



INDONESIA  
OCEAN JUSTICE  
INITIATIVE

**Detection And Analysis:**

# **THREATS TO MARITIME SECURITY IN INDONESIAN WATERS**

**Period January to March 2023**





## DETECTION AND ANALYSIS ON THREATS TO MARITIME SECURITY IN INDONESIAN WATERS FOR THE PERIOD OF JANUARY TO MARCH 2023

### I. Introduction

During this period, Indonesia Ocean Justice Initiative (IOJI) focused on the detection of illegal fishing activities committed by foreign fishing vessels, marine pollution from oil and asphalt spills in Indonesian territorial and jurisdiction waters. The area of interest for illegal fishing detection is the North Natuna Sea (NNS). Whereas the areas of interest we focus on marine pollution detection are on the Java Sea, Bintan Island waters (bordering the Singapore Strait) and Sumatra Island waters.

In general, the illegal fishing detection in the NNS area shows that there are Vietnamese fishing vessels still found and conducting illegal fishing activity. This should be a concern of the Government of Indonesia because the situation in the NNS has not changed even though a newly agreed EEZ boundary has been finalized between the Governments of Vietnam and Indonesia as announced by President Joko Widodo in December 2022<sup>1</sup>. Not only do fishing vessel detection, but we also observe *Vietnam Fisheries Resources Surveillance* vessels that patrol in the NNS area with a similar pattern compared to their previous pattern prior to the new Indonesia-Vietnam EEZ agreement.

Regarding marine pollution from oil spills, our analysis results show that the NNS, especially Bintan waters which is directly adjacent to the Singapore Strait to the Java Sea, is the most polluted waters. Meanwhile, marine pollution from asphalt spills also occurred on the west coast of Nias Island due to leaks from the tanker hull of the sunken MT AASHI ship. This incident caused the marine asphalt pollution area to expand as far as 70 km from the incident location to the north and west of Nias Island.

### II. Methodology

Vessel tracking data in Indonesian jurisdictions waters is performed by using Automatic Identification System (AIS) and satellite imagery. AIS data is obtained from Marine Traffic and satellite imagery is obtained from the European Space Agency (ESA) Sentinel-2. The analysis is done by observing the pattern of vessel trajectory based on AIS and other relevant parameters to assess the possible violations of Indonesia's sovereignty and sovereign rights. The legal basis used in this analysis is *United Nations Convention on the Law of the Sea* (UNCLOS), other relevant international legal instruments, and applicable laws and regulations in Indonesia.

---

<sup>1</sup> <https://go.kompas.com/read/2022/12/23/183106474/indonesia-vietnam-conclude-eez-negotiations?page=all>

Data and information regarding the detection of marine pollution from oil spills are obtained from *Cerulean* developed by *SkyTruth*.<sup>2</sup> *Cerulean* is a software that run computer vision<sup>3</sup> algorithm to produce oil marine pollution detection data. This tool obtains the input from Sentinel-1 satellite imagery that is provided by the European *Space Agency* (ESA). Then, it is used and analyzed by *Cerulean* so that specific spills polluted areas can be identified.

### III. Illegal Fishing Detection in the North Natuna Sea (NNS)

Illegal fishing detection in the NNS will be presented with some maps as shown below. Please note that the map we use in this section is the “old” version, which doesn’t display the newly agreed EEZ delimitation between Indonesia and Vietnam after the agreement took place in December 2022. This is because as of now the government has not officially published the “new” version of the map which contains the newly agreed EEZ boundaries of Indonesia and Vietnam.

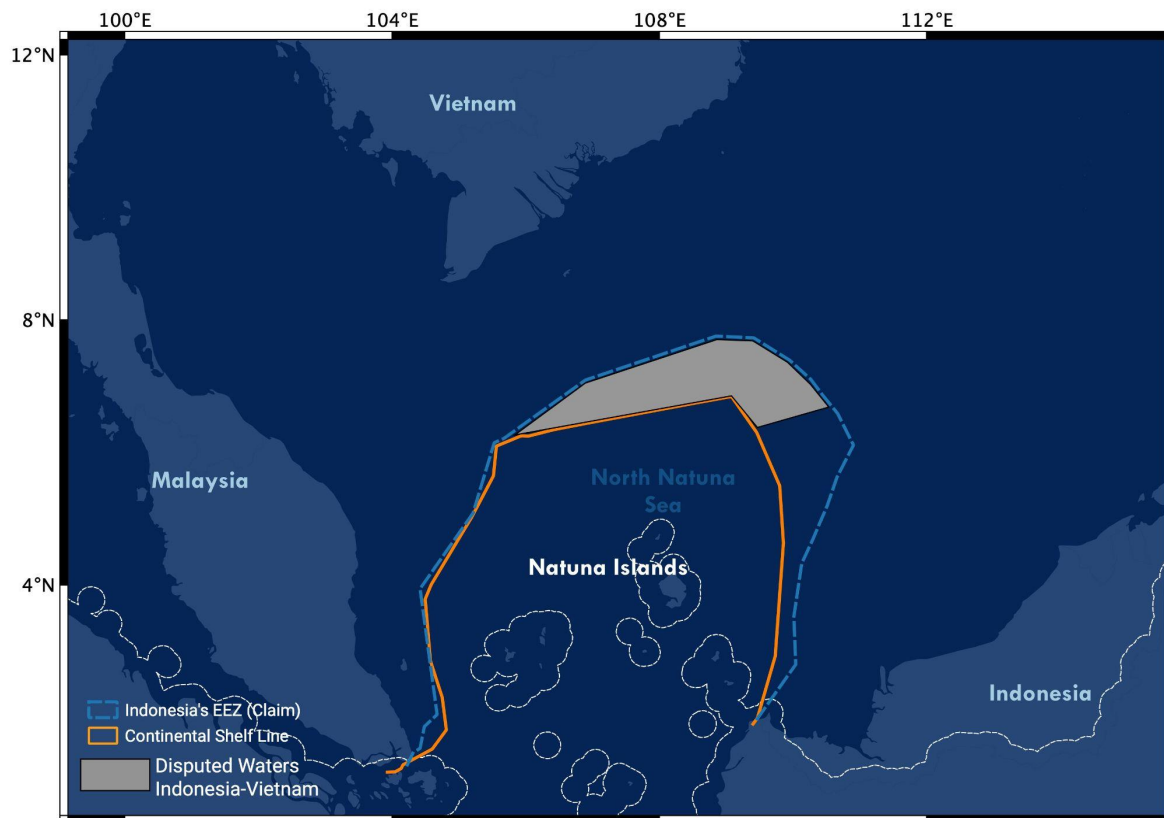
The maritime boundaries that exist in the “old” version of map are Indonesia’s unilateral EEZ claim and continental shelf boundary agreed by Indonesia and Vietnam in 2003 as displayed in Figure 1 below.

---

<sup>2</sup> SkyTruth is an independent non-government organization with the mission to share the view from space to promote conservation for people and the planet. *Cerulean*, a project by Skytruth, detects marine pollution by applying powerful analytical tools to shared data and making marine pollution, including marine oil pollution, easily accessible. IOJI and Skytruth have started collaborating since September 2022.

<sup>3</sup> *Computer vision* is an automated process that integrates a large number of processes for (performing) visual perception. These processes include image acquisition, image processing, classification, recognition, and decision making. Definition according to Rinaldi Munir, Informatics Engineering Study Program, School of Electrical and Informatics Engineering, ITB.

<https://informatika.stei.itb.ac.id/~rinaldi.munir/Citra/2020-2021/02-Pengantar-Pengolahan-Citra-Bag2-2021.pdf> (accessed on 4 April 2023)



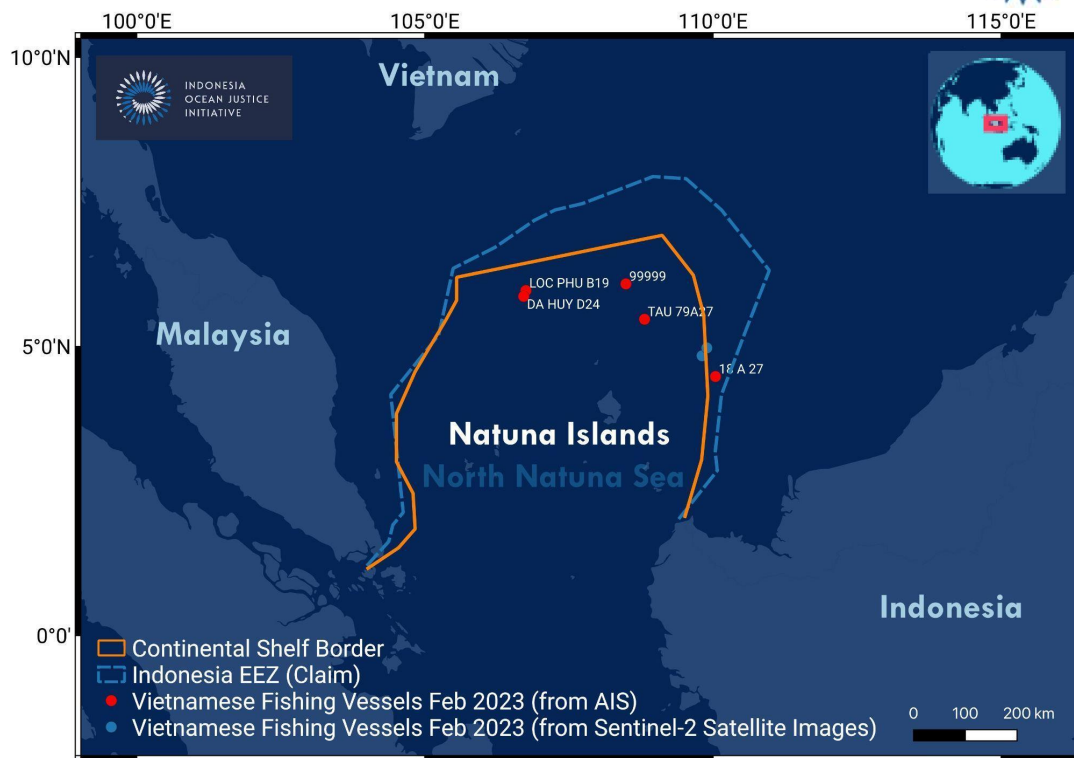
**Figure 1.** Indonesian EEZ delimitation line (claim) and Continental Shelf and Disputed Area (*Disputed Waters*) between Indonesia and Vietnam.

To make it easier for readers, the area in the north of the continental shelf line (orange line) up to the boundary of the unilateral EEZ claim (dashed blue line) is referred to as the “**disputed area**” (gray color) and the area south of the continental shelf line is referred to as the “**non-disputed area**”. After the EEZ agreement in December 2022, the terms "disputed area" and "non-disputed area" should not be appropriate anymore because the newly agreed EEZ boundary has been agreed on December 2022. However, in this report, IOJI still uses these two terms with the consideration that until this report was submitted, there had been no official release from the two countries regarding the coordinates of the newly agreed EEZ boundary lines, so it was not known exactly where the location of the newly agreed Indonesian and Vietnamese EEZ boundaries was.

### **Non-disputed area**

Figures 2 and 3 below show illegal fishing detection performed by Vietnamese fishing vessels in February and March 2023. There are 6 (six) Vietnamese fishing vessels detected by AIS and 16 (sixteen) Vietnamese fishing vessels detected from the satellite imagery observation in the non-disputed areas.

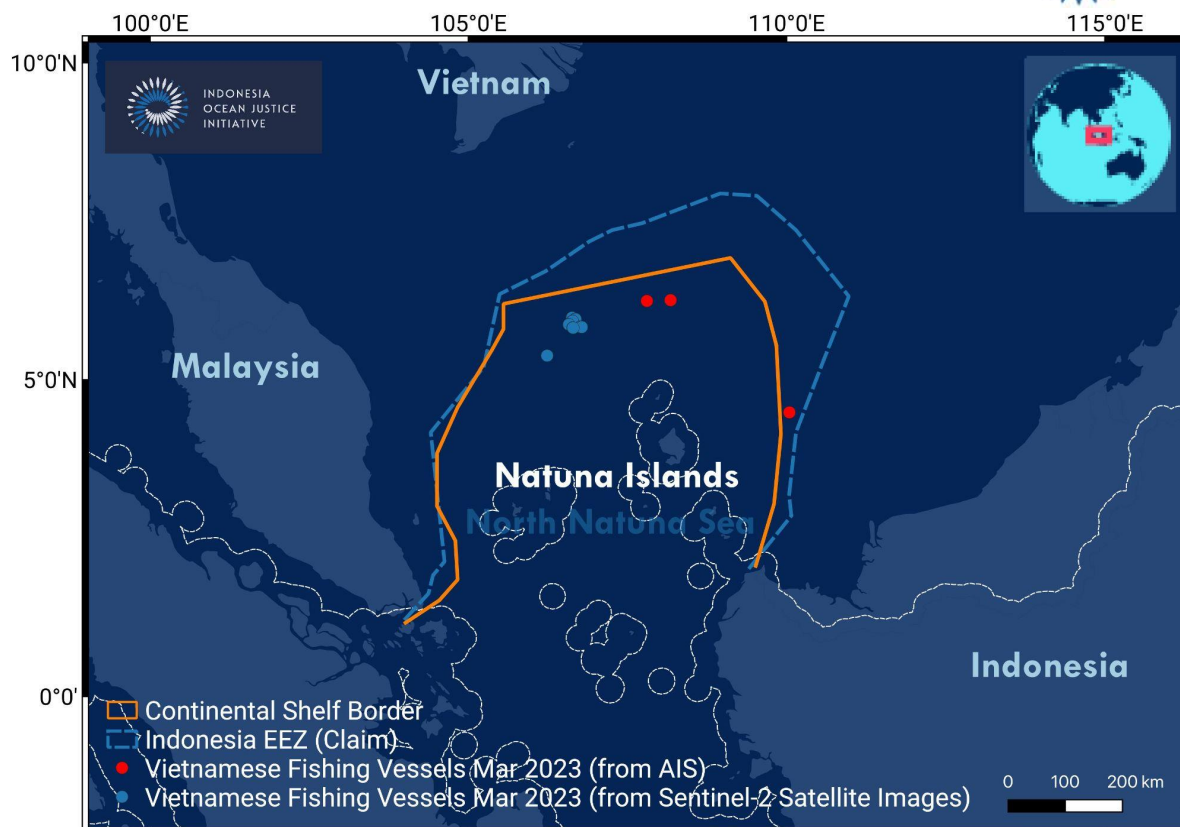




**Figure 2.** Vietnamese fishing vessels detection in **non-disputed area** of the NNS, February 2023 source: AIS and satellite imagery

No.	Ship name	MMSI	Period/Date of Detection	Average Speed (knots)	Previous Detection (Repeated Offender)
1.	18 A 27	574151209	03-02-2023 sd 03-02-2023 02-03-2023	1.83 1.3	Mar, Apr, Jun, Jul, Aug, Oct, Nov, Dec 2022
2.	N/A	574704173	20-02-2023	6.9	
3.	TAU 79 A27	574210045	21-02-2023	0	
4.	LOC Phu B19	574605040	28-02-2023	1.1	
5.	DAHUY D24	574069914	27-02-2023	1	
6.	KIM NGOC 57 F27	574070001	14-03-2023	2.7	

**Table 1.** Vietnam fishing vessel list suspected of operating without a permit in the **non-disputed area** of the NNS in February 2023 (Source: AIS)



**Figure 3.** Vietnamese fishing vessels detection in **non-disputed area** of the NNS, March 2023  
source: AIS and satellite imagery

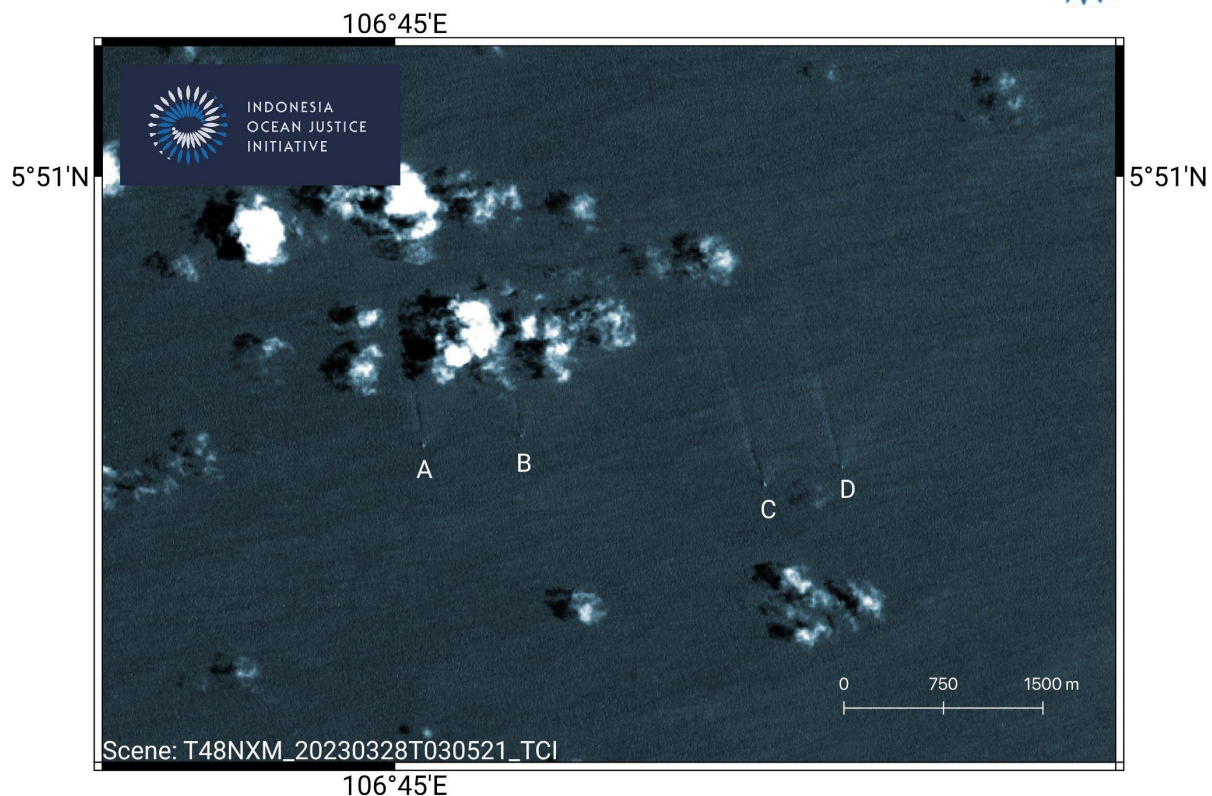
Table 2 below is a list of ESA Sentinel-2 scenes that contain the detection of Vietnamese fishing vessels that operate pair trawl fishing gear in the non-disputed area in February - March 2023.<sup>4</sup>

Date	Number of Detected Fishing Vessels	Satellite Image Scene
February 8, 2023	4	T49NCF_20230208T025859_TCI (4 vessels)
March 28, 2023	16	T48NXM_20230328T030521_TCI (16 vessels)

**Table 2.** Vietnamese fishing vessel detection from satellite imagery in the **non-disputed areas** of NNS in February - March 2023 (Source: ESA Sentinel-2)

Figure 4 below shows an example of a satellite image snapshot which shows illegal fishing detection by Vietnamese fishing vessels. Those vessels have a high potential of performing illegal fishing using pair trawl fishing gear in the non-disputed area of the NNS (2 pairs of vessels: A-B and C-D) on March 28, 2023.

<sup>4</sup> Coordinate information and examples of Vietnam fishing vessel detection images based on ESA Sentinel-2 satellite imagery in February and March 2023 can be downloaded via the following links  
[https://oceanjusticeinitiative.org/wp-content/uploads/2023/04/sentinel2\\_q1\\_2023.zip](https://oceanjusticeinitiative.org/wp-content/uploads/2023/04/sentinel2_q1_2023.zip)  
[https://oceanjusticeinitiative.org/wp-content/uploads/2023/04/natuna\\_mar\\_2023.zip](https://oceanjusticeinitiative.org/wp-content/uploads/2023/04/natuna_mar_2023.zip)



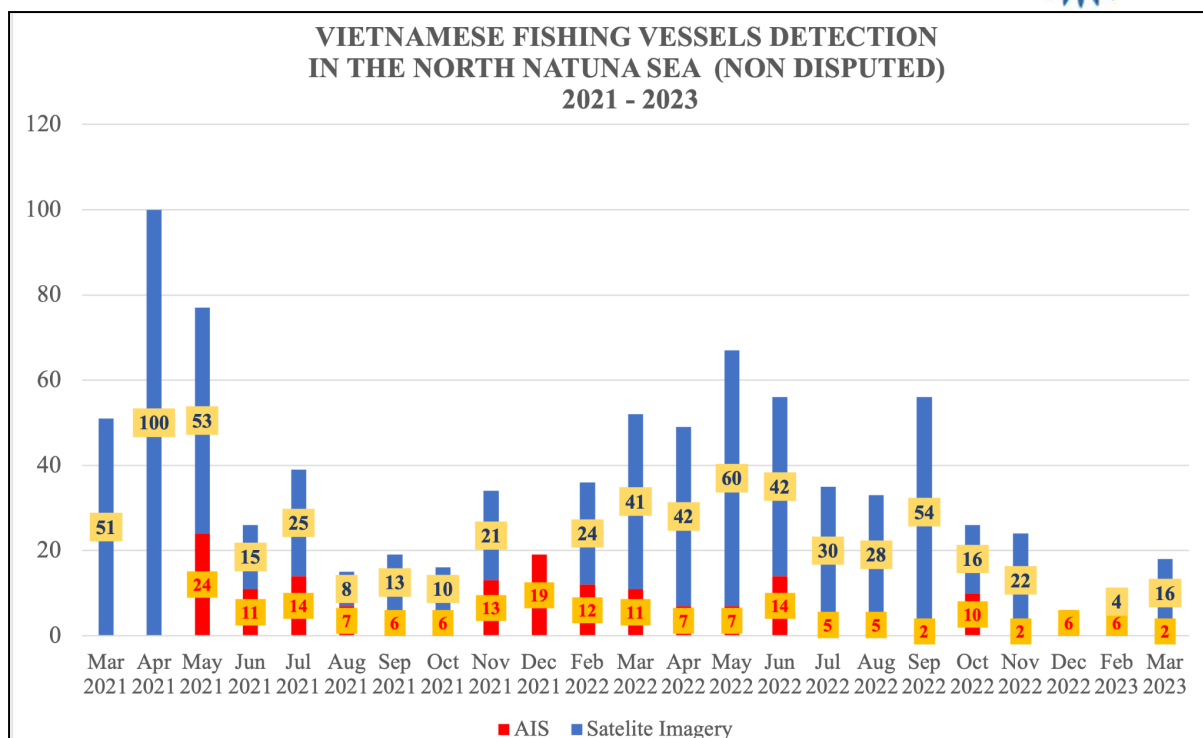
**Figure 4.** Two pairs of Vietnamese fishing vessels are observed by using satellite imagery on March 28, 2023 in the non-disputed area of the NNS

The satellite image shown in Figure 4 above was captured one day after the Indonesian Ministry of Marine Affairs and Fisheries (MMAF) successfully arrested a Vietnamese fishing vessel that was involved in illegal fishing at the same zone, the western zone of the NNS. Based on the MMAF press release,<sup>5</sup> patrol boat Orca 03 arrested a Vietnamese fishing vessel which was fishing using pair trawl gear.

Referring to data that has been collected for the last 2 (two) years<sup>6</sup> (2021 and 2022) note that the number of Vietnamese fishing vessels in non-disputed areas usually increases starting in March. The graph (Figure 5) below shows the number of Vietnamese fishing boats detected with AIS and satellite imagery in non-disputed areas from March 2021 to March 2023.

<sup>5</sup> Marine and Fisheries Ministry. Press conference. <https://kkp.go.id/artikel/50173-kkp-tangkap-kapal-ilegal-asal-vietnam-di-laut-natuna> (accessed April 4, 2023)

<sup>6</sup> Coordinate data for Vietnam KIA intrusion detection by IOJI in non-disputed areas for 2021 and 2022 can be downloaded via the following link [https://oceanjusticeinitiative.org/wp-content/uploads/2022/03/v\\_detection\\_2021.zip](https://oceanjusticeinitiative.org/wp-content/uploads/2022/03/v_detection_2021.zip) [https://oceanjusticeinitiative.org/analysis/IUUF\\_Non\\_Disputed\\_Natuna\\_2022.zip](https://oceanjusticeinitiative.org/analysis/IUUF_Non_Disputed_Natuna_2022.zip)

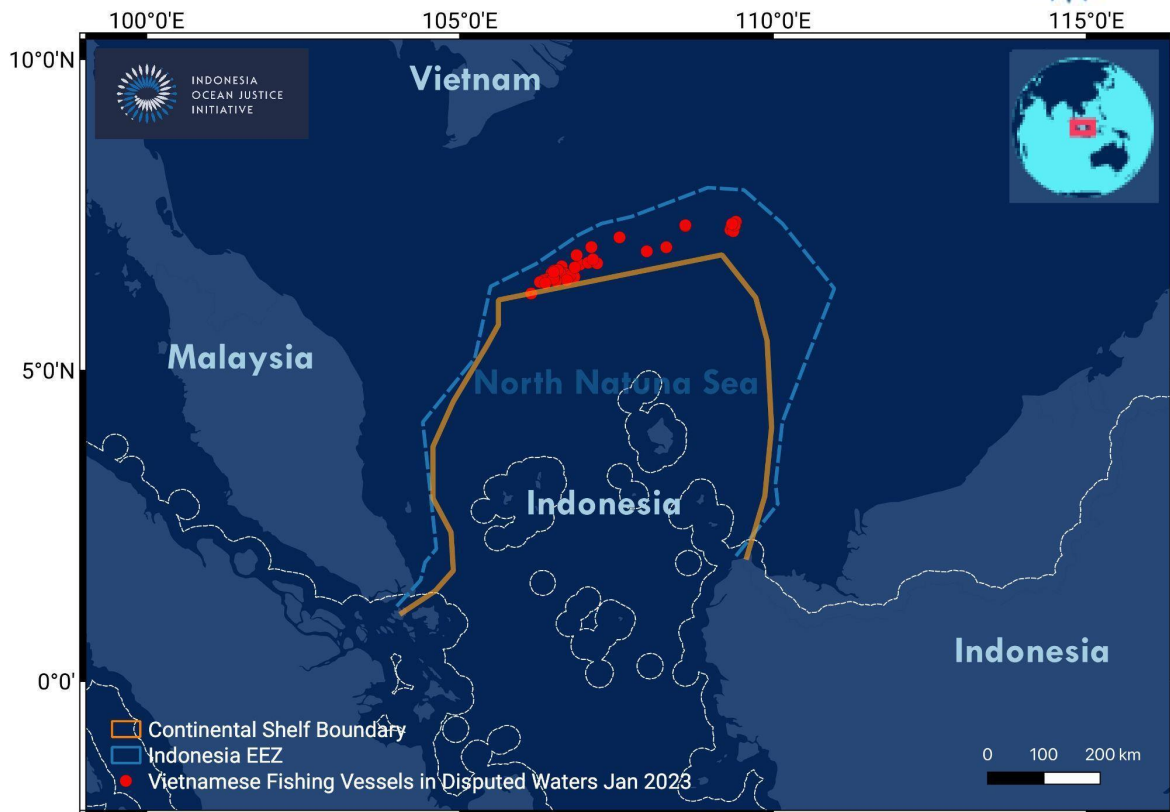


**Figure 5.** Bar chart shows the trend of Vietnamese fishing boats numbers in the NNS in the **non disputed area** between March 2021 to March 2023

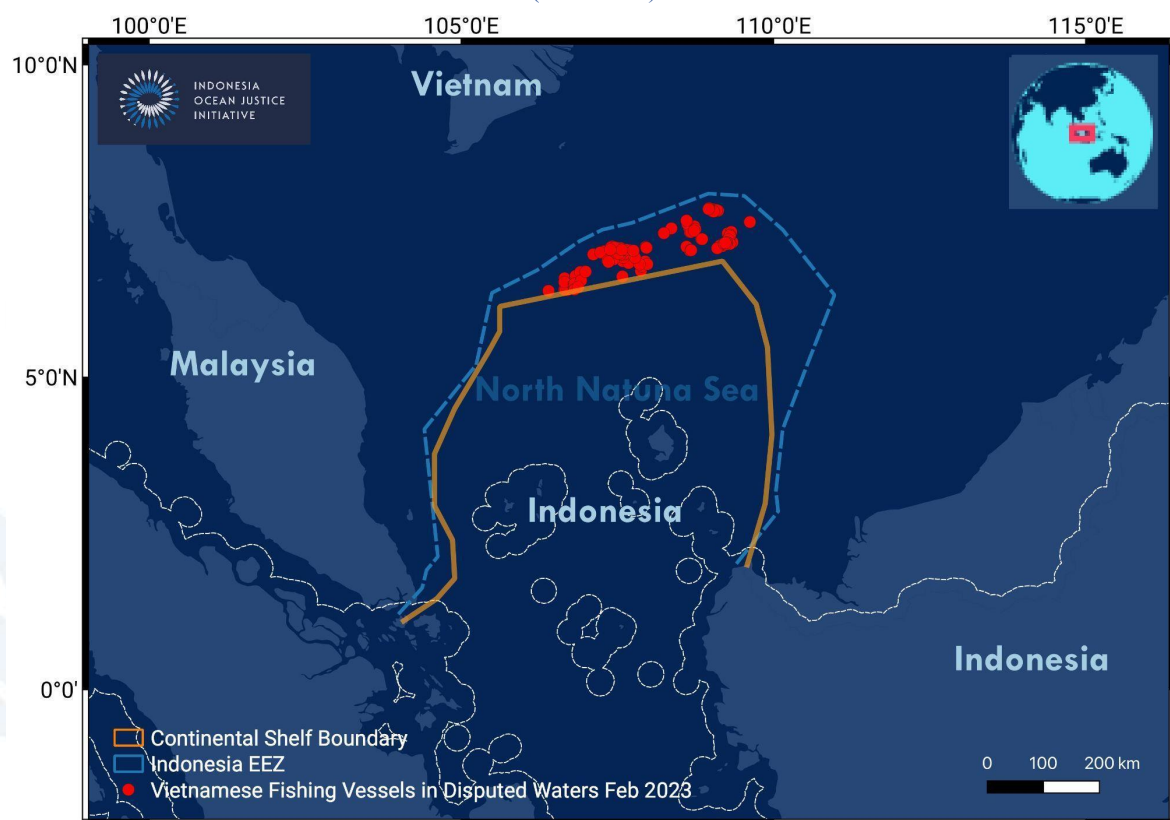
### Disputed Areas

Figures 6 and 7 below show the locations of Vietnamese fishing vessels on the map in the **disputed area**, **after** the EEZ boundary agreement between Indonesia and Vietnam (December 2022). In January 2023 there were 82 vessels detected and there were 155 vessels in February 2023.



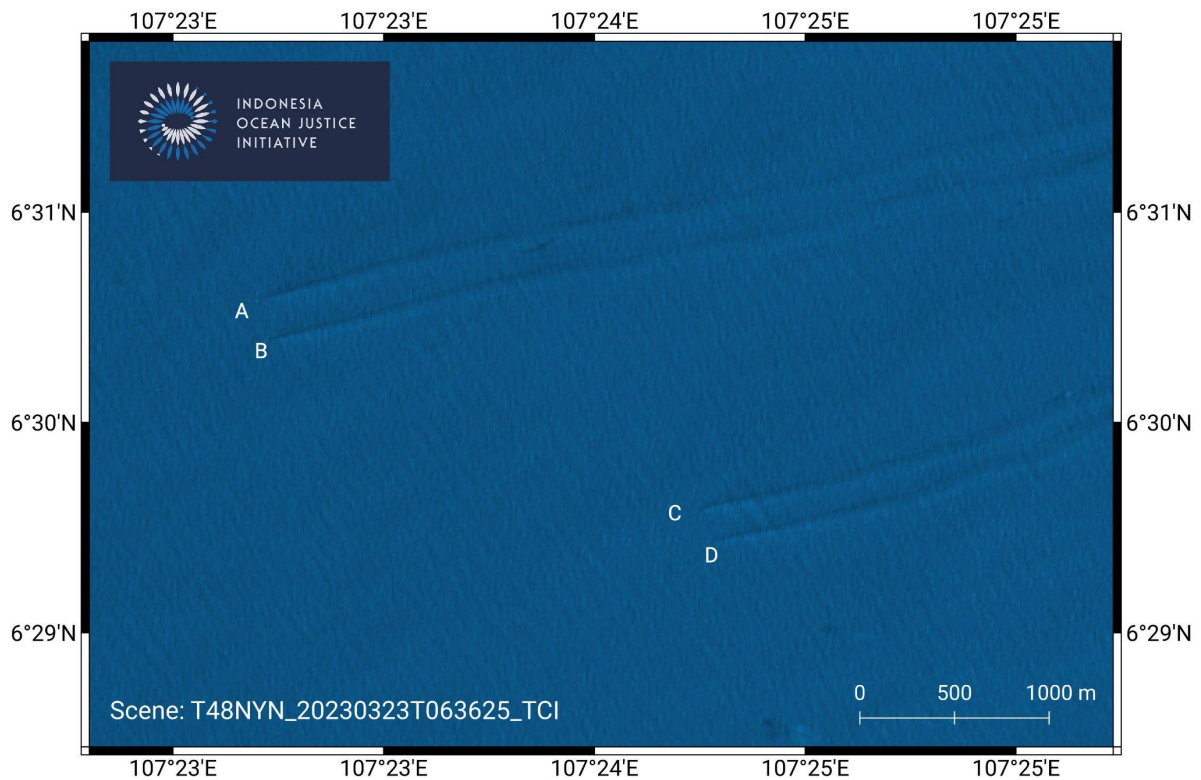


**Figure 6.** Vietnamese Fishing Vessels in The **Dispute Areas** of The NNS In January 2023  
(81 vessels)



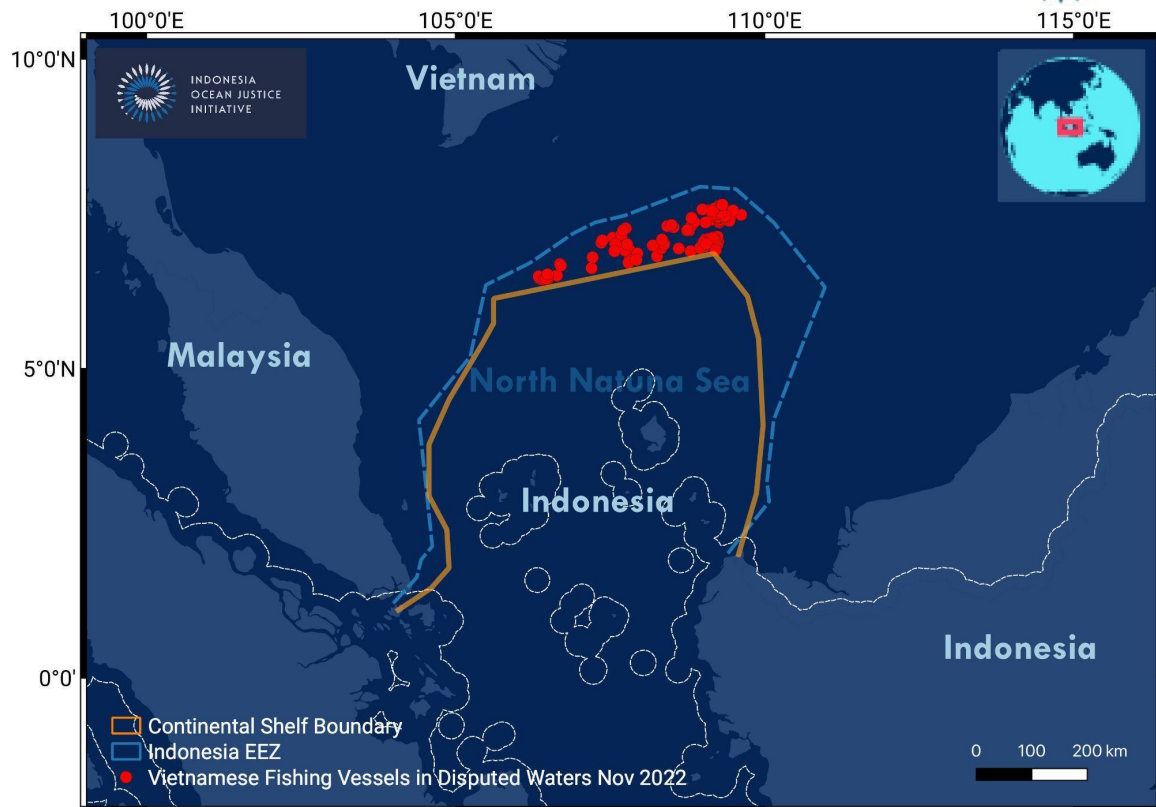
**Figure 7.** Vietnamese Fishing Vessels in The **Dispute Areas** of The NNS In February 2023  
(155 vessels)

Figure 8 shows a satellite image of Vietnamese fishing vessels using *pair trawl* fishing gear (A paired with B, C paired with D) in the disputed area of the NNS on 23 March 2023.

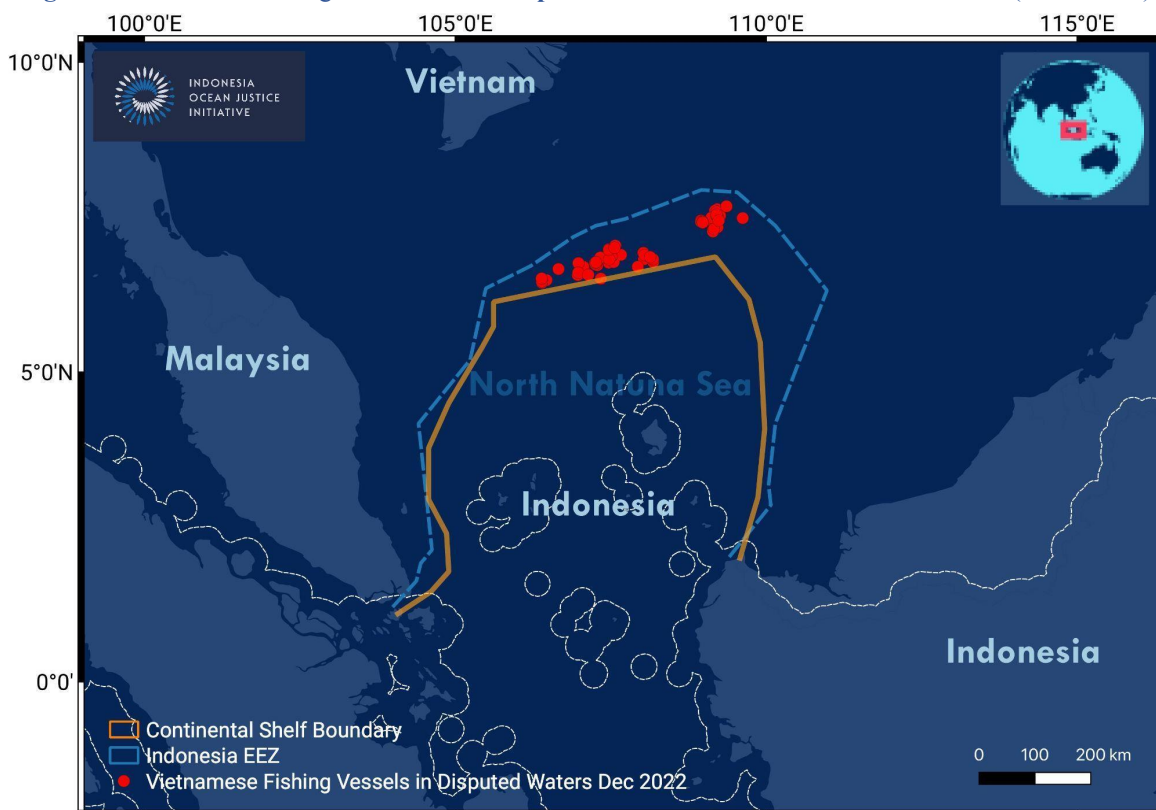


**Figure 8.** Two pairs of Vietnamese fishing vessels are observed by using satellite imagery on March 23, 2023 in the **disputed area** of the NNS

As a comparison, Figures 9 and 10 below show the AIS detection of Vietnamese fishing vessels in the **disputed area** in November and December 2022 (**before** the agreement on the Indonesian and Vietnamese new EEZ).

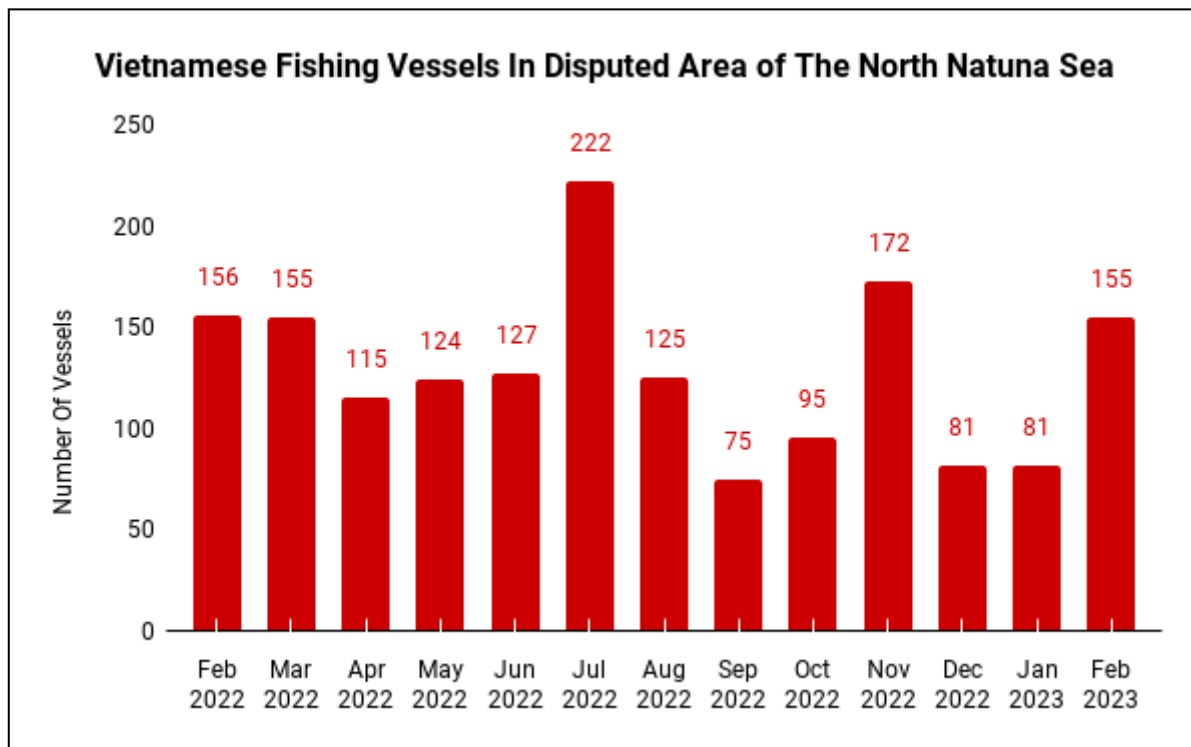


**Figure 9.** Vietnamese Fishing Vessels in The **Dispute Areas** of The NNS In November 2023 (172 vessels)



**Figure 10.** Vietnamese Fishing Vessels in The **Dispute Areas** of The NNS In December 2022 (81 vessels)

The chart (Figure 11) below shows the number of Vietnamese fishing vessels with AIS detected in the **disputed area** of the NNS from February 2022 to March 2023.



**Figure 11. Trend of Vietnamese fishing vessels numbers in the disputed area of the NNS**

**Based on data and information above, we conclude that the EEZ boundary agreement between Indonesia and Vietnam in December 2022 has not changed the illegal fishing situation in the NNS.**

After the EEZ boundary agreement between Indonesia and Vietnam, Vietnamese fishing vessels activities in the disputed area as described above may be legal **if the agreed EEZ boundaries between Indonesia and Vietnam are the same as the continental shelf line or single maritime boundary (SMB)**. However, this situation is not applicable because Indonesia and Vietnam did not adopt SMB<sup>7</sup>. Based on the universal three stage approach of maritime delimitation<sup>8</sup> boundary line drawing, **the newly agreed EEZ line between Indonesia and Vietnam is estimated to be north of the Indonesia-Vietnam continental shelf line** (the exact coordinates cannot be known because until now there is no official release from the government). Therefore, we conclude that half of the disputed area, at the very least the area located near continental shelf, highly chance to be Indonesia's EEZ

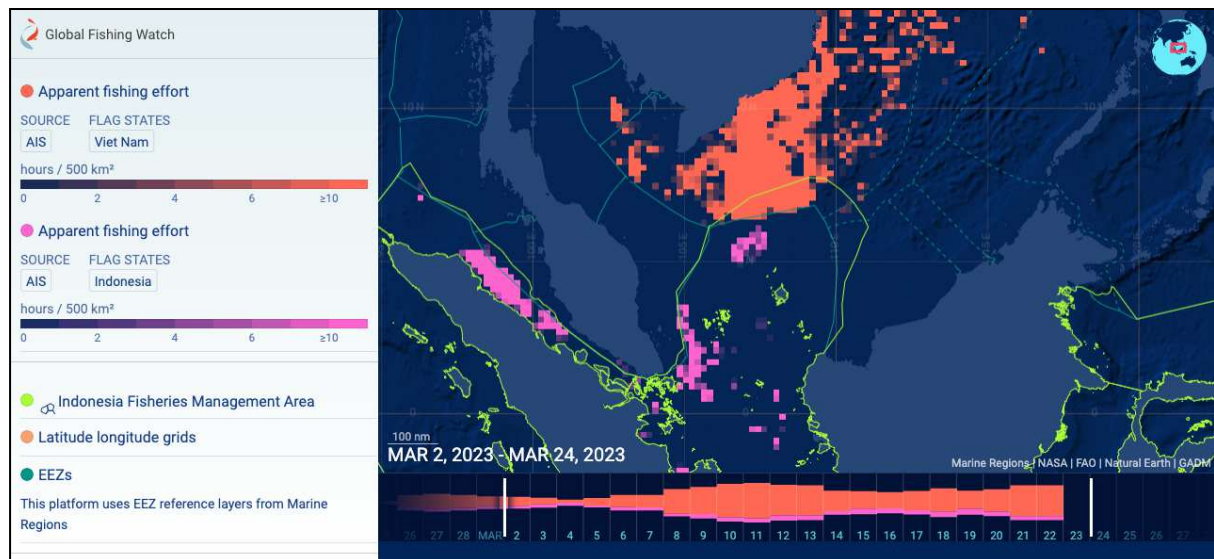
<sup>7</sup> Fulcrum.sg. The Significance of the Vietnam-Indonesia Exclusive Economic Zone Demarcation. <https://fulcrum.sg/the-significance-of-the-vietnam-indonesia-exclusive-economic-zone-demarcation/>. (Accessed January 20, 2023)

<sup>8</sup> <http://www.ejil.org/pdfs/31/1/3043.pdf>



therefore any fishing activities done by Vietnamese fishing vessels in the this area is illegal because in the area, Indonesia has the jurisdiction right based on the Article 56 of UNCLOS.

The presence of Vietnamese fishing vessels in both the disputed and non disputed areas of the NNS ‘pushed’ Indonesian fishing vessels southward far from the newly agreed EEZ line that was agreed on December 2022. The result is that Indonesian fishing vessels lose the opportunity to utilize fish resources in the area. Figure 12 below shows the location of Indonesian fishing vessels based on AIS in the NNS (purple color).

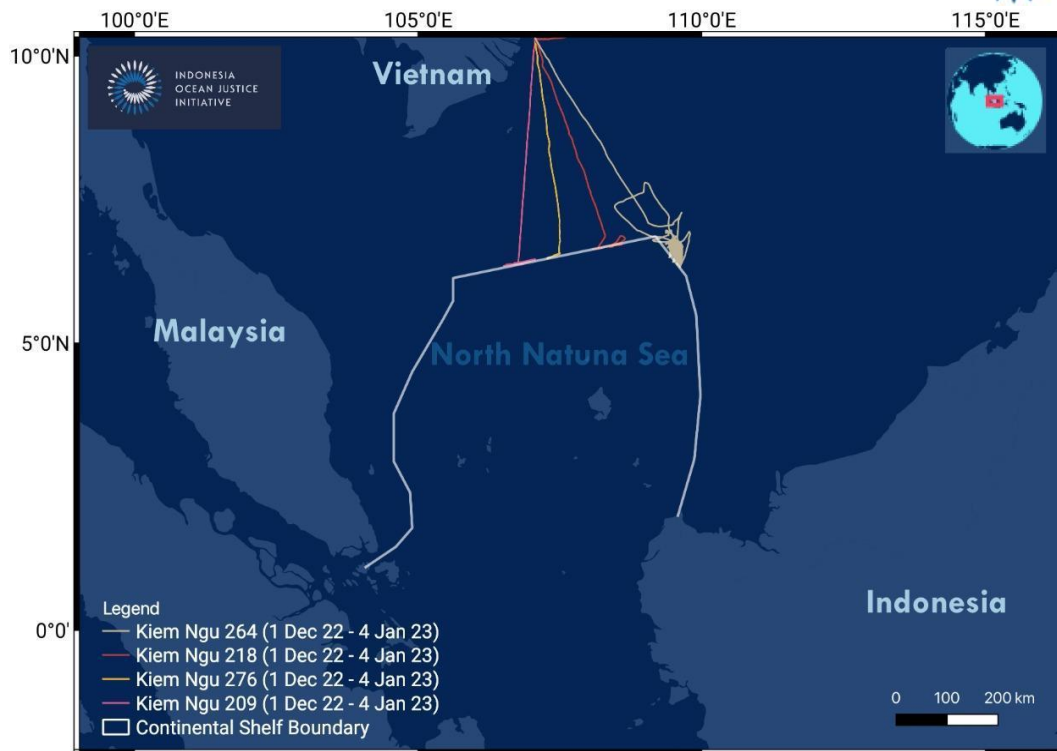


**Figure 12.** Indonesian Fishing Vessels (purple) fishing activities in the NNS in March 2023  
(Source: *Global Fishing Watch*)<sup>9</sup>

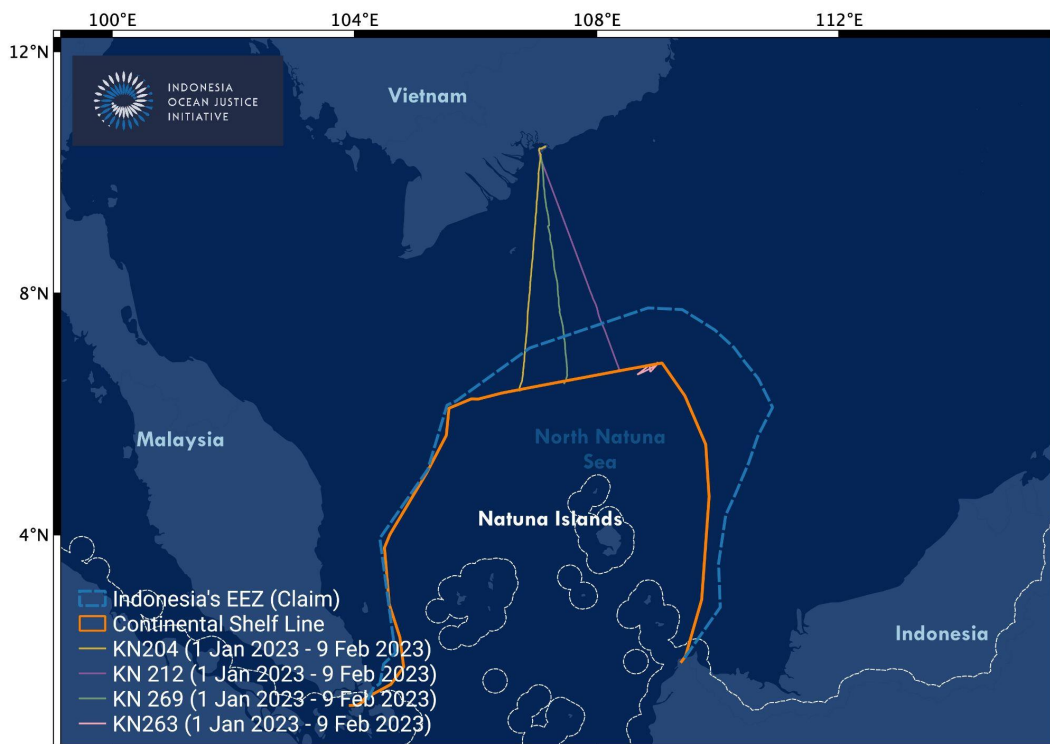
#### IV. Vietnam Fisheries Resources Surveillance (VFRS)

Apart from fishing vessels, IOJI also observed the Vietnam Government's **VFRS vessels with the same pattern of operation as before the Indonesia-Vietnam new EEZ agreement** in December 2022. There are at least 8 (eight) VFRS vessels patrolling along the Indonesia-Vietnam continental shelf boundary line in the period 1 December 2022 to 9 February 2023 as shown in Figures 13 and 14 below.

<sup>9</sup> This map can be accessed through the *Global Fishing Watch* with a link [https://globalfishingwatch.org/map/fishing-activity/from\\_mar\\_2\\_2023\\_to\\_mar\\_24\\_2023\\_near\\_south\\_china\\_sea-user-public](https://globalfishingwatch.org/map/fishing-activity/from_mar_2_2023_to_mar_24_2023_near_south_china_sea-user-public)



**Figure 13.** VFRS vessels patrolling the Indonesia-Vietnam continental shelf line on December 1, 2022 - January 4, 2023 (Source: AIS)



**Figure 14.** VFRS vessels patrolling the Indonesia-Vietnam continental shelf line on January 1, 2023 - February 9, 2023 (Source: AIS)

## V. Analysis: Vietnam Fishing Vessels and VFRS

UNCLOS regulates that the two countries which are in the process of negotiating maritime boundaries are obliged to set a provisional agreement<sup>10</sup> so that human activity in the area where maritime boundaries have not yet been resolved can still happen in a conducive manner and with minimal conflict.

This obligation contains three important elements, which are (i) provisional agreement made based on the basis of a spirit of mutual understanding and cooperation; (ii) provisional agreement must be made to the maximum extent possible and easy to implement; and (iii) provisional agreement may not interfere with or impede the process of negotiating the settlement of maritime boundaries. Based on these three elements, it is concluded that UNCLOS **wants both parties to have good faith** and prevent the parties from any action that has the potential to break the maritime boundary settlement process.

Referring to the *Permanent Court of Arbitration's* verdict on *Guyana v. Suriname* case, Article 73 paragraph (3) UNCLOS does not oblige the parties to eliminate activity in the area of overlapping claims<sup>11</sup>, however, the types and forms of activities that may be conducted in that area must be activities that do not interfere with or impede the process of negotiating maritime boundaries between the two countries, for example, marine research whose nature of activities does not damage and does not have the potential to interfere with the sovereign rights of the two countries in areas of overlapping claims.<sup>12</sup> Meanwhile, resource exploitation activities are classified as activities that can disrupt and hinder the settlement process of maritime boundaries between two countries.<sup>13</sup>

In the context of the Indonesia and Vietnam situation, long before the agreement on the EEZ boundary lines of the two countries in December 2022, Vietnam fishing vessels had been rampant in the Indonesia-Vietnam EEZ overlapping claims area at the LNU. The vessels even operate as far south as the area of overlapping claims EEZ, which is the EEZ area of Indonesia. After the agreement announced in December 2022 to date, the operations of Vietnamese fishing vessels and VFRS remain the same as before the EEZ boundary was agreed by the two countries.

The activities of the Vietnam fishing vessels and the VFRS have clearly violated Indonesia's sovereign rights. Moreover, the use of *pair trawl* by Vietnamese fishing vessels has an impact on damaging the coral as fish habitat<sup>14</sup>. *Pair trawling* fishing technique or two-boat bottom

---

<sup>10</sup> Article 74 (3) of UNCLOS

<sup>11</sup> The Permanent Court of Arbitration's Verdict, *Guyana v Suriname* (2007), paragraph 465

<sup>12</sup> British Institute of International and Comparative Law (BIICL). Report on the Obligations of States under Articles 74(3) and 83(3) of UNCLOS in respect of Undelimited Maritime Areas (2016). Para. 65

<sup>13</sup> Permanent Court of Arbitration. *Guyana v Suriname*, Dissenting Opinion (Separate Opinion) From Judge Paik. Paragraph 16.

<sup>14</sup> John Brian Jones, "Environmental impact of trawling on the seabed: A review" (1992)

trawlers or two-ship mid-trawl trawlers themselves are categorized as fishing gear that is harmful to fish resources and their use is prohibited throughout WPP NRI.<sup>15</sup>

In response to a violation of the exploitation of fish resources in Indonesia's EEZ without a permit, the Government of Indonesia has the authority to take the necessary actions, including the arrest of vessels and criminal prosecution.<sup>16</sup> The taking of such actions is even a primary obligation (*primary responsibility*) of the Indonesian government in order to prevent and take action against IUU activities fishing in the Indonesian EEZ.<sup>17</sup>

On the other hand, the government of Vietnam as the flag state has an obligation to ensure that vessels flying their flag are not involved in IUU fishing.<sup>18</sup> The fact that Vietnamese fishing vessels are still operating frequently on the Indonesia-Vietnam continental shelf line, even further south of the line proves that the Vietnamese government has failed to do its obligations. Otherwise, activities of VFRS vessels patrolling along the Indonesia-Vietnam continental shelf boundary line **violated Vietnam's due regard obligation** towards Indonesia's sovereign rights, and allowed Vietnamese fishing vessels to conduct IUU Fishing activities in Indonesian EEZ<sup>19</sup>. Given the close range and communication devices installed on Vietnamese fishing vessels, VFRS vessels are unlikely **not aware of** Vietnamese fishing vessels' incursion into Indonesia's non-disputed EEZ. In **several incidents in recent years, they have even actively protected Vietnamese fishing vessels from Indonesia's law enforcement efforts** by Indonesian Government law enforcement agencies against *illegal fishing* in the NNS.<sup>20</sup>

Regarding the violation of UNCLOS by the Government of Vietnam mentioned above, the Government of Indonesia should take firm legal actions against the Government of Vietnam based on UNCLOS, one of which is in the form of resolving disputes under the UNCLOS procedure.<sup>21</sup>

---

<sup>15</sup> Regulation of the Minister of Maritime Affairs and Fisheries Number 18 of 2021 concerning Placement of Fishing Equipment and Fishing Auxiliary Equipment in the Fisheries Management Area of the Republic of Indonesia and the High Seas and Arrangement of Fishing Andons, Article 7 paragraph (3) letter b and Article 9

<sup>16</sup> Article 73 UNCLOS.

<sup>17</sup> UNCLOS, Article 62 (4), Article 192, and Article 194; *Request For An Advisory Opinion Submitted By The Sub-Regional Fisheries Commission (SRFC)* (2015), ITLOS, para. 106 and 124

<sup>18</sup> ITLOS Advisory Opinion (Case No. 21, 2 April 2015), para. 124, "It follows from article 58, paragraph 3, and article 62, paragraph 4, as well as from article 192, of the Convention that flag States are obliged to take the necessary measures to ensure that their nationals and vessels flying their flag are not engaged in IUU fishing activities."

<sup>19</sup> Article 58 paragraph (3) of UNCLOS.

<sup>20</sup> TNI AL. "TNI AL KRI STS-376 Menangkap Tangan KIA Vietnam di Perairan Indonesia".

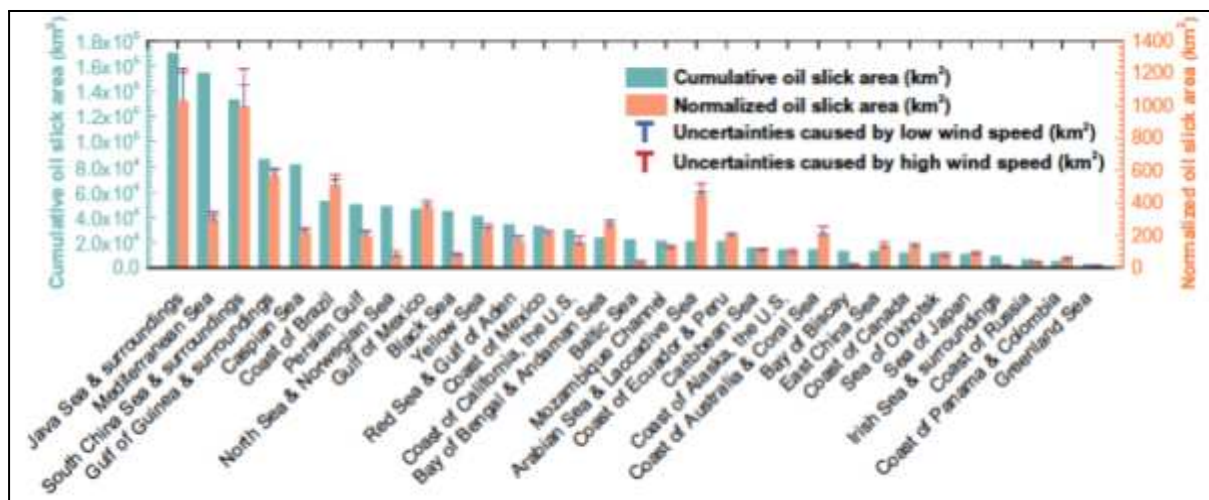
<https://koarmada1.tnial.mil.id/berita/detail/8250-tni-al-kri-sts-376-menangkap-tangan-kia-vietnam-di-perairan-indonesia> (accessed on April 10 2023)

<sup>21</sup> Article 94 paragraph (6) and Article 286-287 of UNCLOS.



## VI. Detection of Marine Pollution Due to Oil Spills

An academic paper "*Chronic Oiling in Global Oceans*"<sup>22</sup> analyzed oil spills in 31 offshore areas globally using 563,705 satellite images from Sentinel-1 from 2014 to 2019, about **94% oil spills occurring in the sea are due to anthropogenic discharge** (oil discharged due to human activities) which are generally sourced from traveling vessels<sup>23</sup>. **By volume, oil spills around the world due to anthropogenic discharge is 53.85%** (according NRC's research in periode 1990-1999)<sup>24</sup>. Unfortunately, despite a very large number of occurrences and volumes of oil contamination in the oceans by *anthropogenic discharge*, the prevention and handling of it are often very poor. The paper mentions that **30% of the incidents of oil spills among 31 areas detected globally are concentrated in the Java Sea and its surroundings**. Figure 15 and Figure 16 below show the information on the distribution of oil spills around the world.



**Figure 15.** Java Sea and its surroundings are sea areas with more than 30% of oil spills detected among 31 other sea areas around the world

<sup>22</sup> Yanzhu Dong et al. "Chronic oiling in global oceans". [https://www.researchgate.net/publication/361375465\\_Chronic\\_oiling\\_in\\_global\\_oceans](https://www.researchgate.net/publication/361375465_Chronic_oiling_in_global_oceans). (accessed March 1, 2023) Oil spills detected sources from

<sup>23</sup> Yanzhu Dong et al. "Chronic Oiling in Global Oceans" [https://www.researchgate.net/publication/361375465\\_Chronic\\_oiling\\_in\\_global\\_oceans](https://www.researchgate.net/publication/361375465_Chronic_oiling_in_global_oceans). (accessed pada March 1 2023). These oil spills can be sourced from oil seeps from the natural seabed, offshore oil production platforms (offshore oil rig), oil distribution pipelines under the sea and oil discharged due to human activities (anthropogenic discharge) which are generally sourced from traveling vessels.

<sup>24</sup> According to The National Research Council (NRC) of the United States with estimated data between 1990 - 1999

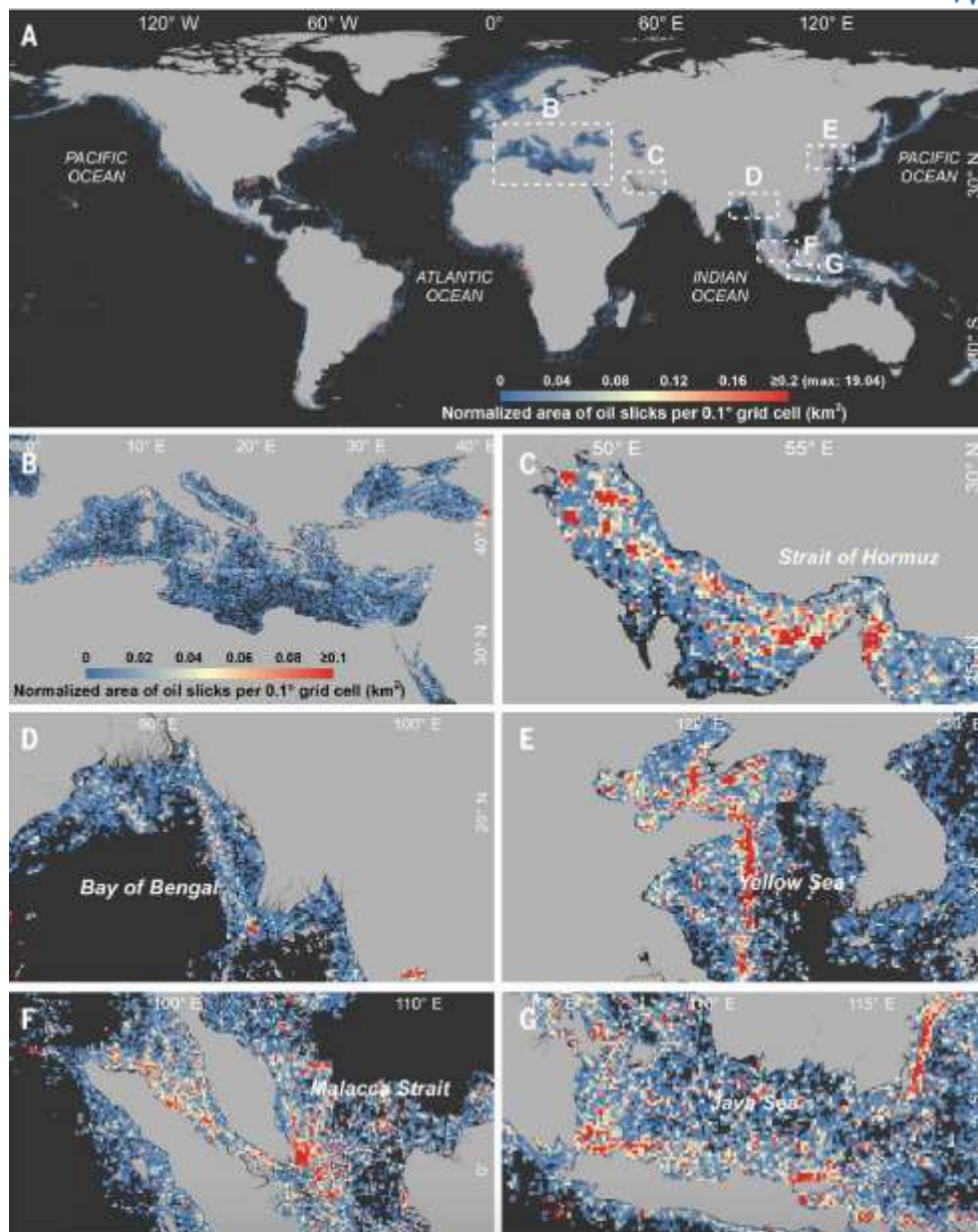


Figure 16. Oil Spills Heatmap Around the World<sup>25</sup>

Figures F and G in Figure 16 above show that the Malacca Strait to the NNS, the Java Sea to the Makassar Strait are heavily oil spill polluted areas. The very polluted location is the waters east of Johor Malaysia up to Bintan Island<sup>26</sup>, where there are a lot of tankers conducting *ship to ship transshipment*. Figure 17 below is an example of *ship to ship transshipment* which occurred in the waters east of Johor, Malaysia.

<sup>25</sup> Yanzhu Dong et al. "Chronic oiling in global oceans" [https://www.researchgate.net/publication/361375465\\_Chronic\\_oiling\\_in\\_global\\_oceans](https://www.researchgate.net/publication/361375465_Chronic_oiling_in_global_oceans). (accessed March 1, 2023)

<sup>26</sup> Kompas.id, Mystery of the "Black Devil" in the Bintan-Batam Sea, <https://www.kompas.id/baca/nusantara/2021/01/10/misteri-setan-hitam-di-laut-batam-bintan-tunggu-data-lh> (accessed March 1, 2023)



**Figure 17.** Two pairs of ships strongly suspected of committing *ship to ship transshipment* in the waters east of Johor Malaysia. (Source: Sentinel-2)

At the 110th session of the IMO Legal Committee (*Legal Committee International Maritime Organization*) March 26-31 2023 at the IMO head office, London, the Committee mentioned *ship to ship transshipment* which is done by *dark fleet* as a **high-risk activity** because these ships are mostly old and poorly maintained vessels. In this regard, the Committee proposed one of them that port states should be more active in carrying out inspections and law enforcement of the vessels involved in the *ship to ship transshipment*<sup>27</sup> and immediately report the flag state of the ship regarding legal action taken by the port state.<sup>28</sup>

### Oil Spills Detected From Vessels: Johor Malaysia Area to Bintan Island

This satellite image below (Figure 18) captured a 7 km long spill on March 16, 2023 in the east area of Johor waters, Malaysia. The coordinate of the spill location is 104.6650 E, 1.6872 N. This spill is only located about 50 to 60 km north of Bintan Island, Riau Islands (Figure 19). Based on information from the Meteorological, Climatological, and Geophysical Agency (BMKG) on March 16, 2023, the sea currents in the location of the oil spill was

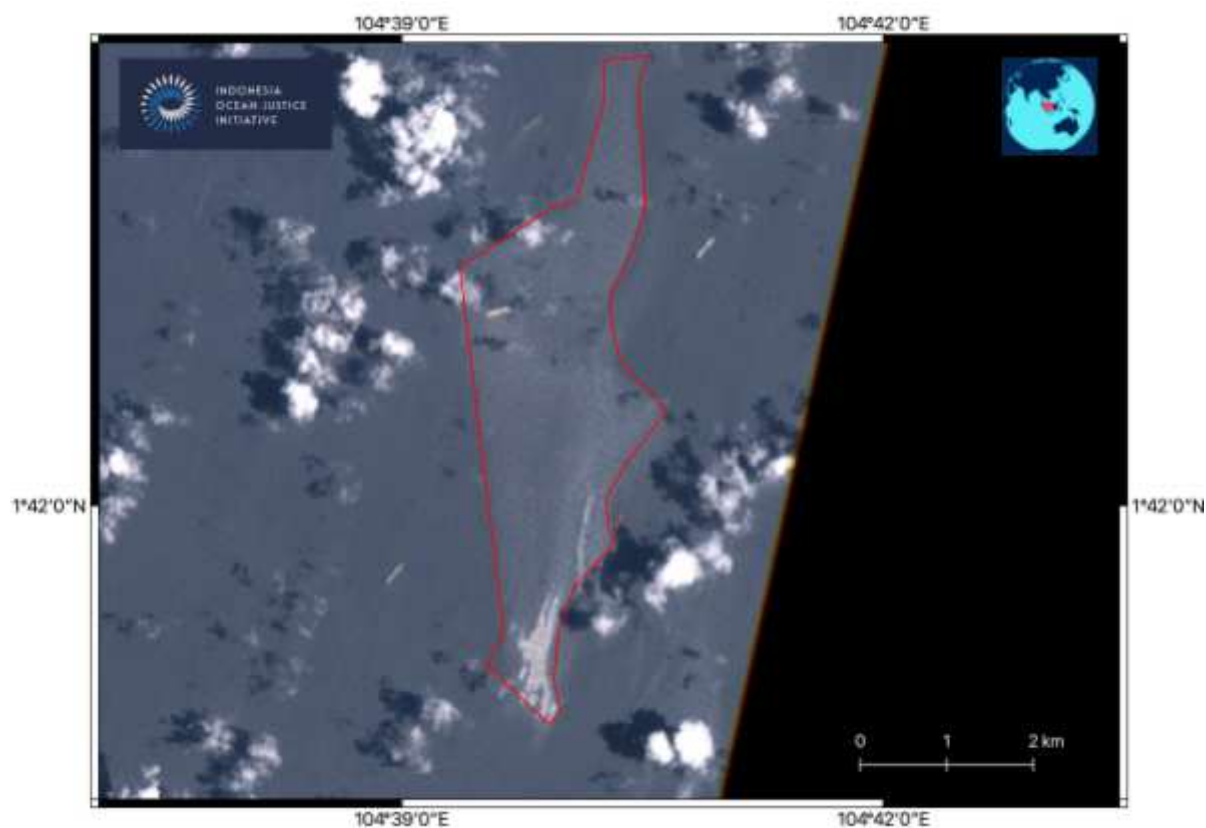
<sup>27</sup> Based on Indonesia regulation, law enforcement against *ship to ship transshipment* activities which have a high risk of marine pollution is the responsibility of the government as part of Maritime Protection in order to prevent marine pollution as stipulated in Article 277 of Law 17/2008 concerning Shipping.

<sup>28</sup> <https://www.imo.org/en/MediaCentre/MeetingSummaries/Pages/Legal-Committee%2c-110th-session.aspx>





heading south towards Bintan Island,<sup>29</sup> so there is a potential for this spill is washed to the north coast of Bintan Island.



**Figure 18.** Satellite Imagery Captured Oil Spills (red polygon) In The East of Johor Waters, Malaysia's EEZ, on March 16 2023. The location of the oil spill is only about 50-60 km from Bintan Island Coast. (Source: Sentinel-2)

<sup>29</sup> BMKG, "Perkiraan Gelombang Laut 16 Maret 2023," [https://oceanjusticeinitiative.org/analysis/bmkg/gelombang\\_maritim\\_2023-03-16.png](https://oceanjusticeinitiative.org/analysis/bmkg/gelombang_maritim_2023-03-16.png) (accessed on March 15 2023)





**Figure 19.** Oil Spills Location (in Figure 22) In The North of Bintan Island March 16 2023 Distanced 55 km north of Bintan Island, Riau Islands.

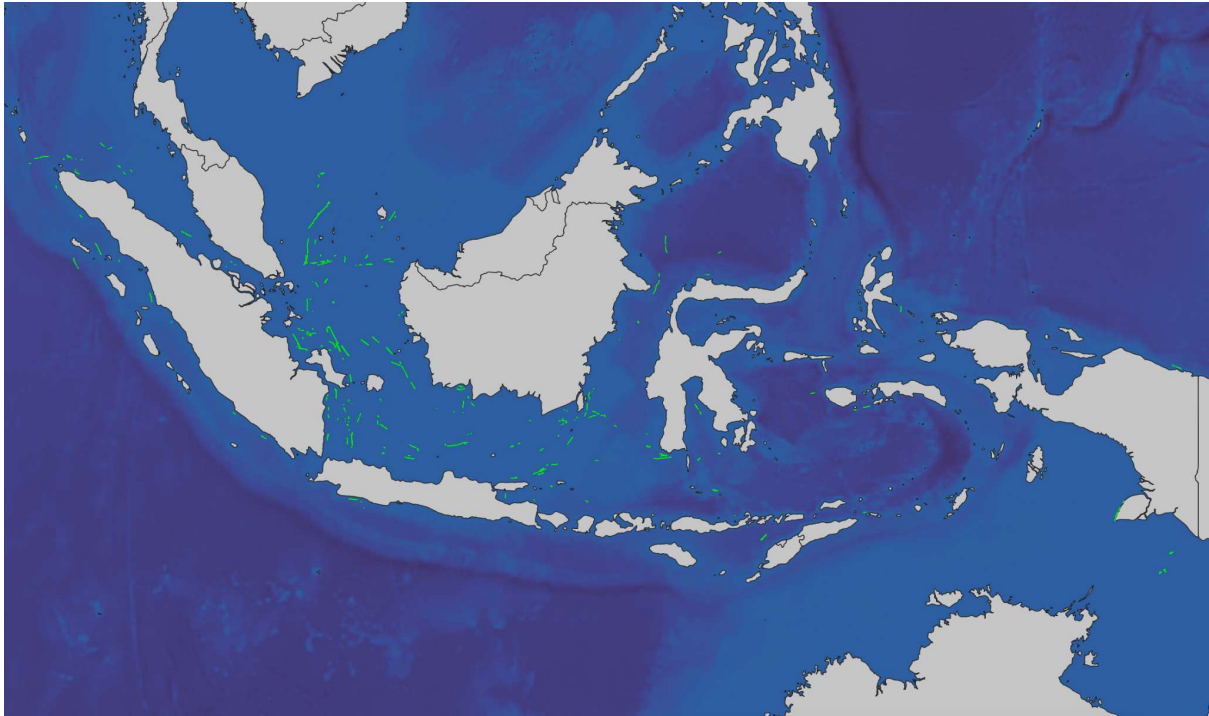
### Oil Spill Detection From Passing Vessels - Skytruth

As explained from the figure above, marine pollution due to *ship to ship oil transshipment* is just one example of marine pollution.<sup>30</sup> There are several other activities that can pollute the oceans, such as oil spills and bilge dumping from passing vessels.<sup>31</sup>

By using *Cerulean*, a spills detection tool or software that is developed by SkyTruth (Figure 20 below), we observe marine pollution in the form of oil spills (light green polygons) in Indonesian EEZ such as the Natuna Sea, Java Sea, some in the Makassar Strait, south of Sulawesi Island and north and west of Sumatra Island.

<sup>30</sup> Marine pollution caused by oil spills due to ship to ship transshipment is classified as environmental criminal act and shipping criminal act as it is a prohibited activity as stipulated in Article 60 of Law 32/2009, Article 229 paragraph (1) of Law 17/2008 and regulations derivatives of each of these laws. Oil dumping from ships can be enforced through criminal enforcement as stipulated in Article 104 of Law 32/2009 and Article 325 of Law 17/2008.

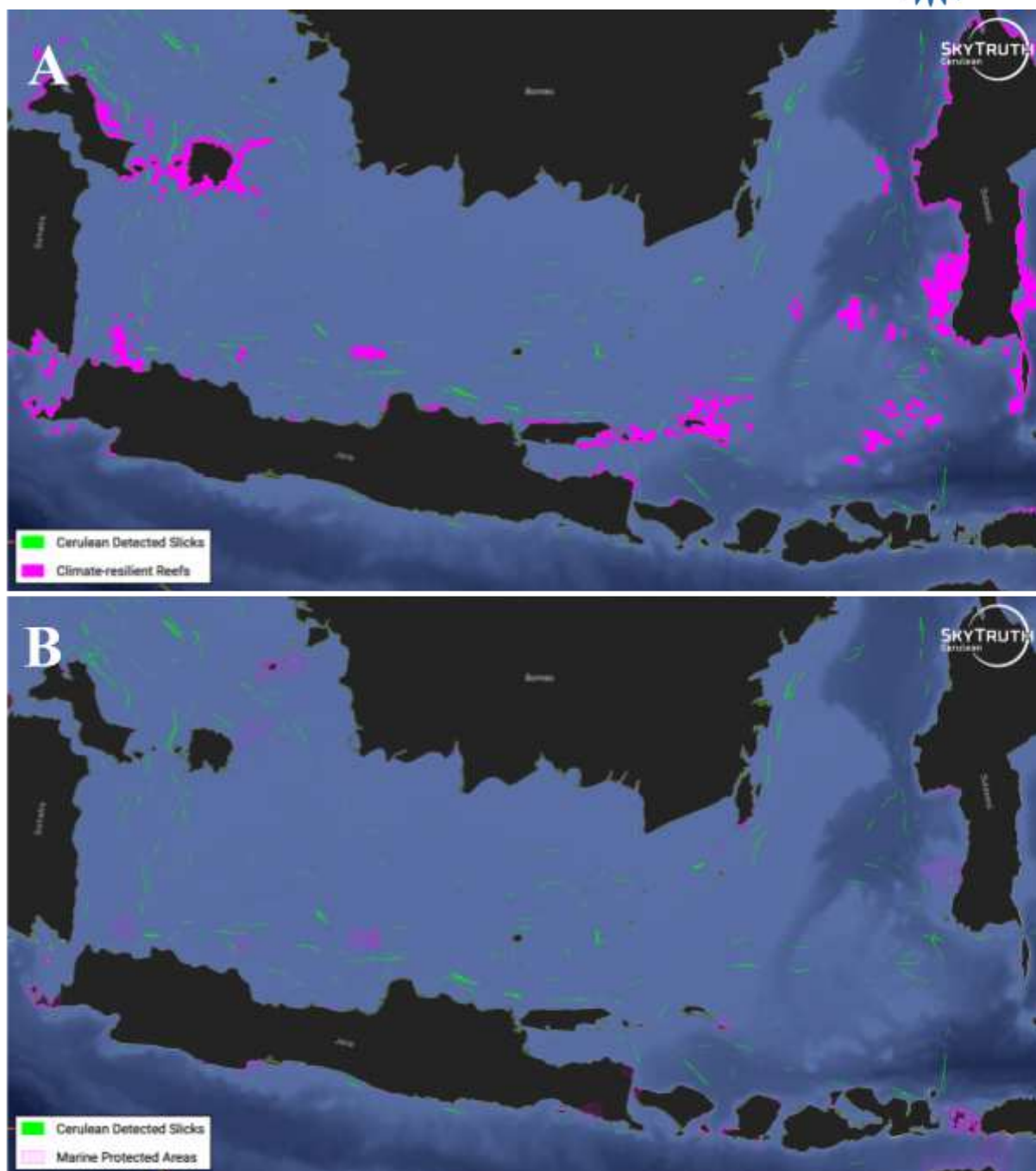
<sup>31</sup> The release of pollutant substances from ships or dumping either intentionally or due to negligence is an environmental criminal act and a criminal act in the shipping sector as regulated in Articles 98, 99 and 104 of Law 32/2009 concerning the Protection and Management of the Environment, and Article 325 of Law 17/2008 concerning Shipping.



**Figure 20.**Oil Spill Detection by Skytruth in Indonesian EEZ, 2022.

These spills, especially oil spills are very harmful to marine ecosystems and conservation areas including coral reefs that live in Indonesian territorial waters and jurisdiction.<sup>32</sup> Figure 21 below shows the distribution of the oil spills (green line) that is overlaid with the distribution of coral reefs and the surrounding Marine Protected Areas (MPA) (pink color).

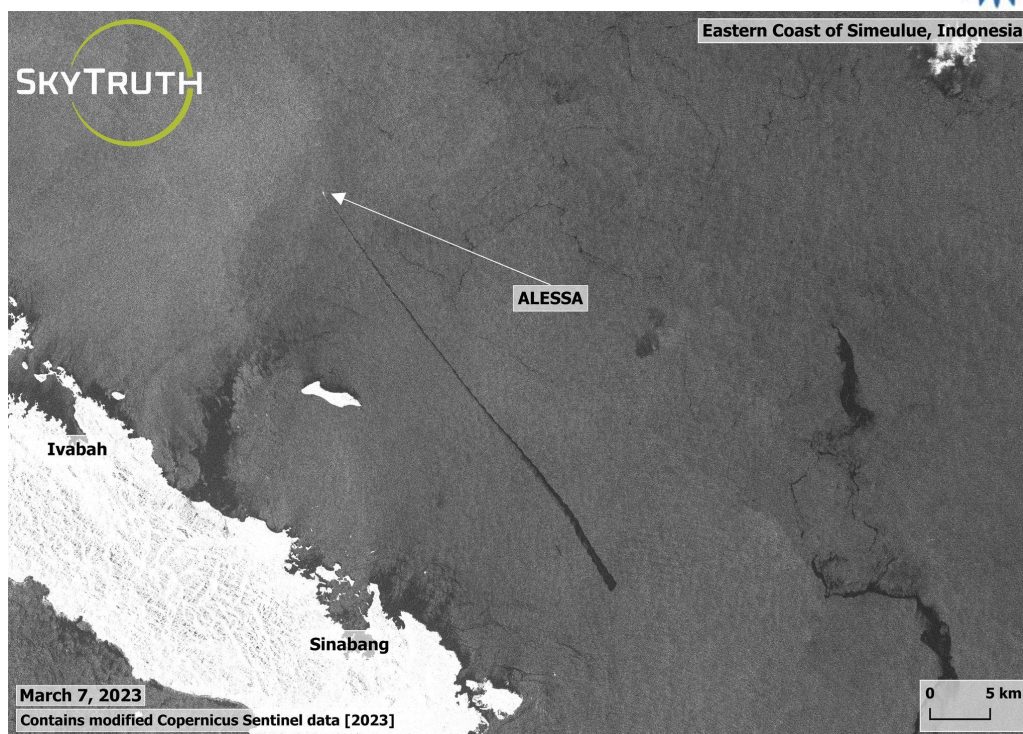
<sup>32</sup> Oil spills are one of the hazardous and toxic waste (*limbah b3*) as regulated in Appendix IX GR 22/2021



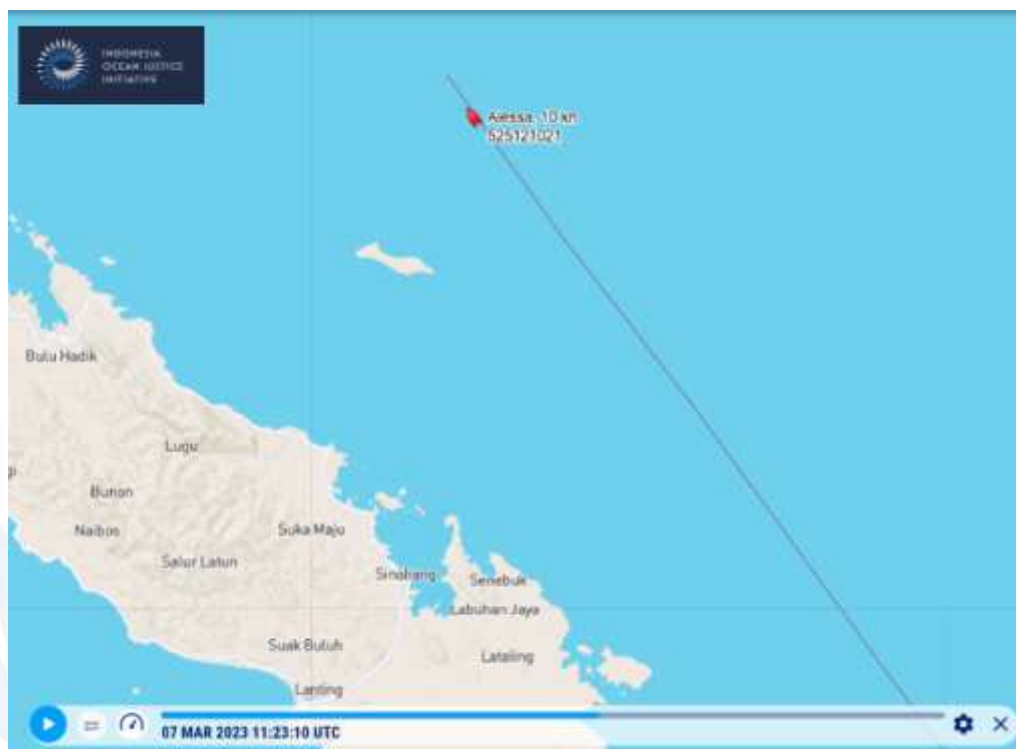
**Figure 21.** Distribution of Oil Spill Overlaid with Distribution of (A) Coral Reefs and (B) MPA  
(Source: Skytruth)

One example of marine pollution from passing vessels is MT ALESSA (IMO 9438262). ALESSA is an Indonesian-flagged Chemical Tanker owned by PT Mitra Sinar Maritim. On March 7, 2023, MT ALESSA ship was detected crossing the waters east of Simeulue, North Sumatra (Figure 22 and Figure 23) and it left a trail of spills allegedly dumped by the ship.





**Figure 22.** Oil spill from a passing tanker was detected east of Simeulue Island, North Sumatra on March 7, 2023 (Source: Skytruth)



**Figure 23.** The track of the ALESSA tanker based on AIS corresponds to the time and location of the detected oil spill based on satellite image in Figure 22. (Source: Marine Traffic)



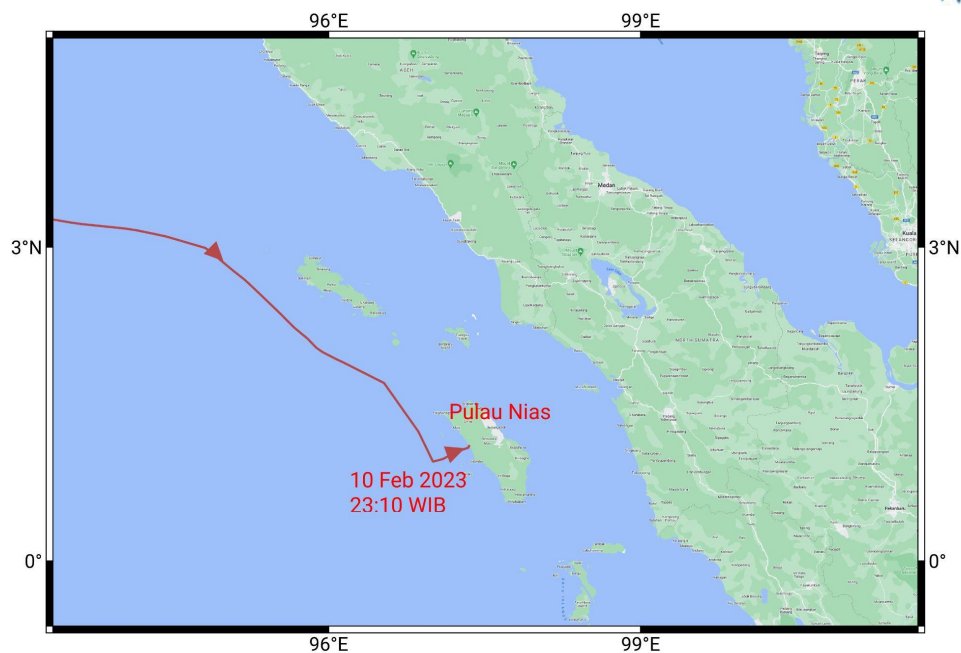
### Asphalt Spill Incident from the MT AASHI Tanker in Nias Island Waters

On February 10, 2023, the tanker MT AASHI known to have encountered an incident where the ship's hull leaked and sank off the west coast of Nias Island, North Sumatra at coordinates 01° 01' 24.4" N, 096° 58' 34.7" E (96.976 east longitude, 1.023 north latitude). **The ship contains asphalt with a payload volume of 3,595 metric tons<sup>33</sup> or approximately 3 million liters. The MT AASHI asphalt tanker is a Gabonese-flagged ship with a size of 3,711 GT.** Based on data from the International Maritime Organization (IMO), this ship is owned by AASHI SHIPPING INC which is located in Liberia. Based on its trajectory, the ship departed from the port of Khor Fakkani, United Arab Emirates and traveled to Padang, West Sumatra. The sinking of the ship resulted in an asphalt spill incident that extended as far as 70 km to the north of Nias Island from the point of the incident.

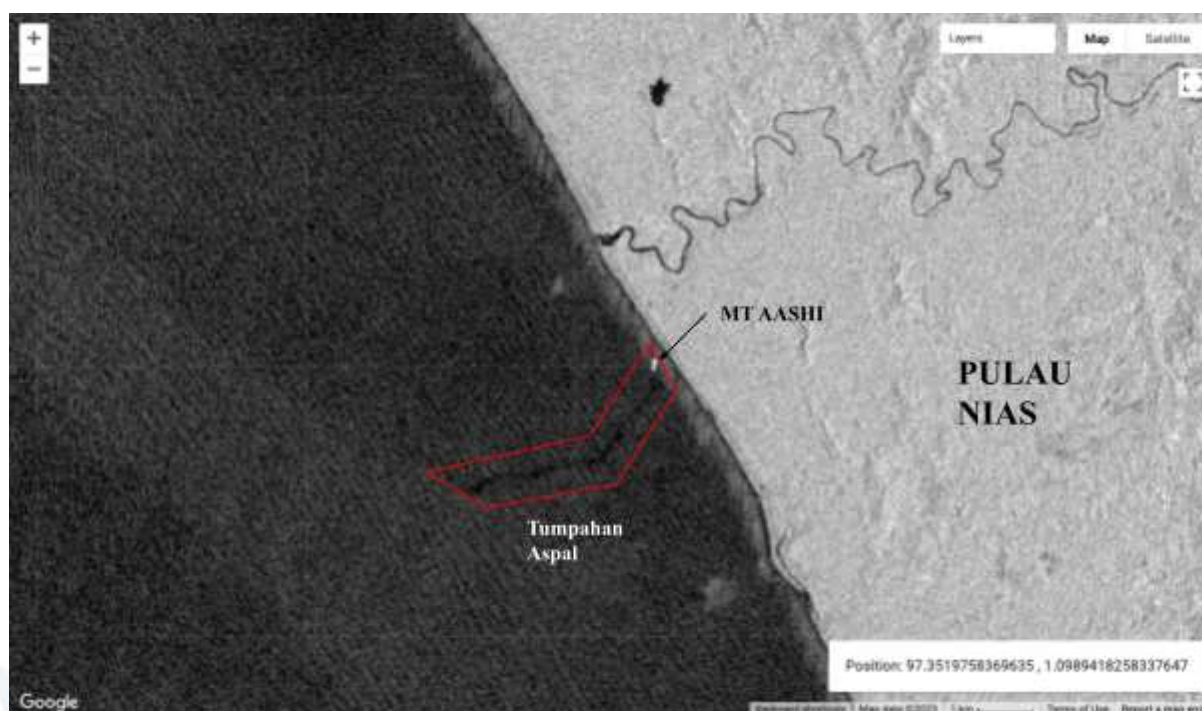


**Figure 24.** The Route of MT AASHI Tanker from Khor Fakkani, UAE until it sink in West Nias Island, North Sumatra, Indonesia.

<sup>33</sup> North Nias Regent letter number 523/521/DISKAN/III/2023 dated 10 March 2023



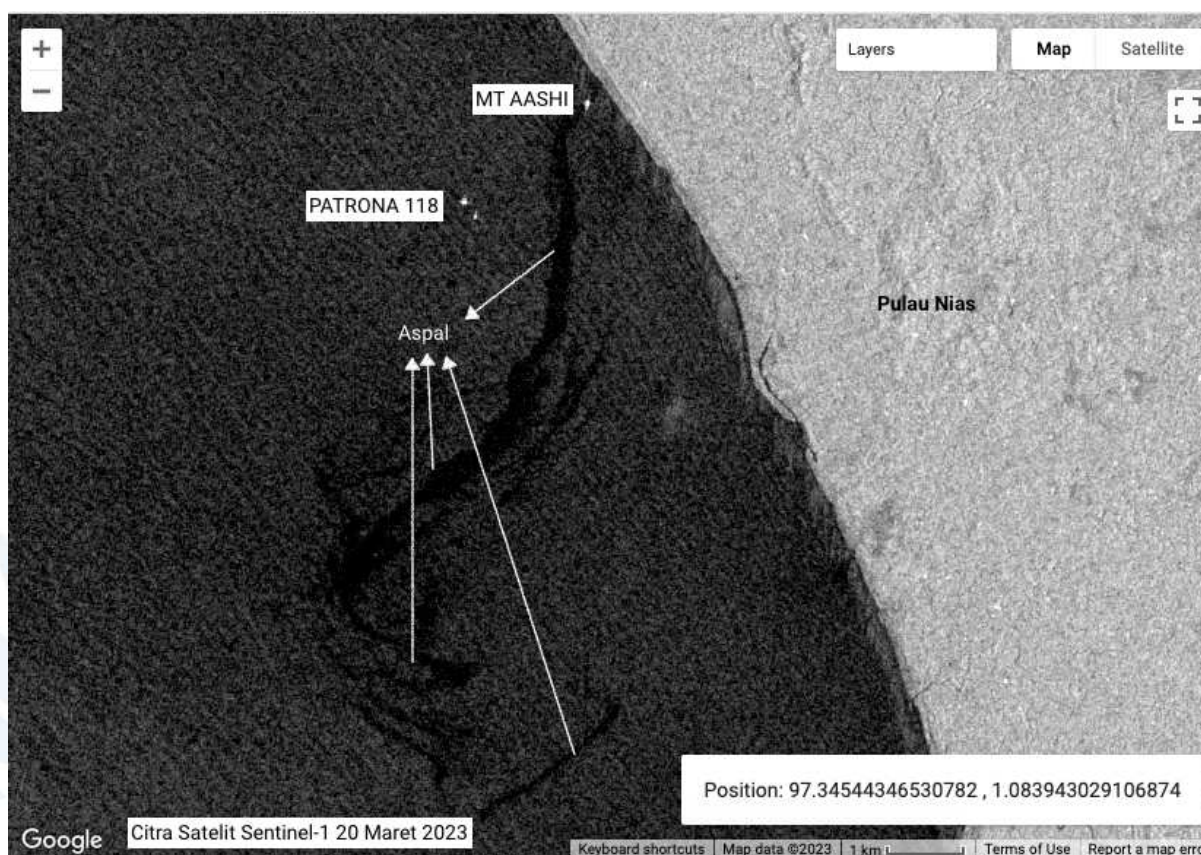
**Figure 25.** The route of the MT AASHI Tanker Before Sinking in West Nias Island on 10 February 2023



**Figure 26.** Sentinel-1 Satellite Image on **February 12, 2023** Shows Asphalt Spills Out From The Location of Sunken MT AASHI. Source: Sentinel-1 Satellite Image (Skytruth)



**Figure 27.** Sentinel-2 Satellite Image **March 12, 2023** Shows Asphalt Spills Still Coming Out of the Sunken MT AASHI Ship. Source: Sentinel-2 Satellite Imagery (Skytruth)



**Figure 28.** Sentinel-2 Satellite Image at **March 20, 2023** Shows Asphalt Spills Still Coming Out of the Sunken MT AASHI Ship. Source: Sentinel-1 Satellite Image (Skytruth)



Based on the satellite images which were taken on several days in Figure 25 (February 12), Figure 26 (March 12) and Figure 27 (March 20) above, spilled asphalt from the sunken MT AASHI ship was still detected 7 to 10 km from the shipwreck location. IOJI suspects that not all of the bitumen has spilled from the cargo due to the ship leak incident on February 10 2023. This is evidence from satellite imagery observation, that asphalt spills originating from the location where the MT AASHI sunk are detected for more than a month. **We don't know when the asphalt spill will stop coming out of the MT AASHI wreck.**

Based on IOJI detection, both based on AIS data and satellite imagery, there is no special vessel tasked with cleaning up asphalt spills heading to the location up to 1 month since the incident occurred. Based on AIS, only one ship was observed; a *supply tug boat Patron 118* arrived at the location on March 19, 2023. Supposedly, the main task that needs to be taken by the Government of Indonesia in dealing with this oil/asphalt spill incident is to prevent the spill from spreading by deploying vessels that basically have the ability to prevent (*contain*) the spill spreads, especially towards the coast which can impact wider sea ecosystem damages.<sup>34</sup>

Based on the North Nias Provincial Government letter number 523/521/DISKAN/III/2023 dated 10 March 2023, it stated that “*We consider that the effort of the cleaning up of the asphalt spill carried out is **not optimal, not transparent and does not involve local government and coastal communities***”. The letter stated that the amount of raw asphalt transported and cleaned only reached a total of 29,910 kg of the total cargo of 3,595 metric tons (equivalent to 3,595,000 kg), or in short, only 0.83% of the total asphalt cargo on the MT AASHI ship. The delay in handling asphalt cleaning caused damage to the ecosystem of coral reefs, seagrass beds, mangroves and marine biodiversity (like turtles) around the marine protected area, **and impacted 641 fishermen who lost their livelihoods**. Furthermore, based on IOJI dialog with the head of Maritime and Fisheries Affairs of North Nias on April 11 2023, he give verbal statement that there are about 30 the head of the family that had to migrate to Kalimantan because their family's livelihood was damaged due to the asphalt spill from the MT AASHI ship.

---

<sup>34</sup> Article 195 UNCLOS





**Figure 29.** Location of the Sawo-Laweha Marine Conservation Area and its Surrounding Waters, 35 km from the Sinking Site of MT AASHI, Threatened Due to Asphalt Spill

MT AASHI asphalt spill threatens the Sawo-Laweha Marine Conservation Area and its surroundings which is only 35 km from the MT AASHI sinking site as shown in Figure 29 above.

### Example of Handling Oil Spills in Mindoro, Philippines

The Indonesian government should learn from the Philippine government in handling the oil spills incident due to the sinking of the **MT Princess Empress** vessel in Oriental Mindoro, Philippines, on 28 February 2023 **by inviting and involving many parties from inside and outside the country**. The MT Princess Empress sank at a depth of 400 meters below sea level and was reported carrying a cargo of 800,000 liters of oil.<sup>35</sup> **The MT Princess Empress measures 508 GT, meaning only 14% of the size of the MT AASHI ship that sank in Nias, Indonesia.** The Philippine government asked for help from the United States, *US Coast Guard (USCG) National Strike Force* to bring in experts and help Philippines Coast Guard (PCG) overcome the oil spill incident so that it does not spread widely<sup>36</sup>. With funding from USAID, two officers from US National Oceanic and Atmospheric

<sup>35</sup> detik.com. After 3 Weeks Sunk Tanker in Philippines

Found. <https://news.detik.com/internasional/d-6631104/setelah-3-pekan-kapal-tanker-yang-tenggelam-di-filipina-ditemukan> (Accessed March 31, 2023)

<sup>36</sup> USAID. U.S. Coast Guard Experts Arrive in Oriental Mindoro to Assist in Oil Spill Response, <https://www.usaid.gov/philippines/press-releases/mar-21-2023-us-coast-guard-experts-arrive-oriental-mindoro-assist-oil-spill-response> (Accessed March 21, 2023)

Administration (US NOAA) was brought in to assist the Philippine Ministry of Environment in calculating the losses and environmental impacts caused, in this case NOAA assisted the Philippines by providing its satellite imagery<sup>37</sup> to predict and simulate the spill. The search for the sunken MT Princess Empress was carried out by using *Remotely Operated Underwater Vehicle* (ROV) provided by the Government of Japan<sup>38</sup>. USAID works with the World Food Program to provide assistance to affected coastal communities by providing 20,000 food packages. The Philippine space agency (PhilSA) analyzes oil spill trends every day by collecting satellite images from various sources<sup>39</sup>. PCG provides the latest information on steps to deal with oil spills that have been carried out through official social media so that the public can find out about the progress of the government's concrete tasks in saving the environment due to oil spill incidents.

With all the serious handling as demonstrated by the Government of the Philippines above, the long-term impact of an oil spill has the potential to deplete fish stocks and harm biodiversity at sea which can last for decades. Findings from the University of the Philippines-Marine Science institute state that the oil spill has spread as far as 36,000 hectares in the fishing ground<sup>40</sup>.

The following table lists a summary of the comparative handling of asphalt spills from MT AASHI in Indonesia and oil spills from MT PRINCESS EMPRESS in the Philippines to date.

---

<sup>37</sup> USNOAA. OR&R Supporting Oil Spill in Oriental Mindoro, Philippines.  
<https://response.restoration.noaa.gov/orr-supporting-oil-spill-oriental-mindoro-philippines> (Accessed March 31, 2023)

<sup>38</sup> Philippines News Agency. ROV-equipped Japanese ship now in Mindoro for oil spill response.  
<https://www.pna.gov.ph/articles/1197804> (Accessed March 21, 2023)

<sup>39</sup> PhilSA. Philsa Shows Journalists Satellite Images Of Oil Spill in Mindoro..  
<https://philsa.gov.ph/news/philsa-shows-journalists-extent-of-mindoro-oil-spill-as-captured-by-satellite-images/> (Accessed March 29, 2023)

<sup>40</sup> University of Philippines Marine Science Institute. Update on the MT Princess Empress Oil Spill.  
<https://www.msi.upd.edu.ph/News/content/Update-2-Mindoro-Oil-Spill> (Accessed March 31, 2023)

No	Parameter	MT AASHI	MT PRINCESS EMPRESS
1	<b>Type of Spill/Load</b>	Asphalt/Bitumen	Crude oil
2	<b>Location / Time</b>	Nias Island, Indonesia / February 10, 2023	Mindoro, Filipina / February 28, 2023
3	<b>Ship Gross Tonnage</b>	3711 GT	508 GT
4	<b>Potential Spill Volume</b>	3,595 metric tons or 3,000,000 liters	800.000 liter
5	<b>Distance of the Spill Location from the Beach</b>	300 meter	7.000 meter
6	<b>Beneficial Owner</b>	AASHI SHIPPING INC.	Unidentified
7	<b>Cooperation Support with Governments of Other Countries</b>	N/A	American Agencies : US Coast Guard (USCG), US NOAA, USAID  Japan: Japan Coast Guard (JCG)
8	<b>Spill Response Support from Universities and Government Agencies</b>	N/A	University of the Philippines-Marine Science institute, Philippines Space Agency (PhilSA)
9	<b>Government Institutions that are in-charge at the Location</b>	N/A	Philippines Coast Guard (PCG)
10	<b>Government Institutions that Accountable in Handling Accidents</b>	Ministry of Maritime and Fisheries Affairs, Ministry of Environment and Forestry*  *need confirmation	PCG, Maritime Industrial Authority
11	<b>Affected Biodiversity Areas</b>	North Nias Sawo-Laweha National Conservation Area	Verde Island Passage

**Table 3.** Comparison of Asphalt Spill Incidents MT AASHI and MT Princess Empress Oil Spill Handling

Regarding the MT AASHI incident, IOJI conducted a further investigation and found the following facts:

1. MT AASHI is owned by AASHI SHIPPING INC. This company has an address at 80, Broad Street, Monrovia, Liberia. The address is a fake address that has been used by various shell companies.
2. The name MT AASHI is the seventh name since 2009. The earlier names of this vessel is as follows

Name	From	Until
Rising Phoenix	Before 15 June 2020	Before 5 July 2022
Reem 6	Before 15 January 2020	Before 14 June 2020
Onyx 7	Before 14 October 2019	Before 14 January 2020
Ace Bitumen 1	Before 20 June 2018	Before 13 October 2019
Suria Maju	Before 16 November 2016	Before 19 July 2018
Arcturus	Before 24 Januari 2009	Before 15 November 2016

Source: Lloyds Intelligence

3. Based on information from Lloyds Intelligence, the last operator of the MT AASHI was Aurum Ship Management FZC (20 June 2018 to 5 July 2022). Aurum Ship Management company FZC is an entity sanctioned by the US OFAC (Office of Foreign Assets Control) for its involvement in supporting the Houthi group in Yemen<sup>41</sup>.
4. Based on the available information, MT AASHI nationality is Gabon.<sup>42</sup>

There is no information whether the MT AASHI ship's certificate of registry documents has been secured by the Indonesian Navy together with the ship's crew or whether it sank with the ship. In case it is found, it is necessary to immediately verify authenticity.<sup>43</sup>

Based on a news report, "The captain mentioned that the sunken tanker's name is MT AASHI. It has IMO 9516715 OFFICIAL NO. 393684 OFFICIAL NO. 290234

<sup>41</sup> US Department of Treasury. Press Release. <https://home.treasury.gov/news/press-releases/jy0603>. (Accessed on April 10, 2023)

<sup>42</sup> Gabon is a country whose ship registration administration is conducted by a private third party company called Intershipping Services LLC# headquartered in the United Arab Emirates.

<sup>43</sup> by entering the certificate of registry number into the <http://www.intershipping.com/verification.php> website.



REGISTER GABON with total crew 20 people consisting of 1 captain and 19 Indian nationality crew<sup>44</sup>.

We've checked the registration number for both 393684 and 290234 in the website <http://www.intershippingsservices.com/verification.php> and the result is "NO REGISTRATION FOUND BY THAT NUMBER".

5. Based on our research on 12 P& I (Protection and Indemnity) Insurance Company websites, we found facts that there is no valid insurance company for MT AASHI.<sup>45</sup> This can potentially complicate the process of compensation for pollution that occurred.



Article VII paragraph 1 of the International Convention on Civil Liability for Oil Pollution Damage (CLC) stipulates that ship owners carrying oil cargoes of more than 2,000 tons are required to insure their ships.

44

<https://www.suarainvestigasi.com/daerah/pemkab-nias-utara-laksanakan-penanganan-kapal-mt-aashi-yang-terdampar-di-perairan-desa-humene-siheneasi/>

<sup>45</sup> IOJI conduct research on February 27 2023 toward 12 official website of P&I club which are:

- <https://www.ukpandi.com/>;
- <https://www.westpandi.com/vessels?search=9516715;>
- <https://www.swedishclub.com/insurance;>
- [https://www.steamshipmutual.com/;](https://www.steamshipmutual.com/)
- <https://www.skuld.com/vessels/?q=9516715;>
- [https://tradingcertificates.shipownersclub.com/;](https://tradingcertificates.shipownersclub.com/)
- <https://www.londonpandi.com/ship-search/?q=9516715;>
- <https://north-standard.com/vessel-search/?q=9516715;>
- <https://www.piclub.or.jp/search/vessel/index/en;>
- <https://www.gard.no/web/frontpage;>
- [https://britanniapandi.com/;](https://britanniapandi.com/)
- <https://www.american-club.com/page/ship-search/vessel-aashi#;>

dan tidak menemukan adanya informasi asuransi kapal MT AASHI.

## VII. Analysis: Marine Pollution Due To Spills

UNCLOS regulates the obligations of each state to protect and preserve the marine environment.<sup>46</sup> The state's right to explore and exploit natural resources in its sovereign territory and jurisdiction must be implemented in accordance with environmental protection policies and the state's obligation to protect and preserve the marine environment.<sup>47</sup>

This general obligation is regulated in more detail by UNCLOS, which are:

1. Obligation for all countries, both individually and collectively, to take all necessary steps to prevent, reduce and control pollution of the marine environment from anywhere by using the best practical methods according to their capabilities.<sup>48</sup>
2. Obligation for all countries to take all necessary steps to ensure that activities that occur in the sea area under their jurisdiction do not cause damage and pollution and in the event that pollution cannot be avoided, the state is obliged to make maximum efforts so that the pollutant does not spread to other countries' sea areas.<sup>49</sup>

UNCLOS mentions several forms of pollution that must be prevented as much as possible by states, including: (i) release of toxic and hazardous substances, especially substances that are persistent<sup>50</sup> from land, air or from dumping activities<sup>51</sup>; (ii) **pollution from ships** whether due to an accident or emergency, due to intentional or unintentional disposal of certain substances, due to the design and construction of the ship and manning; (iii) pollution from installations and equipment used in exploration or exploitation of natural resources on the seabed; (iv) pollution from installations or other equipment operated at sea.

Regarding pollution from dumping, and in relation to the MT ALESSA case, UNCLOS obliges states to regulate and take the necessary measures to prevent, mitigate and control dumping activities.<sup>52</sup> UNCLOS requires states to regulate through national legal instruments to require permission from the government in conducting dumping activities.<sup>53</sup>

<sup>46</sup> Article 192 UNCLOS.

<sup>47</sup> Article 193 UNCLOS.

<sup>48</sup> Article 194 paragraph (1) of UNCLOS.

<sup>49</sup> Article 194 paragraph (2) of UNCLOS.

<sup>50</sup> Persistent substances are substances that can stay in the environment for a long time and are not degraded. <https://pubs.rsc.org/en/content/articlehtml/2019/em/c8em00515j>. Several examples of persistent pollutant substances are contained in the text of the Stockholm Convention on Persistent Organic Pollutants <http://www.pops.int/TheConvention/Overview/TextoftheConvention/tabid/2232/Default.aspx>

<sup>51</sup> Based on Article 1 Paragraph (1) number 5(a) UNCLOS, "dumping" means: "any deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea"; or "any deliberate disposal at sea of vessels, aircraft, platforms or other man-made structures at sea."

<sup>52</sup> Article 210 UNCLOS.

<sup>53</sup> Article 210 paragraph (3) and (5) of UNCLOS.

Law enforcement of dumping activities can be implemented either by the flag state<sup>54</sup>, port state<sup>55</sup>, and coastal countries.<sup>56</sup> In case of a country conducts an investigation of a foreign ship in relation to ocean pollution, UNCLOS regulates that the investigation is limited to examining ship documents and a physical inspection of the ship can be done if there is an indication that: (i) the actual condition of the ship including its equipment is not suitable with the information contained in the ship's documents; (ii) the contents of the documents examined are insufficient to confirm or verify the violation; (iii) the ship does not carry valid documents.

There are several applicable laws and regulations in Indonesia that are directly related to the handling of marine pollution due to spills:

1. Law Number 17 of 2008 on Shipping (“UU 17/2008”) as amended by Law Number 6 of 2023 concerning *Cipta Kerja* (“UU 6/2023”);
2. Law Number 32 of 2009 on Environmental Protection and Management (“UU 32/2009”) as amended by Law 6/2023;
3. Government Regulation Number 21 of 2010 on Protection of the Maritime Environment (“GR 21/2010”);
4. Law Number 32 of 2014 on Maritime Affairs (“Law 32/2014”) as amended by Law 6/2023;
5. Presidential Regulation Number 109 of 2006 on Management of Oil Spill Emergencies at Sea (“PR 109/2006”). This Presidential Decree 109/2006 establishes a National Team for Emergency Management of Oil Spills at Sea, which is chaired by the Minister of Transportation and Deputy Chairperson is the State Minister for the Environment (now named the Minister of Environment and Forestry).
6. Regulation of the Minister of Transportation Number 58 of 2013 on Management of Pollution in Waters and Ports (“Permenhub 58/2013”);
7. Decree of the Minister of Transportation Number KP. 355 of 2008 on the National Command and Control Center for Operations to Mitigate Oil Spills at Sea (“Kepmenhub 355/2008”);
8. Decree of the Minister of Transportation Number KM 263 of 2020 on Procedures for Handling Oil Spill Emergencies (tier 3) at Sea (“Kepmenhub 263/2020”).

**The Decree of the Minister of Transportation 263/2020 has specifically regulated the measures that must be done in the event of an oil spill emergency.** Regarding the asphalt spill from the MT AASHI ship, the national team must immediately take over the handling of the asphalt spill that occurred in the waters of Nias Island in the aspect of cleaning, environment recovery, law enforcement, calculating losses and claiming compensation based on the Decree of the Minister of Transportation 263/2020.

---

<sup>54</sup> Article 217 UNCLOS.

<sup>55</sup> Article 218 UNCLOS.

<sup>56</sup> Article 220 UNCLOS.



Therefore, regarding the release of pollutant substances either intentionally or due to negligence as described above, there are several regulation that can be applied, including:

A. Law 6/2023 does not revoke Article 325 of Law 17/2008 which reads:

- (1) Any person who discharges ballast water, sewage, garbage or other materials into waters outside the provisions of the laws and regulations as referred to in Article 229 paragraph (1) shall be subject to imprisonment for a maximum of 2 (two) years and a fine of up to Rp. 300. 000,000.00 (three hundred million rupiah).*
- (2) If the act as referred to in paragraph (1) results in environmental damage or environmental contamination, the penalty shall be imprisonment for a maximum of 10 (ten) years and a fine for a maximum of Rp. 500,000,000.00 (five hundred million rupiahs).*
- (3) If the act referred to in paragraph (1) results in the death of a person, the penalty is imprisonment for a maximum of 15 (fifteen) years and a fine of up to Rp. 2,500,000,000.00 (two billion five hundred million rupiah).*

B. Law 6/2023 does not revoke Article 98 of Law 32/2009 which reads:

- (1) Any person who intentionally commits an act which results in exceeding the ambient air quality standard, water quality standard, seawater quality standard, or environmental damage standard criteria, shall be punished with imprisonment for a minimum of 3 (three) years and a maximum of 10 (ten) years and a fine of at least IDR 3,000,000,000.00 (three billion rupiahs) and a maximum of IDR 10,000,000,000.00 (ten billion rupiahs).*
- (2) If the act as referred to in paragraph (1) causes injury to a person and/or endangers human health, the criminal shall be punished with imprisonment for a minimum of 4 (four) years and a maximum of 12 (twelve) years and a fine of at least IDR 4,000,000,000.00 (four billion rupiah) and a maximum of Rp. 12,000,000,000.00 (twelve billion rupiah).*
- (3) If the act as referred to in paragraph (1) causes a person to be seriously injured or dies, the criminal shall be punished with imprisonment for a minimum of 5 (five) years and a maximum of 15 (fifteen) years and a fine of at least Rp. 5,000,000,000.00 (five billion rupiah) and a maximum of Rp. 15,000,000,000.00 (fifteen billion rupiah).*

C. Article 99 of UU 32/2009 jo UU 6/2023 which reads:

- (1) Any person who due to their negligence causes the ambient air quality standards, water quality standards, seawater quality standards, or environmental damage standard criteria to be exceeded, shall be punished with imprisonment for a minimum of 1 (one) year and a maximum of 3 (three) years and a maximum fine. a minimum of IDR 1,000,000,000.00 (one billion rupiah) and a maximum of IDR 3,000,000,000.00 (three billion rupiah).*
- (2) If the act as referred to in paragraph (1) causes injury to a person and/or endangers human health, the criminal shall be punished with imprisonment for a minimum of 2 (two) years and a maximum of 6 (six) years and a fine of at least Rp.*



2,000,000,000.00 ( two billion rupiah) and a maximum of Rp. 6,000,000,000.00 (six billion rupiah).

- (3) If the act referred to in paragraph (1) causes a person to be seriously injured or dies, the criminal shall be punished with imprisonment for a minimum of 3 (three) years and a maximum of 9 (nine) years and a fine of at least Rp. 3,000,000,000.00 (three billion rupiahs) ) and a maximum of IDR 9,000,000,000.00 (nine billion rupiah).

D. Article 104 of UU 32/2009 which reads:

*Any person who dumps waste and/or materials into environmental media without a permit as referred to in Article 60, shall be subject to imprisonment for a maximum of 3 (three) years and a fine for a maximum of Rp. 3,000,000,000.00 (three billion rupiahs).*

In the cases which there is an act that regulated in several law, Article 63 of the Criminal Code<sup>57</sup> States that:

- (1) *If an act falls under more than one penal code, then only one of those rules will be imposed; if different, the one imposed shall contain the most serious principal punishment.*  
(2) *If an act is included in a general criminal code, it is also regulated in a special criminal code, then only the special one is applied.*

IOJI views that in this context of marine pollution from vessels, the guideline for imposing articles that is more appropriate to use is Article 63 paragraph (1) of the Criminal Code. This is due to the application of Article 63 paragraph (2) of the Criminal Code to the two laws mentioned above, namely Law 32/2009 and Law 17/2008, which did not produce a conclusive answer because both law is considered as *lex specialis*, which means law that is more specific than the other law.

Law 32/2009 and Law 17/2008 are both *special laws* because both laws specifically regulate acts that are punishable by punishment outside the Criminal Code. Edward O.S. Hiariej stated that, in the development of legal science, including criminal law, the principle *a special law derogates from the general law*[often] cannot resolve juridical disputes when an act is punishable by more than one law that qualifies as a special criminal law. If so, then what is used is *lex specialis systematic* as a derivative or derivative of the principles *special law derogates from the general law*.<sup>58</sup>

Even so, the two laws also fulfill 3 (three) indicators *lex specialis systematic* namely: (i) the material criminal provisions in the law deviate from the existing general provisions; (ii) the

<sup>57</sup> The Criminal Code referred to here is the old version of the Criminal Code because Law Number 1 of 2023 concerning the Criminal Code will only take effect 3 (three) years from the date of promulgation (date of promulgation 2 January 2023).

<sup>58</sup> Edward O.S. Hiariej. Systematic Lex Specialist Principle and Tax Criminal Law. De Jure Journal of Legal Research, Vol. 21 No. 1, March 2021.

law regulates formal criminal law which also deviates from the provisions of criminal procedures in general; (iii) *addressee* or the legal subject in the law is specific.

However, in practice it is possible for investigations and prosecutions to use various laws. This is commonly used by prosecutors to prevent the accused from escaping the law.<sup>59</sup> So that from the investigation process, PPNS in the environmental and forestry sector and PPNS in the shipping sector can collaborate to deal with marine pollution from ships.

## VIII. Conclusion

Based on the description above, several things can be concluded:

1. Vietnam's fishing vessels and VFRS operations in disputed and non disputed areas in the NNS are still happening. The agreement on the EEZ boundary line between Indonesia and Vietnam, which was reported to have been reached in December 2022, has not changed this situation.
2. As the result of massive intrusion of foreign fishing vessels in the North Natuna Sea, Indonesian fishing vessels were "pushed" to the south and lost the opportunity to enjoy fisheries resources in Indonesia's EEZ, especially in areas close to the Indonesian and Vietnamese continental shelf lines.
3. The activities of Vietnam's fishing vessels and VFRS are clear evidence that the Government of Vietnam has not carried out its obligations as a flag state (*flag state responsibility*) and has violated the obligations of 'due regard' and 'good faith' as regulated by UNCLOS.
4. Marine pollution due to oil spills from ships is very widespread in the Singapore Strait, east of Johor (Malaysia), around Bintan Island to the Java Sea.
5. Some activities that were the sources of pollution are: (i) ship to ship transshipment in the waters east of Johor, Malaysia which often pollutes the coasts of Bintan Island, Riau Islands; (ii) oil spill from the ship named ALESSA east of Simeulue Island, North Sumatra on March 7, 2023; (iii) asphalt spill from MT AASHI in the waters of Nias Island, North Sumatra.
6. As of March 20, 2023, satellite imagery shows that asphalt is still coming out of the sunken MT AASHI ship in the waters of Nias Island. The handling of asphalt spills from MT AASHI conducted by the Government of Indonesia and representatives of ship owners is far from expectations and tends to be slow, especially compared to the handling of oil spills by the Government of the Philippines in Mindoro waters.
7. The National Team, as regulated in the Presidential Decree 109/2006, needs to take over the handling of asphalt spills from MT AASHI on Nias Island and implement provisions for handling oil spill emergencies as regulated in the Decree of the Minister of Transportation 263/2020;

---

<sup>59</sup> Agustina, S. (2015). IMPLEMENTATION OF THE PRINCIPLE OF LEX SPECIALIS DEROGATE LEGI GENERALI IN THE CRIMINAL JUSTICE SYSTEM. *Legal Problems*, 44(4), 503-510. doi:10.14710/mmh.44.4.2015.503-510

8. The Indonesian government can conduct criminal law enforcement against marine pollution from ships by using criminal provisions in Law 32/2009 as amended by Law 6/2023 and Law 17/2008 as amended by Law 6/2023.

## IX. Recommendation

IOJI recommends the Government of Indonesia to:

1. Immediately publish the coordinates of the Indonesian and Vietnamese EEZ boundaries according to the agreement in December 2022;
2. Accelerate the strengthening of facilities and infrastructure for maritime security in Natuna which is one of 1 *major projects* in the 2020 - 2024 National Medium-Term Development Plan and one of the activities in the 2023 Government Work Plan as regulated in the Presidential Regulation Number 108 of 2022. This is very necessary to ensure continuous presence of Indonesian government's ships on the outer boundary of Indonesia's EEZ in the NNS;

### 41. Penguatan Keamanan Laut di Natuna (1/2)

<b>Latar Belakang</b>	1. Adanya eskalasi ancaman di wilayah Natuna; 2. Masih adanya risiko perompakan, kekerasan dan tindak kejahatan di laut, <i>Illegal Unreported and Unregulated Fishing</i> (IUUF), <i>trans-national crimes</i> serta lemahnya sistem pengelolaan pengamanan navigasi.				
<b>Manfaat</b>	1. Peningkatan <i>deterrent effect</i> dan penegakan kedaulatan di perairan Natuna; 2. Penurunan aktivitas perompakan, kekerasan dan tindak kejahatan di laut, IUUF, <i>trans-national crimes</i> dan penguatan sistem pengelolaan pengamanan navigasi.				
<b>Durasi</b>	2020-2024 (5 tahun)				
<b>Indikasi Target dan Pendanaan</b>	<b>INDIKASI TARGET</b>				
	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
	Persentase Kecukupan Alutsista dan Sarpras Satuan TNI Terintegrasi di Natuna 40%	Persentase Kecukupan Alutsista dan Sarpras Satuan TNI Terintegrasi di Natuna 55%	Persentase Kecukupan Alutsista dan Sarpras Satuan TNI Terintegrasi di Natuna 70%	Persentase Kecukupan Alutsista dan Sarpras Satuan TNI Terintegrasi di Natuna 85%	Persentase Kecukupan Alutsista dan Sarpras Satuan TNI Terintegrasi di Natuna 100%
	Persentase Kecukupan Alpalkamla dan Sarpras Bakamla di Natuna 40%	Persentase Kecukupan Alpalkamla dan Sarpras Bakamla di Natuna 47%	Persentase Kecukupan Alpalkamla dan Sarpras Bakamla di Natuna 60%	Persentase Kecukupan Alpalkamla dan Sarpras Bakamla di Natuna 80%	Persentase Kecukupan Alpalkamla dan Sarpras Bakamla di Natuna 100%
<b>INDIKASI PENDANAAN</b>					
<b>Rp 12,2 Triliun (APBN)</b>					



41. Penguatan **Keamanan Laut** di Natuna (2/2)

<b>Pelaksana</b>	1. Kementerian Pertahanan/TNI 2. Bakamla
<b>Highlight Proyek</b>	1. Pengadaan Alutsista TNI AL 2. Pembangunan Sarpras Pertahanan dan Dukungannya 3. Sistem Peringatan Dini Kamla 4. Pengadaan Alpalkamla 5. Pembangunan Sarpras Kamla

PRESIDEN REPUBLIK INDONESIA,

ttd.

JOKO WIDODO

Salinan sesuai dengan aslinya

SEKRETARIAT KABINET RI

Deputi Bidang Perekonomian,



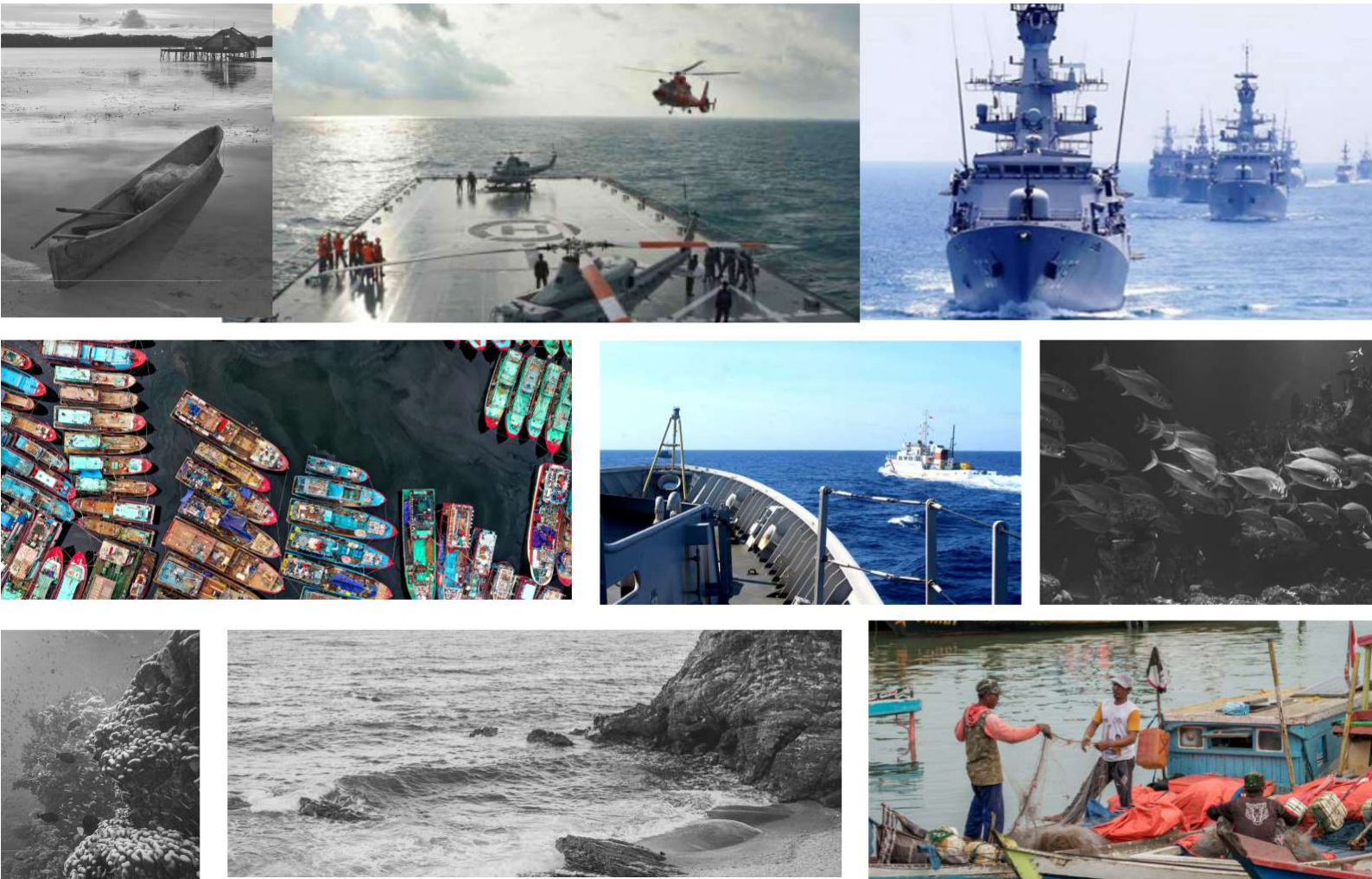
*Screenshot from The 2020-2024 RPJMN document specifically regarding the major project Strengthening Marine Security in Natuna.*

3. Take legal measures against the Government of Vietnam in relation to the operation of Vietnamese fishing vessels and Vietnam Fisheries Resources Surveillance vessels in the disputed and non-disputed areas of the North Natuna Sea through the dispute settlement mechanism regulated in Article 287 UNCLOS;
4. Collaborate with Malaysia and Singapore to take action against ships that pollute the sea due to ship to ship transshipment activities in the waters east of Johor, Malaysia so that cross-border pollution from ships that carry out ship to ship transshipment that pollutes the waters and coasts of Bintan Island can be reduced;
5. Carry out legal proceedings against the ALESSA ship which was detected to have polluted the sea in the waters east of Simeulue Island on March 7, 2023;
6. The National Team as regulated in Presidential Decree 109/2006 to immediately take over the handling of asphalt spills from MT AASHI on Nias Island and carry out provisions for handling oil spill emergencies as regulated in the Decree of Minister of Transportation 263/2020, namely cleaning and environmental restoration, law enforcement, calculation of losses and compensation claim;
7. The National Team together with various relevant agencies, including but not limited to INTERPOL through the International Relations Division of the Indonesian National Police, the flag state of the MT AASHI ship, the country of origin of the MT AASHI before it sank in Indonesia and other parties, verified the validity of the MT AASHI documents, and trace who and where the real owner of the MT AASHI ship is, including the beneficial owner of the MT AASHI ship;
8. Reflecting on the handling of the MT AASHI case, all local governments in Indonesia must form and ensure the readiness of the Local Team for Oil Spill Emergency Management as referred to in the Decree of the Minister of Transportation 263/2020. In this regard, the National Team needs to proactively and periodically provide technical





guidance to all local governments in Indonesia so that the readiness of the Local Teams can be maintained at an optimal level.



INDONESIA  
OCEAN JUSTICE  
INITIATIVE

Wisma Penta Lt. 1  
Jalan Kebon Sirih No. 65  
Jakarta Pusat, Indonesia 10340

<https://oceanjusticeinitiative.org>