maritime environmental protection law.

Keywords: *Strait, Marine Pollution, Policy*

INTRODUCTION

The Straits of Malacca and Singapore are among the two busiest straits in the world serving international trade shipping. These straits are connected to three countries in the ASEAN region, namely Indonesia, Singapore and Malaysia.Based on 2014 data (Table 1.1.) no less than 79,344 ships crossed these two straits or around 217 ships per day or nine ships crossed these two straits every hour.

Table 1. Ship Movement Data in the Straits of Malacca and Singapore (Marine Department Malaysia, 2020)

	Year							
	2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
VLCC / Deep Draft *VLCC / Deep Draft*	4825	4993	5324	5418	6711	7517	8093	746
Tanker *Tanker Vessel*	18296	18765	18470	17799	20629	20610	20207	1723
LNG & LPG Vessels	4248	4173	3936	4057	4137	4547	4180	339

	Year							
	2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
LNG & LPG Carriers								
Cargo Ship *Cargo Vessel*	7613	6989	7144	6595	7090	6409	6273	561
Container Ship *Container Vessel*	24658	25071	25389	23625	24446	24578	23620	2021
Bukal Ship *Bulk Carrier*	12658	13454	15168	14307	15411	15390	15656	1340
Ro-Ro Ship *Ro-Ro*	2998	3146	3117	2622	2629	2437	2433	204
Passenger ship *Passenger Vessel*	1063	1041	925	1125	1776	1969	1593	91
Livestock Carrier Ship *Livestock Carrier*	55	59	76	67	50	45	36	2
Tugboat *Tug / Tow*	563	676	467	536	533	601	670	45
Royal Ship *Government Vessel*	58	96	87	46	54	66	102	6
Fishing Boat *Fishing Vessel*	27	51	53	23	28	36	67	16
Etc *Others*	911	830	803	714	962	825	794	83

The increasing number of ships crossing the waters of these two straits will certainly have an impact on marine pollution on the beaches and coasts of the islands around the two straits. As with the accident data in Table I.3, the results of32nd TTEG Meeting Reports until 42nd TTEG Meeting Report, 2007-2017 where from 2007 to 2017 there were 5 (five) ship accidents that resulted in oil spills in the Strait.

Table 2. Major accidents in the Straits of Malacca and Singapore (32nd TTEG Meeting Reports until 42nd TTEG Meeting Report, 2007-2017)

No	Date	Ship Name	Ship Type	Oil Spill	Location and Cause
1.	October 8, 2008	Freedim Post (30,743 GT)	Bulk Carrier	-	Singapore Strait / Collision
2.	October 8, 2008	Theo T (40,013 GT)	Tanker	-	Singapore Strait / Collision
3.	2008	MV Damai Lestari vs Tanker Pancoral	Tanker	700	Strait of Malacca / Collision
4.	November 11, 2009	MSC Kalina (151, 559 GT)	Container Ship	-	Singapore Strait / Collision
5.	November 11, 2009	Aljala (59,164 GT)	Tanker	-	Singapore Strait / Collision
6.	February 8, 2009	Trianon (49,792 GT)	Car Transporter	-	Singapore Strait / Collision

No	Date	Ship Name	Ship Type	Oil Spill	Location and Cause
7.	February 8, 2009	Yantze Star (147,012 GT)	Tanker	-	Singapore Strait / Collision
8.	May 3, 2009	Takasago Maru (149,047 GT)	Tanker	-	Singapore Strait / Collision
9.	May 3, 2010	Brisbane (77,298 GT)	Bulk Carrier	-	Singapore Strait / Collision
10.	May 25, 2010	MT. Bunga Kelana 3	Tanker	21,125 barrels	Strait of Malacca / Collision
11.	May 25, 2010	MV. Waily	Bulk Carrier	-	Strait of Malacca / Collision
12.	February 19, 2011	Hellespont Tatina (56,324 GT)	Tanker	-	Strait of Malacca / Stranded
13.	June 19, 2011	Al Rawdah	Container Ship	-	Singapore Strait, Stranded
14.	January 4, 2012	Seeb (GT. 164,359)	Tanker	-	Singapore Strait / Collision
15.	April 17, 2012	KWK Esteem (56,943 GT)	Tanker	-	Singapore Strait / Collision
16.	June 26, 2012	MT. Medelin Atlas (27,985 GT)	Tanker	-	Strait of Malacca / Collision
17.	September 6, 2012	Bao Chang (50,697 GT)	Bulk Carrier	-	Singapore Strait / Collision
18.	July 2, 2013	Atlantic Hero (38,871 GT)	Bulk Carrier	-	Singapore Strait / Collision
19.	June 21, 2014	Lord Vishnu (51,917 GT)	Car Transporter	-	Singapore Strait / Collision
20.	July 5, 2014	Hisui (45,815 GT)	LPG Carrier	-	Singapore Strait / Collision
21.	2014	Lime Galaxy vs Feihe		760	Strait of Malacca / Collision
22.	2015	MV Thorco Cloud vs MT Stolt Commitment	Tanker	560	Strait of Malacca / Collision
23.	2017	Tanker Wan Hai 301 vs MT APL Denver	Tanker	300	Strait of Malacca / Collision

These data show that accidents in both straits have a significant impact on the sustainability of the marine environment and the surrounding coastal areas (Nanditya, 2014)

In the year of1973, lend of the basis of thoughtto prevent marine pollution caused byoil pollution byships that sail, either intentionally dumping their oil waste into the waters or due to accidents,with the formation of the International Convention on Marine Pollution (MARPOL). Then in 1978 it was issuedProtocol 1978, so that the Protocol on Marine Pollution

is knownbecomeMARPOL 73/78 as an international convention to minimize marine pollution, including oil discharges and exhaust pollution. MARPOL 73/78 Annex I to VI itself has been ratified by Indonesia through Presidential Decree Number 46 of 1986 dated September 9, 1986 concerning Ratification of the International Convention for The Prevention of Pollution from Ships, 1973, along with the Protocol of 1978 Relating to the International Convention for The Prevention of Pollution from Ships, 1973.

Related to the issue of maritime environmental protection, it is important to emphasize maritime safety and security policies in Indonesia. Therefore, it is necessary to have a maritime system and law enforcement at sea to ensure safety, security, order and protection of the maritime environment, especially in Indonesia. The function of law enforcement regarding maritime environmental protection that has not been optimally carried out by related agencies in accordance with laws and regulations, is expected to be overcome through institutions or agencies that have now been formed. However, the limited support for the defense and security budget in Indonesia is also an important problem in improving the performance of maritime security. These problems include regulations and institutions related to law enforcement and security in Indonesia that are still not optimal, as well as the lack of coordination between institutions that have a role in the maritime sector. In addition, there is overlapping tasks that overlap between institutions. In reality, the current condition of the institutional system that occurs is that many agencies are involved or have an interest in implementing law enforcement at sea. Meanwhile, related to pollution in Indonesian waters, related to law enforcement in the form of criminal or civil lawsuits from compensation to recovery costs, the authority for these tasks is still carried out by the Ministry of Environment.

From the background above, is the implementation of the Indonesian Government policy (KP Number 46 of 1986) with MARPOL 73/78 Annex I to VI effective in efforts to protect the maritime environment in Indonesia, especially in the Traffic Separation Scheme (TSS) of the Malacca and Singapore Straits? The author will evaluate the effectiveness of the policies of the Government of the Republic of Indonesia that have been adopted in national law as a standard basis for protecting the maritime environment in Indonesia.

METHOD

The location that will be used as the research site is the Ministry of Transportation. The reason the researcher chose the location is because the Ministry of Transportation is a regulator related to the supervision of marine environment protection, where the Ministry of Transportation is directly tasked with supervising shipping activities in the Straits of Malacca and Singapore.

This study uses a descriptive qualitative research approach in the form of a comparative study based on data sources from documents to analyze and evaluate "The Policy of MARPOL 73/78 Annex I to VI Regarding Maritime Environmental Protection in Indonesian Waters (Traffic Separation Scheme (TSS) Malacca Strait and Singapore Strait)". According to Cresswell (2014) qualitative research is a method for exploring and understanding the meaning that a number of individuals or groups of people consider to come from social or humanitarian problems. The data analysis method is the stage of processing data obtained from documentation studies or from the field through research subjects.

The stages of data processing are as follows:

1. Analysis of the subject matter has been carried out from the beginning since the researcher prepared the pre-proposal;
2. This study uses normative legal analysis, because it discusses the regulations of MARPOL 73/78 Annex I to VI and legislation on maritime environmental protection in Indonesia, where the approach taken is based on the main legal material by examining theories, concepts, legal principles and laws and regulations related to this research so that they cannot be contested.

3. The data that has been collected is mostly from journals and literature from print media and online media. Therefore, this research is objective, where researchers cannot influence the content of the main message of the topic being studied.

Testing the objectivity/validation of data that has been obtained from sources as has been done in the stages above, or commonly called triangulation. Triangulation in qualitative research is the use of more than one source of qualitative data so that the data collected can be cross-checked against each other (DA Lasse, 2018: 109)

Data validation testing from this study is:

1. Researchers use credibility tests with triangulation techniques in each data collection, derived from the word triangle meaning triangle. In qualitative research, triangulation is the use of more than one source of qualitative data so that the data collected can be cross-checked against each other (Dr. David A. Lasse, 2018);
2. Conducting a member check with the aim of ensuring that the information obtained and used in writing the report is in accordance with what the data source or informant intended;
3. Conducting discussions with sources with the aim of adjusting and confirming the data that has been obtained with existing primary data;
4. Conducting a credibility test on all data that has been obtained, whether through print media, online, discussions with the aim that the data that has been obtained is not flawed (invalid). For example, previous journals that have been compiled by previous researchers, whether they have a good reputation, whether the contents of the journal can be used as input or evaluation material for the future;

RESULTS AND DISCUSSION

Research result

In the following discussion, we will explain in more detail the geographical conditions in the Straits of Malacca and Singapore, cooperation between the three coastal countries, the MARPOL 73/78 convention and the results of respondent interviews.

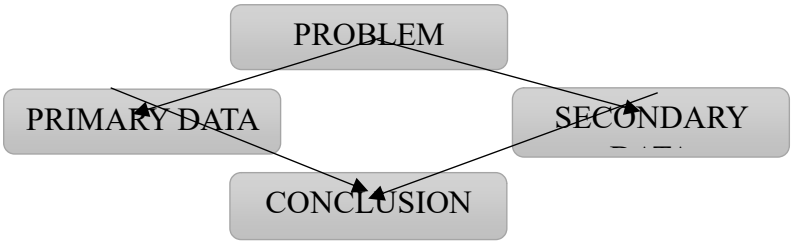

Figure 1. Research Results Pattern

The data collection technique in this study used interviews using purposive techniques with 5 key informants. The informants who were successfully interviewed intensively.

Data that is not revealed through interviews, is supplemented with data from direct observation results in a participatory manner. To strengthen the substance of the data from interviews and observations, a search was conducted on existing documents and archives.

Questions and answers from respondents from the interview results are as follows:

1. In your opinion, what is the potential for cross-border pollution to occur in the Straits of Malacca and Singapore, considering the conditions of the Straits of Malacca which are quite narrow with shallow depths and quite dense sea traffic?

NO	RESPONDENT	ANSWER
1	JI	In my opinion, cross-border pollution that occurs in the Straits of Malacca and Singapore has a high potential for pollution. This is due to the dense ship traffic in the Straits of Malacca and Singapore. The increasing shipping causes a very large potential for pollution. If a ship

NO	RESPONDENT	ANSWER
		incident occurs, such as a ship running aground and a collision, there is a high potential for an oil spill.
2	LR	The potential for pollution in the Malacca Strait and Singapore Strait is quite high considering the number of ships passing through these waters is also quite high. However, this potential can be reduced by implementing good law enforcement and supervision. This supervision can be carried out by patrolling or monitoring through the Vessel Traffic Service (VTS)
3	EB	The potential for cross-border pollution that occurs in the Straits of Malacca and Singapore is very high. This is due to the lack of firm legal action against violations of oil spills into the sea. Then, not all state borders have been determined by the Government of the Republic of Indonesia, especially between Indonesia and Singapore and Malaysia. So that the gray waters area is used as a place for ships to carry out illegal activities such as STS, anchoring activities which certainly directly discharge oil from ships into Indonesian territorial waters. Added to this is the lack and minimal supervision facilities by law enforcers from related agencies
4	EP	Indonesia encourages Southeast Asian countries to handle marine pollution due to very heavy traffic in the Malacca Strait. Pollution has an impact on various coastal ecosystems in Indonesia, especially in the Riau Islands. Oil spills and ship waste damage the environment. As a result, the productivity of coastal resources has declined and is detrimental to coastal communities.
5	DP	In my opinion, with the narrow and shallow channel conditions and the density of ships passing through, it will increase the potential for ship collisions which could result in oil spills.

Marine pollution can damage the environment of the biota of living creatures in the water. Indonesia as an archipelagic country, with a larger sea (water) area compared to the land area, in accordance with the provisions of Article 47 Paragraph 1 of the 1982 KHL, namely with a land and water ratio of 1:1 or 9:1. Given the importance of the role of the sea for the lives of the Indonesian people as an archipelagic country, it is necessary to pay attention to the balance and sustainability of the marine environment from the dangers of pollution (Hasjim Djalal, 2011).

The Strait of Malacca is busy with foreign ships passing through it every day, in which the right of transit passage applies as formulated in Articles 34 to 45 of the 1982 KHL, for foreign ships passing through the waters of the strait, so that there is a high possibility of marine pollution in the Strait of Malacca. This marine pollution is very detrimental and dangerous for Indonesian waters, especially for the life of the marine ecosystem.

According to this transit passage regime, the sovereignty of the coastal State over its territorial sea in the Straits used for international navigation, including authority over its waters, air, seabed and subsoil, is recognized and that the “transit passage” regime that will be applied to straits used for international navigation will not affect the implementation of the sovereignty or jurisdiction of the coastal State over these waters, both over its air and over its seabed (Article 34 Paragraph (1) of the 1982 KHL). This provision is very important because in this way, as far as it relates to Indonesia, it constitutes recognition of Indonesia’s sovereignty or territorial sovereignty over the Straits of Malacca and the Straits of Singapore which are part of Indonesia’s territory (Hasjim Djalal, 2011).

Thus, in the Straits used for international shipping (Malacca-Singapore Straits), the applicable shipping regime is no longer the innocent passage regime as for other Indonesian seas, but the transit passage regime, namely a shipping regime that provides freedom of passage for foreign ships and aircraft to communicate from one part of the high seas/Exclusive Economic Zone (EEZ) to another part of the high seas/EEZ (Article 38

Paragraph (2) of the 1982 KHL). The freedom recognized is only the freedom to pass accompanied by the conditions stipulated in the 1982 Convention on the Law of the Sea, Article 39, including:

The requirement to proceed without delay through or over the strait;

The obligation not to take any action that could constitute a threat or use of force against the sovereignty, territorial integrity or political independence of the Straits States;

The obligation not to carry out actions that are not related to the need to pass continuously and quickly in normal ways (normal mode);

The obligation to comply with other provisions set out in the 1982 KHL for ships passing through or for aircraft in transit.

Furthermore, considering the location of the Strait of Malacca as the main sea connecting the Indian Ocean and the South China Sea, making it an important link or route for international trade and transportation, and also considering that 80% of Malaysia's trade passes through the Strait of Malacca. In addition, more than 30% of world trade and half of world shipping and 11 (eleven) million barrels per day pass through the Strait of Malacca. And also 70% of energy transportation from Japan and 80% of China's imports pass through the Strait of Malacca. The strategic location of the Strait of Malacca as a means of transportation and international trade can improve the world economy.

2. In your opinion, what have the three coastal countries done to address pollution in the Straits of Malacca and Singapore?

NO	RESPONDENT	ANSWER
1	JI	In my opinion, the three coastal countries have referred to Marpol and often carry out joint exercises to overcome pollution at sea such as oil spills from shipwrecks or collisions.
2	LR	The three coastal countries have a cooperation forum called the Tripartite Technical Expert Group (TTEG) which was formed in 1977. One of the cooperation forums is the formation of the Marine Electronic Highway (MEH) where MEH can provide information about currents, tides, depths, and other information digitally to ship users passing through the waters of the Malacca Strait and Singapore Strait. So that navigators can navigate well. So that it can reduce accidents that have the potential to cause pollution in the sea
3	EB	Things that have been done by the three coastal countries to overcome pollution in the Straits of Malacca and Singapore include the establishment of a Cooperative Mechanism (CM) cooperation forum through the Tripartite Technical Expert Group (TTEG) to ensure the realization of shipping safety and protection of the maritime environment in the Straits of Malacca and Singapore. Through meetings (marine pollution committee), the three countries can jointly formulate cooperation on policies and procedures for overcoming marine pollution that are appropriate and complementary, including issues of responsibility and compensation for pollution, especiallyoil spillat sea. Then joint exercises and patrols were carried out along the TSS routes of the Malacca Strait and Singapore to ensure that the waters are safe.
4	EP	Conducting joint exercises and joint patrols. Routinely attending meetings with the three countries.
5	DP	The three countries have an MoU to deal with oil spills in the Straits of Malacca and Singapore.

Cooperation to Enhance Navigational Safety and Maritime Environmental Protection in the Straits of Malacca and Singapore

1. Coastal Countries Initiation

Before the implementation of UNCLOS 1982, especially regarding the provisions for the use of Straits for international navigation, there was a debate between the interests

of coastal states regarding safety, security and protection of the maritime environment in their waters and the interests of user states.

The debate began when the Straits of Malacca and Singapore gained recognition as one of the busiest and vital straits used in international trade. Due to its strategic role for international trade, there are concerns related to the safety of navigation and protection of the maritime environment in the Straits of Malacca and Singapore, especially since both straits have very unique characteristics, and are widely known as the most difficult routes to navigate. According to Djalal (2006), concerns led to efforts by several countries to have greater involvement in the management and operation of the Straits of Malacca and Singapore, as well as to create a "free transit" regime status.

Furthermore, to ensure and promote the safety of navigation and protection of the maritime environment in the Straits of Malacca and Singapore, and to declare that the waters in the Straits are under the sovereignty of the coastal States, the three countries issued several initiatives, the Joint Statement 1971, Agreement on Safety of Navigation in the Straits of Malacca and Singapore 1977 and Joint Statement on Safety of Navigation in the Straits of Malacca and Singapore 1977.

2. Joint Statement 1971

After the Torrey Canyon accident, which occurred in 1967, there was an effort by the coastal states to cooperate and coordinate their views on and policies in the Straits of Malacca and Singapore, especially regarding the legal regime and measures on navigational safety. According to Koh (1982), in principle, the coastal states want to maintain the Straits as a zone of peace, freedom and neutrality, and also free from any form of interference from other states. This means that the coastal states want to maintain the legal regime of the Straits under the full sovereignty of the coastal states.

After several years of consultation, at the Ministerial Meeting in October and November 1971, the coastal States finally succeeded in issuing a Joint Statement on 16 November 1971, which basically stated that Safety of Navigation is the responsibility of the coastal States, the need to promote safety of navigation in the Straits of Malacca, and the statement that the Straits of Malacca and Singapore are not international straits. According to Djalal (2006), the Joint Statement is an important milestone in cooperation in the Straits of Malacca and Singapore, especially related to the management of the Straits of Malacca on the safety of navigation related to matters.

After that statement, it can be implied that for the safety of navigation issues, the Straits of Malacca and Singapore are considered as one integrated strait, and are under the responsibility of the three coastal States. The three coastal States will also manage and operate the Straits of Malacca and Singapore, through a cooperative body consisting only of the three coastal States concerned, to coordinate navigation safety efforts in the Straits of Malacca and Singapore.

Furthermore, according to Koh (1982), the joint statement also highlighted that Indonesia and Malaysia did not consider the Strait as an International Strait because they only recognized the implementation of innocent passage in accordance with the rules and regulations relating to the territorial sea in the Strait, and not under the free transit regime. The reason for this is that at that time the compromise regime under UNCLOS 1982 had not been adopted, and there was still debate about the status of the Strait of Malacca, whether it was under the innocent passage regime or under the "free transit" regime.

Agreement on the Safety of Navigation in the Straits of Malacca and Singapore 1977 and Joint Statement on the Safety of Navigation in the Straits of Malacca and Singapore 1977

As a follow-up to the 1971 Joint Statement and as a result of the Showa Maru incident, which occurred on 6 January 1975, when ships spilled nearly 54,000 barrels of oil

in the Singapore Strait, the three littoral states agreed to meet and discuss possible measures to prevent and promote and also to reconfirm their positions on the Straits of Malacca and Singapore with regard to the safety of navigation and the protection of the marine environment. (Djalal, 2006)

One of the outcomes of a series of meetings held by the coastal States was the Agreement on Safety of Navigation in the Straits of Malacca and Singapore 1977, signed by the Foreign Ministers of Indonesia, Malaysia, and Singapore, in Manila on 24 February 1977.

The agreement essentially contains a statement from the three coastal states to further enhance cooperation to improve the safety of navigation and protection of the marine environment in the Straits of Malacca and Singapore, and to realize all proposals for recommendations and initiatives made trilaterally by the coastal states since 1971.

The agreement itself also agreed to adopt the measures and recommendations in the Joint Statement on Safety of Navigation in the Straits of Malacca and Singapore 1977, to keep the Straits open and safe for international navigation. The meeting adopted the following measures:

a) Vessels maintain a minimum Under Keel Clearance (UKC) of 3.5 meters at all times while in the Straits of Malacca and Singapore;
b) Establishment of Traffic Separation Scheme (TSS);
c) Deep Draft Vessels (DDV), which have a draft of 15 meters or more, are required to pass through the designated Deep Water Route (DWR);
d) Improved navigation assistance to support TSS;
e) To maintain existing voluntary reporting procedures;
f) The principle of voluntary testing through critical areas in the Straits of Malacca and Singapore;
g) VLCCs and DDVs are advised to navigate at a speed of no more than 12 knots during critical areas;
h) Improvements to tide charts and data;
i) Application of rule 10 of COLREG's 1972 in TSS;
j) TSS implementation should not impose a financial burden on coastal states and the necessary funds should be obtained from users;
k) Emergency plans to deal with marine pollution were formulated;
l) All tankers and vessels sailing through the Straits of Malacca and Singapore must be covered by insurance.

The important steps adopted by the littoral States in the Joint Statement were the establishment of TSS, the designation of Under Keel Clearance (UKC) and the reporting procedure. After several meetings, the littoral States agreed to designate the 3.5 Meter UKC in the Straits of Malacca and Singapore. According to Djalal (2006), this issuance was considered as one of the most controversial issues, because there were different points of view between Indonesia and Malaysia, and on the other hand Singapore. At first, Indonesia and Malaysia wanted to have a high safety margin, while on the other hand Singapore wanted to accommodate larger vessels.

Financial issues were also one of the issues addressed by coastal States in the Joint Statement. In one paragraph of the Joint Statement, coastal States stated that the financial burden caused by the implementation of TSS should not only fall on coastal States but also on users. This statement was the forerunner of the cost-sharing cooperation used by coastal States in the Cooperative Mechanism (CM), established in 2007. Other measures adopted relate to pilotage, reporting procedures, mandatory insurance and installation of safety devices.

Subsequently, based on the Joint Statement, proposals for the establishment of TSS in the Straits of Malacca and Singapore, and Regulations for Ships Navigating through the

Straits of Malacca and Singapore, were adopted by the Inter-Governmental Maritime Consultative Organization (IMCO).

During the signing of the agreement, the littoral States also agreed to adopt the Guidelines for Senior Officials and Technical Expert Group on safety of navigation in the Straits of Malacca and Singapore, as an initiative to establish a TTEG on safety of navigation in the Straits of Malacca and Singapore.

In principle, the adoption of the 1977 Agreement on Safety of Navigation in the Straits of Malacca and Singapore and the Joint Statement on safety of navigation in the Straits of Malacca and Singapore, have demonstrated and highlighted the commitment of coastal States to work together to realize all proposals for safety of navigation and anti-pollution measures.

Formation and Development of Cooperative Mechanism (CM) in the Straits of Malacca and Singapore

After several years of discussion in UNCLOS III, UNCLOS 1982 managed to set a framework for cooperation between coastal States and user States. Article 43 of UNCLOS 1982 specifically states that user States and States bordering Straits shall by agreement cooperate in promoting the safety of navigation and the protection of the marine environment.

Due to the importance of the Straits of Malacca and Singapore for international trade, the IMO identified the Straits of Malacca and Singapore as important examples to highlight issues of security, safety and environmental protection. As a result, the IMO decided to convene a high-level meeting to promote and consider ways and means to improve safety, security and environmental protection in the Straits. The meeting was held under the IMO Protection of Vital Shipping Lanes Initiative, which aims to demonstrate the seriousness of the IMO towards the protection of the world's most strategic shipping lanes (Ho, 2009).

A total of three meetings were held under the IMO Vital Shipping Lanes Protection Initiative, namely the Jakarta meeting in 2005, the Kuala Lumpur meeting in 2006, and the Singapore meeting in 2007. Prior to the start of the meeting, the coastal States also held a meeting in Batam to discuss the discussion framework of a series of meetings held under the IMO initiative. The outcome of the series of meetings was the development of a framework for cooperation between user states and coastal states, known as the Cooperative Mechanism (CM). This mechanism is a historic breakthrough because it is the first time that cooperation under Article 43 of UNCLOS 1982 is implemented in Straits Used for International Navigation.

In this section, the author would like to explain and analyze the formation and development of the Cooperation Mechanism in the Straits of Malacca and Singapore, before and after a series of meetings between the IMO and coastal States.

1. Batam Joint Statement 2005

   The Batam Joint Statement 2005 was held in Batam, Indonesia, on 1-2 August 2005. The meeting was attended by the Foreign Ministers of each coastal state, and coincided with the start of the Fourth Tripartite Ministerial Meeting of the coastal states. According to Ho (2009), the meeting aimed to agree on some basic rules that should be addressed by the coastal states during the Jakarta Meeting, and other meetings under the cooperation of the IMO and the coastal states.

   The Batam Joint Statement essentially highlights and reaffirms the outcomes of the 1971 Joint Statement and the 1977 Joint Statement, and also states the basis on which coastal States will cooperate with user States in any action relating to the safety, security and protection of the maritime environment. The contents of the Batam Joint Statement are:

a) Primary responsibility for safety of navigation, environmental protection and maritime security in the Straits of Malacca and Singapore lies with the coastal States;
b) Any action taken in the Straits must be in accordance with international law including UNCLOS 1982. Furthermore, coastal states recognize the interests of user states and other international institutions and the roles they can play in the Straits;
c) Agreed to continue discussions on maritime security within the framework of ASEAN and the ASEAN Regional Forum (ARF);
d) Recognizing the good work done by the Tripartite Technical Expert Group on Safety of Navigation in the Straits of Malacca and Singapore;
e) Agree to establish a Tripartite Technical Expert Group on Maritime Security to complement the work of the TTEG on Safety of Navigation;
f) The meeting agreed to accept assistance from user countries, relevant international agencies and the sending community in the areas of capacity building, training and technology transfer, and other forms of assistance in accordance with UNCLOS 1982.

Jakarta Meeting in the Straits of Malacca and Singapore: Enhancing Safety, Security and Environmental Protection, 2005

As a follow-up to the decisions of the 93rd and 94th IMO Councils on IMO's Protection of Vital Shipping Lanes Initiatives, IMO and the littoral states held their first meeting related to the Straits of Malacca and Singapore, in Jakarta on 7-8 September 2005. According to IMO (2005), the 2005 Jakarta Meeting was held to provide a forum for discussions with the aim of agreeing a framework for cooperation to enhance the safety of navigation, environmental protection and security in the Straits of Malacca and Singapore. The Jakarta Meeting has agreed on several things, namely: (IMO, 2005)

1. Continue to support and encourage the work of TTEG on safety of navigation in enhancing safety of navigation and protection of the marine environment in the Straits of Malacca and Singapore;
2. The possibility of establishing a mechanism by coastal States to meet regularly with user States, the shipping industry and other stakeholders, including exploring burden-sharing options;
3. Efforts should be made under existing arrangements, such as the TTEG mechanism;
4. The need to promote, build and expand cooperative and operational arrangements of the three littoral states, including the Tripartite Technical Expert Group (TTEG) on Maritime Security and coordinated maritime patrols.

During the meeting, the littoral states successfully agreed to discuss measures to establish a mechanism to cooperate with user states, shipping industry and other stakeholders on the safety of navigation and protection of the maritime environment in the Straits of Malacca and Singapore. However, according to Ho (2009), although the main reason for the IMO to hold the meeting was to address security issues in the Straits of Malacca and Singapore, the littoral states did not share the same view. The littoral states felt that the existing forum to discuss maritime security in the Straits was sufficient, and there was no urgent need to develop and establish another forum to address this issue. The littoral states further stated that there was already the ASEAN Regional Forum (ARF), a meeting of the chiefs of defense forces of the littoral states and the Western Pacific Naval Symposium, to discuss issues related to maritime security in the Straits of Malacca and Singapore.

It can be seen that the littoral states consider security issues in the Straits of Malacca and Singapore under their exclusive jurisdiction, without interference from other states to address these issues. The littoral states believe that the arrangements made by the littoral states by conducting coordinated air and sea patrols as well as information exchange are sufficient to address security issues. This argument is supported by Ho (2009), who stated

that littoral states only allow cooperation in capacity building and information exchange on security-related issues.

1. **Kuala Lumpur Meeting 2006**

As mandated, following the commencement of the Jakarta Meeting in 2005, IMO and the coastal states held a follow-up meeting in Kuala Lumpur on 7-8 September 2006. According to IMO (2006), the meeting was held to further discuss the latest developments relating to the safety, security and environmental protection of the Straits of Malacca and Singapore. Furthermore, the meeting was also held to develop mechanisms and programmes to facilitate cooperation to ensure that the Straits are open and safe for international navigation, and also to discuss burden-sharing mechanisms.

A highlight of the Kuala Lumpur Meeting 2007 was the proposal to establish a cooperative mechanism, called the Cooperative Mechanism (CM), between coastal States, user States and other Stakeholders on the safety of navigation and protection of the maritime environment, as part of the burden-sharing principle promoted under Article 43 of UNCLOS 1982. Furthermore, six initial projects have also been identified for implementation under the proposed Cooperative Mechanism (CM).

2. **Singapore Meeting 2007**

The Singapore Meeting was the last meeting held by IMO in cooperation with coastal States, under IMO's Protection of Vital Shipping Lanes Initiatives. It was held in Singapore on 4-6 September 2007. The outcome of the Singapore Meeting was the reconfirmation and launch of the Cooperative Mechanism between coastal States and user States on the safety of navigation and protection of the marine environment in the Straits of Malacca and Singapore.

The establishment of the Cooperative Mechanism (CM) can be considered as an achievement and also a historic breakthrough, because for the first time, coastal States can involve user States, shipping industry and other stakeholders to participate and share the responsibility of maintaining and improving the safety of navigation and protection of the maritime environment in the Straits of Malacca and Singapore.

The CM in the Straits of Malacca and Singapore was established to promote dialogue and facilitate close cooperation between coastal States, user States and other Stakeholders. This mechanism also operates on several principles, namely: (IMO, 2007)

a) Reaffirming the sovereignty, sovereign rights, jurisdiction and territorial integrity of the littoral States over the Straits;
b) Consistent with international law and in particular Article 43 of UNCLOS;
c) Established within the framework of the TTEG on Safety of Navigation in the Straits of Malacca and Singapore and primary responsibility for safety of navigation and protection of the maritime environment;
d) Recognizing the interests of user States and other Stakeholders and the roles they can play, as well as cooperation on a voluntary basis.

Policy and initiation of the Tripartite Technical Expert Group (TTEG) and Cooperative Mechanism (CM) in the Straits of Malacca and Singapore

In principle, the TTEG and CM adopt two different policies and initiatives. The TTEG drafts and adopts a policy and initiative, based on Part III of UNCLOS 1982. This draft will be proposed and discussed by coastal States to improve the safety of navigation and protection of the maritime environment, with user States and other invited parties. Subsequently, regulatory measures by coastal States need to be proposed to the IMO for its approval. Once adopted by the IMO, all ships transiting through the Straits of Malacca and Singapore will be required to comply with this policy and initiative.

On the other hand, CM implements and manages initiatives in the Straits projects proposed by littoral States, in cooperation with interested user States, the shipping industry

and stakeholders, under the principle of burden sharing. However, these initiatives must be discussed and approved by the TTEG forum first before being implemented.

In this section, a brief explanation of the policy analysis and initiatives that have been developed by TTEG and CM is provided.

TTEG policies and initiatives

As mentioned, there are several policies that have been approved by TTEG and subsequently adopted by IMO. Further in-depth explanations related to the policies that have been developed and adopted by TTEG are outlined as follows:

a. Adoption of Traffic Separation Scheme (TSS) and Regulations for Navigation of Vessels Through the Straits of Malacca and Singapore.
   The adoption of TSS in the Straits of Malacca and Singapore by IMO through Resolution A.375 (X) on 14 November 1977, is considered the first outcome of the TTEG. Regarding the regulation of ships navigating through the Straits of Malacca and Singapore, it regulates the Deep Water Route for deep draft ships, requiring ships passing through the Straits to have at least 3.5 meters UKC and are advised to navigate at no more than 12 knots.
b. Adoption of amendments to the Traffic Separation Scheme and the Regulations for ships navigating through the Straits of Malacca and Singapore. There are two amendments made to the Traffic Separation Scheme and the Regulations for ships navigating through the Straits of Malacca and Singapore. The first amendment was adopted through IMO Resolution A.476 (XIII) on 19 November 1981, and the second amendment was adopted through the 69th IMO Maritime Safety Committee Meeting with document MSC 69/22/Add.1 on 1 June 1998. Regarding the latest amendments, the most important provisions are the mandatory requirement for ships to navigate at no more than 12 knots in specially designated areas and the obligation to participate in the SRS.
c. Adoption of Mandatory Ship Reporting Systems in the Straits of Malacca and Singapore. The 69th IMO Maritime Safety Committee adopted Resolution MSC. 73 (69) adopted on 19 May 1998, concerning mandatory SRS. The mandatory SRS requires ships passing through the Straits to report to VTS authorities in nine designated areas.
d. Adoption of Anchoring Prohibition in the Straits of Malacca and Singapore. The issue of anchoring prohibition in the Straits of Malacca and Singapore is regulated in IMO circular SN.1 / Circ.282 dated 27 November 2009 concerning anchoring prohibition in the Straits of Malacca and Singapore. This circular regulates the prohibition of ships from anchoring within the TSS in the Straits of Malacca and Singapore, in accordance with Regulation 10 of the COLREGs.
e. Implementation of Recommended Sizes for Vessels Passing through the Traffic Separation Scheme (TSS) and critical areas in the Singapore Strait.

Since the establishment of the TTEG, there have been several policies and initiatives that can be highlighted and considered to have an impact on the safety of navigation and protection of the maritime environment in the Straits of Malacca and Singapore. It can be observed that these policies only focus on safety of navigation and not on protection of the maritime environment. The reason for this is because the mandatory provisions in the Joint Statement on Safety of Navigation in the Straits of Malacca and Singapore 1977, only focus on safety of navigation. Although there are provisions in the statement related to protection of the maritime environment, there is no mandatory that specifically addresses the issue. After the 38th TTEG held in 2013, based on Malaysia's proposal, it was agreed that maritime environmental issues need to be formally addressed in the TTEG as part of the meeting agenda.

Currently, there are several issues being discussed by the littoral States in the TTEG, which are the role of VTS development in the Straits of Malacca and Singapore, the

Voluntary Pilotage Service (VPS), Emergency Towing Vessel, and various issues under the Marine Electronic Highway (MEH) in the Straits of Malacca and Singapore, as integrated discussion topics in the TTEG.

Of these issues, the discussion of the service, the Voluntary Pilotage Service (VPS) in the TTEG has received great attention not only by coastal States but also by user States, the shipping industry and stakeholders, as there are concerns that coastal States will implement mandatory pilotage services as implemented in the Torres Strait.

The MEH issue is also one of the important issues discussed by the coastal States. MEH is a project managed by IMO in cooperation with coastal States, to improve maritime safety and reduce environmental damage in the Straits of Malacca and Singapore, by developing and installing the necessary infrastructure and systems. At the 37th TTEG Meeting in 2012, the coastal States agreed that the TTEG would take over the decision-making and coordination roles of the MEH Project Steering Committee (consisting of coastal States, IMO, the World Bank and other partners), on MEH management and operational issues.

Cooperative Mechanism projects and initiatives

There are several projects proposed by coastal States to improve the safety of navigation and protection of the maritime environment. To adopt the project, coastal States need to support the new project in the TTEG forum, based on recommendations and discussions with user countries, shipping industry and other stakeholders. CF is one of the components of CM. Interested parties will then provide the necessary contributions, in kind or direct contributions. Furthermore, according to Ho (2009), coastal States and contributing parties will discuss the implementation of the project through the PCC. In addition, for the implementation of projects related to the maintenance and replacement of Navigational Aids (NSA) in the Straits of Malacca and Singapore, interested parties can contribute to the ANF, where contributing parties can channel their contributions directly to the Secretariat. The ANF is led by one of the coastal States in turn.

Has Indonesia effectively implemented MARPOL ANNEX I to VI policies related to marine environmental pollution originating from ships, especially in the Straits of Malacca and Singapore?

NO	RESPONDENT	ANSWER
1	JI	In my opinion, this has been effective, as can be seen from the rapid response of government agencies such as KPLP and DIt. Kenavigasian (Ministry of Transportation) in dealing with ships that have run aground or sunken ships such as the Thorco Cloud that occurred in the Singapore Strait. However, in its implementation, the availability of equipment is likely still limited and there is a lack of awareness of personnel on ships crossing the Malacca and Singapore Straits to help protect the environment in the waters
2	LR	Quite effectively, the Directorate General of Sea Transportation has a technical implementing unit whose working area includes the Straits of Malacca and the Straits of Singapore. So that a quick response can be carried out properly in the framework of implementing MARPOL
3	EB	Indonesia has played an active role in preserving the marine environment from the dangers of pollution originating from the operation of ships in Indonesian territorial waters. This is further emphasized by the stipulation of the Decree of the President of the Republic of Indonesia Number 46 of 1986 concerning the Ratification of the International Convention for the Prevention of Pollution from Ships, 1973, along with the Protocol (the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973) where the Government of the Republic of Indonesia

NO	RESPONDENT	ANSWER
		supports and participates as a party to the Convention and the Protocol.
4	EP	It is quite effective, patrol, quick response to all activities in the Straits of Malacca and Singapore. In this position is represented by the KPLP of the Ministry of Transportation in accordance with the duties and functions.
5	DP	Currently, Indonesia has ratified Marpol Annex I to IV. Indonesia has implemented Annex I to IV, especially for ships conducting international voyages.

Marpol Convention 73/78 Annex I - VI

The 1973 international convention modified by the 1978 protocol (Marpol 73/78) on the prevention of pollution from ships requires each IMO member state to require port operators to provide adequate waste storage facilities without causing delays to shipping. Therefore, the Indonesian government issued Government Regulation Number 21 of 2010 concerning Maritime Environmental Protection which is intended to prevent and overcome pollution of the aquatic environment originating from activities related to shipping, including pollution from ships due to leaks, pollution from ship operations, pollution due to dumping waste in the waters, it is undeniable that tankers and other ships that cross the TSS Malacca and Singapore Straits in their operations often dump "ballast" and of course cause marine pollution. Therefore, in regulating the problem of pollution due to ship operations, IMO issued 2 (two) conventions related to pollution prevention, namely issuing the International Convention on the Prevention of Pollution from Ships in 1973 and its protocol in 1978 (relating to the International Convention for the Prevention of Pollution from Ships) so that it is known as Marpol 73/78.

The Indonesian government has ratified this convention and its protocol through Presidential Decree No. 46 of 1986 dated September 9, 1986 concerning the ratification of Marpol 73/78. For the Indonesian government, this ratification is very important because it is an effort to prevent pollution in Indonesian waters and protect the marine environment in territorial areas and the Exclusive Economic Zone (EEZ). This is stated in the consideration of the Presidential Decree which states "that in order to maintain the sustainability of the marine environment from the dangers of pollution originating from the operation of ships. The Indonesian government considers it necessary to participate as a party to the convention and its protocol". Regulations for the field of maritime environmental protection contain provisions regarding the prevention and control of marine environmental pollution originating from the operation of ships and similar facilities by accommodating related international provisions such as*"International Convention for the Prevention of Pollution from Ships"*.In addition to that, what is also regulated by the Government is the establishment of an institution in the field of sea and coast guard (Sea and Coast Guard) which is the government's policy in the field of shipping and is formed and is directly responsible to the Minister. It is hoped that with this regulation, enforcement of regulations in the field of shipping safety and security can be implemented in an integrated and well-coordinated manner so that there is no overlapping of law enforcement authority at sea which can reduce Indonesia's image in international relations.

With the involvement of a country in an international agreement, the country tends to change its attitude to adjust the applicable rules, as well as its relationships and expectations of each other from time to time in accordance with the agreement that has been made. However, in order for the regime to run effectively, a good state commitment is needed in supervising the follow-up of the agreed international rules. National legal products must be implemented and supervised properly in terms of their implementation.

Basically, the prevention of pollution in Indonesia's maritime area can be addressed effectively by implementing MARPOL regulations comprehensively because the International Convention for the Prevention of Pollution from ships (MARPOL 73/78) carries out supervision for detect and prevent marine pollution by ships in waters Indonesia and implement a mechanism to control pollution. occurred due to a ship accident incident. Thus MARPOL isactually is an effective instrument in tackling pollution problems sea in Indonesia caused by shipping activities. However, Indonesia need to improve operational management of shipping service authorities in supervise ships carrying out activities in maritime waters Indonesia.

Pollution of marine areas will be very detrimental to Indonesia and at the same time become a hindering factor in realizing the concept of Maritime Security as a country that has a vision of becoming the World Maritime Axis. Marine pollution will has an impact on the declining quality of the sea and the natural resources in it. in it, then this will cause losses for both coastal communities whose livelihoods are as fishermen or other income country nationally. On that basis, Indonesia through the scheme that established in IMO to ratify MARPOL 73/78 and implementing MARPOL rules in its national law.In the context of marine pollution by shipping activities Indonesia feels it has a responsibility responsible for participating in tackling the causes of marine pollution These are caused by routine ship activities or by accidents. ship. The concept of marine security in this case is an effort that must be achieved by Indonesia which can be achieved through the international regime MARPOL 73/78 with effective implementation. Effectiveness can be achieved if the regulations in MARPOL are implemented. comprehensively and Indonesia is not only responsive in its efforts prevention of pollution but also strengthening prevention efforts pollution. To achieve efforts to prevent marine environmental pollution.The key is a joint commitment between the government as regulator, port operators and ship operators as well as service users in carrying out respective obligations. Thus the problem of marine pollution can be overcome effectively the concept of maritime security can be realized.

If it is not yet effective, what should the Republic of Indonesia do regarding policies and legal regulations for controlling marine environmental pollution originating from ships, especially in the Straits of Malacca and Singapore?

NO	RESPONDENT	ANSWER
1	JI	If it is not yet effective, the country must develop or improve regulations by implementing strict sanctions issued by the three coastal countries (Indonesia, Singapore and Malaysia). These regulations must of course refer to Marpol.
2	LR	Indonesia can only supervise the waters of the Malacca Strait and Singapore Strait which are part of Indonesian territory. So that law enforcement can only be carried out in Indonesian territory. So that the implementation of law enforcement can be carried out comprehensively and its supervision is carried out together
3	EB	When viewed from the effectiveness of handling and preventing the problem of oil spills into the sea from ships, it has not been effective because it is still found that almost every year there is pollution that is detrimental to the marine ecosystem, especially fishing areas and tourism areas. So that concrete steps that must be taken are to improve monitoring facilities, especially improving technology to quickly find out where the oil spill came from, for example by preparing patrol ships, adding navigation equipment sensors such as radars that are specifically designed to detect oil, even special drones must be made to monitor water locations that are often identified as pollution. Then from the side of shipworthiness so that every ship that passes through the waters of the Malacca-Singapore Strait must be equipped with pollution

		prevention equipment such as OWS (Oil Water Separator), Incinerator, Seawage plant and so on.
4	EP	If indeed it is considered ineffective, the State still has a big homework to do to maximize its duties as a coastal State. Especially related to the protection of the maritime environment.
5	DP	The Indonesian government can make regulations regarding traffic in the Straits of Malacca and Singapore as well as procedures in the event of an oil spill in the Straits of Malacca and Singapore.

Establishing Regional Cooperation

Regional cooperation carried out by Indonesia in the ASEAN environment includes: (Vita and Eka, 2019)

a. ASEAN Environment Program (ASEP)
   ASEAN cooperation in the environmental field began in 1977 when the ASEAN text on sub-regional environmental programs was prepared with the assistance of UNEP (United Nations Environment Program). ASEP I identified 6 (six) priority programs, namely: Environmental Management including Environmental Impact Assessment, Conservation of Nature and Ecosystems.
   Territorial, Industrial and Environmental, Marine Environment, Environmental Education and Training and Environmental Information. ASEP I also set 3 (three) targets that emphasize the identification of joint activities that will benefit ASEAN, assessment of environmental conditions and institutional capabilities in ASEAN, discussing policy and technical issues regarding the environment and studying the national activities of each participating member country. At the ASEAN Ministerial Meeting in Manila on 30 April 1980, ASEP I was well received. The next meeting took place in Bangkok on 29 November 1984, the ministers agreed that ASEP I needed to be updated with more emphasis on pilot projects to solve immediate regional needs, formulation of action plans for all priority areas and enhancement of regional cooperation. For that reason, ASEP II was issued while maintaining the 6 ASEP I program areas and adding “Remote Sensing”
b. Coordinating Body on the Seas of East Asia (COBSEA): This body is not an official ASEAN body but rather a body formed under the auspices of UNEP. COBSEA was formed in December 1981 by the Governments of Indonesia, Malaysia, the Philippines, Singapore and Thailand, to coordinate the Action Plan for the East Asian Region. After that, several COBSEA meetings were held to discuss this matter, including those held in Bangkok on April 3, 1982, Yogyakarta-Indonesia on March 25-26, 1983, Genting Highlands-Malaysia on April 5-6, 1984, Manila on April 22-23, 1985, Singapore on April 25-26, 1986
c. The ASEAN Expert Group on the Environment (AEGE): This body is an official body under the auspices of ASEAN Science and Technology (COST). Within the framework of AEGE, there are two projects that are still in preparation, namely the ASEAN-UNDP project on the development of a joint action plan to combat oil pollution in the South China Sea, and the ASEAN-UNDP Project on Environmental Guidelines for Coastal Zone Management.
d. The Working Group on Marine Science (WGMS): This body is an official body under the auspices of ASEAN Science and Technology (COST).

In your opinion, what impacts occur due to environmental pollution in the sea?

NO	RESPONDENT	ANSWER
1	JI	If there is pollution in the sea, of course the impact is very detrimental to the three coastal countries. Such as the disruption of marine products for consumption by the surrounding community in the three coastal countries, while in my opinion another thing is that pollution such as oil spills can cause very large losses such as pollution of economic sources such as coastal

NO	RESPONDENT	ANSWER
		tourism, in addition to the very large losses to overcome and control pollution in the sea due to oil spills. In addition, if plastic waste is dumped in the sea, it will take a very long time to be broken down, which causes a lot of plastic waste that disrupts the ecosystem in the sea.
2	LR	The impact of environmental pollution is the damage to marine biota which is the main source of income for coastal communities. Damage to marine biota also has a major impact on coastal tourism activities which of course can be detrimental to the surrounding community whose livelihoods come from the tourism sector.
3	EB	The impacts that occur with the emergence of environmental pollution in the sea are that in the short term there can be damage to marine biota. Various types of fish, shrimp and other marine animals will smell of oil. Oil can directly cause fish death, especially if the fish and shrimp are consumed by humans through the food chain, it will cause health problems. Then in the long term, oil pollution is experienced by young marine biota. Oil can be eaten by marine biota, so that it will kill many new marine biota seeds. From the financial side, oil pollution will cause great losses, for example, oil spills on beaches so that tourist areas cannot be visited. Then if oil enters fish farming locations, fishing areas and conservation areas, this will cause considerable losses to return the sea water to normal again.
4	EP	The impact of marine pollution, if it occurs, will affect marine biota, seawater salinity and the health of people on the coast.
5	DP	The impacts arising from marine pollution include social, economic and environmental losses.

Indonesia's Policy on Controlling Pollution in the Straits of Malacca Due to Ship Accidents

Malaysia as a coastal country considers pollution and environmental issues to be important problems and the responsibility of the country. For this reason, Malaysia issued the 1974 Environmental Quality Act (Environmental Qualiti Act 1974) as proof of the Malaysian people's love for nature. This deed is related to efforts to prevent, repair and monitor pollution and improve nature. One of the things regulated in this deed is the imposition of a maximum fine of RM 100,000.00 and/or 5 years' imprisonment for polluters. Apart from that, the deed also provides freedom to issue other regulations so that the objectives of this deed can be achieved. There are approximately 13 Environmental Quality Regulations that have been passed since Deed 127 was issued until now.

In addition to Malaysia, Singapore is also very aware of the importance of the Strait of Malacca, as the second busiest port country in the world, Singapore has the most advanced and most comprehensive oil pollution laws in the region.115 The laws and regulations owned by Singapore include The Prevention of Pollution of The Sea Act, 1971116, which was later revised to the Merchant Shipping (Oil Pollution) Act 1981.117, Port of Singapore Authority, Act 1969118. Prevention of Pollution of the Sea Act (Chapter 243)1999119. In addition to these laws, Singapore's seriousness in environmental issues, especially the marine environment, is evident in the publication of the Singapore Green Plan 2012.

In addition to issuing laws and regulations, both countries also have their own bodies tasked with carrying out efforts to protect their marine environment, namely the Malaysian Maritime Enforcement Agency121 and The Coastal Security Force122. So that the efforts of both countries to realize the protection of their marine environment can run more optimally.

However, this does not happen in Indonesia, apart from the lack of discussion regarding the control of marine environmental pollution originating from ships in the Malacca Strait,

there is also another crucial problem, namely the problem of implementing the Tripartite Agreement into Indonesian national law.

This is due to Indonesia's inconsistency in implementing an international agreement into national law. Sometimes the entire contents of an international agreement have been immediately transformed into Indonesian national law without the need for prior ratification such as Law Number. 39 of 1999 concerning Human Rights, which is better known as the monism school. However, there are also times when the international agreement is not immediately transformed into Indonesian national law but requires a ratification process and sometimes requires other implementing laws and regulations. For example, Law Number 17 of 1985 concerning Ratification of the United Nations Convention on the Law of the Sea (United Nations Convention on the Law of the Sea) which does not immediately revoke Law Number 4 of 1960 concerning Indonesian Waters which is contrary to the provisions of the convention. This is better known as the dualist school.

The ambiguity and ambiguity of national law causes the unclear integration of the agreement into Indonesian law. This problem also occurs in the international agreement Tripartite Agreement between Indonesia-Malaysia Singapore, causing the problem of controlling marine environmental pollution in the Strait of Malacca originating from this ship to remain stagnant. Whereas based on the principle of international law, namely Pacta Sunt Servanda, Indonesia is obliged to implement the agreement. One way is to regulate the agreement into Indonesian national law through government policy.124 According to Thomas R. Dye, policy is a government choice to determine steps to "do" or "not to do" (to do or not to do). (Vita and Eka, 2019

CONCLUSION

1. The implementation regarding legal action/firm sanctions for violations related to maritime environmental protection in Indonesia is still lacking, which is in accordance with MARPOL 73/78 Annex I to VI policies;
2. Not all state borders have been determined by the government of the Republic of Indonesia, especially between Malaysia and Singapore, so that the waters are used as a place for ships to carry out illegal activities such as STS (Ship to Ship), anchoring activities which certainly directly dump oil/waste from ships into Indonesian territorial waters, this is what causes the State of Indonesia to still have great difficulty implementing legal regulatory policies regarding maritime environmental protection;
3. There is still a lack of monitoring facilities by law enforcers from related agencies.

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