



Indonesia's Maritime Strength as an Anticipation of Escalation in the North Natuna Sea Conflict

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Abstract. As the world's largest archipelagic nation, Indonesia faces significant challenges in safeguarding its maritime sovereignty, particularly in the North Natuna Sea, which is threatened by China's claims under the Nine Dash Line. The rising tensions in the South China Sea highlight the urgency of strengthening Indonesia's naval defense and security forces. This study analyzes the effectiveness of government policies in enhancing the primary weapons systems (Alutsista) of the Indonesian Maritime Security Agency (Bakamla) as strategic responses to protect sovereignty in the North Natuna Sea. By using a comparative approach between the maritime capabilities of Indonesia and China, this study highlights the significant gaps in the number and quality of fleets possessed by the two countries. The Bakamla, with 56 vessels, is far from ideal in facing the continually expanding maritime power of China. China, with up to 400 coast guard ships, supported by a highly advanced national shipbuilding industry, has successfully projected its power in the South China Sea. This study concludes that to maintain sovereignty in the North Natuna Sea, Indonesia needs not only to increase the quantity and modernization of Bakamla's fleets but also to build a stronger synergy between maritime strength and maritime policy. Strengthening the national shipbuilding industry and investing in advanced maritime technology are considered critical steps to ensure Indonesia can protect its sovereignty and national interests in strategic maritime areas.

Keywords: Maritime Sovereignty, North Natuna Sea, TNI AL and Bakamla Defense Equipment.

1 Introduction

The conflict in the South China Sea (SCS) is a violation of sovereignty in maritime areas. This conflict involves Indonesia because the North Natuna Sea falls within the Nine-Dash Line, which China claims as its territory. China has successfully implemented its long-term policy blueprint through its five-year strategic plan, the Made in China 2025 Policy, and the Belt and Road Initiative [1]. China's unilateral claim over the South China Sea is part of a long-term strategy that has been set for a long time. China's control over the South China Sea is carried out with "well-prepared" planning

and execution. As a country with a vast maritime territory and a large population, Indonesia must be able to build its maritime power.

This research examines the maritime capabilities of China and Indonesia in the context of the South China Sea conflict using a comparative approach. The analysis focuses on three key aspects: policy, shipbuilding industry capabilities, and maritime security operations. In particular, the study looks at Indonesia's maritime security operations, comparing the strength of Badan Keamanan Laut (Bakamla), which has the legal authority to operate and enforce laws in Indonesian waters extending beyond 200 nautical miles. This aspect is especially important in assessing Indonesia's capacity to respond to potential escalations in the South China Sea, where effective maritime security is critical.

2 Indonesia's Current Power

2.1 Policy

Indonesian maritime security policy is stipulated in two documents, which are Law No. 59 of 2024 on the National Long-Term Development Plan (RPJPN) 2025-2045 and Presidential Regulation Number 34 of 2022 on Plan of Action for the 2021-2025 Indonesia's Maritime Policy. The RPJPN mapped out Indonesia's long-term plan [2]. This plan anticipates an institutional transformation in the maritime security sector, aiming to unify maritime security and law enforcement under a single regulatory framework supported by advanced technology. This approach is expected to streamline operations, enhance coordination among agencies, and improve the effectiveness of maritime law enforcement, especially in areas of strategic importance like the South China Sea.

The Plan of Action prioritizes strengthening Indonesia's sovereignty and legal enforcement in its waters and jurisdiction areas, in alignment with international law. It emphasizes an integrated defense and security strategy, targeting both domestic and international jurisdiction, and includes initiatives to develop maritime border regions and outer islands. The regulation promotes cultivating a maritime-oriented national identity for defense purposes and improving maritime safety, particularly in shipping. It highlights the importance of coordination between central and regional governments on maritime and fishing issues, developing a national legal framework aligned with international standards, and advancing good maritime governance. Additionally, the plan supports the development of industry-specific regulations, such as shipyard classifications, to enhance the country's maritime infrastructure and capabilities.

Indonesia's maritime security policy faces significant challenges, particularly in coordinating and arranging the various agencies tasked with law enforcement at sea [3]. A major issue is the overlapping authority of at least six different institutions, including the Navy (TNI-AL), the Ministry of Transportation, the Ministry of Marine Affairs and Fisheries, the Ministry of Finance, the Police, and the Maritime Security Agency (Bakamla) [4]. This fragmentation results in inefficiency, miscommunication, and, in some cases, allegations of corruption [5]. While Bakamla is intended to be the primary maritime security coordinator, it lacks the necessary resources and authority to effectively

lead, especially given the Navy's reluctance to relinquish its law enforcement role at sea.

The existing regulatory framework and the absence of strong political will have prevented the full implementation of a unified maritime security agency, as previously instructed by the president. TNI-AL continues to dominate maritime law enforcement, creating further obstacles for Bakamla to assert its authority. Indonesia's strategic culture in maritime governance contributes to these coordination problems, as historical power dynamics and institutional competition persist [6].

Efforts to improve the capacity of TNI-AL and Bakamla, such as enhancing patrol and enforcement capabilities, have been ongoing. However, these agencies still face gaps in assets, equipment, and operational readiness, limiting their ability to address Indonesia's complex maritime security threats. Without clearer mandates, stronger political backing, and better resource allocation, Indonesia's maritime security governance will continue to struggle with coordination and effectiveness, hampering its ability to protect national waters and uphold maritime law.

Bakamla itself holds a crucial role in Indonesia's maritime security management. It is responsible for formulating national policies that safeguard maritime security and safety, ensuring the protection of the country's maritime interests [7]. Bakamla also operates an early warning system to detect potential threats and violations in real-time, bolstering preventive measures. Additionally, it conducts law enforcement activities, including surveillance, prevention, and addressing legal violations in Indonesia's maritime zones. Coordination and monitoring of maritime patrols, conducted by various related institutions, fall under its mandate to ensure unified and synergized efforts in maritime security. Furthermore, Bakamla provides technical and operational support to other relevant institutions, strengthening their capacity to perform maritime security tasks effectively. It also contributes to search and rescue missions, ensuring safety at sea during emergencies. Finally, Bakamla supports national defense efforts, particularly in maritime defense, positioning itself as a critical component in Indonesia's overall defense system. These functions collectively illustrate Bakamla's extensive role in ensuring national and regional maritime security.

Bakamla also holds other mandates. First, Bakamla is tasked with conducting immediate pursuit, allowing it to swiftly respond to maritime violations as they occur. Second, the agency is empowered to stop, inspect, capture, and escort vessels to the relevant authorities for further legal proceedings, ensuring that maritime law enforcement is thorough. Lastly, Bakamla integrates security and safety information systems across Indonesia's waters and jurisdictional areas. This function is crucial in enhancing data sharing and coordination between maritime institutions, allowing for more effective management of maritime security and safety. These responsibilities further emphasize Bakamla's proactive role in maintaining order and safety in Indonesia's vast maritime domain.

However, it should be noted that Bakamla does not possess the authority to conduct a full investigation. When encountering a crime, Bakamla should hand the case to another agency that has the authority to conduct a full investigation and legally process it further.

2.2 Shipbuilding Industry

There are approximately 342 shipyard industries spread across various regions of Indonesia, consisting of both state-owned and private companies, with the majority located in Batam (39%) [8]. Of that number, it is estimated that only about 160 shipyards can build new ships, and only around 6 shipyards can produce large vessels (10,000-50,000 DWT) [9]. Indonesia has around 4 state-owned shipyard companies: PT Industri Kapal Indonesia (Persero), PT Dok dan Perkapalan Kodja Bahari (Persero), PT Dok dan Perkapalan Surabaya (Persero), and PT PAL Indonesia.

Shipyards in Indonesia primarily build small-capacity vessels such as tugboats, passenger ships, offshore service vessels, tankers, cargo ships, bulk carriers, and others. Tugboat construction accounts for 53% of total production, and Indonesia is known as the largest tugboat producer in the world, followed by China and Malaysia in the last 12 years [10]. Around 3,600 tugboats have been produced by Indonesian shipyards, with the demand mainly dominated by the domestic market. The high demand for tugboats in Indonesia is driven by the strong demand for bulk product transportation, such as coal, where tugboats are used to tow coal barges.

In addition to the shipyard industry, Indonesia also has 127 ship component industries [11]. However, to date, Indonesia does not yet have a ship engine manufacturing company. In the shipbuilding process, approximately 70% of material cost allocation is spent on purchasing imported materials and equipment.

Not all shipyards in Indonesia are capable or experienced in building warships. A warship shipyard cannot be equated with other shipyards/commercial shipyards. This is because warship shipyards must meet infrastructure standards that support the construction of warships equipped with sensors, weapons, and command control (Sewaco). For submarine construction, currently only PT PAL Indonesia has the facilities for the production and maintenance of submarines. This submarine facility is funded by the state budget through State Capital Participation (PMN). Based on the explanation above, it is known that the capacity of national shipyards is still very small, especially for building new large-sized ships.

Some shipyards in Indonesia with experience in building warships include PT PAL Indonesia, PT Batamec, PT Daya Radar Utama, PT Karimun Anugrah Sejati, PT Bandar Abadi, PT Citra Shipyard, PT Palindo Marine, PT Multi Ocean Shipyard, and PT Tesco Indomaritim. The capacity of national shipyards is still relatively small, particularly in the warship sector.

Table 1. Major Indonesian Shipyards Involved in Navalship Building

No	Location	Shipyards	Affiliation	Military Product
1	Surabaya	PT PAL Indonesia	DEFEND ID (SOE's)	Fast Patrol Boat (FPB), Fast Attack Crafts (KCR Class), Landing Platform Dock (LPD), Hospital Ship (BRS), Strategic Sealift Vessel (SSV), Nagapasa Class Submarine, REM Class Frigate.
2	Jakarta, Lampung	PT Daya Radar Utama	Private Company	Offshore Patrol Vessel (OPV), Landing Ship Tank (LST)
3	Bekasi	PT Tesco Indomaritim	Private Company	Fast Patrol Boat (FPB)
4	Tj. Balai Karimun	PT Multi Ocean Shipyard	Private Company	Landing Craft Utility (LCU),
5	Batam	PT Karimun Anugrah Sejati	Private Company	Fast Patrol Boat (FPB), Corvette
6	Batam	PT Batamec	Private Company	oil liquid auxiliary vessel (BCM)
7	Batam	PT Citra Shipyard	Private Company	Patrol Vessel, OPV
8	Batam	PT Palindo Marine Shipyard	Private Company	Fast Attack Crafts, Patrol Vessel
9	Batam	PT Bandar Abadi Shipyard	Private Company	Landing Ship Tank (LST)

The following are some of the challenges and obstacles faced by the shipbuilding industry in Indonesia, particularly for warship production, including aspects related to R&D, infrastructure, human resources, technology licenses, production technology, and the supply chain.

Table 2. Constraint and Challenge Shipbuilding Industry in Indonesia [12]

No	Items	Remarks
1	R&D Investment (High Capital Expenditure)	<ul style="list-style-type: none"> · R&D is mandatory for new product development. · Technology is protected by principal and controlled by the country. · Restriction to use/deploy is possible. · Burden CAPEX & Depreciation for corporations. · Certainty: success and procurement / captive.
2	Infrastructure & Human Capital Development	Technology capability readiness, infrastructure and Human Capital Development are dominant factors for Quality, Cost & Delivery (QCD).

3	Technology License and Production Technology	<ul style="list-style-type: none"> · Technology licenses are protected and highly regulated by the principal country causing dependence on the principal. · Production license commonly for sunset products and/or non-strategic products. · Applied for “controlled items”.
4	Supply Chain	Supply chain for Defence Industry: raw materials – component – Main Equipment (Alut) – Primary Weapons Systems (Alutsista) (Forward & Backward linkages).
5	Quality-Quantity-Time Delivery	Target on Quality, Quantity, and Delivery Time influencing each other.
6	Market share & Order Certainty	Uncertainty on procurement/captive order and captive market causing supply chain business unattractive.

2.3 Operation

Indonesia's maritime strength extends beyond military capabilities to encompass a wide range of civil duties that bolster the nation's economic and social development. As the largest archipelagic country in the world, Indonesia leverages its extensive maritime strength to promote sustainable fisheries, tourism, and shipping industries. The government has implemented initiatives aimed at enhancing maritime infrastructure, such as making relevant policies for a better sea government and also expanding ports, and improving navigation systems, to facilitate trade and connectivity among its thousands of islands. This initiative must be upheld by improving maritime security in Indonesia and managed by a civilian agency rather than the military. By prioritizing the civil aspects of its maritime strength, Indonesia not only protects its natural resources but also fosters economic resilience and supports the livelihoods of millions of its citizens who depend on the seas for their way of life [13].

Bakamla, or the Indonesian Maritime Security Agency, plays a pivotal role in enhancing Indonesia's maritime strength by focusing on maritime security, safety, and environmental protection. Established to address the challenges posed by the country's vast and diverse maritime domain, Bakamla is tasked with implementing policies and regulations to safeguard Indonesia's territorial waters against illegal activities such as smuggling, illegal fishing, and piracy. The agency operates a network of patrol vessels and utilizes advanced technology for surveillance, intelligence gathering, and rapid response to maritime incidents. By fostering collaboration with other governmental and law enforcement agencies, as well as engaging in international partnerships, Bakamla enhances the country's capacity to protect its extensive coastline and marine resources. Through its efforts, Bakamla not only ensures the security of Indonesia's maritime zones but also contributes to the sustainable use of marine resources and the overall economic growth of the nation, promoting a safer and more resilient maritime environment for all Indonesians [14].

In November 2014, it was announced that a new Coast Guard would be created to streamline and unify the command, control, and duties of various national maritime

agencies. The Indonesian Maritime Security Agency (Bakamla) was established in December 2014 and reports directly to the president. While it initially served as a coordinating body, it later gained its fleet of vessels. As of 2024, Bakamla operates a fleet of various types of vessels designed to support its maritime security and law enforcement missions. The fleet consists of patrol ships, speedboats, and specialized vessels for surveillance and response operations. Bakamla has approximately 56 vessels, ranging from offshore patrol vessels and disaster response ships to patrol crafts. With capabilities ranging from maritime law enforcement to search-and-rescue missions, as well as smaller interceptors and coastal monitoring. The agency continues to expand its fleet with modernized ships equipped with advanced radar, communication systems, and monitoring technology to ensure effective coverage of Indonesia's vast maritime territory [15].

3 China's Maritime Power

3.1 Policy

On the policy side, China has provided its maritime policy in several documents. Some of the most notable and significant are the National Defense Law in 2020 and the Coast Guard Law in 2021. In 2017, China restructured its marine law enforcement system by integrating the Coast Guard into the People's Armed Police Force, granting it the responsibility for both maritime law enforcement and protecting the nation's maritime rights and interests. The enactment of the Coast Guard Law in 2021 formalized the Coast Guard's roles and powers, offering a legal foundation for safeguarding maritime rights and conducting enforcement actions [16]. Although critics have raised concerns that certain aspects of the law could threaten regional maritime stability [17], these concerns do not undermine the overall beneficial impact the law has had on bolstering China's maritime security.

China's maritime security governance, particularly through the Chinese Coast Guard (CCG), is closely linked to the country's broader strategy of asserting its maritime rights and interests. Maritime administration and law enforcement have become central pillars in China's development as a maritime power, with significant attention given to establishing legal jurisdiction over claimed maritime territories. The reorganization of the China Coast Guard under the People's Armed Police, overseen by the Central Military Commission, reflects Beijing's focus on enhancing the Coast Guard's role in protecting its maritime claims.

China has actively developed and revised maritime-related legislation, including the Coast Guard Law and the Maritime Traffic Safety Law, to bolster the legal foundation of its maritime jurisdiction. This legal framework has been accompanied by the expansion of the CCG's capabilities, both in terms of personnel and advanced vessels, enabling it to carry out extensive patrols in contested waters, such as the East China Sea and the South China Sea. The CCG now plays a critical role in rights protection enforcement missions, safeguarding China's claimed maritime territories. This approach is further supported by the involvement of the People's Armed Forces Maritime Militia,

which complements the CCG's efforts by enforcing maritime sovereignty, particularly in disputed areas.

China's approach emphasizes administrative and legal measures to uphold its maritime claims as a maritime power. Over the last ten years, the State Council has twice reorganized national maritime agencies, first in 2013 and again in 2018. A significant change was the restructuring of the China Coast Guard (CCG), which was brought under the authority of the People's Armed Police and supervised by the Central Military Commission [18]. Overall, China's maritime security governance, with the CCG at its core, emphasizes legal, administrative, and enforcement mechanisms to assert and protect its maritime rights and interests.

The Chinese Coast Guard itself (CCG) holds critical responsibilities in maintaining maritime security and order, ensuring safe maritime traffic, and protecting marine resources. A core aspect of its duty includes combating illegal and criminal activities such as smuggling, drug trafficking, and piracy. The CCG organizes patrols, responds to emergencies, and handles maritime disputes, reinforcing the overall stability and security of the maritime domain. It is also tasked with ensuring maritime traffic safety through search and rescue operations, enforcing maritime safety standards, and implementing effective traffic and waterway management.

Furthermore, the CCG is responsible for protecting marine environments and resources, including monitoring compliance with laws regarding marine conservation and pollution prevention. The agency conducts surveillance in fisheries, investigates violations, and enforces regulations to safeguard marine ecosystems. Additionally, the CCG plays a key role in maritime territorial defense by securing ports and waterways, preventing terrorism, and handling territorial disputes. During times of war, the CCG serves as a naval reserve, aiding in mobilization efforts and defending national sovereignty.

3.2 Shipbuilding Industry

The shipbuilding industry in China is divided into three main categories: state-owned enterprises, domestic/private shipbuilding companies, and foreign-domestic joint ventures. China has 45 state-owned shipyards, 49 private shipyards, and 5 shipyards with foreign ownership [19]. There are two state-owned shipbuilding conglomerates in China, China State Shipbuilding Corporation (CSSC) and China Shipbuilding Industry Corporation (CSIC). In 2019, CSSC and CSIC merged and became China Shipbuilding Group Corporation (CSGC), which has 147 subsidiaries, including shipyards, equipment manufacturers, research institutes, and other companies, and has 310,000 employees [20].

China's policy has greatly contributed to the advancement of its shipbuilding industry to enhance global competitiveness by targeting high-value industries. This blueprint is outlined in the Five-Year Plan, the Belt and Road Initiative, and the Made in China 2025 Policy, which are being implemented with a holistic and cross-sectoral strategy [21]. The Chinese government, through central ministries, allocates project planning and funding to all shipyards in China, and this is carried out at the local government

level. The growth of China's shipbuilding industry is supported by cheap labor, investment in human resources, and mastery of technology, along with improving efficiency to achieve industrial transformation. Shipbuilding in China has integrated both military and commercial interests. The shipbuilding and marine equipment industry is an important part of China's maritime cluster. China's interest in the maritime sector is closely related to the shipbuilding sector. China's ship component industry has developed alongside the progress of its shipbuilding industry. The need for ship components in China is almost entirely met by its domestic industry. China is already capable of producing its own ship diesel engines, but for high-tech production lines such as advanced diesel engines and propulsion systems, it still relies on Korea, Japan, and Europe. China's interests in the South China Sea drive its mastery of warship technology. China's shipbuilding industry is being pushed to master the construction of high-tech warships, such as nuclear submarines and aircraft carriers.

Table 3. Major Chinese Shipyards Involved in Naval Construction [22] [23]

No	Location	Shipyards	Affiliation	Military Product
1	Shanghai	Jiangnan-Qiuxin Shipyards	CSSC (SOE's)	Luyang I & II Destroyer
2	Shanghai	Hudong-Zhonghua	CSSC (SOE's)	Type 054-Class Frigate, Jiangwei & Jianghu frigate upgrades, Type 075 LHD
3	Guangxi	Xijiang Shipyard	CSSC (SOE's)	Fast Attack Crafts
4	Guangdong	Huangpu Shipyard	CSSC (SOE's)	Type 054-Class Frigate, Zhu Hai Yun ship, Fast Attack Crafts
5	Guangdong	Guangzhou Shipyards	CSSC (SOE's)	Replenishment vessels
6	Liaoning	Huludao Shipyard	CSIC (SOE's)	Nuclear submarine: 093 & 094 class
7	Liaoning	Dalian Old Shipyard	CSIC (SOE's)	Luhai Destroyer and Luda Destroyer updates, Type 072-III Amphibious landing vessels
8	Wuhan/Hubei	Wuchang Shipyard	CSIC (SOE's)	Conventional-powered submarine.

3.3 Operation

China's maritime powers mainly consist of three forces, each with a maritime component. The People's Liberation Army Navy (PLAN), with its gray-hulled ships. The People's Armed Police (PAP) oversees China's maritime law enforcement (MLE) forces, which are primarily characterized by their white-hulled vessels, including the China Coast Guard (CCG). Additionally, the militia, known as the People's Armed Forces Maritime Militia (PAFMM), has a growing number of sea-based units with blue-hulled ships under the control of the PLA. Collectively, these three maritime forces have the

largest number of ships in the world. Unlike the U.S., whose shipbuilding industry is primarily focused on military purposes, China's vast commercial shipbuilding industry helps to offset overhead costs for the construction of vessels for all three maritime forces. This advantage has allowed China to rapidly build and modernize its fleets, particularly the CCG [24].

The China Coast Guard (CCG) originally served as the maritime division of the Public Security Border Troops, a paramilitary police organization operating under the Ministry of Public Security (MPS). On March 10, 2013, a significant restructuring was announced, whereby the CCG was amalgamated with several other maritime enforcement agencies, including the China Marine Surveillance (CMS), the Fisheries Law Enforcement Command (FLEC), and the maritime branch of the Customs Authority. This merger was intended to consolidate China's maritime law enforcement capabilities under a unified command structure, with the newly formed CCG placed under the jurisdiction of the State Oceanic Administration (SOA), which operated as a division of the Ministry of Land and Resources [25].

However, on July 1, 2018, the China Coast Guard underwent another major transition when it was transferred from civilian oversight under the State Oceanic Administration and the State Council to the People's Armed Police (PAP), placing it under the direct command of the Central Military Commission (CMC). This shift effectively militarized the CCG, aligning it more closely with China's national defense structure. Under this new arrangement, the CCG became an integral part of China's broader military apparatus, with its operational focus expanding to include a more prominent role in enforcing China's maritime sovereignty, participating in military-civilian fusion strategies, and supporting the PLA Navy (PLAN) in strategic maritime missions [26].

The reorganization of the CCG reflects China's broader geopolitical strategy to assert its maritime claims and protect its national interests in contested waters. By placing the CCG under military command, China has enhanced its ability to project power in the maritime domain while blurring the lines between civilian law enforcement and military operations at sea. This dual functionality allows the CCG to play a more aggressive role in enforcing maritime claims and supporting China's strategic objectives in regional and international waters [27].

As of 2024, the China Coast Guard (CCG) operates one of the largest fleets in the world, with over 150 oceangoing and regional patrol vessels. These ships are used for a range of missions, including enforcing China's maritime laws, protecting its territorial claims, and conducting search-and-rescue operations. The fleet includes larger vessels, some of which are equipped with helicopter facilities, high-capacity water cannons, interceptor boats, and various onboard weaponry [28].

Recent updates have shown that the CCG has expanded its fleet rapidly, partially through the transfer of older vessels from the Chinese Navy, such as Type 056 corvettes and other large ships, which have bolstered its capabilities in both blue-water and coastal operations. Notably, some of its largest ships, such as the 12,000-ton cutters Haijing 3901 and Haijing 5901, are among the biggest Coast Guard vessels globally. This growing fleet underscores China's increasing emphasis on maritime sovereignty and its assertiveness in contested areas, particularly in the South China Sea [29].

4 Comparative Analysis between China and Indonesia

In the context of maritime governance policy, Indonesia and China took a bit different approaches. To compare Indonesia's and China's maritime security policies, we can highlight key differences in their approaches to maritime governance, enforcement, and coordination.

Indonesia's maritime security policy is outlined in two main documents: Law No. 59 of 2024 (RPJPN 2025-2045) and Presidential Regulation No. 34 of 2022 (Plan of Action 2021-2025). These policies emphasize strengthening sovereignty, enhancing maritime law enforcement, and improving governance in Indonesian waters. However, Indonesia faces challenges in coordinating the numerous agencies responsible for maritime security, including the Navy (TNI-AL), Bakamla, and various ministries. Fragmentation and overlapping authorities among these institutions often lead to inefficiencies, resource gaps, and miscommunication, hindering unified maritime governance. Despite ongoing efforts to strengthen patrol and enforcement capabilities, the competition between TNI-AL and Bakamla continues to obstruct the realization of a unified maritime security structure, leaving Indonesia struggling to protect its waters effectively.

In contrast, China's maritime security policy is more centralized and legally reinforced. Key legislation, such as the National Defense Law (2020) and the Coast Guard Law (2021), provides a robust legal foundation for the China Coast Guard (CCG) to conduct enforcement actions and safeguard the nation's maritime rights and interests. China restructured its maritime enforcement system in 2017, placing the CCG under the People's Armed Police with supervision by the Central Military Commission. This integration has enabled China to streamline its maritime law enforcement, focusing on asserting control over contested maritime territories. China's maritime security governance is heavily legal and administrative, bolstered by the expanded capabilities of the CCG, including advanced vessels and personnel, which allow for extensive patrols in disputed areas such as the South China Sea. China's strategic approach focuses on enhancing its maritime power through legal frameworks and enforcement mechanisms, resulting in a more centralized and effective maritime governance structure than Indonesia's fragmented system.

In summary, while Indonesia struggles with institutional fragmentation and coordination issues, China has established a more unified and legally supported maritime governance model, centered around the China Coast Guard's role in protecting national interests and asserting territorial claims.

In the context of shipbuilding, there are some key differences as well. China and Indonesia are both countries with maritime territories, but China has greater interests in the maritime sector compared to Indonesia. The number of shipyards in China is larger than in Indonesia, especially in terms of production capacity. China's production capacity allows for the manufacturing of large ships with advanced technology, while Indonesia produces smaller-sized ships. In China, all warships are produced by state-owned shipyards (SOEs), whereas in Indonesia, warships are produced by both government and private shipyards. The shipbuilding technology in China is certainly more

advanced than in Indonesia. China's ship component industry is also better than Indonesia's, as China is already capable of meeting its ship component needs from local industries. In terms of ship engine manufacturing, China is already able to produce its ship engines, whereas Indonesia has not yet achieved this.

The capacity and capability of the shipbuilding industry in Indonesia are much lower compared to China. This is due to the relatively different economic conditions between Indonesia and China. China's long-term policies, such as the Five-Year Plan, the Belt and Road Initiative, and the Made in China 2025 Policy, have significantly influenced the advancement of various industries in China, including the shipbuilding and marine equipment industries.

Table 4. Comparison of Shipbuilding in Indonesia and China

Classification	Comparison	Indonesia	China
Shipbuilding Industry	In-Number of shipyard	<ul style="list-style-type: none"> · 342 (new building & repair) [30] · 160 (new building) [31] · 6 (new building with capacity >10,000 ton) · 4 SOE's 	<ul style="list-style-type: none"> · 45 SOE's [33] · 49 domestic owner · 5 foreign owner
	Location	Batam, Tj. Balai Karimun, Jakarta, Lampung, Surabaya	Bohai, Dalian, Jiangnan, Hudong Zhonghua, Wuchang, Huangpu Wenchong
	Naval Shipbuilding	Yes (<10,000 ton)	Yes
	Submarine construction	Yes (in the process of technology acquisition)	Yes
	The ability to manufacture ship engines	No	Yes (for products with production lines utilizing high technology, they are still being imported)

From an operational perspective, a comparative analysis between Indonesia Coast Guard (Bakamla) and China Coast Guard (CCG) reveals significant differences in scale, capability, and technology. The differences show geopolitical priority and economic strength between the two countries.

Bakamla’s fleet is significantly smaller by comparison. It has approximately 56 vessels, with 12 offshore patrol ships that operate regularly. Supported by smaller patrol boats and speedboats for coastal monitoring. These vessels are mainly equipped for law enforcement and search-and-rescue operations within Indonesia’s territorial waters and exclusive economic zone (EEZ) [34].

Bakamla’s vessels are more modest in size and capability, focusing on coastal and near-shore operations. While it has been modernizing its fleet, it does not possess the same level of technological sophistication as China’s CCG. Bakamla vessels are generally equipped for surveillance, search-and-rescue, and anti-piracy missions but lack the heavy armaments seen on CCG ships. While Bakamla has been expanding its fleet, it remains limited in blue-water capabilities compared to China [35].

The CCG is the world’s largest coast guard force by the number of vessels. As of 2024, it operates approximately 183 oceangoing and regional patrol vessels, with some of the largest coast guard ships in the world, including the 12,000-ton cutters Haijing 3901 and Haijing 5901. The expansion of the CCG fleet’s capability is seen as part of China’s broader "gray zone" strategy, which uses non-military forces to assert territorial claims without directly engaging in military conflict [36].

These vessels are equipped with advanced technology, including helicopter platforms, interceptor boats, and heavy artillery, and are capable of long-range missions and blue-water operations. Many of its vessels are larger and more heavily armed than their counterparts in other nations’ navies, giving China a significant advantage in both law enforcement and power projection [37].

In summary, the China Coast Guard is significantly larger, more technologically advanced, and more militarized than Indonesia’s Bakamla. While the CCG serves as a key tool for China’s strategic objectives, particularly in disputed regions like the South China Sea, Bakamla focuses more on maintaining maritime security and law enforcement within Indonesia’s vast territorial waters. The difference in their roles, fleet size, and capabilities reflects the broader geopolitical ambitions of each country, with China focusing on power projection and Indonesia on sovereignty protection and regional cooperation.

Table 5. Comparison of Operation Aspect in Indonesia and China

Classification	Comparison	Indonesia	China
Operation [38]	Fleet’s capability	56 Vessels/Ships	401 Vessels/Ships
	Offshore Patrol Vessel/ship	12 Vessels/Ships	183 Vessels/Ships
	Largest Gross Tonnage Vessel/ship	2.400 GT Tanjung Datu Class (Tanjung Datu 301)	11.859 GT Zhaotou Class (Haijing 2901, Haijing 5901)

Classification	Comparison	Indonesia	China
	Defense equipment (State of the art)	1 – 30 mm (Can be carried), 2 – SM-5 12.7 mm MGs Pulau Nipah Class (Pulau Nipah 321, Pulau Marore 322, Pulau Dana 323)	1 – H/PJ-26 76 mm/59 (AK-176; 120 rds/min to 15 km; 8.1 n miles; weight of shell 5.9 kg), 2 – H/PJ-13 30 mm/65 (AK-630M; 6 barrels per mounting; 5,000 rds/min combined to 4 km; 2.2 n miles; weight of shell 0.39 kg) Zhaoduan (Type 818) Class (Haijing 5303, Haijing 2305, Haijing 5304, Haijing 5305, Haijing 2303, Haijing 2304)
	Machinery (State of the art)	2 Diesels, 10.600 hp (7.9MW), 2 shafts Tanjung Datu Class (Tanjung Datu 301)	Combined Diesel and Diesel (CODAD), 4 SEMT Pielstick 16PA6A-280 STC diesels, 28.200 hp (20.7 MW), 2 shafts Zhaoduan (Type 818) Class (Haijing 5303, Haijing 2305, Haijing 5304, Haijing 5305, Haijing 2303, Haijing 2304)
	Surveillance system (State of the art)	Air/surface search: none Fire-control: none Surface search/navigation: SCANTER 6000 (P 111); I-band. Damen 6210 Class (Trisula P111)	Air/surface search: 1 G-band, Fire-control: 1 Type 349A (H/ LJP-349A); I-band (for 76 mm) Surface search/navigation: E/F/I-bands. Zhaotou Class (Haijing 2901, Haijing 5901)

5 Conclusion

In comparison to China, Indonesia faces significant challenges in maritime governance and shipbuilding capacity, which are critical in the context of escalating tensions in the

North Natuna Sea. While China has established a unified and legally supported maritime governance model, with the China Coast Guard (CCG) serving as a key instrument for asserting territorial claims and power projection, Indonesia's maritime institutions remain fragmented and face coordination issues. The China Coast Guard is far larger, more technologically advanced, and militarized than Indonesia's Bakamla, whose primary focus is on maintaining maritime security and law enforcement within national waters. Additionally, China's robust shipbuilding industry, bolstered by long-term economic policies like the Belt and Road Initiative and Made in China 2025, contrasts with Indonesia's more modest shipbuilding capacity.

This disparity in governance, maritime capabilities, and strategic orientation underscores the challenges Indonesia faces in protecting its sovereignty and interests, particularly in the North Natuna Sea. To effectively anticipate and address potential conflict escalation, Indonesia must enhance Bakamla's capacity by modernizing its fleet, improving technological capabilities, and increasing its overall size. Furthermore, Indonesia must streamline its maritime governance institutions to ensure better coordination and develop long-term policies to strengthen its shipbuilding industry. By doing so, Bakamla will be better positioned to defend national sovereignty, maintain regional stability, and respond more effectively to challenges posed by China's increasing maritime assertiveness.

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