

Deterrence Strategy Through Deploying KRI in the North Natuna Sea to Support the National Defense System

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Abstract

The vast maritime territory of Indonesia, rich in natural resources, has attracted interest from various parties, both domestic and international, to exploit its potential, even if it means violating established regulations at the national and international levels. One of the maritime areas facing complex challenges, considering the numerous legal violations and threats to the sovereignty of the Republic of Indonesia (NKRI), is the North Natuna Sea. The objective of this research is to analyze the operational patterns and preparations patterns of the Indonesian Navy Vessels (KRI) for deterrence strategies in supporting the national defense system. This study employs a qualitative method, utilizing interviews as a research instrument, supported by literature reviews, including books and other written references related to the research object. The results of this research indicate that the deterrence strategy has not been optimally implemented. This is due to various encountered challenges in the efforts made, highlighting the need for evaluation and improvement of both operational and preparedness patterns of KRI. This is essential to ensure that the deterrence strategy in the North Natuna Sea region, supporting the national defense system, can be carried out effectively and efficiently.

Keywords: *Deterrence strategy, KRI, North Natuna sea, defense.*

INTRODUCTION

The Unitary State of the Republic of Indonesia (NKRI), an archipelagic country between the continents of Asia and Australia and stretching between the Indian and Pacific Oceans, is recognized as the largest archipelagic country in the world. As an archipelagic country, Indonesia has extensive water areas covering 70% of the country's total area, including inland waters, islands, Exclusive Economic Zones (EEZ), and territorial waters. Official data from Pushidrosal, BIG, and the Ministry of Maritime Affairs and Fisheries records that Indonesia's territorial waters are 6,400,000 km², consisting of inland waters and islands of 3,110,000 km², territorial seas of 290,000 km², and EEZ of 3,000,000 km² (Pushidrosal, 2018).

The impact of the strategic environment, both national, regional and global, is very significant on the stability of the Republic of Indonesia, especially in the defense sector. The Indonesian archipelagic sea lanes (ALKI) designation by the Indonesian government has opened access for various parties with regional or global interests. Ade Supandi has highlighted the potential for transnational crime and conflict between countries, including maritime boundary disputes, piracy, maritime terrorism and illegal fishing (Supandi, 2018). Meanwhile, Aan Kurnia noted that there are at least eight factual threats in Indonesian waters, including territorial violations, transnational organized crime, piracy and marine pollution (Andriansyah Anugrah, 2020).

The current development of the strategic environment has demonstrated various threats in Indonesian waters and has become a challenge for the Indonesian Navy as the main defense force at sea. The dispute in the North Natuna Sea (NNS) has given rise to regional and global tensions involving China, Taiwan, the Philippines, Malaysia, Vietnam and Brunei. China, with its nine-dash line, has violated Indonesia's EEZ and sovereignty and threatened national interests. EEZ is a valuable asset for Indonesia's prosperity and sovereign rights in accordance with international maritime law. China's current actions have created worry and insecurity in the NNS

region and have clearly harmed fishing communities and violated the sovereignty of the Indonesian state (Wicaksono & Arief, 2022).

NNS, as the gateway to Indonesia in the north, has a strategic geographical position as the ALKI 1 route for international ships. However, this area is also a focus of legal violations, especially regarding illegal fishing. Countries such as China, Vietnam and Thailand are often involved in this violation due to a lack of domestic fish resources (Rohana et al., 2022). Apart from illegal fishing, this region also records dangerous activities such as the use of explosives, piracy, customs smuggling, illegal logging, illegal mining, smuggling of immigrant workers, and theft of natural resources (Medendehe, 2021). One concrete example, the entry of large numbers of Vietnamese fishing boats, accompanied by fisheries monitoring vessels which expel local fishermen, is a serious threat to Indonesia's sovereignty (Sugianto et al., 2021). These cases show that the Indonesian government needs serious attention to address problems in NNS to ensure regional security, and find the best solution.

To protect Indonesian waters from threats and violations, it is necessary to deploy a KRI with an effective operational pattern. KRI readiness, both in terms of quantity and quality, is very important so that large areas of water can be properly secured. In dealing with threats and violations at sea, logically, a sufficient number of KRIs are needed to respond quickly to the coverage area. Maritime security, through maritime security patrols with the KRI, especially to remote islands, is the main strategy in defending Indonesia's sovereignty from disturbances originating from foreign countries (Kharis Lukman, 2022). This effort is part of the deterrence strategy carried out by the Indonesian Navy in anticipating violations in Indonesia's national territorial waters.

Currently, the number of defense equipment owned by the Indonesian Navy, especially the KRI, is still insufficient to be able to secure all of Indonesia's vast waters. The shortage in the number of KRI owned by the Indonesian Navy currently requires maximum contribution from the domestic defense industry. The Indonesian defense industry is now very vital to achieving independence in developing defense systems. This is also in line with the country's aim to free itself from foreign dependence, both in the quality and quantity of defense equipment. As inspiration can be taken from the success of China and India in modernizing defense equipment through the defense industry. Thus, the Indonesian Defense Industry must be optimal in contributing to meeting domestic defense equipment needs (Susdarwono et al., 2020).

According to data from the Directorate General of Defense Force, Ministry of Defense, until 2023, the total number of KRI defense equipment owned by the Indonesian Navy will reach 169 units. However, not all of this number are in good condition and operationally ready, so that security of Indonesian waters can only be carried out by KRIs that have good operational readiness. This condition reflects the need for the Indonesian Navy to significantly increase the KRI's defense equipment in order to carry out its duties and functions optimally. In an effort to meet the KRI's defense equipment needs, the Indonesian Government issued a policy through Law Number 16 of 2012 concerning the Defense Industry. The government is trying to develop the domestic defense industry as the key to building an independent defense system, following Indonesia's geographical characteristics, and reducing political dependence on other countries (Susdarwono et al., 2020). To achieve an optimal national defense and security system, the availability of defense tools and equipment is required, supported by an independent domestic defense industry. Without the development of a strong national defense industry, the country will have difficulty meeting the needs for defense and security equipment as it is important in maintaining the country's security and defense. (Agneztia Parasasti, 2022).

RESEARCH METHODS

This research was conducted using qualitative methods by utilizing books and other written references related to the research object (Hadi, 1995). This method was chosen because qualitative research is a different method in its approach to the use of statistics or other types of quantification to obtain findings. This is due to the descriptive nature of the data produced, in the form of writing or statements from individuals, or from observable behavior (Agung, 2020). Qualitative research utilizes researchers as the main instrument in researching an object. The results of this research are in the form of a sequence of words that describes the facts found, supported by valid data. This research emphasizes understanding meaning rather than generalization. Regarding data, these aspects cannot be processed through statistical calculations (Laut, 2020).

This research uses a descriptive analytical research design with the consideration that researchers will analyze various aspects to determine effective deterrence strategies to strengthen national defense. In general, research design includes all the stages necessary to plan and carry out research. However, specifically, research design refers to a clear depiction of the relationships between variables, the data collection process, and data analysis. With a good research design, both researchers and other related parties can understand in depth how variables are related to each other, how measurements are carried out, and so on (Agung, 2020).

General Description of Research Objects

Natuna Regency is part of the Riau Islands Province, with a land area of around 1,990 square kilometers and a water area of 139,892 square kilometers (based on Regulation of the Minister of Home Affairs of the Republic of Indonesia Number 100.1.1-6117 of 2022, dated 9 November 2022). This district contributes around 24.50 percent of the total area of the Riau Islands Province, and has its capital city in Ranai. This district consists of 15 sub-districts, 70 villages and 7 sub-districts. (BPS, 2023):

Astronomically, Natuna Regency is located at coordinates 01°18'00" - 06°50'15" N (North Latitude) and 104°48'30" - 110°02'00" East Longitude. The coordinates of the Natuna Regency Regent's Office are located at 3°56'28.62" N and 108°22'38.53" E. From a geographical perspective, the territorial boundaries of Natuna Regency can be explained as follows:

- On the north side, it borders the North Natuna Sea;
- On the south side, it borders Bintan Regency;
- On the west side, it borders the Malaysian Peninsula; And
- On the east side, it borders the North Natuna Sea.

Since July 2017, the Indonesian Government has named the shallow waters to the north of Natuna Regency the North Natuna Sea. This change is related to the replacement of the northern region of the EEZ in the South China Sea (SCS). The NNS borders the southern part of Vietnam's EEZ and is located between the Natuna Islands and the Natuna Sea, as well as Cape Cà Mau to the south of the Mekong Delta in Vietnam. In 2017, the name NNS was officially recognized as part of Indonesia's EEZ which is located to the north of the Natuna Sea.

NNS is a narrow body of water in the EEZ on the southern side of the SCS, on the northeast side bordering the Gulf of Thailand. This sea area meets the EEZ maritime boundaries of two ASEAN member countries, namely Vietnam and Malaysia. The existence of NNS is very strategic because it is an international sea route that connects East Asia with the central and southern regions of Southeast Asia, and is the main route for sea traffic passing through the Strait of Malacca. The geographical conditions and geological activity in this region make it an area rich in natural resources. It is estimated that oil and gas reserves in Natuna reach around 127 million barrels, with details of oil amounting to 14,386,470 barrels and natural gas amounting to

112,356,680 barrels. The hydrocarbon potential in this region is one of the largest in Asia, with estimated gas potential reaching 46 trillion cubic feet (STIE, n.d.).

KRI Operation Pattern

In carrying out its five main tasks as stated in Article 9 of Law Number 34 of 2004 concerning the TNI, the TNI AL as the main component of national defense at sea adheres to doctrine as a strategic basis in carrying out its duties. This approach aims to overcome threats related to maritime aspects and security disturbances, both originating from within and outside the country, with the aim of creating safe and controlled maritime conditions within national jurisdiction. Regarding the development of the conflict situation in NNS, the Indonesian Navy has actively involved KRI elements on an ongoing basis in Natuna waters. This action was taken to strengthen and affirm the country's sovereignty at sea, especially against the presence of foreign warships, with a special focus on ships from China (Kusuma, 2021).

During the 2023 budget year, the TNI AL was given a budget allocation of 23.62 trillion rupiah. Most of the budget is allocated for maintenance and upkeep of the Main Armament System Equipment (alutsista), with the aim of ensuring that the defense equipment is always in optimal condition for use in various operations. In order to ensure effective use of the budget, the TNI AL leadership has implemented a number of steps, including setting operational patterns and KRI maintenance and upkeep patterns. The policy steps taken involved dividing the defense equipment forces into three parts. First, one third of the defense equipment's power will be used to carry out operations. Second, the remaining third will be in standby position. Finally, the remaining third will be allocated to carry out maintenance and upkeep, ensuring that the defense equipment remains in top condition and ready to be used as needed (Post, 2022).

KRI Preparation Pattern

So far, in order to meet the needs of the KRI as a means for maritime security activities, the Indonesian Navy together with related stakeholders have made efforts to develop the Defense Industry. Efforts to develop the Defense Industry are an integral part of overall defense implementation, as well as an inseparable part of comprehensive national development. The Defense Industry development concept involves various parties, including users such as the Ministry of Defense (Kemhan) and the Indonesian National Army (TNI), manufacturers, designers, testers, researchers who have expertise, as well as careful planners within the framework of the Three Pillars of Defense Industry Actors concept.

The three-pillar approach of Defense Industry players combines the roles of universities and the research and development (R&D) community which has the ability to carry out studies and development of science and technology (science and technology) in the defense sector. Strategic industries are empowered to utilize science and technology, while the Ministry of Defense and TNI act as users. Not only receiving and using production results from strategic industries, the Ministry of Defense and the TNI are also actively involved in developing designs to making prototypes according to existing needs.

RESULT AND DISCUSSION

KRI Operation Pattern

According to the 2015 Indonesian Defense White Paper, Indonesia's perception of threats is every effort and activity, whether originating from abroad or within the country, which is considered to endanger the country's sovereignty, the country's territorial integrity and the safety of the nation. This threat is a key factor that forms the basis for deterrence efforts, which can be in real or potential form. These threats can be classified into two types, namely military threats and non-military threats, depending on their nature. Until now, in the North Natuna Sea region

there are still threats, both military and non-military, that can endanger state sovereignty, the country's territorial integrity and the safety of the Indonesian nation.

Regarding the threats that currently exist in the NNS region, Kristanto (2023) said that the existence of conflict in SCS could pose a threat of conflict spill over to NNS region. The large number of countries that have interests in the SCS region certainly makes it difficult to reach an agreement to resolve the conflict which could potentially lead to open conflict. Apart from that, China's Maritime Silk Road policy implemented by China's Belt and Road Initiative also has the potential to pose a threat to Indonesia's maritime sovereignty. This is because China has established a rule that the Chinese Coastguard has the legal right to carry out patrols outside its jurisdiction to secure its trade routes.

The conflict that occurred in the NNS region has caused tensions on a regional and global scale because it involves several countries in the region, including China, Taiwan, the Philippines, Malaysia, Vietnam and Brunei Darussalam. In order to protect its sovereignty claims over its territory in the SCS known as the nine dash lines, China has carried out actions that violate the EEZ and Indonesia's sovereignty by allowing its fishing boats to carry out illegal fishing accompanied by its coast guard vessels (coast guard). When viewed from the defense and security sector, the actions carried out by China have disturbed and created a feeling of insecurity for the Indonesian people, especially the people living in the NNS area, the majority of whom work as fishermen. Thus, it can be said that the actions carried out by China in the NNS region have violated the sovereignty of the Indonesian state (Wicaksono & Arief, 2022).

In the NNS area there is also the potential for territorial violations, considering that in this region Indonesia has direct maritime borders with Vietnam and Malaysia. The territorial boundaries related to the continental shelf with Vietnam have been agreed upon, but currently negotiations are still being carried out regarding the EEZ boundaries of the two countries and implementing arrangements. Likewise with Malaysia, the continental shelf boundaries of the two countries in the NNS have been agreed upon, but the EEZ boundaries are still in the negotiation stage. The NNS area is a favorite location for foreign fishing vessels (KIA) to carry out illegal fishing activities in the form of Illegal, Unreported, and Unregulated Fishing (IUUF).

From some of the information above, we can find a connection that currently in the NNS region there are still several legal violations that could threaten the upholding of state sovereignty. Some evidence of these threats has become a strong reason for the Indonesian people, especially the Indonesian Navy, to respond in accordance with the main tasks carried out in order to defend state sovereignty, the territorial integrity of the country and the safety of the Indonesian nation. To be able to carry out this task well, the Indonesian Navy must implement a strategy so that maximum achievements in supporting the national defense system are expected to be achieved. One effort that can be implemented is to implement a deterrence strategy. If we refer to the basic principles of deterrence, all components of the nation will realize how important it is to build a strong defense system for a country. Some of the basic principles of deterrence are:

- a. Deterrence capabilities will prevent the country from catastrophic catastrophe, suffering and destruction;
- b. Building deterrence costs a lot of money, but the price that must be paid as a result of war is far greater than the price of building deterrence; And
- c. Deterrence is an option in defense efforts, so deterrence must be built and developed early and continuously.

Referring to the basic principles of deterrence, a strategy is needed for the Indonesian Navy so that the country's defense system at sea can be supported. In this case, Kristanto (2023) also stated that the Indonesian Navy needs to implement a deterrence strategy policy by first determining the goals to be achieved (ends), the means needed (means), and the methods that

can be used (ways). In this case, the end is achieving a deterrence effect that prevents the enemy's intention to attack. The means is in the form of KRI. Meanwhile, ways are a deterrence strategy implemented using smart power, namely a combination of hard power (operations to enforce sovereignty and law at sea) and soft power (joint training and implementation of cooperation in order to build mutual trust/confidence building).

In implementing the deterrence strategy using soft power, the Indonesian Navy carries out joint military training and patrol activities with several friendly countries in order to build mutual trust/confidence building. As a recent example, the Indonesian Navy and nine other partner countries are taking part in the Joint Naval Exercise SAMASAMA which will last for two weeks, starting on October 2 2023, in the Philippines. This exercise is a significant naval drill in the regional area, involving warships, fighter planes, helicopters and military forces from the United States, the Philippines, Japan, England, Canada, France, Australia, New Zealand and Indonesia. (TNI, n.d.-b). On another occasion, the Indonesian Navy has tried to improve maritime security in the region through defense cooperation efforts, especially in the fields of maritime security and diplomacy, with the Indian Navy. This was realized with the arrival of the warship INS Kavaratti P31, which is a Corvette Class Kamorta ship, to Indonesian waters to take part in the Samudra Shakti-23 exercise with KRI Sultan Iskandar Muda-367 (KRI SIM 367). Exercise Samudra Shakti-23 aims to increase understanding and interoperability in maritime security operations between the Indonesian Navy and the Indian Navy. (TNI, n.d.-a).

In implementing the deterrence strategy using hard power, the Indonesian Navy has carried out sovereignty and law enforcement operations at sea, especially in the NNS area, which were carried out by Guspurla 1 as shown in the following table:

NU	OPERATION	TIME	KRI	INFO
1	2	3	4	5
1	Siaga Segara-21 Stage I/21	January 1 st 2021 - March 22 nd 2021	TOM, USH, PTM, TUM, KLB, KST, BON, STS, TPD.	9 KRI
2	Siaga Segara-21 Stage II/21	April 1 st – June 20 th 2021	KST, STS, IBL, KLH, JOL, TPD, USH, TUM	8 KRI
3	Siaga Segara-21 Stage III/21	July 1 st - September 19 th 2021	USH, JOL, HLS, KRU, SWR, TOM, KRB, SRE, ALG, DPN, STS, BON, TUM	13 KRI
4	Siaga Segara-21 Stage IV/21	October 1 st - December 21 st 2021	DPN, STS, TUM, SRE, MLT, WIR, TPD, MLH, TOM, IBL	10 KRI
5	Siaga Arnawa-22 Stage I/22	January 1 st - March 18 th 2022	TPD, IBL, STS, PTM, BON, CND, SRE, KRU, USH	9 KRI
6	Siaga Arnawa-22 Stage II/22	April 1 st - June 17 th 2022	USH, PTM, STS, WIR, SSA, IBL, BON	7 KRI

7	Siaga Arnawa-22 Stage III/22	July 1 st - September 16 th 2022	SSA, IBL, BON, CND, CKL, PTM, SRE, TPD, TOM	9 KRI
8	Siaga Arnawa-22 Stage IV/22	October 1 st - December 31 st 2022	TOM, JOL, PTM, TPD, SRE, CKL, CND, WIR, TCN, STS, TUM, TSG, KRU	13 KRI
9	Tombak Segara-23 Stage I/23	February 9 th - April 30 th 2023	SMR, SGU, SRB, SKD, BBR, TOM, SRE, CKL, KTG, PTM, TDK, KRU, RJW	13 KRI
10	Tombak Segara-23 Stage II/23	May 1 st - July 20 th 2023	SGU, KRU, LSR, KJG, LDG, BON, BKN, BLD, SRE, SKD, SSA, JOL, IBL	13 KRI
11	Tombak Segara-23 Stage III/23	July 21 st - October 9 th 2023	SSA, JOL, KRU, SKD, IBL, SGU, STS, SRB, TSG, CND	10 KRI
12	Tombak Segara-23 Stage IV/23	October 1 st - December 31 st 2023	KRI ALG, KRU, SLA, SRB	5 KRI
13	Rencong Segara-23 Stage I/23	January 1 st - March 31 st 2023	KRI PTM, STS, WIR, BON, IBL, SRE	7 KRI
14	Rencong Segara-23 Stage II/23	April 1 st - June 30 th 2023	TOM, STS, IBL, SRE, SSA, BKD, PTM, TPD	8 KRI
15	Rencong Segara-23 Stage III/23	July 1 st - September 30 th 2023	PTD, STS, PTM, TUM, SRE, KST, SSA, WIR	8 KRI
16	Rencong Segara-23 Stage IV/23	Oktober 1 st - December 31 st 2023	CND, SSA, IBL, SRE	4 KRI

Source: Processed by Researchers.

The presence of the Indonesian Navy by placing the KRI in the NNS area is a form of deterrence strategy in accordance with the SPLN concept that has been prepared. SPLN is a naval warfare doctrine adopted by the Indonesian Navy as a guideline in carrying out their duties and functions as the main component in national defense. The main objective of the SPLN is to prevent the intentions of parties who have the potential to threaten Indonesia's sovereignty and territorial integrity, face all forms of threats in the maritime domain, and overcome internal security disturbances and armed rebellions in Indonesian territory. This aims to create controlled national sea conditions, including in the context of the three archipelagic sea lanes. In order to achieve these goals, SPLN implements the following strategies:

- a. The Deterrence Strategy is implemented through naval diplomacy, presence at sea, as well as developing the strength and capabilities of the Indonesian Navy.
- b. The Layered Defense Strategy is implemented during wartime by prioritizing joint operational patterns at sea and air by mobilizing all maritime components.
- c. The Sea Control Strategy is implemented to ensure the use of the sea by one's own forces, avoid use of the sea by opposing parties, and eliminate all threats in the sea domain from within the country using daily sea operations.

This is in accordance with the opinion expressed by Mustari (Mustari et al., 2018) that the efforts made by the Indonesian Navy in the form of maritime operations are maritime deterrence and control activities aimed at securing Indonesia's national waters according to its jurisdiction. In order to carry out maritime operations, not only does the defense equipment need to be in good condition, but the readiness and quality of the crew personnel also plays a very vital role. To meet these demands, education and training is needed for KRI crew personnel so that they always have good combat skills. According to Kharis (Kharis Lukman, 2022), increasing the capabilities of soldiers includes improving intellectual, mental quality, abilities and skills, so that they can observe every development in the strategic environment and changes in social developments that have the potential to threaten the life of the nation and state. To ensure the optimality of these capabilities, it is necessary to implement education to improve human resource capabilities (Kharis Lukman, 2022). In line with this goal, Hartono (2023) said that within the Indonesian Fleet Command, the Fleet Training Command (Kolatarma) is the training supervisor for Integrated Fleet Weapons System (SSAT) elements. The training carried out by Kolatarma is collective training which focuses on improving personnel skills in working together as a solid team at various levels. Thus, the results of the coaching training carried out by Kolatarma were aimed at increasing the readiness of the Indonesian Fleet (Fleet Readiness) in carrying out its main tasks. Thus, the Indonesian Navy has a permanent program in preparing human resources for defense equipment crews so that they always have good combat readiness and capabilities.

According to the information in the table, Taufik (2023) said that the deployment of defense equipment in the NNS area was carried out periodically by presenting several KRIs. However, in reality there are still several legal violations in the region which could pose a threat to state sovereignty. If you look closely at the vast waters of Natuna Regency (139,892 square kilometers), it can be understood that the presence of the KRI carrying out operations in this area will not be able to secure it ideally. This is because the number of KRIs operating is not proportional to the area that must be secured so that parties who want to take advantage of the situation for their personal interests can get around the situation to carry out activities when there are no law enforcement officers present in that place.

By observing the phenomena in the field, there are still various violations in the NNS area, indicating that the implementation of maritime security operations carried out by the Indonesian Navy has so far not been running optimally. There are still several obstacles or problems in the field which prevent the TNI AL's operating system from operating optimally, including:

- a. Holding Guspurla Koarmada 1 operations in the NNS area, the duration of the operations will not last for a full year so there will be times when there will be vacancies in operational elements in certain areas. In fact, the presence of operational elements at sea will have a deterrent effect on violations of sovereignty, sovereign rights and violations of the law.
- b. The KRI carrying out operational activities is still limited by material readiness which at any time can experience problems which will take quite a long time to handle considering that in the region there are no institutions with adequate base facilities for maintenance and upkeep of defense equipment.

c. Minimal publication of security operation activities in the NNS area. This is related to the lack of information that can be conveyed to the wider community regarding the economic value of the large state losses that can be secured due to avoiding theft of natural resources in the NNS region by implementing maritime security operations.

This is what must receive real efforts from stakeholders related to maritime security in the NNS region. According to Prasasti (2023), in the strategy model developed by Arthur F. Lykke (1997), there are three key elements in building a National Defense Strategy, namely Ends, Means and Ways (Agneztia Parasasti, 2022). If it is linked to the Indonesian Navy's operational pattern of defense equipment as a form of deterrence strategy in the NNS area, the implementation of this strategy theory is the Ends or goal to be achieved is the condition of the NNS area which is safe and free from various forms of violations. The means or facilities used are the Indonesian Navy's defense equipment in the form of KRI which is deployed in the NNS area. Meanwhile, Ways or ways are through maritime security operations, both programmed by TNI Headquarters and TNI AL Headquarters. Thus, so far the TNI AL has been able to implement the deterrence strategy but has not been able to produce the expected goals.

Due to the lack of operational days carried out in a year, it is necessary to add additional operational days so that there are no gaps in the days that can be exploited by parties who want to take advantage of illegal personal profits from within or outside the country. Indeed, this effort will require a large additional budget, but when faced with the value of state sovereignty and regional security, the budget requirements are not comparable. This is in accordance with one of the basic principles of deterrence which states that building deterrence costs a lot of money, but the price that must be paid as a result of war is much greater compared to the price of building deterrence. If the number of KRIs used does not increase, there needs to be good arrangements between the KRIs involved in operations so that there is always a representative presence of KRIs every day at sea. In this way, parties who have bad intentions will think again if they do not want to deal with law enforcement officers in the operational area.

The material fatigue factor in KRI equipment has always been a prominent problem that is often faced by the crew members who man it. The problem becomes even more serious when efforts to repair damaged equipment must be carried out in a place far from the operational area due to the lack of spare parts and repair facilities at the nearest base. Therefore, providing KRI maintenance and repair facilities in the Natuna region and its surroundings is a necessity that must be pursued. This is where the participation of the Natuna Regional Government is needed in collaboration with relevant stakeholders to strive to build a shipyard capable of handling maintenance and repairs on KRIs which are carrying out operational activities in the NNS area.

Currently, advances in science and technology, especially in the field of information technology, have developed very rapidly. If the Indonesian Navy is able to take advantage of these conditions, every incident or activity carried out during maritime security operations can be published to the wider public as soon as possible. With this step, it is hoped that parties who wish to commit violations can be prevented considering the risks they will face when dealing with law enforcement officers at sea. Likewise, if the Indonesian Navy is able to present economic calculation data related to the value of state losses that can be prevented from the presence of KRI defense equipment at sea, it is hoped that this can be used as consideration for the government to increase the budget allocation for carrying out maritime security operations.

So far the Natuna Regional Government has not been able to do too much in synergizing with the Indonesian Navy to play a role in the deterrence strategy in the NNS area. This is because activities related to securing maritime areas are the authority of the Riau Islands Provincial Government in accordance with the mandate of Law number 23 of 2014 concerning Regional Government. In Article 27 paragraph (2) it is stated as follows:

The provincial authority to manage natural resources in the sea as referred to in paragraph (1) includes:

- a. exploration, exploitation, conservation and management of marine resources outside of oil and gas;
- b. administrative arrangements;
- c. spatial arrangement;
- d. participate in maintaining security at sea; and
- e. participate in defending state sovereignty.

As information obtained from Tukino (2023) shows that so far there has been no delegation or mandate from the Riau Islands Provincial Government to the Natuna Regional Government to carry out activities related to national defense or security at sea. This is very unfortunate considering that the position of the Riau Islands Provincial Government is quite far from the Natuna region, while the problems of violations that occur in the NNS region are quite numerous and are directly faced by the Natuna community. Meanwhile, based on the importance of national defense, the Indonesian government regulations have stated it in Law of the Republic of Indonesia Number 3 of 2002 concerning National Defense, as written in article 1 paragraph (1) and (2) as follows:

(1) National defense is all efforts to defend the sovereignty of the country, the territorial integrity of the Unitary State of the Republic of Indonesia, and the safety of the entire nation from threats and disturbances to the integrity of the nation and state.

(2) The national defense system is a universal defense system that involves all citizens, territories and other national resources, and is prepared early by the government and is implemented in a total, integrated, directed and continuous manner to uphold state sovereignty and territorial integrity. , and the safety of the entire nation from all threats.

By paying attention to the clauses of the Law on National Defense, in fact all citizens are involved in national defense efforts, including all communities in the Natuna region. Thus, there needs to be an evaluation so that the Natuna Regency Government can take action and issue local policies related to defense, especially in the NNS area. Referring to the theory of public policy from Dunn (2013) in Rudiawan (2019), it is stated that one of the stages in preparing public policy is the policy implementation stage. This stage becomes the main focus because there is a potential mismatch between the reality in society and the policies being made. In principle, this stage is a measuring tool for whether the policies made are working well and the expected goals are achieved through concrete programs. There are anticipated impacts from implementing this policy, which can be positive or negative. According to Rudiawan, this stage is crucial to determine the extent to which government policies can be implemented and produce outputs and outcomes according to plan. (Rudiawan, 2019). In this matter, in accordance with the mandate of the Law on National Defense, all citizens are involved in national defense efforts, including all communities in the Natuna region. However, when faced with the mandate in Law number 23 of 2014 concerning Regional Government, this becomes an obstacle for the Natuna Regional Government to be able to play an active role in national defense efforts, especially at sea. It would be different if Natuna Regency had the status of a Province, it would be able to play an active role in national defense efforts.

KRI Preparation Pattern

The deterrence strategy is prepared using two approaches, namely deterrence by rejection and deterrence by retaliation, where deterrence by rejection has several purposes, including:

- a. is a deterrent force produced by defensive forces which has a deterrent effect until the opponent cancels his intention to attack;

- b. is the level of ability that can convince the opponent or potential opponent that if they launch aggression or attack they will experience failure before entering Indonesia's jurisdiction, so that the potential opponent will abandon their intention to attack;
- c. is an ideal defense concept because the opposing party will abandon its intention to attack Indonesia with its military and non-military forces; and
- d. The application of this concept can prevent the risk of war, but brings consequences in the form of building a modern defense system based on sophisticated and reliable defense equipment.

By referring to the approach mentioned above, in order to meet its defense equipment needs, the Indonesian Navy has so far empowered the domestic Defense Industry, especially domestic shipyards, to build KRIs according to the required technical specifications. The existence of a domestic Defense Industry is very necessary in order to leave dependence on foreign countries to achieve independence in the field of defense industry in the country.

In Indonesia, the formation of the Defense Industry Policy Committee (KKIP) is based on Article 18 of Law Number 16 of 2012 concerning the Defense Industry. Further details regarding the Organization, Work Procedures and Secretariat of KKIP are explained in Presidential Regulation of the Republic of Indonesia Number 59 of 2013. With the existence of Law Number 16 of 2012 and Presidential Regulation of the Republic of Indonesia Number 59 of 2013 which regulate the Organization, Work Procedures and Secretariat of the KKIP, the direction of Indonesia's defense industry policy has become more detailed and controlled.

In Indonesia, KKIP continues to promote efforts and processes to achieve transparency in procurement and meeting military needs. In accordance with Article 21 of Law Number 16 of 2012 concerning the Defense Industry, one of the duties and authorities of KKIP is to synchronize the need for defense and security equipment (Alpahkankam) between users, in this case the Indonesian National Army (TNI), and the defense industry (Article 21, Law No. 16 of 2012). In general, this process involves KKIP inviting the Indonesian National Army (TNI) and defense state-owned enterprises (BUMN) to sit down together. (Susdarwono et al., 2020).

The scope of the Defense Industry, as regulated in Law Number 16 of 2012 concerning the Defense Industry, specifies that the Defense Industry is a national industrial sector consisting of state-owned enterprises and private-owned enterprises, both individually and in group form. This industry was established by the government to produce part or all of defense and security equipment, as well as providing maintenance services to fulfill strategic interests in the defense and security sector, with its location in the territory of NKRI (Mahendi, 2022).

When linked to the importance of maritime aspects and maritime power in a country's prosperity, the current policy towards empowering the Defense Industry is still in line with the Indonesian nation's efforts to build maritime power. Prasasti (2023) in his research stated that several Western maritime thinkers, such as Alfred Thayer Mahan in 1890 (in his book "The Influence of Sea Power upon History"), Julian Corbett in 1911 (in "Some Principles of Maritime Strategy"), to Sam Tangredi in 2004 (in "Globalization and Maritime Power") and Geoffrey Till in 2018 (in "Sea Power: A Guide for the Twenty Century"), emphasizing the importance of aspects of the sea and maritime power in a country's prosperity. They argue that this interest can be realized if a country has the elements needed to develop status as a maritime country. In general, these elements can be divided into two aspects, namely strategic aspects and operational aspects. In the operational aspect, there are usually three main elements: (a) Defense forces which include military instruments to protect national assets and interests, (b) Trade floats, including fishing fleets and people's merchant ships, which support national economic mobility, and (c) The industries and services that support these two operational elements involve various activities related to the sea (Parasasti, 2022). Thus, policy steps in empowering the domestic Defense Industry are the right efforts to build maritime strength in Indonesia.

The domestic defense industry not only plays a role in producing defense equipment, in this case the KRI, but also plays a role in maintenance and upkeep activities so that the KRI owned by the Indonesian Navy strives to remain operationally ready to support the country's defense system. This is because the operational capabilities of the KRI can be used as a parameter regarding the military readiness of the Indonesian Navy which acts as an element of deterrence. This capability can be achieved through well-programmed maintenance of defense equipment. At the level of implementing policies in the field of maintenance of KRI, Dismatal has empowered the domestic Defense Industry to support maintenance and upkeep activities as an effort to increase the KRI's operational capabilities. This is in accordance with the statement from Safrudin (2023) that the efforts carried out by Dismatal to improve KRI capabilities include:

- a. Organic Level Maintenance (Harnik), namely maintenance carried out at any time, based on rotating hours/certain time periods and carried out by the ship's crew (ABK) with the aim of maintaining the condition of the equipment/aircraft that can operate and be used properly;
- b. Intermediate Level Maintenance (Harmen) is maintenance which is to maintain condition, based on rotation hours/certain time periods, analysis of the technical condition of the aircraft. Carried out by ABK, Fasharkan, National Shipyard (Galkapnas) and/or Injasmar with the aim of maintaining the condition of equipment and ship buildings;
- c. Depot Level Maintenance (Hardepo), namely maintenance that is cumulative, returning it to its initial condition, based on rotating hours/certain time periods/analysis of the technical condition of the equipment. Carried out by Fasharkan, Galkapnas and Injasmar with the aim of restoring the condition of the ship's equipment and buildings; And
- d. Maintenance to increase capability, namely maintenance that is to increase operational capability or in the context of Life Extension (PUP) is based on the results of the study. Implemented by Fasharkan, Galkapnas and Injasmar with the aim of increasing the ship's operational capabilities.

Many of the KRI defense equipment currently owned by the Indonesian Navy are still old (over 30 years old) so they need to receive increased modernization so that they have the latest technology. Kharish (2022) in his research said that the Indonesian Navy needs to carry out modernization activities for defense equipment which still uses old technology so that its capabilities can be upgraded so that it has the latest technology. Things that are significant and need to be improved are underwater detection capabilities, both those of the KRI and the potential for building underwater monitoring stations in several areas (Kharis Lukman, 2022). In this regard, Suhaedi (2023) said that Disadal's efforts to ensure that the Indonesian Navy has access to the latest technology and innovation in the development of defense equipment, namely by procuring defense equipment that uses the latest technology by making innovative studies to support the technology according to needs and looking at defense equipment. similar to that of developed countries. Meanwhile Laksono (2023) said that to keep up with the latest technological developments and ensure that the defense industry can utilize them to increase competitiveness, KKIP has made several efforts such as:

- a. carrying out visits to developed countries;
- b. inviting industries belonging to developed countries to find out about the latest technological developments;
- c. participating in technology exhibitions on an international scale; And
- d. inviting other countries' industries to the defense industry exhibition.

Meanwhile, Wicaksono (2022) in his research said that our domestic defense industry still has several problems such as low levels of technology transfer and technology uptake. These conditions directly affect the quality and quantity of products produced. Another problem is the high costs of capital investment for research and development in the defense industry, which

limits stakeholder involvement. As a result, the country still depends on purchasing military equipment from foreign defense industries (Wicaksono & Arief, 2022).

Various efforts that have been carried out by stakeholders to meet the needs of the Indonesian Navy's defense equipment in order to support the national defense system do not always work ideally. Various obstacles still surround these efforts, as information provided by Laksono (2023), who heads the KKIP organization, stated that there are still several main obstacles facing the domestic Defense Industry to meet the TNI's defense equipment needs, including:

- a. The requested technology cannot be fulfilled by the domestic Defense Industry;
- b. Manufacturing to carry out development is inadequate; And
- c. Production capacity is not met, both in terms of economic scale and user desires.

This condition is also still relevant to Novyanto's (2022) statement that from the results of the research conducted, it was found that in procuring components and raw materials for the production of defense equipment, the domestic defense industry is still experiencing shortages because the industry that produces defense equipment still imports a number of components from abroad. This is caused by the inability of the supporting component industry in Indonesia to provide all the required materials for defense equipment production (Novyanto & Faisol, 2022).

If you look at the conditions above, at this time the need for base facilities that can accommodate the implementation of KRI maintenance and upkeep in the Natuna area has become a necessity. If this can be fulfilled, then the KRI, which is carrying out security operations in the NNS area, if it experiences material damage, will not need to leave the operational area too far away, which will take a long time because repairs can be carried out using the facilities already available at the nearest base in Natuna. In this way, a reduction in the number of cysts present in the sea over a long period of time can be avoided.

CONCLUSION

As a form of deterrence strategy in the NNS area, currently the Indonesian Navy has deployed defense equipment by operationalizing the KRI. Security operations in the NNS area are carried out intensely and on a schedule throughout the year, both programmed by TNI Headquarters and TNI AL Headquarters. So far the Natuna Regional Government has not been able to do too much in synergizing with the Indonesian Navy to play a role in the deterrence strategy in the NNS area. This is because activities related to securing maritime areas are the authority of the Riau Islands Provincial Government in accordance with the mandate of Law number 23 of 2014 concerning Regional Government. The current KRI preparation pattern is implemented by empowering the domestic Defense Industry. This is proven by the fact that most of the KRI currently owned by the Indonesian Navy are made by the domestic Defense Industry, made by shipyards in Indonesia. Apart from playing a role in building the new KRI, the domestic defense industry also functions in carrying out maintenance and upkeep of the KRI so that it remains in good operational readiness. However, several efforts made regarding the operational pattern of the Indonesian Navy's defense equipment and the pattern of preparation of the Indonesian Navy's defense equipment as a form of deterrence strategy in order to secure the North Natuna Sea area are currently still facing various problems and obstacles that need appropriate evaluation and solutions.

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