



## Maritime Geopolitical Strategy For Strengthening The Security of North Natuna Marine Waters Against

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### ABSTRACT

The North Natuna Sea is rich in marine resources, especially fish, and is part of Indonesia's Exclusive Economic Zone (EEZ). Illegal, unreported, and unregulated fishing (IUU fishing) in the North Natuna Sea region has become a crucial issue affecting Indonesia's maritime sovereignty and security. This article examines maritime geopolitical strategies that can be implemented to reduce fish theft in the region. The method used in this research is a qualitative method with a literature study to explore maritime geopolitical strategies to strengthen the security of the North Natuna Sea waters against IUU fishing. The proposed approach includes enhancing maritime defense capabilities, regional cooperation, and maritime diplomacy. In addition, monitoring and law enforcement are also the main focus.

## **INTRODUCTION**

The North Natuna Sea is rich in marine resources, especially fish, and is part of Indonesia's Exclusive Economic Zone (EEZ). According to (FAO, *The State of World Fisheries and Aquaculture*, 2020), Indonesia is the world's third-largest fish-catching country with major export markets in Asia and the United States. This geostrategic condition provides excellent opportunities for Indonesia's economic growth as well as various challenges such as fish theft, which not only harms Indonesia's economy but also threatens national sovereignty and security. These include massive and illegal fishing by Chinese, Vietnamese and Malaysian vessels in the North Natuna Sea and Malacca Strait as well as rampant smuggling of goods and marine products in the border waters between Indonesia and Malaysia, are among the key issues. (Vinata & Kumala, 2023).

The term "illegal, unreported, and unregulated (IUU) fishing" is a broad and pervasive concept that has gained global recognition (VAN PHUONG & Pomeroy, 2022). It encompasses activities that are conducted in contravention of national regulations or international laws and regulations (Miller & Sumaila, 2014); (Leroy, Galletti, & Chaboud, 2016). A report by the Directorate General of PSDKP (2020) indicates that the North Natuna Sea is the most vulnerable area for IUU fishing in WPP 711. From 2013 to 2020, there were 384 cases of illegal fishing in this region, primarily perpetrated by foreign fishing vessels from Vietnam. Apart from Vietnam, other foreign vessels are also often involved in this illegal activity, especially from neighboring countries. It is estimated that Indonesia suffers losses amounting to approximately USD 2 billion annually as a result of IUU fishing, with global economic losses of around USD 10-23 billion per year (FAO, *The State of World Fisheries and Aquaculture*, 2018).

Maritime geopolitics refers to the strategies used by states to secure their maritime interests through military force, diplomacy and international cooperation. According to (Till, 2018) a strong maritime power is key to controlling and protecting a country's maritime territory. In this context, the development of an effective maritime geopolitical strategy is necessary to mitigate this threat.

## **LITERATURE REVIEW**

### **Maritime Geopolitical Strategy**

Maritime geopolitics is the study of how countries utilize their maritime capabilities to attain political and economic objectives. In the context of the North Natuna Sea, it is important to understand how the maritime power of Indonesia and neighboring countries such as China, Vietnam, and Malaysia interact. Some relevant theories include Alfred Thayer Mahan's Theory of Sea Power and the Theory of Zones of Influence. The concept of sea power according to (Mahan, 2010) states that a country with dominant maritime power will have an advantage in the global economy and politics and have higher security. The Zone of Influence Theory was put forward by Mackinder, which describes that the sea area under the control or influence of a country will have an impact on the stability and security of that country (Supriyanto, 2016). These two theories can help explain why control over strategic waters like the North Natuna Sea is so important for coastal states.

Therefore, a maritime geopolitical strategy represents an efficacious approach to addressing the menace of IUU fishing in the North Natuna Sea. This strategy involves coordination between Ministries and Institutions, as well as the active role of the Ministry of Foreign Affairs in international forums to safeguard national interests. The theory of regional cooperation by K.J. Holsti and Hans J. Morgenthau can be used to analyze the issue of IUU fishing. K.J. Holsti in "International Politics: A Framework for Analysis" offers an analytical framework that can be used to understand the dynamics of regional cooperation in facing maritime security challenges. Holsti focuses on how regional cooperation can help improve stability and security in conflict-prone areas. Meanwhile, Hans J. Morgenthau in "Politics Among Nations: The Struggle for Power and Peace" understands national interests as the main factor in determining foreign policy. Morgenthau emphasizes that national interests can differ between countries and can influence foreign policy, including in dealing with maritime security issues such as IUU fishing. Through this theory, cooperation between countries in a region is seen as an effective means to overcome regional problems faced together, such as IUU fishing in the North Natuna Sea area (Widodo, Rachma, & Prananda, 2019); (Hozairi, Lumaksono, Tukan, & Buhari, 2019).

### **Maritime Security**

The maritime security theory introduced by (Till, 2018) is important in the analysis of maritime geopolitical strategies, especially in the aspect of protecting fishery resources in the North Natuna Sea. This theory emphasizes the importance of coordination between non-military and military agencies in dealing with maritime security threats. Maritime security involves various aspects, including sea patrols with the addition of patrol ships, the use of surveillance technology to monitor activities at sea, and international cooperation for the exchange of information and coordination of security operations. Efforts to strengthen security in the North Natuna Sea must consider:

- a. The deployment of sea power as a strategy for addressing dynamic threats in the North Natuna Sea entails the involvement of non-military agencies, including Bakamla and KKP, in addition to the Indonesian Navy in a supporting capacity.
- b. The deployment of sea power must focus on the role of non-military agencies and the Indonesian Navy as a balance of power in the sea area.

### **METHODOLOGY**

This article uses a qualitative method with a library research or literature approach to explore and understand the maritime geopolitical strategy to strengthen the security of the North Natuna Sea waters against IUU fishing. The research method uses written sources as the basis for obtaining information or data relevant to the topic under study (Booth, 2016). The sources can be books, scientific journals, research reports, articles, and other reputable documents related to the research topic. The literature study process begins with the identification of literature sources that are relevant to the research topic. After that, an evaluation of the quality and validity of these literature sources is carried

out. Then, synthesizing or combining information from various relevant literature sources to form a framework or concept related to the research topic. The purpose of the analysis itself is to obtain new insights or results of the analysis which are then expected to increase our knowledge about maritime geopolitical strategies to strengthen the security of the North Natuna Sea waters against IUU fishing.

## **RESEARCH RESULT**

IUU fishing practices have the potential to manifest in all aspects of fisheries, both in international waters and within the confines of national jurisdictions (Suherman, Santosa, Ihsan, Wijayanto, & Juwana, 2020). The issue of illegal, unreported, and unregulated (IUU) fishing has given rise to a number of policy matters (Song et al., 2020) towards enhancing maritime defense capabilities, regional cooperation, and maritime diplomacy as well as monitoring and law enforcement as maritime geopolitical strategies in the waters of the North Natuna Sea.

### **Improving Maritime Defense Capabilities**

One important step in improving maritime defense capabilities in the North Natuna Sea is to strengthen the fleet and modernize maritime infrastructure (Aditya & Fauzi, 2022), such as military bases equipped with ship maintenance and repair facilities that will ensure the operational readiness of the patrol fleet at all times, so that responses to IUU fishing activities can be more effective and efficient. Furthermore, investment in modern patrol vessels with advanced technology is needed to strengthen water security in the North Natuna Sea against IUU fishing threats. Patrol vessels should be able to conduct operations in adverse weather conditions and be equipped with sophisticated detection systems such as maritime radar (Daniel et al., 2017), sonar (investigating the measurement of commercial vessel tracks (Soloviev, Gilman, Young, Bruschi, & Lehner, 2010) and communication devices that can be used to detect IUU fishing activities and integrated communication devices (Giomppapa et al., 2008); (Posada et al., 2011). According to a report by Indonesia's Ministry of Marine Affairs and Fisheries ((KKP), 2020), increasing the number and quality of patrol vessels can significantly reduce IUU fishing activities. The use of new patrol vessels with long-range capability and high endurance allows for more frequent patrols and wider coverage in the waters of the North Natuna Sea.

A collaborative approach from all stakeholders is also required for the effective handling of IUU fishing (Kasim & Widagdo, 2019). Therefore, the Indonesian government, via Presidential Regulation No. 115/2015, constituted a task force with the objective of implementing a decisive law enforcement strategy against IUU fishing (commonly designated as Task Force 115). The objective of Task Force 115 is to develop and implement effective and efficient law enforcement operations aimed at eradicating illegal fishing. The activities of Task Force 115 are conducted with the optimization of personnel and operational equipment (including ships, aircraft, and other technology) owned by the Ministry of Maritime Affairs and Fisheries, the Indonesian Navy, the Police, the Attorney General's Office, and other related agencies (Suherman et al., 2020).

According to (Petrossian, 2014) posited, the implementation of effective fisheries management and the establishment of robust patrol surveillance capacity will result in a reduction in illegal fishing activities in the North Natuna Sea waters.

Since 2014 (Fujii, Okochi, & Kawamura, 2021), Indonesia has implemented monitoring, control, and surveillance (MCS) measures against IUU fishing through patrols and port state measures (PSM) as well as interagency cooperation by 2020, although effectiveness varies (Cullis-Suzuki & Pauly, 2010); (Haas, Haward, McGee, Fleming, & Hoel, 2019). However, concerns persist regarding the lack of adequate monitoring systems, trained personnel, and similar issues. These challenges are not exclusive to Asian countries (Naiki & Rakpong, 2022). Therefore, another important aspect is to improve the quality of human resources through regular exercises and training for Navy and Coast Guard personnel. Joint exercises involving various elements of maritime defense will improve coordination and cooperation between units in dealing with emergency situations at sea. Realistic and scenario-based simulation exercises will help personnel understand and overcome various operational challenges in the field.

This training program should also involve cooperation with friendly countries that have more advanced maritime capabilities. The exchange of knowledge and experience through joint training programs will provide significant benefits in improving the capacity of Indonesian maritime personnel. Improving maritime defense capabilities in the North Natuna Sea will have a positive impact not only in reducing IUU fishing activities but also in strengthening national sovereignty and security. The existence of a strong patrol fleet and modern maritime infrastructure will increase the deterrence effect, so that foreign vessels will think twice before conducting illegal activities in the Indonesian EEZ.

### **Regional Cooperation**

At the regional level (Southeast Asia), the most appropriate way to strengthen the security of the North Natuna Sea waters is through the establishment of a regional convention (Burhanuddin, Putra, & Cangara, 2021); (Phan, 2021) that stands alone against IUU fishing, (Stefanus & Vervaele, 2021). Then strengthen regional cooperation, especially with ASEAN member states and other neighboring countries in joint patrols and intelligence sharing (Vinata & Kumala, 2023) to reduce fish theft activities in the North Natuna Sea. The government needs to establish cooperation with the private and international sectors to support funding and technology transfer. For example, cooperation with ASEAN member states in joint maritime patrols and sharing monitoring technology can help overcome resource limitations.

ASEAN has long been a forum for dialog and cooperation on various issues, including maritime security. The ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain (Ali Mazalina et al., 2015) and the Strategic Action Plan for Fisheries Cooperation 2016-2020 (ASEAN, 2015) and the Regional Plan of Action to Promote Responsible Fishing Practices, including the Eradication of IUU Fishing in the Region (RPOA-IUU) can serve as a regional instrument, providing a foundation for regional and bilateral cooperation within the ASEAN framework to address IUU fishing in the North Natuna Sea. According to (ASEAN Maritime Forum, 2018) joint patrols have proven effective in improving detection and prevention of illegal activities in regional waters. Countries such as Indonesia, Malaysia, and the Philippines have conducted trilateral patrols in the Sulu Sea, which can be modeled for the North Natuna Sea region. Research by (Beckman, 2014) shows that strong bilateral cooperation in maritime security can increase the effectiveness of law enforcement and reduce tensions in border areas. However, regional cooperation also faces various challenges, including differences in national interests, uneven capacity among member states, and sovereignty issues. In order to address these challenges, it is necessary to adopt an inclusive approach that engages all ASEAN Member States and regional partners in constructive and transparent dialogue, as well as flexibility in maritime cooperation is essential, allowing strategies and actions to be tailored according to the specific needs and capacities of each partner.

In addition to regional cooperation through ASEAN, active participation in international forums such as the Indian Ocean Rim Association (IORA) and the Western Pacific Naval Symposium (WPNS) can be used to encourage cooperation in maritime law enforcement. The international community should facilitate dialogue between developed and developing countries, given the potential for the replication and implementation of successful MCS practices in developing countries that have already been proven effective in developed countries (Petrossian, 2014). The international community has adopted a number of international instruments that include effective management measures to combat IUU fishing (Tai, Kao, & Ho, 2020), which are described in the study of (Stefanus & Vervaele, 2021) international fisheries instruments, namely UNCLOS; Compliance Agreement, UNFSA, IPOA-IUU (the adoption of the first specific international instrument against IUU fishing) (Edeson, 2001) and PSMA are conducted with the objective of identifying deficiencies in the regulations and enforcement mechanisms of international fisheries instruments with regard to the transnational organized crime (TOC) dimension of IUU fishing. These instruments were selected on the basis of their status as global regimes in the field of fisheries conservation and management efforts that encompass coastal, inshore, and port states (Garcia Garcia, Barclay, & Nicholls, 2021).

These international instruments afford states discretion in developing and implementing regulatory and enforcement frameworks and procedures. A diverse array of regulatory and enforcement systems and measures can be observed across different states, encompassing a spectrum of approaches, from administrative penalties that may lack sufficient deterrent effect, to civil sanctions, and ultimately, imprisonment (de Coning & Witbooi, 2015); (Liddick, 2014); (Page & Ortiz, 2020); (UNODC, 2011); (Vrancken, Witbooi, & Glazewski, 2019). In this regard, to address the issues of IUU fishing and criminal activity in the fisheries sector, not only are international organizations such as INTERPOL engaged in cross-border IUU fishing investigations through joint information gathering and multilateral operations between member states, but also other prominent international organizations, such as the Organisation for Economic Co-operation and Development (OECD) (Stølsvik, 2019).

### **Maritime Diplomacy**

One important component of the strategy to reduce fishing theft in the North Natuna Sea is through effective maritime diplomacy, particularly in the form of negotiating maritime agreements with neighboring countries. These agreements aim to clarify Exclusive Economic Zone (EEZ) boundaries and fishing rights in the region. A clear agreement on maritime boundaries can reduce disputes and uncertainty (Østhagen, 2020), which are often the triggers for illegal fishing activities. For example, Indonesia and the Philippines reached an agreement on the EEZ boundary through an agreement in 2014 (Arsyad, 2020), known as the Maritime Boundary Agreement (Brown, 1981); (Osgood, 1976). Research by (Østhagen, 2020) shows that this kind of agreement can be an effective model for reducing maritime conflicts and enhancing bilateral cooperation in maritime law enforcement (Nemeth, Mitchell, Nyman, & Hensel, 2014); (Ásgeirsdóttir & Steinwand, 2015); (Qiu & Gullett, 2017). Through diplomatic negotiations, Indonesia can propose similar agreements with countries such as Malaysia and Vietnam. This would not only clarify maritime boundaries but also create a mechanism for cooperation in law enforcement and management of fish resources in border areas.

In addition to maritime treaty negotiations (Lundgren & Svensson, 2020); (Teff-Seker et al., 2020) the use of sanctions (Fajardo, 2022) and diplomatic pressure (Pechenkina, 2020) are also important tools in maritime diplomacy to reduce fish theft. Indonesia can cooperate with international organizations such as the UN and ASEAN to impose sanctions on countries that do not take action against IUU fishing by their citizens. Diplomatic pressure can also be exerted through international dialogues and forums. For example, Indonesia can raise the issue of fish theft in the North Natuna Sea in the UN General Assembly or in ASEAN meetings. By emphasizing the negative impacts of IUU fishing on regional security and economy (Temple, Skerritt, Howarth, Pearce, & Mangi, 2022) Indonesia can encourage the international community to take stronger action against violating countries. According to a report by (FAO, International Guidelines Take Aim at Illegal Fishing (IUU), 2015) that is effective in pressuring countries that commit IUU fishing has been proven to reduce the illegal activity. Countries that face diplomatic pressure tend to increase surveillance and law

enforcement against vessels involved in fish theft. It can be argued that the IPOA-IUU represents a potential means of addressing the threat of IUU fishing in a meaningful way. Indeed, a number of measures have been adopted by both individual countries and intergovernmental organizations in this regard. The IPOA-IUU represents a preliminary effort that is not legally binding. However, it provides a comprehensive set of policy guidelines for individual countries and international organizations to develop effective strategies to combat IUU fishing. One such strategy is the implementation of flag state performance standards. As articulated by the FAO Assistant Director-General for Fisheries and Aquaculture, the implementation of this guideline can "give countries a new way to work together to face this challenge."

Based on a content analysis of guidelines (Tai et al., 2020) from international instruments that set out several demands when flag states carry out responsibilities effectively, including obligation "to act in accordance with relevant international laws and regulations"; "the responsibility to respect the sovereignty and rights of coastal states"; and the necessity "to take effective action against non-compliant activities carried out by vessels flying its flag"; and "recognize the special requirements of developing countries, in particular least developed countries (LDCs) and small island developing states (SIDS)" (FAO, *International Guidelines Take Aim at Illegal Fishing (IUU)*, 2015). Then on geographic coverage mainly applies to areas beyond national jurisdiction or the high seas (Lalonde, 2010). While the Guidelines may also be applicable to the territorial sea and EEZ of a flag state or coastal state, the consent of that state is necessary for the Guidelines to be applied to its territorial sea and EEZ. This implies that states maintain the prerogative to determine the measures and actions to be taken in the assessment of flag state performance within their territorial seas and EEZs (Tai et al., 2020).

In the context of geopolitics, Le Mièrè (2014), posits that the existence of an asymmetric balance of power gives rise to a tendency for stronger powers to impose their policy preferences on weaker countries. The deployment of domestic and foreign policies that utilise Indonesia's maritime geography for the advancement of the country's national interests (Putra, 2020), has the effect of making Indonesia a stronger force in protecting its sovereign waters through limited coercive channels. This is evidenced by Indonesia's willingness to fully claim the North Natuna Sea. Despite the prevailing optimism regarding the potential for neighboring countries to reach a compromise on EEZ and continental shelf issues, the persisting asymmetry in power dynamics allows Indonesia to maintain a firm stance on the matter of delimitation (Darwis & Putra, 2022).

In terms of its external policy, Indonesia has demonstrated a resolute stance in addressing violations of its Exclusive Economic Zone (EEZ). This is exemplified by the policy of former Minister of Marine and Fisheries (KKP) Susi Pudjiastuti, which involved the deliberate bombing and sinking of illegal fishing vessels apprehended in various operations (Connelly, 2015). As of October 2019, a total of 556 vessels have been sunk as a consequence of engaging in illegal fishing activities (Suherman et al., 2020). Indonesia is a victim of illegal, unreported, and unregulated (IUU) fishing, whereby both domestic and foreign vessels engage in illicit fishing activities within its national waters (Chapsos & Hamilton, 2019). In order to prevent the occurrence of IUU fishing by foreign vessels, Indonesia has implemented a policy of "burning and/or sinking." The legal foundation for this policy can be found in Article 69, paragraphs (1) and (4), of the Fisheries Law. Article 69, paragraph 1, stipulates that the function of fisheries surveillance vessels is to carry out supervision and law enforcement in the field of fisheries within the Fisheries Management Area of the Republic of Indonesia. Article 69, paragraph 4, states that in carrying out the functions referred to in Article 69, paragraph 1, fisheries investigators and/or supervisors may take special actions, such as burning and/or sinking foreign-flagged vessels, based on prima facie evidence. This policy of burning and/or sinking is the implementation of the law.

One of the policies is vessel sinking, which is regarded as an effective and powerful deterrent. The implementation of regulations serves to deter those engaged in IUU fishing. Anti-IUU fishing policies have resulted in a reduction of at least 25% of fishing effort in Indonesia's exclusive economic zone (EEZ), as evidenced by vessel monitoring system (VMS) data in conjunction with automatic identification system (AIS) (Proud, Browning, & Kocak, 2016) and night-light satellite imaging data (Cabral et al., 2018).

## **CONCLUSIONS AND RECOMMENDATIONS**

The North Natuna Sea, which is part of Indonesian waters, is often the target of Illegal, Unreported, and Unregulated (IUU) fishing activities. This phenomenon is not only detrimental to the economy, but also threatens Indonesia's maritime sovereignty. Therefore, a strong maritime geopolitical strategy is needed to strengthen water security in the region. The maritime geopolitical strategy covers various aspects, including strict law enforcement, naval capacity building, and international cooperation. Law enforcement is done by increasing sea patrols and applying heavy sanctions for IUU fishing perpetrators. In addition, naval capacity building is essential to ensure readiness and capability in dealing with maritime threats. Regular military exercises and modernization of the warship fleet are part of this effort. International cooperation also plays a vital role in tackling IUU fishing.

IUU fishing in the North Natuna Sea is an important issue that threatens Indonesia's maritime sovereignty and security. In this article, the author proposes several strategic measures, including enhancing maritime defense capabilities through fleet and infrastructure modernization and personnel training. Furthermore, strengthening regional cooperation with ASEAN countries and neighboring countries for joint patrols and intelligence sharing. Maritime diplomacy is also emphasized as an effort to reach clear maritime agreements with neighboring countries to reduce conflict and enhance cooperation in maritime law enforcement. Thus, a comprehensive and integrated maritime geopolitical strategy, which includes enhancing defense capabilities, regional cooperation, maritime diplomacy, and utilizing modern technology, is key to reducing illegal fishing in the North Natuna Sea region. The implementation of this strategy will not only strengthen Indonesia's maritime security and sovereignty but also support the sustainability of marine resources in the region.

### **ADVANCED RESEARCH**

The study shows the need for increased integration and coordination in dealing with the threat of IUU Fishing in the North Natuna Sea. There is a need for a comprehensive evaluation and political will from the President to overcome the crisis by cooperating with non-ASEAN countries in the field of maritime technology. In addition, further research can be conducted to understand the deeper dynamics of the threat and how geopolitical strategies can be implemented effectively in dealing with the threat of IUU Fishing in the North Natuna Sea.

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