

Strengthening Maritime Geopolitics Strategy to Counter Marine Resource Plundering in the North Natuna Sea

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ABSTRACT

The North Natuna Sea is one of the most strategic seas in Indonesia. However, the plundering of marine resources by countries nearby poses a serious threat to Indonesia's maritime security. This article discusses the maritime geopolitical strategy to counter the looting of marine resources. In the North Natuna Sea. This research uses a qualitative approach using a literature study. The findings show the importance of maritime boundary analysis as the first step to tackle the looting marine resources, particularly through illegal fishing. Maritime patrol and surveillance, maritime cooperation and diplomacy, and raising maritime awareness as a strategy maritime geopolitics in countering the looting marine resources in the North Natuna Sea. In addition to that, strengthening the maritime economy also needs improved to realize prosperity the community from engaging in activities looting of these marine resources.

INTRODUCTION

The North Natuna Sea is one of the most strategic seas in Indonesia. The geographical location of the North Natuna Sea is to the north of Natuna Island (Muhaimin, 2018). With an area of approximately 264,198.37 km², the ocean covers 99 percent of Natuna's total land area. Therefore, Natuna is considered a region with significant potential for marine commodity wealth (Al-Fiah & Burhanuddin, 2023), including minerals and fisheries (Dinas Pariwisata, 2024; Simangunsong & Hutasoit, 2018), wave energy sources (Idris & Gammaranti, 2018), marine tourism potential (Dinas Pariwisata, 2024; Ying et al., 2019), and many other potential natural resources. Despite its great potential, resource utilization in the North Natuna Sea is still very minimal. Thus, this condition shows that the Indonesian government has significant untapped potential for marine wealth.

The importance of the North Natuna Sea lies not only in its economic potential, but also in its strategic position in the regional geopolitical context. The North Natuna Sea, which falls within Indonesia's Exclusive Economic Zone (EEZ), is often the focus of illegal activities from other countries. According to a 2023 report from the Indonesia Ocean Justice Initiative (IOJI), foreign fishing vessels, particularly those from China and Vietnam, suspected of stealing marine fish from these waters are increasingly active. In addition, oil and bitumen leaks are common, indicating illegal activities that damage the environment (IOJI, 2023). In this regard, maintaining security and sovereignty in the North Natuna Sea is a significant issue for the Indonesian government. For example, Vietnamese Fisheries Resource Monitoring vessels are often seen similarly patrolling the EEZ to how they did before Vietnam and Indonesia agreed on maritime boundaries (IOJI, 2024).

In the realm of geopolitics, the North Natuna Sea has evolved into an area of conflict between powerful states vying for influence. Control over the sea and its resources has become one of the main objectives of global power dynamics, which is reflected in the tensions between China and ASEAN countries in the region. Border conflicts involving several Southeast Asian countries have focused attention on this region. China's claim to the nine-dash line is one of the main causes of concern. According to the 1982 United Nations on the Law of the Sea (UNCLOS) Article 57, which governs EEZs, this claim covers almost the entire South China Sea, including most of the North Natuna Sea (Al-Fiah & Burhanuddin, 2023). The research question is what are the maritime geopolitical strengthening strategies undertaken to reduce the looting of marine resources in the North Natuna Sea. Thus, the purpose of this paper is to discuss maritime geopolitical strategies to counteract the looting of marine resources in the North Natuna Sea.

THEORETICAL REVIEW

Many studies have discussed the issue of theft of marine resources and other maritime violations in Indonesian waters, especially in the North Natuna Sea. Research conducted by Al-Fiah & Burhanuddin (2023) states that five elements of collaboration include government, community, academia, media, and business involved in efforts to improve security and inspection of the

North Natuna Sea. According to Darwis & Putra (2022) and Putra (2023), there have been effective efforts in dealing with illegal fishing incidents in the North Natuna Sea by various maritime agencies, including the Indonesian Navy, the Ministry of Maritime Affairs and Fisheries (KKP), the Marine Security Agency (Bakamla), and the Indonesian National Police (Polri). However, this does not mean that the looting of resources has been resolved. To date, cases of fish looting continue to increase. Budiando et al. (2022) suggested that 63% of illegal fishing activities in the North Natuna Sea use prohibited fishing gear and do not have license documents. They carry out these activities by spreading out and hiding in border areas, so they can avoid patrol fleets.

The creation of Law Number 10 of 2020 concerning Job Creation is a form of strengthening administrative sanctions to deal with this illegal fishing case. In addition, several international laws also regulate the control and management of marine resources in UNCLOS 1982, FAO Compliance Agreement 1993, UN Fish Stocks Agreement 1995, the Code of Conduct for Responsible Fisheries (CCRF) 1995, and the International Plan of Action Illegal, Unreported and Unregulated Fishing (IPOA-IUU). In their research, Chapsos et al. (2019) mentioned that community involvement, especially local fishermen, in overcoming fish theft in Indonesia also needs to be considered, because they can become agents of information in building national and international policies for handling the problem. According to Husein & Aziz (2020), Indonesia may have the potential to increase the number of fish stocks, because between 2014 and 2019, Indonesia successfully fought illegal fishing by capturing and sinking hundreds of vessels and there were massive and continuous law enforcement actions related to the problem. However, a few years later, foreign vessels were found again by IOJI (2023, 2024) conducting illegal fishing in the North Natuna Sea. Thus, it is evident that the threat of resource looting in the North Natuna Sea still exists today.

Maritime Security

The phrase "maritime security" was used more frequently in the late 1990s and early 2000s to describe preventive measures (such as port and shipping protection) implemented to deal with criminal activities occurring at sea or from the sea (Germond, 2015). Germond's (2015) maritime security can also be interpreted as an ideology concerned with the safety and security of the maritime domain, or it can be thought of as a collection of laws, regulations, protocols and measures relating to security. Maritime security is concerned with (illegal and disruptive) human actions within the marine environment, meaning a specific geographically defined area. Therefore, states are affected by maritime security issues differently based on where they are located (Germond, 2015). Thus, Germond's (2015) perspective can be used as a foundation for enforcing maritime law and taking other supporting actions to improve maritime safety and security in the North Natuna Sea region.

Maritime Geopolitics

Practitioners and academics have used the word "geopolitics" broadly to frame how states' spheres of power and interests conflict with each other (Germond, 2015). Geopolitics is not just another term for a state's foreign policy, nor is it limited to the creation of representations of the world through discursive methods. Geopolitics is a collection of transformative initiatives resulting from actions that require narratives and representations to be justified and explained in order to prevent opposition and foster consensus among diverse audiences (Blanchard & Flint, 2017). Geographic "fixity" constraints, such as a country's coastline or lack of direct access to the high seas, limit maritime power in general (Mahan, 2007). In geopolitical discourse, maritime security threats are also used as justification for projecting security beyond external borders (Germond, 2013). In other words, maritime aspects are included in geographical representations framed in the categories of "safe/inside" versus "unsafe/outside". To defend maritime freedom and uphold international order, the Europe Union considers the seas around Europe as a threat and uses this justification to project law and military power beyond national borders. The geopolitics of maritime security is reinforced by the belief that control over distant ocean territories is necessary for land security. The notion of "maritime geopolitics" thus refers to how important the sea is to a country's geopolitical landscape (Germond, 2015). This is because the sea is considered a strategic territory that has the ability to influence politics, economics and society, in addition to being a natural resource (Riskas et al., 2018). Thus, a maritime geopolitical strategy is one of the strategic efforts to counteract the looting of marine resources through illegal fishing in the North Natuna Sea.

Maritime Awareness

Knowledge and understanding of the importance of the maritime sector in a country, as a foundation for combating all forms of maritime threats. The terms "Maritime Domain Awareness (MDA)" and "Maritime Situational Awareness (MSA)" apply in this context. MDA and MSA systems are typically an integrated network of devices with the purpose of centrally collecting data and information, organizing, interpreting, and disseminating it to users and decision makers to provide maritime domain awareness or situation awareness to users (Chintoan-Uta & Silva, 2017; Gülcan & Erginer, 2023; Melnyk et al., 2022). The main objective is to identify and conduct optimal evaluation and action from the source of the threat (Gülcan & Erginer, 2023). To counteract the looting of marine resources that occurs in Indonesian waters, national vigilance is also one of the attitudes that can be built as a form of a sense of responsibility and care for the Indonesian people towards their country (Kusumah et al., 2022). Thus, to deal with these problems, the idea of national vigilance must remain part of the Indonesian state administration system, because national vigilance is closely related to national security. The measure of national vigilance is the extent to which a country can recognize, identify, anticipate, and take rapid preventive steps against various types and forms of threats that may occur (Nasim, 2022; Rini, 2019; Triwaskito & Hermandar, 2017). Achieving

security stability and improving the quality of development can be facilitated by increasing national vigilance through early detection (Triwaskito & Hermandar, 2017). This can be applied to coastal communities living around the North Natuna Sea. They can be involved in efforts to deter the looting of marine resources there.

METHODOLOGY

A qualitative approach is the approach used in this research. According to Sugiyono (2013), a qualitative approach is used to explore social phenomena thoroughly. This approach is used to develop a strategy to strengthen maritime geopolitics to combat marine resource theft in the North Natuna Sea. The researcher used a literature study of secondary data funds as a source of information, including scientific publications, books, websites and other relevant sources.

RESULTS

The North Natuna Sea is a potential water area in terms of fish, minerals, and petroleum and is often the target of fishing theft by surrounding countries, such as China and Vietnam. This, of course, will jeopardize Indonesia's maritime security (Darwis & Putra, 2022; Putra, 2023). Illegal fishing is one of the ways how marine resources are plundered.

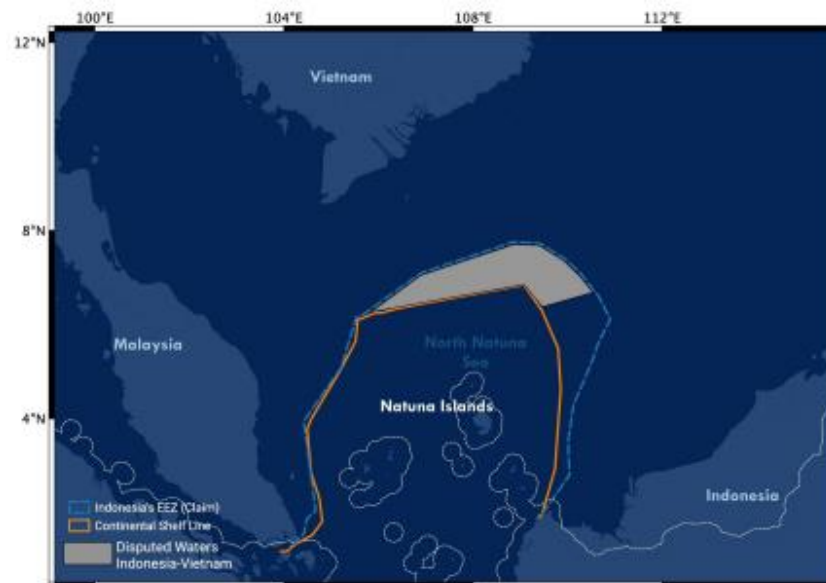


Figure 1. Indonesia-Vietnam Disputed and Non-Disputed Areas
Source: (IOJI, 2023)

At this point, the words "disputed area" and "non-disputed area" are not appropriate because Vietnam and Indonesia have agreed on the EEZ boundary according to their agreement in December 2022. Nonetheless, the purpose of using these two words is to simplify the North Natuna Sea area for the readers of this article. **Figure 1** shows that the disputed area between Vietnam and Indonesia lies to the north of the orange line that extends to the limit of Indonesia's unilateral EEZ claim (dashed blue line), which is marked in grey.

Meanwhile, the non-disputed area lies south of the continental shelf line (IOJI, 2023).

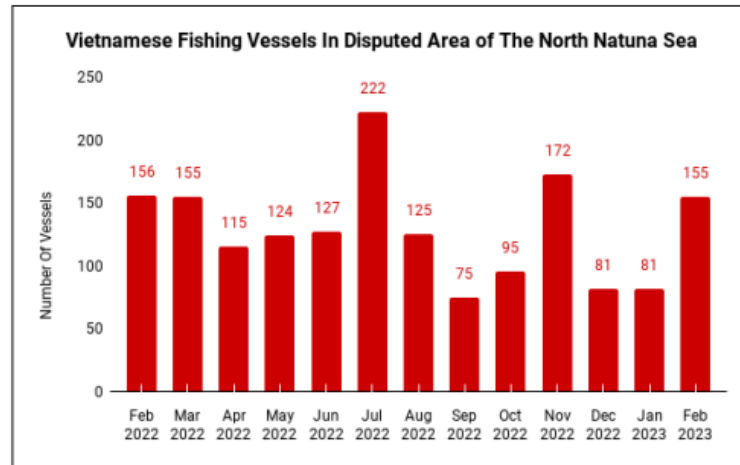


Figure 2. Number of Vietnamese fishing vessels in the disputed area of the North Natuna Sea from February 2022 to February 2023.

Source: (IOJI, 2023)

Figure 2 illustrates that even though Indonesia and Vietnam have agreed on an EEZ border agreement, illegal fishing activities still occur. This indicates that the agreement has not been fully implemented. It is clear that during the period February 2022 to February 2023, there were several cases of Vietnamese fishing vessels engaging in illegal fishing. There were 156 cases of unlawful fishing in February 2022, this figure dropped to 155 cases in March and 115 cases in April 2022. There was an increase of 9 cases the following month, totalling 124 cases, and an increase of 3 cases in June 2022, with 127 cases in total. July 2022 recorded the highest number of illegal fishing incidents in a single year, with 222 incidents. Meanwhile, there were notable increases and decreases in the following months. By February 2023, there was another increase, this time to 155 incidents.

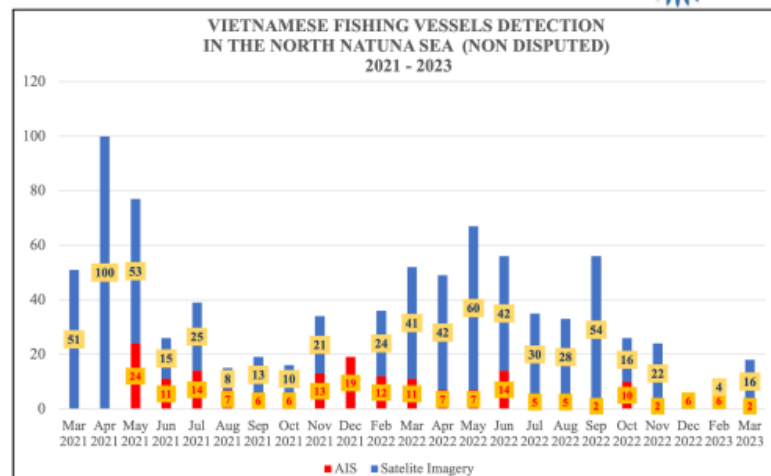


Figure 3. Number of Vietnamese fishing vessels in the North Natuna Sea non- disputed area from March 2021 to March 2023

Source: (IOJI, 2023)

The information presented in Figure 3 depicts the changes in the number of Vietnamese fishing vessels found in the non-disputed North Natuna Sea area from March 2021 to March 2023. Two techniques were used to detect the vessels: satellite imagery and Automatic Identification System (AIS). It is possible that many Vietnamese vessels are not activating their AIS, perhaps to avoid detection, given that the number of vessels identified by satellite imagery is consistently greater than those detected by AIS. Recorded 100 vessels were spotted through satellite imagery in April 2021, the number of vessels detected reached its peak, indicating very active fishing at that time. On the other hand, March 2023 showed the least number, with only 16 vessels spotted using satellite imagery, indicating a sharp decline in illegal fishing activity compared to other months. The aforementioned trends show the high variability of Vietnamese fishing activity in the region, which could be due to various factors such as weather patterns, security patrols or fishing seasons.

Furthermore, while there were several times when the number of vessels discovered reached a high point, such as the 60 vessels discovered in May 2022, other months saw a sharp decline, as shown by only 4 vessels discovered in February 2023. The increased likelihood of discovery through satellite imagery highlights the importance of using pervasive surveillance technology to keep tabs on vessel activity that may be trying to evade detection.

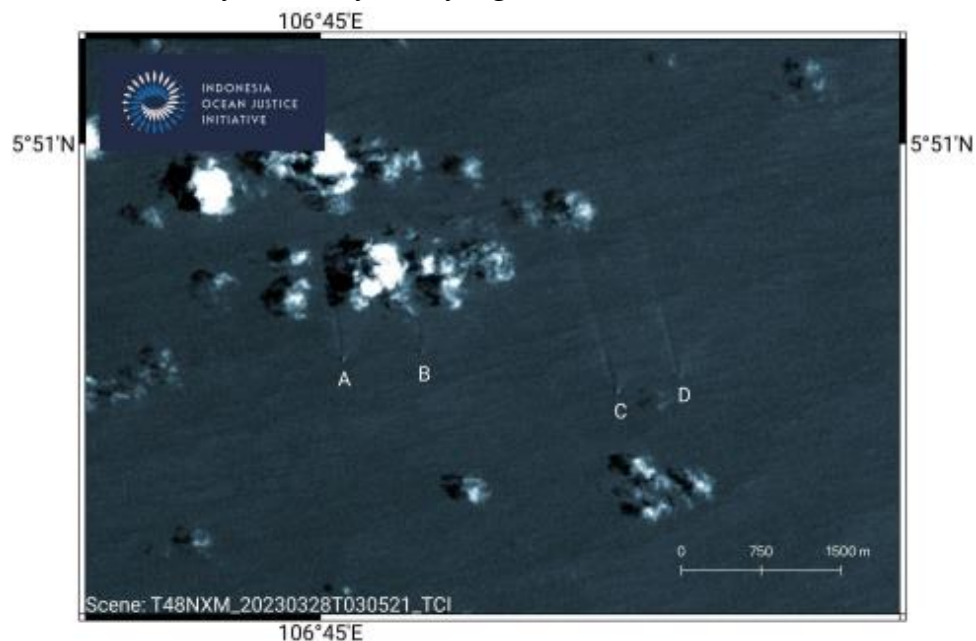


Figure 4. Fishing vessels using trawl gear in the non-disputed North Natuna Sea via satellite imagery on March 28, 2023
Source: (IOJI, 2023)

Not only were Vietnamese fishing vessels detected on September 13, 2021 in the North Natuna Sea, the destroyer Kunning-172 was reported in the area, and from August to October of the same year, the research vessel Haiyang Dizhi-10 made frequent trips there (Marsetio, 2022). Two Chinese-flagged marine research vessels were spotted by IOJI (2024) moving around the North

Natuna Sea in May 2023. Jia Geng and Nan Feng were the research vessels. Nan Feng from May 1 to May 3, 2023, and Jia Geng from April 29 to May 1, 2023, were identified in the North Natuna Sea by IOJI (2024). Given the considerable volatility in fishing activities over time, this analysis emphasizes the importance of a coordinated monitoring strategy in combating marine resource theft, particularly through illegal fishing in the North Natuna Sea region.

DISCUSSION

Impact of Illegal Fishing in the North Natuna Sea

Considering that Indonesia is the largest archipelago in the world, it is strategically important to maintain the security and sovereignty of its marine territory, especially in the North Natuna Sea. In addition to having abundant natural resources, this region is very crucial for global marine geopolitics. However, widespread theft of marine resources by foreign vessels, especially those engaged in illegal fishing, is a significant problem for Indonesia. Based on the research results in Figure 2, Figure 3, and Figure 4 above, it is clear that in both disputed and non-disputed waters, the plundering of marine resources in the form of illegal fishing in Indonesia still occurs massively. This phenomenon poses a serious threat to Indonesia's maritime defense and security, and has a direct impact on the marine ecosystem.

In Figure 4, it is evident that unauthorized fishing gear, such as trawlers, are being used in fishing. The use of these gears not only violates the law, but also damages vital marine habitats and has far-reaching impacts. Destructive fishing gear not only jeopardizes the sustainability of fish stocks, but also unfairly targets artisanal fishers who continue to use simpler fishing techniques. The availability of fish stocks for small-scale fishers is drastically reduced, which in turn creates social and economic injustice among coastal communities. The discovery of foreign research vessels in North Natuna waters, allegedly searching for marine resources such as metals, minerals and petroleum, has made matters worse. For example, China often conducts scientific research with broader geopolitical objectives, such as military and strategic, in addition to scientific and commercial purposes (IOJI, 2024).

Factors Causing the High Rate of Illegal Fishing in the North Natuna Sea

One of the major problems facing maritime nations around the world, including Indonesia, is illegal fishing. In addition to jeopardizing the sustainability of marine resources, this issue also hurts regional stability and the welfare of coastal communities. The high level of illegal fishing in the North Natuna Sea is caused by several interrelated factors, such as limited sovereignty, socioeconomic conditions (Budianto et al., 2022; Long et al., 2020; Riskas et al., 2018; Solihin et al., 2016; Wibowo et al., 2023), lack of marine surveillance (Krisnafi et al., 2017; Petrossian, 2014), technological limitations (Hermawan et al., 2019; Krisnafi et al., 2017), large sea areas (Marzuki et al., 2021), weak law enforcement (Iswan, 2023). According to Pomeroy et al. (2016) and Song (2023), sovereign territorial boundaries often overlook compliance factors and geography, forcing fishers to travel into unfamiliar territory and

possibly putting them at risk of arrest and legal sanctions. This is exacerbated by the geopolitical dispute in the North Natuna Sea between several countries that have claims to the waters, such as China, Vietnam and Malaysia. Illegal fishers use this conflict to their advantage by operating in disputed areas on the assumption that law enforcement by security forces is ineffective or inconsistent.

Social and economic factors also contribute to the plundering of marine resources through illegal fishing. The majority of residents in many of Indonesia's coastal towns, such as Natuna, rely on fishing as their main source of income. However, overfishing, environmental degradation and the effects of climate change have resulted in dwindling fish stocks, causing tremendous financial stress for fishers. When fish stocks decline, fishers often have no choice except to turn to illegal fishing to make a livelihood (Long et al., 2020; Riskas et al., 2018). These economic pressures are compounded by inequities in the distribution of access to marine resources. Small-scale fishers often face competition from larger, technologically advanced fishing vessels that can utilize fish resources more effectively. Unequal access to marine resources is a contributing factor to this economic pressure.

Another cause of the high rate of illegal fishing in the North Natuna Sea is the lack of efficient maritime surveillance (Krisnafi et al., 2017; Petrossian, 2014). Indonesia's wide-open waters cause significant difficulties for maritime surveillance. Therefore, these illegal fishing activities go undetected for long periods of time. Limited infrastructure is also one of the obstacles in maritime surveillance. The lack of adequate patrol vessels, personnel and equipment often hinders systematic and thorough marine patrols (Sahputra, 2022). As a result of these conditions, illegal fishing vessels can work without worrying about being caught.

Technology should be a key component of marine surveillance and the fight against illegal fishing today. Despite this, there is still very little sophisticated equipment being used for marine surveillance in Indonesia. Some technologies have begun to be used, such as radar, Automatic Identification System (AIS), and drones for surveillance, but their coverage is still very limited and cannot fully cover a large sea area such as the North Natuna Sea (Sahputra, 2022). Another factor influencing the high level of illegal fishing in the North Natuna Sea is the lack of effective law enforcement (Iswan, 2023). Many fishing cases that violate the law only receive minimal punishment (Cintani et al., 2021; Sofian, 2018; Wibowo et al., 2023), thus not providing a strong enough deterrent effect for the perpetrators. To avoid legal sanctions, illegal fishing vessels often fly the flags of other countries or register their vessels in countries with more lax maritime laws. Moreover, those who engage in illegal fishing take advantage of the lack of harmonization between national and international laws (Cintani et al., 2021).

Strengthening Maritime Geopolitics Strategy

Border security is the first step to realizing a maritime geopolitical strategy in the North Natuna Sea. In addition to maintaining territorial sovereignty,

well-managed borders also help preserve the natural resources that exist there. Illegal fishing is one of the many challenges facing the North Natuna Sea, given its vital location on international trade routes and direct borders with other countries. By learning best practices from other countries, such as Australia, which has effectively maintained strong border security. Australia is renowned for having a strong border security system, especially in terms of law enforcement within territorial waters and securing marine resources (Chambers, 2015). Lessons from Australia can be applied in Indonesia by harmonizing them according to Indonesia's needs and conditions. Any law enforcement activity should start with a firm and clear EEZ designation. By conducting a thorough border security analysis, Indonesia can improve its maritime geopolitical strategy and address potential threats in the North Natuna Sea.

Increasing maritime patrols and surveillance is the next strategic effort. Bakamla and the Indonesian Navy are very important parties in maintaining security in Indonesian waters. However, increased patrol frequency and expansion of surveillance areas are needed to improve the effectiveness of maritime surveillance. In addition, modern technologies such as radar, sonar, and automatic identification systems (AIS) that enable early detection of illegal vessel activities should be installed on patrol vessels (Octavian & Jatmiko, 2020; Thangavel et al., 2023). In addition to sea patrols, aerial monitoring using surveillance aircraft and drones (Marzaki et al., 2024) can also be an additional option to improve surveillance in hard-to-reach areas. Thus, improving maritime patrols and surveillance in the North Natuna Sea is not only about physical presence at sea, but also about the use of advanced technology, increasing the number and quality of patrol fleets, and effective coordination between agencies.

International cooperation is essential in dealing with complex issues such as marine resource theft (Apriani et al., 2024). To improve law enforcement and surveillance in the North Natuna Sea, Indonesia should form strategic alliances with nearby countries and global institutions such as the International Maritime Organization (IMO). Coordinated operations and joint military exercises with surrounding countries can enhance interoperability and effectiveness in countering common threats. In addition, intelligence sharing on the operations of foreign vessels in Indonesian seas can help identify and stop theft before it starts. Maritime diplomacy is also one of the appropriate strategies in problems like this. Indonesia can promote its maritime interests and gain support from other countries for initiatives to uphold security and stability in the North Natuna Sea using international platforms including ASEAN, Asia-Pacific Economic Cooperation (APEC), and the United Nations.

Raising awareness of maritime issues is also important. Maintaining a balanced marine ecosystem relies heavily on increasing public awareness of the importance of preserving the marine environment (Maskun et al., 2020; Putra, 2020; Riskas et al., 2018; Satria et al., 2018) and the detrimental impacts of illegal fishing methods. Programs that increase public knowledge on maritime issues and emphasize the value of protecting marine ecosystems should be a top

priority. Educating the public on the dangers of illegal fishing to the sustainability of the marine environment is one such strategy. Chapsos & Malcolm (2017) assert that systematic and sustained educational efforts have the power to change people's perspectives and motivate them to take part in marine conservation. By providing specialized training to monitor and report illegal activities at sea, local fishers can act as watchdogs of the marine environment. This could include education on fishing laws and regulations and training in the use of monitoring technologies such as GPS and mobile-based reporting tools. Chapsos et al. (2019) stated that the proactive participation of fishing communities in maritime environmental monitoring increases the effectiveness of monitoring efforts and their sense of responsibility for the marine resources they utilize. Over time, this is expected to reduce illegal fishing activities and improve Indonesia's marine security.

The next step in the strategy to strengthen maritime geopolitics in the North Natuna Sea is to improve the maritime economy. As an archipelago, Indonesia has enormous potential to create a sustainable maritime economy that will improve Indonesia's international standing and the welfare of its citizens. Sustainable and environmentally friendly fisheries as one of the industries that can develop in the North Natuna region. The Indonesian government should encourage the expansion of this industry by enacting laws that support responsible fishing practices. Another important factor in improving the maritime sector is giving local fishermen access to modern technology and training to help them become more capable fishermen. To increase fishing productivity without harming the environment, fishermen must be trained in sustainable fishing methods and technologies. Fish populations can be stabilized, one of which is by using fishing gear that is environmentally friendly and does not harm the environment. Indonesia will benefit greatly from the development of a sustainable maritime economy in the context of maritime geopolitics. On the other hand, economic expansion centered on the utilization of marine resources will improve living standards and reduce dependence on illegal activities. Thus, strengthening the maritime economy as an important component of the strategy to strengthen maritime geopolitics in the North Natuna Sea, which will serve to protect marine resources.

CONCLUSIONS AND RECOMMENDATIONS

Theft of marine resources, particularly illegal fishing, directly affects the marine ecosystem and poses a great danger to Indonesia's marine defense and security. This occurrence is influenced by various factors, such as social and economic factors, lack of marine surveillance, technological limitations, and weak law enforcement. To ensure the sovereignty and sustainability of national resources in the face of the issue of marine resource looting in the North Natuna Sea, it is imperative to strengthen the maritime geopolitical strategy. Border security analysis is the first step of this strategy. The next step is to increase maritime patrols and surveillance. This activity is very important to always be aware of ships that cross Indonesian waters and are considered suspicious.

International cooperation and maritime diplomacy are also crucial strategies. Through strategic alliances with neighbouring countries and global institutions, it is expected to improve law enforcement, surveillance and security in the region.

Not only the government can handle the looting of marine resources in the North Natuna Sea, but the community can also be involved. Coastal communities, especially fishermen, can report suspicious activities in the area. In addition, an understanding of how important it is to fish responsibly and sustainably also needs to be conveyed to the community. Countering the looting of marine resources in the region also depends on the strength of the maritime economy. By taking this step, the community's dependence on illegal fishing may be reduced. Further relevant research is needed to periodically evaluate the effectiveness of these strategies and adjust policies in response to the dynamics of the maritime and geopolitical environment.

FURTHER STUDY

Opportunities for further research in a number of areas related to strengthening maritime geopolitics in the North Natuna Sea are presented in this study. First, a more thorough investigation into the efficiency of maritime surveillance technologies, such as the use of drones and satellites, in identifying and stopping acts of looting, could yield more specific information on how to improve surveillance frameworks. In addition, the role played by non-state actors, including the private sector and civil society organizations in strengthening maritime geopolitics in the North Natuna Sea could be further investigated. This could help in developing a more comprehensive strategy that involves various stakeholders. The influence of strengthening maritime geopolitics in the North Natuna Sea on ecology and economy could also be studied.

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