

## Indonesia's Maritime Defense Strategy for Securing North Natuna 2019-2024

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### ABSTRACT

The North Natuna Sea has a strategic role for Indonesia because of its natural resources and vital trade routes. However, external claims, especially from China and China Coast Guard (CCG) activities, challenge Indonesia's sovereignty Indonesia. To counter this, Indonesia issued Presidential Regulations no. 8/2021 and No. 12/2021 to strengthen maritime defense and modernize the navy. Despite these efforts, challenges such as coordination between coordination, operational capabilities and resource allocation still exist. This study evaluates the effectiveness of Indonesia's maritime defense strategy using the ends, Ways, and Means framework. The results show progress in monitoring and patrolling, but shortcomings in fleet, technology and coordination hamper strategy implementation hinder strategy implementation. This research recommends improving inter-agency coordination, monitoring technology and resource allocation to strengthen the sovereignty and security of the North Natuna Sea.

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## **INTRODUCTION**

The Natuna Islands play a crucial role in Indonesia's defense and maritime sovereignty, acting as a key geopolitical and economic asset in Southeast Asia. Located at the northern tip of the Riau Archipelago, adjacent to the disputed South China Sea, the North Natuna Sea is a vital maritime route with strategic importance. This area sees about one-third of global trade pass through annually, valued at trillions of dollars, emphasizing its significance for both regional and global stability (Buszynski, 2020). The North Natuna Sea (NNS) lies within Indonesia's Exclusive Economic Zone (EEZ), as defined by the United Nations Convention on the Law of the Sea (UNCLOS) 1982, along with Indonesian laws No. 43/2008 on State Territory, No. 5/1983 on EEZ, and No. 6/1996 on Indonesian waters. These laws affirm Indonesia's sovereignty over its maritime areas, granting it exclusive rights over its natural resources, including valuable hydrocarbon reserves and abundant fisheries essential for local economies (Salam, 2008; Laksmana, 2020). However, Indonesia's sovereignty over the North Natuna Sea is increasingly contested, especially by China's Nine-Dash Line claim and the activities of the China Coast Guard (CCG), particularly between 2020 and 2023. These incursions, involving aggressive tactics such as blocking and ramming vessels, challenge Indonesia's enforcement capabilities and undermine its authority (Bateman, 2019; International Crisis Group, 2021). The CCG, operating as a paramilitary entity, exacerbates security concerns and complicates Indonesia's efforts to maintain control in the region (Bateman, 2024).

While Indonesia is not a formal claimant in the South China Sea disputes, China's assertion of "traditional fishing grounds" in the North Natuna Sea has led to frequent incursions by Chinese fishing boats and CCG ships from 2020 to 2023 (Bateman, 2019; International Crisis Group, 2021). These actions have directly challenged Indonesia's sovereignty, highlighting the limitations in Indonesia's maritime enforcement and response. The CCG's operations in the NNS and Indonesia's EEZ represent a significant security threat, with clear signs of militarization and aggressive tactics undermining both Indonesia's sovereignty and regional stability. The China Coast Guard (CCG), operating as a paramilitary force under the People's Armed Police (PAP) and ultimately controlled by the Central Military Commission (CMC), exceeds the typical duties of a conventional coast guard. It engages in military-style coercion to enforce China's claims in contested maritime areas, acting aggressively to assert unilateral territorial assertions (Bateman, 2024).

A key concern is the CCG's use of aggressive tactics, such as ramming, blocking, and employing water cannons to intimidate foreign vessels, discouraging neighboring countries from asserting their maritime rights. These actions present a significant challenge for Indonesia, as repeated CCG incursions into the North Natuna Sea undermine Indonesia's sovereignty, hinder maritime law enforcement operations, and challenge the effectiveness of Indonesia's maritime defense strategy under President Joko Widodo's administration (2019–2024).

In response, Indonesia has adopted a strategy focused on deterrence and capacity building, including deploying long-range unmanned aerial vehicles

(UAVs), expanding radar surveillance, and conducting joint military exercises such as Garuda Shield with the United States (Pandie, 2025). Additionally, Indonesia's Fisheries Protection Initiative (2022) has mobilized local fishermen to help monitor illegal fishing activities, incorporating civilian efforts into the broader national security framework (KKP, 2022).

Despite these measures, Indonesia faces ongoing challenges in coordinating efforts across various agencies, ensuring logistical readiness, and optimizing resource allocation. The lack of clarity regarding resource distribution (Means) to meet strategic goals (Ends) highlights significant implementation weaknesses that need further attention (Laksmana, 2020). Furthermore, shifts in regional geopolitics, particularly the intensifying U.S-China rivalry in the Indo-Pacific, complicate Indonesia's maritime security situation (Wu, 2021; Pandie, 2025). This research critically assesses Indonesia's maritime defense strategies, specifically examining the application of the Ends, Ways, and Means framework to secure its sovereignty in the North Natuna Sea.

## LITERATURE REVIEW

### *Regional Security Complex Theory (RSCT)*

Regional Security Complex Theory (RSCT), developed by Barry Buzan and Ole Wæver, provides a framework for understanding how security concerns are geographically clustered within a region, creating interconnected regional systems. RSCT argues that security dynamics tend to be more intense within a region than between regions, forming a "security complex" where the security policies, threats, and interests of neighboring states are deeply intertwined (Buzan & Wæver, 2003). For Indonesia, the North Natuna Sea, which lies within its EEZ, has become a highly contested area due to China's incursions, justified by the controversial "nine-dash line". These actions threaten Indonesia's ability to enforce its maritime sovereignty and exploit its natural resources, particularly in the context of hydrocarbon reserves and fisheries. The North Natuna Sea thus represents a critical component of Indonesia's maritime defense strategy, which is designed to safeguard both the country's territorial integrity and economic interests (Laksmana, 2020).

RSCT is vital for understanding how Indonesia navigates the interconnected regional security environment in the Indo-Pacific. As an archipelagic state at the crossroads of vital sea lanes, Indonesia must balance external pressures from major powers like China and the United States, while asserting its sovereignty. The theory highlights how regional dynamics compel Indonesia to adapt its defense strategies to respond to traditional and non-traditional security threats in the North Natuna Sea.

### *Maritime Security Theory*

Maritime Security Theory offers a comprehensive framework for understanding the threats and strategies associated with safeguarding maritime territories, resources, and activities. The theory addresses traditional security threats—such as territorial disputes and naval conflicts—and non-traditional threats, IUU fishing, piracy, human trafficking, and environmental degradation (Bueger & Edmunds, 2020). As the global economy depends heavily on secure

maritime trade routes and resources, maritime security is an increasingly vital focus of national and regional defense strategies. The concept emphasizes the interconnectedness of security, governance, and economic interests in the maritime domain, advocating for cooperative approaches that integrate military, legal, and diplomatic measures.

Central to Maritime Security Theory is the idea that the ocean, while global commons are governed by a complex framework of international laws and norms. The UNCLOS is the legal cornerstone of maritime governance, providing states with defined rights over their territorial waters and EEZ. It also establishes principles for freedom of navigation and dispute resolution (Klein, 2011).

### ***Deterrence Theory***

The Deterrence Theory is a cornerstone of international relations and security studies, focusing on the use of credible threats to prevent adversaries from taking undesirable actions. At its core, deterrence relies on the ability of a state to project strength, communicate its willingness to defend its interests, and impose unacceptable costs on an adversary should they choose to act aggressively (Schelling, 1966).

The theory primarily addresses two key scenarios: deterrence by punishment, where the threat of retaliation discourages an adversary and deterrence by denial, where a state's ability to block aggression makes the act itself futile. In a maritime security context, deterrence is particularly relevant for safeguarding sovereignty, protecting economic interests, and maintaining stability in contested regions such as the Indo-Pacific.

Deterrence Theory is rooted in the realist perspective of international relations, which posits that states operate in an anarchic international system where survival and security are paramount (Waltz, 1979). Because there is no overarching authority to enforce rules or prevent conflicts, states rely on their own capabilities to deter threats. For deterrence to be effective, it must satisfy three conditions: capability, credibility, and communication (Jervis, 1978). Capability refers to the military and technological assets that allow a state to impose costs or deny benefits to an aggressor. Credibility involves convincing adversaries that a state is both willing and able to use its capabilities. Communication ensures that the adversary is aware of the potential consequences of their actions.

### ***Strategy Theory***

The word strategy is a word derived from the Greek "*strategos*" which means the art of the generals. According to Clausewitz, strategy is defined as the organization of ways to fight, so that we can achieve our goals. Clausewitz focused on the strategy of war, that is, from the strategy will come out as the winner of the war (Clausewitz, 2007). Strategy may be defined as the synchronized and integrated employment of the instruments of national power to achieve endstates.<sup>18</sup> Among military officers and across the federal government, the most influential institution in the framing of strategy is the United States Army War College. Through professional military education, a vast majority of officers have been exposed to Arthur Lykke's famous depiction of

strategy as a three-legged stool. Lykke conceived of military strategy as a combination of objectives, concepts, and resources – more commonly known as “ends, ways, and means” (Moon, 2024).

In 2014, the Indonesian MoD issued a State Defense Strategy policy that contains guidelines for defense strategies carried out by Indonesia until 2019. The guideline needs to be used as a reference to analyze efforts/strategies in dealing with the threat of terrorism. In general, the national defense strategy created in 2014 contains three basic substances that include goals to be achieved (ends), resources (means), and ways to achieve goals (ways) (Ministry of Defense, 2014).

The existence of the three basic substances above must be proportional, balanced, and run in a coordinated manner to eliminate the gap between the goals and objectives to be achieved, the available resources, and the strategic concept of action (Indonesian Defense White Paper, 2015).

**St: W+M+E**

Description:

St (Strategy) = Strategy

W (Ways) The means taken to achieve the goal

M (Means) = Sources, facilities and infrastructure that can be used in achieving the goal.

E (Ends) = Objectives that have been determined in the policy.

## **METHODOLOGY**

Research methodology refers to the systematic approaches employed to gather data for specific and intended purposes. In the context of this study, the chosen methodology is qualitative in nature, grounded in either post-positivist or interpretive philosophical underpinnings. This approach is utilized to investigate phenomena occurring naturally, with the researcher assuming a pivotal role as the primary instrument.

The data collection process involves triangulation, wherein a blend of observational, interview-based and documentary methods are employed. The resultant data is predominantly qualitative in character. Analysis of the data follows an inductive/qualitative approach, and the research outcomes are oriented towards a comprehensive comprehension of meanings, discerning uniqueness, constructing phenomena, and formulating hypotheses (Sugiyono, 2022).

Next step, writer using Strategy Theory to analyse the effort maintained by Indonesia’s Defense entities in securing North Natuna. The strategy has been formulated in three basic substances, namely:

- a. What will be maintained, in making a strategy must see what you want to maintain, and this is the purpose of the strategy.
- b. How to maintain, in carrying out strategies to achieve the desired goals, action or ways to carry out the strategy are needed.
- c. With what to maintain, to achieve strategic goals must have resources that can be used in carrying out a strategy.

The three substances above are described in the form of goals and objectives, as well as how to achieve the goals and the resources used (Indonesian Defense White Paper, 2015). The elements of strategy formulation include goals,

strategic targets, ways, and means that support the achievement of a strong national defense capability.

### **Material**

#### ***a. The Strategic Importance of the North Natuna Sea***

The North Natuna Sea (NNS) is one of Indonesia's most strategically significant maritime regions, both geographically and geopolitically. As part of Indonesia's Exclusive Economic Zone (EEZ), the area is a rich source of fisheries and hydrocarbon reserves and is a critical transit corridor for global maritime trade (Bateman, 2019). Its geographic position places it at the southern edge of the South China Sea, a region that has long been a hotspot of territorial disputes. The maritime resources within Indonesia's EEZ, particularly fisheries and offshore hydrocarbons, are critical to the national economy. Marsetio (2014) notes that Natuna's D-Alpha gas field contains approximately 46 trillion cubic feet of natural gas, making it one of Southeast Asia's most significant hydrocarbon deposits. The fishing industry in the region also sustains thousands of Indonesian coastal communities, further highlighting its economic significance.

The North Natuna Sea plays a crucial role in Indonesia's maritime security strategy, particularly in enforcing sovereignty, deterring foreign incursions, and protecting natural resources. Presidential Regulation No. 8/2021 on National Defense Policy underscores the importance of maritime defense in securing Indonesia's territorial waters, including mandating increased naval patrols, inter-agency coordination, and infrastructure development (President of the Republic of Indonesia, 2021). To support this, Presidential Regulation No. 12/2021 focuses on strengthening the national defense industry, including investments in naval modernization and aerial surveillance (Wu, 2021).

Indonesia's maritime defense efforts in the North Natuna Sea primarily rely on the Indonesian Navy (TNI-AL), the Indonesian Maritime Security Agency (Bakamla), and the Ministry of Maritime Affairs and Fisheries (KKP). These agencies work together to monitor, intercept, and deter unauthorized foreign activities, especially illegal, unreported, and unregulated (IUU) fishing by foreign vessels (Laksmana, 2020). In recent years, the government has also expanded naval and air bases in Ranai and deployed Unmanned Aerial Vehicles (UAVs) and radar surveillance systems to strengthen maritime domain awareness (Bateman & Chan, 2020).

#### ***b. Indonesia Maritime Defense Strategy***

The North Natuna Sea (NNS), located at the heart of these tensions, is a critical area of concern for Indonesia due to its strategic location, valuable resources, and the overlapping territorial claims of China, which assert control over parts of Indonesia's Exclusive Economic Zone (EEZ) under the controversial Nine-Dash Line (Marsetiono, 2020).

In response to these challenges, Indonesia has developed a comprehensive maritime defense strategy aimed at safeguarding its sovereignty and ensuring the sustainable use of its maritime resources. This strategy involves a combination of military, diplomatic, and economic measures designed to protect Indonesia's territorial waters, particularly in the NNS, and address both

traditional and non-traditional security threats such as foreign incursions, illegal fishing, and environmental degradation (Till, 2018). By integrating various defense agencies and leveraging modern technology, Indonesia aims to strengthen its position as a maritime nation and protect its vital interests in the region. Indonesia's approach to maritime defense involves both military deterrence and diplomatic efforts. To ensure the security of its maritime domain, Indonesia has invested in modernizing its naval and coast guard capabilities, enhancing its surveillance and patrol capabilities, and establishing integrated defense strategies.

A key part of Indonesia's maritime defense efforts is the modernization of its naval forces. Under the leadership of the Indonesian Navy (TNI-AL), the country has prioritized the acquisition of modern warships, submarines, and advanced surveillance systems. These efforts aim to enhance the Navy's ability to patrol and secure Indonesia's vast maritime territories. Indonesia has also invested heavily in technology, including satellites and radar systems, which help improve Maritime Domain Awareness (MDA) and the country's ability to detect and respond to illegal activities or foreign incursions in real-time (Bateman & Chan, 2020).

Another significant effort is Indonesia's establishment of Kogabwilhan (Komando Gabungan Wilayah Pertahanan), which plays an integral role in coordinating the nation's maritime defense. Kogabwilhan's function is to synchronize the operations of different defense and law enforcement agencies, such as Indonesian Navy, Bakamla (Indonesian Maritime Security Agency), and the Ministry of Maritime Affairs and Fisheries (KKP), to ensure a coordinated and efficient response to threats in Indonesia's maritime areas (Marsetiono, 2020). This integrated approach allows Indonesia to maximize its maritime defense capabilities, balancing military deterrence with civilian enforcement.

### *c. Strategy Theory*

The elements of strategy formulation include goals, strategic targets, ways, and means that support the achievement of a strong national defense capability. The national defense strategy is formed with three basic substances which include:

- a. The goal to be achieved is to maintain and protect the sovereignty of the state, the territorial integrity of the Unitary State of the Republic of Indonesia and the safety of the nation, which is elaborated into 5 strategic targets:
  - 1) Realizing national defense that is able to face all threats.
  - 2) Realizing national defense that is able to handle the security of land, sea and aerospace areas.
  - 3) Realizing national defense that is able to play an active role in creating world peace based on free and active politics.
  - 4) Realizing an independent, strong and competitive defense industry.
  - 5) Realizing all Indonesian citizens has an awareness of state defense.
- b. Defense resources used for military defense that are integrated and synergized with non-military defense

- c. How to utilize existing resources to achieve strategic goals/objectives through planning, preparation, and implementation of a strong and powerful national defense system (Indonesian Defense White Paper, 2015).

The existence of the three basic substances above must be proportional, balanced, and run in a coordinated manner to eliminate the gap between the goals and objectives to be achieved, the available resources, and the strategic concept of action (Indonesian Defense White Paper, 2015).

## RESEARCH RESULT AND DISCUSSION

### *Strategy Analyzed by the Ends, Ways, and Means Framework*

Indonesia's maritime defense strategy, particularly in the North Natuna Sea, is shaped by a complex set of strategic objectives aimed at protecting sovereignty, ensuring security, and safeguarding natural resources. Key theories, including Regional Security Complex Theory (RSCT) and Maritime Security Theory, help frame these objectives within regional and global contexts.

RSCT emphasizes that regional security is interconnected, meaning Indonesia's security is influenced by external actors and regional dynamics. In the North Natuna Sea, China's territorial claims challenge Indonesia's sovereignty. The theory stresses that without regional cooperation, particularly within ASEAN, Indonesia's ability to address these threats is limited. A lack of multilateral partnerships, such as with the United States, exacerbates the situation, leaving Indonesia to address territorial violations unilaterally.

Indonesia's sovereignty-focused strategy is evident in its increased military presence and efforts to assert control over contested waters. However, the absence of a unified regional defense framework undermines its efforts. To enhance effectiveness, RSCT suggests fostering stronger regional partnerships and collaborative defense mechanisms.

The Maritime Security Theory, outlined by Bueger and Edmunds, expands the concept of maritime security beyond military threats to include non-traditional issues like illegal, unreported, and unregulated (IUU) fishing, environmental degradation, and transnational crime. Indonesia's challenges in protecting its maritime resources, especially in the North Natuna Sea, are heavily impacted by IUU fishing. The country's reliance on multiple agencies like Bakamla and Koarmada to tackle both military and non-military threats highlight the need for a comprehensive security approach.

The theory also calls for technological advancements and better coordination to improve effectiveness. Indonesia's outdated monitoring systems and insufficient patrol resources hinder its ability to respond to these threats. Improved surveillance and inter-agency cooperation, including technological upgrades, are critical to addressing these challenges.

In terms of deterrence, Indonesia employs a strategy of maintaining a visible military presence to signal those violations will have immediate consequences. This aligns with Deterrence Theory, which suggests that clear and credible threats can prevent adversarial actions. However, Indonesia's deterrence capability is weakened by resource constraints and poor coordination, reducing the perceived credibility of its strategy.

To strengthen deterrence and maritime security, Indonesia must invest in military readiness, technological assets, and inter-agency coordination. Enhancing regional cooperation, improving enforcement capabilities, and modernizing technology are essential steps in ensuring Indonesia's security and sovereignty in contested areas like the North Natuna Sea.

Indonesia is also heavily influenced by the country's resources and capabilities, which are critical for maintaining sovereignty and addressing security challenges, especially from external actors like China. The effectiveness of these resources is shaped not only by internal factors but also by how Indonesia engages with regional dynamics, as suggested by RSCT. RSCT posits that regional security is interconnected, and Indonesia's defense capabilities must align with regional and global contexts to effectively deter external threats.

Indonesia has made strides to modernize its military assets, including naval vessels produced domestically through companies like PT PAL. However, budget limitations constrain these efforts, affecting the country's ability to maintain a continuous defense presence in contested maritime zones. This limitation creates vulnerabilities, particularly in the face of incursions by China Coast Guard (CCG) vessels in the North Natuna Sea. RSCT emphasizes the need for a collective security approach to strengthen defense, suggesting that regional cooperation, particularly within Southeast Asia, could enhance Indonesia's security in the face of rising external threats.

The Maritime Security Theory by Bueger and Edmunds stresses a holistic approach to maritime security, addressing both military and non-traditional threats such as illegal fishing, smuggling, and environmental challenges. Indonesia's focus on protecting its maritime resources, such as fish stocks in the North Natuna Sea, highlights the importance of addressing non-military threats. However, technological limitations, including outdated radar, drones, and satellite systems, impede Indonesia's ability to monitor vast maritime territories effectively. The fragmented technological infrastructure, coupled with insufficient funding for modern surveillance systems, undermines Indonesia's maritime defense capabilities.

Inter-agency coordination is another critical component of Indonesia's maritime strategy. While institutions like Bakamla, Koarmada, and the KKP work to address security challenges, there are significant inefficiencies in coordination, leading to delayed responses. The fragmented coordination across agencies hampers Indonesia's ability to respond promptly to maritime violations, such as illegal fishing and territorial incursions. Enhanced technological investments and better resource allocation could improve inter-agency coordination and overall defense effectiveness.

Despite efforts to improve its military assets, Indonesia's defense readiness faces financial constraints that affect the number of modern warships, submarines, and surveillance technology. The lack of sufficient resources weakens Indonesia's deterrence strategy, which relies on the credible threat of military response. To strengthen deterrence and maritime security, Indonesia must invest in modern naval assets, advanced technologies, and improve institutional coordination. Addressing resource limitations is essential for

enhancing Indonesia's maritime defense and safeguarding its sovereignty in contested waters.

Moreover, Indonesia's ability to secure its maritime sovereignty, also depends heavily on the effectiveness of its resources and operational methods. Indonesia's defense strategy must address both external threats and the broader regional security landscape, where the actions of neighboring powers like China have direct implications on its security posture.

The effectiveness of Indonesia's maritime defense strategy is closely linked to the country's military assets, technological infrastructure, and financial resources. While Indonesia has made efforts to modernize its military, such as domestic production of naval vessels through companies like PT PAL, its progress is constrained by budget limitations. This directly impacts Indonesia's ability to maintain a continuous defense presence in contested maritime zones, leading to vulnerabilities in its defense capabilities.

RSCT highlights that Indonesia's security challenges are regional in nature, and the country's resources must align with these regional dynamics to strengthen its deterrence capacity. To address these challenges effectively, Indonesia needs to seek broader multilateral security cooperation, particularly within Southeast Asia, to reduce its dependency on internal resources and enhance its defense strategy.

In line with the Maritime Security Theory by Bueger and Edmunds, Indonesia's maritime defense strategy must take a comprehensive approach, addressing both military and non-traditional threats such as illegal fishing, environmental degradation, and piracy. The lack of modern surveillance systems, radar, and sufficient patrol boats hampers Indonesia's ability to monitor and enforce laws across its vast maritime borders. Technological limitations have made it difficult for Indonesia to respond quickly to maritime violations, particularly in contested areas like the North Natuna Sea. The theory stresses that a combination of military, law enforcement, and diplomatic measures is necessary to address these threats effectively. However, agencies like Bakamla and the KKP face resource constraints that further weaken the country's ability to enforce maritime laws efficiently.

Deterrence Theory, as outlined by Schelling, underscores the importance of military capabilities in signaling the cost of aggression and preventing adversarial actions. Indonesia's defense strategy relies heavily on visible military deterrence, with naval assets like Koarmada and KRI ships deployed to signal those violations will not be tolerated. However, the credibility of this deterrence is compromised by limited military resources, outdated technology, and inconsistent patrols. To strengthen deterrence, Indonesia must invest in modern naval ships, increase patrol visibility, and enhance surveillance systems. By addressing these resource limitations and improving inter-agency cooperation, Indonesia can strengthen its maritime defense, ensure its sovereignty, and better manage security in the North Natuna Sea.

### *Optimizing Strategy for Securing North Natuna Sea*

The North Natuna Sea holds significant economic and geopolitical value for Indonesia, making it a crucial area for safeguarding the country's sovereignty and maritime resources. The region faces various security challenges, including illegal fishing, foreign military incursions, and territorial disputes. To address these threats, Indonesia's maritime defense strategy, particularly under the guidance of Presidential Regulation No. 8/2021 (Perpres 8/2021) and Presidential Regulation No. 12/2021 (Perpres 12/2021), focuses on enhancing military and non-military efforts in the region. This essay evaluates Indonesia's current strategies and proposes recommendations based on the Ends, Means, and Ways framework to improve its maritime security.

Indonesia's military efforts, led by the TNI-AL (Indonesian Navy), play a central role in maintaining security in the North Natuna Sea. The Navy conducts regular patrols to assert Indonesia's sovereignty and deter foreign incursions. Additionally, Indonesian Navy ensures rapid response capabilities to address illegal fishing, smuggling, and foreign military activities, and is actively modernizing its fleet under Perpres 12/2021 to acquire new warships, submarines, and advanced surveillance systems. On the non-military front, Bakamla (Indonesian Coast Guard) coordinates maritime law enforcement, particularly focusing on illegal fishing and other illicit activities within Indonesia's Exclusive Economic Zone (EEZ). The agency also conducts surveillance operations using patrol boats, aerial systems, and coastal radars to monitor illegal activities and foreign incursions. Bakamla collaborates with Indonesian Navy and other institutions to ensure effective coordination and maritime defense.

The strategic objectives of Indonesia's maritime defense are outlined in Perpres 8/2021, which emphasizes securing sovereignty over the North Natuna Sea, protecting maritime resources, and ensuring national security amidst territorial disputes. To improve effectiveness, it is recommended that Indonesia clarify specific defense goals under this regulation by establishing clear criteria for the success of maritime patrols, territorial protection, and preventing illegal activities. This would help Indonesian Navy and Bakamla focus their efforts on specific outcomes, improving alignment between policy goals and operational actions.

Regarding operational strategies, Indonesia's current tactics include coordinated patrols and surveillance, combined with law enforcement efforts against illegal fishing. However, to enhance efficiency, it is suggested that Indonesia establish a unified command structure between Indonesian Navy and Bakamla, which would improve intelligence sharing, resource allocation, and real-time coordination. Additionally, investing in advanced surveillance technologies, such as satellite monitoring, AI-powered systems, and autonomous platforms, would allow better coverage of Indonesia's vast maritime territories.

In terms of resources and capabilities, Indonesian Navy and Bakamla currently face resource constraints, including limited fleet size, insufficient surveillance systems, and funding challenges. To address these limitations, it is recommended that Indonesia increase its defense budget for maritime security,

ensuring adequate funding for fleet modernization and technological upgrades. Furthermore, investing in the domestic defense industry to develop indigenous technologies could reduce dependency on foreign suppliers, strengthening Indonesia's long-term defense capabilities.

By improving inter-agency coordination, modernizing naval assets, investing in advanced surveillance technologies, and ensuring sufficient resource allocation, Indonesia can strengthen its maritime defense capabilities, better secure its maritime zones, and protect its sovereignty in the face of regional challenges.

## **CONCLUSIONS AND RECOMMENDATIONS**

Indonesia's maritime defense strategy, particularly in the North Natuna Sea, is of paramount importance to the country's sovereignty, security, and economic interests. The region, rich in resources and strategically located, faces increasing threats from illegal fishing, foreign military incursions, and territorial disputes, particularly with China. Indonesia's defense strategy, shaped by both military and non-military efforts, relies heavily on the Indonesian Navy (TNI-AL) and Bakamla (Indonesian Coast Guard), whose coordination is vital for effective maritime security. However, challenges such as limited resources, outdated technology, and fragmented coordination between agencies hinder the full potential of Indonesia's defense posture.

Through the framework of Ends, Ways, and Means, this analysis reveals key areas for improvement. The strategic objectives, or "Ends," need to be clearly defined in terms of specific goals for territorial protection and preventing illegal activities. Additionally, operational strategies, or "Ways," could benefit from enhanced joint coordination between Indonesian Navy and Bakamla, supported by advanced surveillance technologies and a unified command structure. The integration of modern technology, such as satellite monitoring and AI-powered systems, would significantly improve real-time response capabilities and efficiency in monitoring Indonesia's vast maritime zones.

The "Means" required for these operational strategies must include increased budget allocation for fleet modernization, technological upgrades, and resource development. A focus on strengthening Indonesia's domestic defense industry could reduce dependency on foreign suppliers and enhance self-sufficiency. By addressing these resource constraints, Indonesia can ensure that its military and non-military forces are better equipped to safeguard its maritime sovereignty effectively.

Ultimately, by addressing the challenges outlined above—through improved inter-agency cooperation, enhanced technology, and strategic resource investments—Indonesia can bolster its maritime defense capabilities and secure its national interests in the North Natuna Sea, reinforcing its position in the face of growing regional tensions and maritime threats.

## **ADVANCED RESEARCH**

Indonesia's maritime defense strategy in the North Natuna Sea exemplifies a robust yet evolving framework that integrates military and non-military elements to safeguard sovereignty. However, a deeper analysis reveals

the necessity for a more sophisticated fusion of intelligence-driven operations and technological advancements to counter emerging threats effectively. Advanced research in maritime domain awareness (MDA) suggests that integrating artificial intelligence (AI) with satellite-based surveillance and autonomous maritime systems could significantly enhance real-time threat detection and response capabilities. The use of AI-powered data analytics in conjunction with ISR (Intelligence, Surveillance, and Reconnaissance) platforms would enable predictive threat assessments, optimizing force deployment efficiency. Additionally, lessons from regional maritime security strategies indicate the potential benefits of a hybrid defense model incorporating unmanned surface and underwater vehicles (USVs and UUVs) for persistent monitoring in contested waters. Furthermore, Indonesia's strategic partnerships with key naval powers, particularly through intelligence-sharing agreements and joint maritime exercises, could bolster deterrence measures against foreign incursions. The modernization of Alutsista must not only focus on fleet expansion but also prioritize cyber-resilient command and control systems, ensuring secure and seamless inter-agency coordination. By integrating these technological advancements and strategic innovations, Indonesia can reinforce its position as a formidable maritime force, capable of responding to asymmetric threats while securing its vast territorial waters.

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