



Development on Strategic Decision Making to Support National Maritime Security

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ABSTRACT

Maritime security is not a condition that is created, but must be pursued, controlled and maintained so that it can be realized as expected. Maritime security is a topic that is often discussed when a country is faced with the impact of globalization, especially in the maritime sector. This view is based on a theoretical position that sees globalization as a dynamic that has the ability to move all institutions, including the state. The dynamics of the global and regional environment will always have an influence on the condition of national marine security, both positive and negative influences that ultimately affect national stability, so a strategy for developing the capabilities of the Marine Security Agency is needed to support the creation of national marine security. This study aims to develop a strategic concept of Indonesia's capability development in supporting the creation of national maritime security. The method used is SWOT Analysis, by compiling internal and external factors which are then collaborated into several valid main strategy concepts. The results achieved in this research are the compilation of 15 main strategic concepts in the development of Indonesia's national capabilities in supporting the creation of national maritime security. © SEECMAR | All rights reserved

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1. Introduction.

Global issues that are currently developing include the spread of the Covid-19 disease, whose impact greatly affects political, economic, and socio-cultural conditions globally. Another issue is the increase in the world's population which results in increased food and energy needs, as well as the rapid development of science and technology. The increase in population will certainly be followed by an increase in food demand and an increase in energy demand. If the increase in population is not followed by an increase in food and energy production, it will have the potential to cause social, economic, and political problems in the community and affect the emergence of potential global security threats.

Currently, energy use is still dominated by non-renewable

fossil energy, so sooner or later it will run out. When fossil energy runs out, the world's population will switch to non-fossil energy as renewable replacement energy. Much non-fossil energy is found in the equatorial area which has the potential for vegetation throughout the year. If the current conflict in the world is based on the struggle for fossil energy, then in the future there is a possibility that world conflicts will be based on the struggle for renewable non-fossil energy. Currently, the location of world conflicts will shift towards countries located at the equator, which are rich in non-fossil energy sources. This is a potential global threat in the future because Indonesia is rich in food, water, and non-fossil energy (Ahmadi et al, 2011).

The rapid development of science and technology greatly affects aspects of the life of the nation and state, it not only contributes positively to the life of the nation and state but also has a negative impact because of the misuse of technology that poses a threat to security, including the threat of cybercrime, engineering genetics of biotechnology which has negative implications, nanotechnology makes products so small that they are difficult to detect, such as eavesdroppers, nuclear weapons

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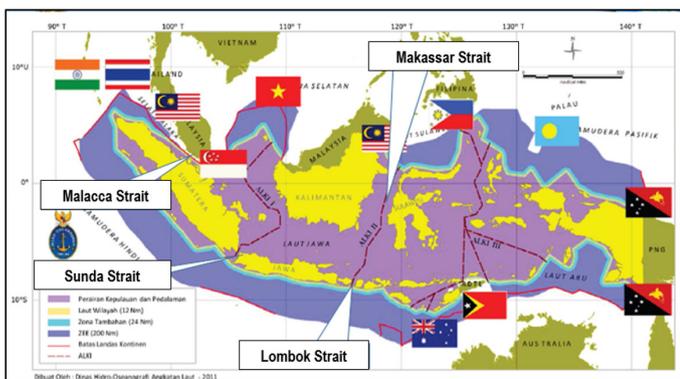
engineering, guided missiles, unmanned aerial vehicles capable of reconnaissance and destruction, and space technology to explore atmospheric space.

Issues currently developing at the regional level include the involvement of major powers in the strategic competition between the United States as a trans-regional power and potential conflicts with China in the South China Sea and North Korea on the Korean peninsula. America implements the “US Rebalancing Strategy” policy to balance China’s domination in the Asia Pacific region by establishing a Marine base in Darwin-Australia and relocating a US marine base from Okinawa to Guam in the Pacific Ocean. The Guam Naval Base is home to four US nuclear-powered submarines and other warships. This is an indication that big countries are starting to look at the Southeast Asian region.

The issue of territorial boundary disputes in the South China Sea (SCS) is increasingly complex and tends to use military force to support territorial claims. In dealing with the LCS dispute, China implemented the Four Sha strategy to replace the Nine-Dash Line strategy. The four sha strategy is China’s claim to the four island groups of Dongsha, Xisha, Nansha, and Zhongsha which are historical Chinese territories. Through this claim, China also participates in imposing maritime zones over these islands. Furthermore, China with the idea of One Belt One Road (OBOR) developed a geopolitical strategy by utilizing world transportation routes as trade routes spread across the Eurasian region. There are two main components in OBOR, namely land and sea transportation. Land transportation is supported by the Silk Road Economic Belt, while the Maritime Silk Road (MSR) acts as a supporter of sea transportation (Athapaththu, 2016).

Indonesia de Jure declared itself as an archipelagic country, which was stated through the ratification of the United Nations Convention on the Law of the Sea, 1982 UNCLOS in Law No. 17 of 1985 concerning the Ratification of UNCLOS on the United Nations Convention on the Law of the Sea. As an archipelagic country according to UNCLOS 1982, Indonesia is obliged to provide and have 3 Indonesian Archipelagic Sea Lanes (ALKI) and 4 Choke Points which are strategic for global interests and are obliged to maintain the security and safety of international shipping on the 3 ALKI lanes.

Figure 1: Map of the Unitary State of the Republic of Indonesia.



Source: Pushidrosal, 2018.

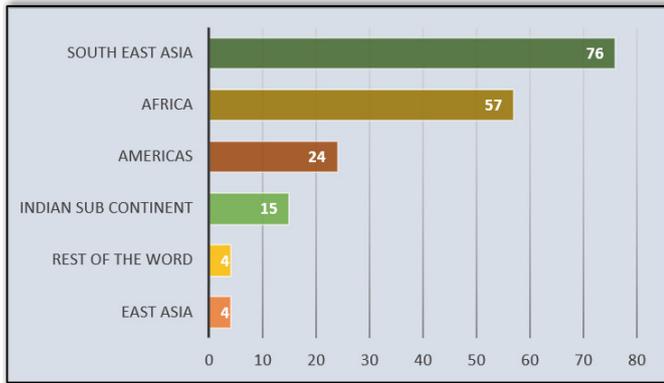
Indonesia in terms of geopolitical and geoeconomic perspectives can be divided into four categories of strategic positions, namely: 1) Indonesia as a strategic junction; 2) Indonesia as a strategic fishing ground; 3) Indonesia as a strategic business potential (strategic potential business); 4) Indonesia as a strategic key partner (Bastari et al, 2020). Indonesia’s vast ocean area is vulnerable to security disturbances, where Indonesia’s territory consists of a land area of 1.9 million km² and waters covering an area of 6.4 million km² with a coastline of ± 108,000 km. The Indonesian Sea consists of 3.11 million km² of archipelagic waters, 0.29 million km² of territorial waters, and 3.0 million km² of the Exclusive Economic Zone (EEZ) with a total of 17,504 islands (Pushidrosal, 2018).

The current government has a vision and mission to make Indonesia the World Maritime Axis. Based on Law number 16 of 2017 concerning Indonesian Marine Policy, there are 5 (five) pillars to make it happen, namely: (1) Rebuilding maritime culture, (2) Managing marine resources, (3) Developing maritime infrastructure and connectivity, (4) Improving maritime diplomacy, (5) Building maritime defense forces. Law Number 32 of 2014 concerning the Ocean, underlies various government policies to realize maritime power to become one of the nation’s advantages. The scope of the implementation of the Indonesian Marines includes (1) marine areas, (2) marine development, (3) marine management, (4) marine development (5) management of marine space and protection of the marine environment, (6) defense, (7) security, (8) law enforcement and safety at sea, (9) governance and institutions.

To realize Indonesia as a World Maritime Axis Country, national maritime security is an important matter. National maritime security is influenced by the potential threats that may arise and how the readiness of the Indonesian state in counteracting, taking action, or recovering any threats that occur. Indonesia as an archipelagic country with all its wealth of resources has potential threats to marine security which include piracy, illegal immigrants, smuggling of goods, IUU fishing, marine pollution, exploration, and exploitation of natural resources illegally (Latifah & Larasati, 2017).

Based on the report of the International Maritime Bureau (IMB) regarding data on piracy and piracy at sea, it can provide an overview as well as an evaluation material for maritime security threats, especially in Southeast Asia. The ICC International Maritime Bureau (IMB) has published “Piracy and Armed Robbery Against Ship” in the period from January 1 to December 31, 2019, the report shows that the number of incidents of piracy and armed robbery against ships and threats to shipping security and safety in the Southeast Asia region still occupies the highest rating, followed by Africa and America. The piracy report data is more clearly depicted in Figure 2 below:

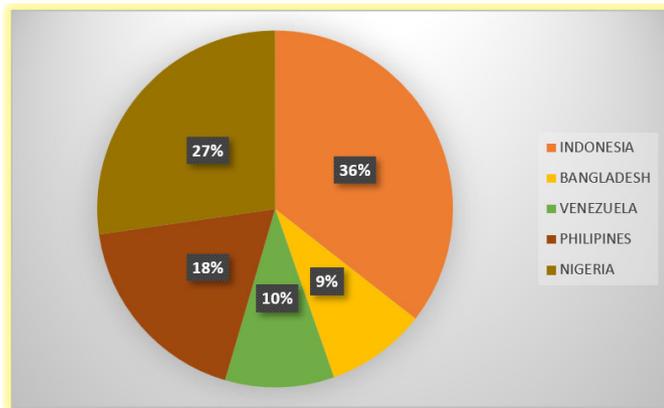
Figure 2: Piracy by Region in 2019.



Source: International Maritime Bureau (IMB), 2019.

The International Maritime Bureau (IMB) report states that at least 180 piracy incidents at sea were received in 2019. These piracy incidents occurred in almost all waters around the world. Indonesian waters are included in the top 5 (five) categories of reporting incidents of piracy. The data is more clearly illustrated in Figure 3

Figure 3: Reports of Piracy in 5 Locations.



Source: International Maritime Bureau (IMB), 2019.

Indonesian waters are very broad and strategic and are one of the waters that have a very high shipping intensity, and have potential threats that can come from various directions. Figure 4. shows the report on the position of piracy in Indonesian waters.

Potential threats that may arise will continue to develop as the strategic environment changes. The development of security issues in a country today is no longer a conventional way to deal with aggression from other countries, but what is happening now and in the future is the struggle for natural resources. The security of natural resources, especially energy security, must be watched out for (Kennedy, 2017). The development of state power to ensure energy and resource security is a common situation because energy security strategies are almost always related to the use of state power. When the strategy has become an option to secure access to energy, the need for developing state capabilities becomes a must. According to research

by Lloyd’s-Qinetiq and the University of Southampton on the Global Marine Technology Trend, GMTT 2030 states that the development of the security sector at sea is strongly influenced by the level of GDP (Gross Domestic Product) of a country, while the direction of development in the marine sector is also influenced by political, economic, and social conditions. social, demographic, and environmental, and energy at sea.

Figure 4: The position of piracy in Indonesian waters.



Source: International Maritime Bureau (IMB), 2019.

The Indonesia Coast Guard (IDNCG) is an integral part of the national maritime security institution, which has a role as a component of national marine security carrying out its duties based on state political policies and decisions to improve guarding, monitoring, prevention, and prosecution of violations of law in Indonesian waters and jurisdictions of Indonesia. based on the provisions of national and international law. It is hoped that the capacity development planning of IDNCG can be further enhanced. According to the author’s analysis, the development of capabilities in IDNCG consists of levels of (1) ability, (2) strength, and (3) the degree pattern of IDNCG elements. Currently, in carrying out its duties, IDNCG is faced with limited capabilities, on the other hand, the rapid changes in the strategic environment add to the complexity of national maritime security issues. The implementation of IDNCG’s duties includes maintaining safety and ensuring the creation of security in the Indonesian territorial sea, archipelagic waters, the Exclusive Economic Zone (EEZ) including border areas, leading small islands, and the Indonesian Archipelago Sea Lane (IDNCG, 2014).

Based on some of the background that has been described previously, the problem statement that can be raised in this paper can be formulated as follows:

a. How to identify the Internal Factors Analysis Strategic (IFAS) and External Factors Analysis Strategic (EFAS) as a reference in drafting the IDNCG capability development strategy concept?

b. How is the Formulation of the Strategic Concept of IDNCG Capability development in the face of dynamic aspects of national maritime security threats?

In terms of practitioners and academics, the writing of this paper is expected to contribute ideas and knowledge in drafting

the concept of a strategy for developing the capability of the Maritime Security Agency following IDNCG's First Mission, namely: Improving guarding, supervision, prevention, and prosecution of law violations in Indonesian waters and Indonesian jurisdictions based on the guidelines. on the provisions of national and international law. And hopefully can be implemented in reality.

Currently, the capability of the IDNCG Institution can still be further developed broadly and professionally by increasing the strength and capability of the IDNCG institution and optimizing the degree pattern of IDNCG elements. The concept of the IDNCG capability development strategy can be started by studying the potential threats to national maritime security in the future and analyzing the current IDNCG capability to balance and deal with these potential threats. Based on these problems, the writing of this paper offers a Concept of IDNCG Capability Development Strategy in supporting the creation of Indonesia's national maritime security.

2. Materials and Methods.

2.1. National Maritime Security.

National maritime security is more commonly known as maritime security in the national scope. Maritime security is interpreted differently by each individual and organization depending on the various interests included in it. Maritime security is not an independent issue sector (Ikhtari, 2010). From a military perspective, maritime security has traditionally referred to national security concerns in the sense of protecting the territorial integrity of a country from the threat of armed forces or the use of armed force and protecting the national interests of countries wherever they are (Klein, et al., 2010). This means that in this case the goal to be achieved or created is to guarantee freedom of navigation, shipping activities, and protect the existing resources in the ocean as well as secure the ocean area from threats from other countries, terrorism, drug trafficking, and transnational crime, piracy, environmental damage, and entry. illegal immigrants by sea (Mahan, 1890).

From a civil perspective, maritime security is more specific to the security of the maritime transportation system and its relation to the safety of cargo transported to its destination without being disturbed or being the target of criminal acts. So that maritime security can be defined as an effort made by the government, operators, and administrators of ships, ports, coastal facilities, and maritime organizations formed to protect against attacks, sabotage, piracy, theft, and disturbances (Özleblebici, 2015).

According to Sayidiman Suryohadiprojo (2019) in his paper submitted at the International Maritime Law Workshop, maritime security is not only about law enforcement at sea but in a broad sense, namely, the sea is an area that is safe for use by users and free from threats or disturbances, including:

a) Seas that are free from the threat of violence, namely threats using organized armed force and can disturb and endanger personnel or the state. The threats are in the form of piracy, sabotage of vital objects, mines, and acts of terror

b) Seas that are free from navigational threats, threats posed by geographical and hydrographic conditions so that they can threaten shipping safety

c) The sea is free from threats to marine resources, namely in the form of pollution and destruction of marine ecosystems that will have an impact on the surrounding community

d) The sea is free from the threat of general violations, namely compliance with national and international laws that apply in the waters.

By paying attention to the understanding and definition of maritime security, IDNCG needs an effort and strategy as an improvement in organization and management as well as adequate facilities and infrastructure through good and sustainable management (Bastari, 2021).

2.2. Maritime Security Agency (IDNCG).

The Indonesia Coast Guard of the Republic of Indonesia (IDNCG) is an agency tasked with conducting security and safety patrols in Indonesian waters and Indonesian jurisdictions. IDNCG is a non-ministerial government agency responsible to the President through the Coordinating Minister for Political, Legal, and Security Affairs. Previously, IDNCG was a non-structural institution called the Coordinating Board for Maritime Security of the Republic of Indonesia (Bakorkamla). On December 29, 2005, Presidential Regulation No. 81/2005 concerning the Maritime Security Coordinating Board (Bakorkamla) was enacted which became the legal basis. Then since the enactment of Law No. 32 of 2014 concerning the Ocean, Bakorkamla has officially changed its name to the Indonesia Coast Guard (IDNCG). The position of IDNCG was further strengthened by the issuance of Presidential Regulation Number 178 of 2014 concerning the Maritime Security Agency of the Republic of Indonesia.

IDNCG's vision is the realization of a reliable and professional maritime security and safety in the context of leading an advanced Indonesia that is sovereign and has a personality based on cooperation. The IDNCG's mission is (1) To improve the safeguarding, supervision, prevention, and prosecution of law violations in Indonesian waters and Indonesian jurisdictions by referring to the provisions of national and international law. (2) Strengthening national policies in the field of security and safety in the jurisdiction of Indonesia to strengthen Indonesia's identity as the world's maritime axis. (3) Organizing an independent and strong security and safety early warning system based on national interests in Indonesian waters and in Indonesian jurisdictions (IDNCG, 2014).

The objectives of IDNCG are (1) The realization of security and safety in Indonesian waters and Indonesian jurisdictions with an information system/early warning system and coast guard diplomacy guided by the provisions of national and international law. (2) The realization of institutional capacity, the availability of facilities and infrastructure for marine security and safety operations, and professional, reliable, and superior human resources (IDNCG, 2014).

IDNCG has Strategic Goals: (1) Increasing law enforcement in Indonesian waters and Indonesian jurisdictions in an integrated manner. (2) Increasing national policies in the field of

maritime security and safety in Indonesian waters and Indonesian jurisdictions that are credible. (3) Realizing an information system/early warning system for security and safety in Indonesian waters and Indonesian jurisdictions that are integrated. (4) Increasing the capacity of modern and efficient maritime security institutions. (5) Increasing the capacity of human resources (HR) of professional, highly competent, and non-sectoral marine security apparatus. (6) Increasing reliable and modern marine security and safety facilities and infrastructure based on an early warning system (IDNCG, 2014).

2.3. Threat Concepts and Theories.

Threats are every business and activity, both domestic and foreign, which are considered to endanger the sovereignty of the state, the territorial integrity of the country, and the safety of the entire nation (Kemenhan, 2014). The actual threats are real threats, in the form of armed separatists, terrorism, radical groups, communal conflicts, theft of natural resources such as IUU Fishing, Illegal Logging, and illegal mining and natural disasters.

Potential threats are the seeds of threats that can arise at any time such as border disputes, national disintegration, conflicts between groups, social unrest, efforts to replace Pancasila ideology, and so on. In terms of sources, threats consist of domestic, foreign, and azimuthal, in terms of types of threats consist of military or non-military threats, in terms of threat actors consist of threats from a state or non-state. Threats that arise along with the development of the world are no longer limited to traditional threats but have developed into non-traditional threats, including cyber threats. This new type of threat is now growing wider and more complex. Not only in the form of military threats but also threats to all aspects of national and state life (Marsetio, 2013).

The Ministry of Defense (2015) estimates that threats and disturbances to Indonesia's defense and security interests in the future can be in the form of international terrorism, separatist movements, acts of radicalism, communal conflicts, transnational crimes, illegal immigration activities, maritime security disturbances, air security disturbances, environmental destruction, and natural disasters.

2.4. National Marine Security Threat.

Marine Security Threats are every business and activity, both domestic and foreign, which are considered to endanger National Marine Security. Several maritime security issues that are quite prominent and are of concern to the world community are: (a) high threats of violence, such as piracy, sabotage, and terror of vital objects; (b) navigational threats, such as shortages and theft of navigational aids; (c) resource threats, such as damage and pollution of the sea and its ecosystem; and (d) sovereign and legal threats, such as illegal fishing, illegal immigrants, illegal treasure searches, illegal exploration and exploitation of natural resources, and smuggling of goods, people and weapons (Poerwowidagdo, 2015).

The UN Secretary-General in his report UN Report of The Secretary-General on Oceans and the Law of the Sea 2020 provides identification of activities in general that are considered a

threat to maritime security. There are at least 7 (seven) specific threats to maritime security :

a. Piracy and armed piracy against ships that specifically endanger the welfare of seafarers and the safety of navigation and trade.

b. Terrorist activities that target ships, offshore installations, or maritime interests that have a broad effect including the economic aspect of the attacks carried out.

c. Illegal trade in weapons and weapons of mass destruction.

d. Trafficking of illegal psychotropic drugs, where many of these goods are transported.

e. Smuggling and human trafficking.

f. IUU Fishing, Unreported Fishing, Unregulated Fishing which poses a threat to the availability of fish related to international peace and security.

g. Intentional and unlawful damage to the marine environment that threatens the security of one or more countries in terms of social and economic impacts on neighboring countries.

Several potential maritime security threats that can be faced by IDNCG in law enforcement and maintaining territorial security at sea include acts of violence at sea, accidents, navigation and weather, drug smuggling, Illegal Logging, illegal migrants, Illegal Unreported and Unregulated (IUU) fishing, illegal mining, marine pollution, and smuggling.

3. Results and Discussion.

3.1. National Maritime Security as an Interaction Approach between Variables.

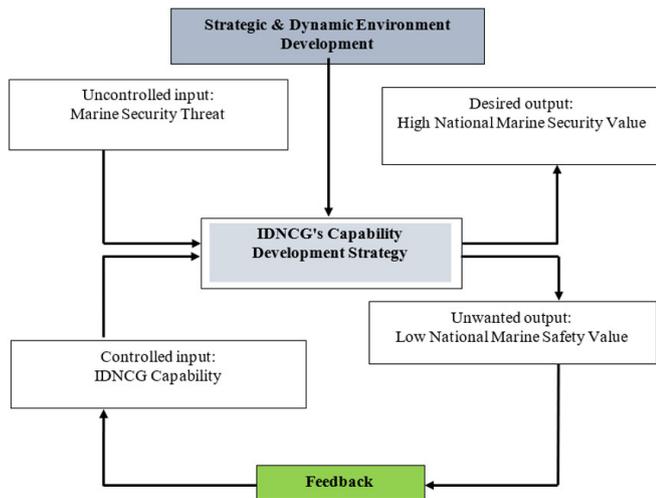
Based on the author's analysis, National Maritime Security is a condition that is influenced by the interaction between variables: (1) IDNCG's capability, (2) IDNCG's Operational Strategy, and (3) Kamlanas threats that arise and continue to change based on the development of system dynamics (See Figure 7). The role and influence of threat aspects are (a) high threat of violence, such as piracy, sabotage, and terror of vital objects; (b) navigational threats, such as theft of navigational aids; (c) resource threats, such as damage and pollution of the sea and its ecosystem; and (d) sovereign and legal threats, such as illegal fishing, illegal immigrants, illegal treasure hunting, and exploitation of natural resources, and smuggling of goods, people and weapons. Meanwhile, the role and influence of IDNCG Capability are on the deterrence, action, and recovery of conditions posed by the threat of Kamlanas.

According to the author, the IDNCG Capability Variable can be analogized to consist of (1) Strengths, (2) Ability, and (3) Patterns of Degree elements of IDNCG. With the dynamic condition of the system that continues to change, it is necessary to analyze the strategic environment and the development of threats to be able to formulate a strategy for developing IDNCG's capabilities. Furthermore, with the integration of the System Dynamic Variable Interaction method and SWOT, a Strategic Concept for developing IDNCG capabilities based on the dynamics of the strategic environment and threat prediction can

be drawn up, to obtain the expected National Marine Security Strategy.

In this paper, the variable interaction approach is used to develop the strategy concept by identifying the interaction relationship between significant variables. The stages of variable identification and strategy conceptualization are the input-output stages of the entire system to be modeled (Suharyo, et al, 2017). This stage is carried out to obtain reference variables and what parameters will be used in formulating strategies so that they are right on target (Sterman, 2000), as shown in Figures 6 and 7 below.

Figure 5: Interaction Diagram of IDNCG Capability Development Strategy Concept .



Source: Bastari, 2021.

In Figures 6 it can be understood that the National Maritime Security Assessment is the main interaction of the variables (1) IDNCG Capability,(2) IDNCG Operational Strategy, and (3) Potential National Marine Security Threats. The next step is to identify the sub-variables that have a significant effect as a reference in the preparation of the right strategy.

3.2. Variable Identification.

The first step in conceptualizing a capability development strategy is to identify the variables that influence the system. The purpose of identifying this variable is to determine the elements that contribute to the system and clarify perceptions of the system to be studied (Yogi et al, 2017).

The variables identified are variables related to parameters that influence and interact with the IDNCG development strategy to face national maritime security threats. The variable identification stage is carried out by observing, understanding the system, and studying literature on national marine security. From the process of observation, understanding of the system, and literature study, the variables that affect the system are obtained as follows:

3.3. Variable System.

The main system variable, in this case, is National Maritime Security which is influenced by IDNCG Capability, IDNCG Operational Strategy, and National Marine Security Threats. The following is an identification of the main system variables and their operational descriptions.

Table 1: Identification of National Maritime Security Variables.

National Maritime Security Variable		
No	Variable	Operational definition
1	IDNCG capabilities	Ability level, strength, and degree pattern of IDNCG elements
2	National Marine Security Strategy	A strategy, method, or tactic in achieving the expected national maritime security condition
3	National Marine Security Threat	Threats both from within and outside the country that is considered to endanger National Marine Security

Source: Authors.

a. IDNCG Capability Sub-System Variables.

Table 2: Identification of IDNCG Capability Sub-System Variables.

IDNCG Capability Sub-System		
No	Variable	Operational Definition
1	Variable	The main tool of the IDNCG system is used for performance implementation and task achievement.
	IDNCG's Power	The elements of the IDNCG Ship are following the established patrol operation vision and mission.
	a. Boat	IDNCG Base / Headquarters to support the operations of IDNCG ships
	b. Base	IDNCG HR both onboard and in Pendarit
2	c. HR	IDNCG's performance in using strengths professionally to carry out tasks according to the vision and mission.
	IDNCG's Ability	Performance of early detection of threats, analysis, evaluation of Intelmar data, counter-intelligence, and clandestine.
	a. Intelligence Ability	The performance of law enforcement at sea can be in the form of preventing, guarding, or taking action against law violations in the Indonesian jurisdiction
	b. Operation Capability	The performance of fostering the potential of the national and regional areas to become a national maritime security force
3	c. Sea Security. Territory Control Ability	Operational logistics performance, interoperability, and commonality, education, and training, research and development research, humanitarian operations assistance, security assistance for mapping surveys and hydro-oceanography, etc.
	d. Operation Support Capability	Diplomacy and negotiation performance as well as establishing cooperative relationships between stakeholders to support government policies
	Degree Pattern	Placement and Assignment of IDNCG elements.
	a. Ship Element Resources	Quality and Quantity of resources elements of the Ships and Human Resources owned by IDNCG.
4	b. Logistics Resources	Quality and Quantity of IDNCG's logistical resources.
	c. Operation Degree	Operational activities are in the form of patrols and the deployment of IDNCG forces to carry out their duties.
	d. Operation Interoperability	IDNCG Operation Interaction Capability with stakeholders related to maritime security.
	e. Nas Marine Security Budget	The budget provided by the government for the National Maritime Security sector.
	f. IDNCG budget	Budget provided by the Government for IDNCG.

Source: Authors.

b. Operation Strategy Sub-System Variables IDNCG.

Table 3: Identification of IDNCG Operation Strategy Sub System Variables.

IDNCG Operation Strategy Sub-System		
No	Variable	Operational definition
1	Operation Tactics	IDNCG's planned and implemented operational strategy.
2	Operation Interoperability	IDNCG Operation Interaction Capability with stakeholders related to maritime security.
3	Law Enforcement	Legal action on activities that are against and do not comply with applicable legal norms.
4	Lawlessness deterrent effect	The ability to prevent actions and activities that are against and do not comply with applicable legal norms.
5	International Cooperation	Activities carried out by IDNCG with other relevant state government agencies.

Source: Authors.

c. National Marine Security Threat Sub System Variable.

Table 4: Identification of IDNCG Operation Strategy Sub System Variables.

National Marine Security Threat Sub System		
No	Variable	Operational definition
1	International	Threats from abroad
	Territory Violation	The actions of ships from other countries that take natural resources in the sovereignty of the jurisdiction of Indonesia
	Terrorism	The activity of spreading fear by using violence.
	Smuggling	Activities of carrying goods without being accompanied by a permit document
	Human trafficking	Human trafficking and exploitation
	Espionage	Snooping and spying activities to gather information
	Cyber Attack	The activity of changing, or destroying systems or networks, programs or information stored in computer networks.
2	Domestic	Threats that come from within the country
	Loss of natural resources in the sea and islands	Decrease and shift of natural resources or islands in a way that is against the law.
	Separatist Movement	Activities to gain sovereignty and separate territories or human groups.
	Piracy	The activity of seizing other people's goods or rights.
	Illegal logging	Logging, transporting, and selling of timber without legal documents.
	IUU Fishing	Fishing activities without permits and legal documents.

Source: Authors.

d. Identification of Strategic Internal Factors Analysis (IFAS).

Identification of internal factors is carried out to determine the factors that are Strengths (S) and Weaknesses (W). Internal factor components are IDNCG's strengths and weaknesses in dealing with national maritime security threats. Based on the observational analysis, system understanding, and literature study on national maritime security, internal factors can be identified as listed in the following table as a reference in drafting the IDNCG capability development strategy concept.

Table 5: Identification of Internal Factors (IFAS) as a reference in formulating the concept of IDNCG capability development strategy.

Internal Factor - Strength.		
No	Code	Strengths (S)
1	S1	Able to carry out early detection of threats and potential threats of Kamlanas, especially in strategic seas, strategic funnels, ALKI, and border areas, analyze, evaluate and distribute maritime data.
2	S2	Able to carry out counter-intelligence and clandestine operations in the field of Marine Security.
3	S3	Able to carry out maritime intelligence functions in the field of maritime security.
4	S4	Able to carry out guarding operations, surveillance, crime prevention in Indonesian waters
5	S5	Able to carry out and take action against law violations in the territorial waters of Indonesian jurisdiction
6	S6	Able to carry out the security of marine and archipelagic natural resources
7	S7	Able to carry out special assistance operations for natural disasters
8	S8	Able to carry out security operations on the coast and the outer islands
9	S9	Able to carry out anti-access operations
10	S10	Able to carry out cyber attack security
11	S11	Able to carry out information security
12	S12	Able to carry out sea transportation to support Sislognas
13	S13	Able to carry out maritime security operations in the border areas of Indonesia's national jurisdiction.
14	S14	Able to carry out interoperability with other stakeholders.
15	S15	Able to carry out international law enforcement at sea
16	S16	Able to carry out sea traffic security, especially in the Malacca Strait, Singapore Strait, Indonesian Archipelago Sea Lane (ALKI), trade routes, and national logistics distribution (sea highway)
17	S17	Able to strive for domestic maritime security.
18	S18	Able to build mutual trust through security presence.
19	S19	Able to carry out bilateral and multilateral exercises.
20	S20	Able to carry out port visits.
21	S21	Able to carry out security arm control.
22	S22	Able to carry out the implementation of dialogue in national, regional, and international forums.
23	S23	Able to carry out the development of national potential to become a maritime security force.
24	S24	Able to increase empowerment and development of marine security areas both in quality and quantity.
25	S25	Able to empower maritime potential as a reserve component and a supporting component of National Marine Security
26	S26	Able to develop the region as a maritime security area and foster regional logistics to support operations.
27	S27	Able to carry out security assistance for marine surveys and hydro-oceanographic mapping to civil institutions
28	S28	Able to carry out operational logistics support that can support interoperability and commonality.
29	S29	Able to implement K4IPB to integrate all IDNCG's supervisory systems.
30	S30	Able to carry out education and training to prepare and develop Human Resources as a member of the IDNCG organization.
31	S31	Able to carry out research and development to optimize the operation of IDNCG's main tools.
32	S32	Able to carry out humanitarian operations and assistance due to natural disasters (Humanitarian Assistance and Disaster Relief)

Internal Factors - Weakness.		
No	Code	Weakness (W).
1	W1	A limited number of IDNCG Ships capable of operating in the Exclusive Economic Zone
2	W2	The limited number of ship operating tools and systems compared to the very broad surface patrol sector.
3	W3	Base limitations in carrying out the Rebase, Replenishment, Repair, Rest, and Recreation functions for IDNCG elements
4	W4	Limited equipment, Security operation vehicles, and tactical vehicles.
5	W5	The limitation of the information system is that can present a picture of the Kamlanas tactical situation in real-time.
6	W6	Interoperability between stakeholder components is not optimal and there is overlapping authority, resulting in operational system integration experiencing problems that disrupt the running of a national maritime security operation.
7	W7	Early detection equipment in the form of radar, both Radar Early Warning (EW), Ship Surveillance Radar, and Coastal Radar (Integrated Maritime Surveillance System / IMSS) in limited numbers.
8	W8	Integration between human intelligence (human intelligence) that utilizes technology such as signal intelligence (signal intelligence), electronic intelligence (electronic intelligence), and imagery intelligence (imagery intelligence) in a coordinated manner in a collaborative framework involving intelligence is not yet optimal.
9	W9	Limitations Personnel possessing the skill level required to manpower the main tools of the national maritime security operating system.
10	W10	Limited budgetary and logistical support to conduct national maritime security patrols and operations

Source: Authors.

e. Identification of Strategic External Factors Analysis (EFAS).

External factors reflect opportunities and threats from various external factors that can affect the marine security system significantly, either beneficially or adversely in the future. Identification of external factors is carried out to determine the factors that become Opportunities (O) and Threats (T). Based on observations, system understanding, and literature study on national maritime security, external factors were identified as listed in Table 6 below as a reference in drafting the IDNCG

capability development strategy concept.

Table 6: Identification of External Factors as a reference in formulating the concept of IDNCG capability development strategy.

External Factors - Opportunities.

No	Code	Opportunities
1	O1	Indonesia's geographical position, which is a cross position between two continents and two oceans, can make Indonesia a power that can control global maritime activities.
2	O2	The government's policy is to make Indonesia the world's maritime axis.
3	O3	Economic growth and an increase in the domestic security budget.
4	O4	The revival of the domestic defense and security industry and the concept of the Global Marine Technology Trend GMTT 2030.
5	O5	Increasing national and international cooperation in the field of maritime security.
6	O6	Cooperation with maritime security stakeholders both nationally and internationally in the form of joint exercises and joint operations.

External Factors - Threats.

No	Code	Threats (T)
1	T1	The condition of the border areas, very limited facilities and infrastructure for the main equipment and base support so that the vulnerability to violations and crimes of foreign ships is quite high.
2	T2	ALKI and Choke Point with high traffic intensity are vulnerable to law violations.
3	T3	Covid 19 pandemic.
4	T4	Cyber Attack.
5	T5	Human Trafficking and Illegal Immigrants.
6	T6	Smuggling
7	T7	Terrorism.
8	T8	Espionage.
9	T9	Loss of natural resources of the sea, coast, and outer islands.
10	T10	Illegal Logging.
11	T11	IUU Fishing.
12	T12	Piracy

Source: Authors.

3.4. IDNCG Capability Development Strategy.

Strategy formulation is carried out by compiling a SWOT Matrix. The SWOT matrix is used as a method to combine the results of internal factor analysis and analysis of external factors that are important to develop four main types of strategies, namely SO Strategy (strengths-opportunities), WO Strategies (weaknesses-opportunities), ST Strategy (strengths-threats), and WT (weakness-threats) strategy.

By carrying out an analysis of internal factors and external factors, several alternative strategies can be formulated as listed in the following table:

a. S - O (Strengths - Opportunities) Strategy.

S - O (Strengths - Opportunities) strategy is a strategy that is prepared by utilizing internal strengths to take advantage of external opportunities (Wheelen & Hunger, 2012). The preparation of the SO strategy can be seen in the following table:

Table 7: Formulation of S - O (Strengths - Opportunities) Strategy.

Code	Strengths	Opportunities	Main Strategy
SO1	S1, S2, S3	O1, O2, O3	Increase Intelligence ability
SO2	S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14	O1, O2, O3, O4	Improve the ability of Information Systems.
SO3	S15, S16, S17	O1, O2, O3	Improved Operation and Patrol capabilities of Kamla
SO4	S18, S19, S20, S21, S22	O1, O2, O3, O5, O6	Improve the ability of Kamla Diplomacy.
SO5	S23, S24, S25, S26	O1, O2, O3	Improve the ability of the Kamla region Empowerment
SO6	S27, S28, S29, S30, S31, S32	O1, O2, O3	Improve operation Support capability.

Source: Authors.

b. W - O (Weakness - Opportunities) Strategy.

W - O (Weakness - Opportunities) strategy is a strategy designed to improve internal weaknesses by taking advantage of external opportunities (Yarger, 2006). The preparation of the WO strategy can be seen in the following table:

Table 8: W - O (Weakness - Opportunities) Strategy.

Code	Weakness	Opportunities	Main Strategy
WO1	W1, W5, W6, W7, W8	O1, O2, O3, O4	Increase the number and modernization of IDNCG Ships.
WO2	W2, W5, W6, W7, W8	O1, O2, O3, O4	Increase the number and modernization of Maritime Security Information.
WO3	W3, W5, W6, W7, W8	O1, O2, O3, O4	Increase IDNCG Base Capability.
WO4	W4, W5, W6, W7, W8	O1, O2, O3, O4	Improve capabilities and modernize operating equipment.
WO5	W10	O2, O3	Increasing Logistics and Budget Resources
WQ6	W5, W6, W7, W8	O6	Improve operation and patrol interoperability

Source: Authors.

c. Strategy S - T (Strengths - Threats).

Strategy S - T (Strengths - Threats) is a strategy that is prepared by using strength to avoid or reduce the impact of external threats (Hill & Westbrook, 1997). ST strategy preparation can be seen in the following table:

Table 9: Strategy S - T (Strenght - Threats).

Code	Strengths	Threats	Main Strategy
ST1	S1, S15, S16, S17	T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12	Enhance International Cooperation by carrying out joint exercises and joint patrol operations

Source: Authors.

d. Strategy W - T (Weakness - Threats).

The W - T (Weakness - Threats) strategy is a strategy that uses defensive tactics aimed at reducing internal weaknesses and avoiding external threats (Horwath, 2006). The preparation of the WT strategy can be seen in the following table:

Table 10: Strategy W - T (Weakness - Threats).

Code	Weakness	Threats	Main Strategy
WT1	W8, W9	T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12	Improving the Quality of Human Resources Professionalism by carrying out education and training.
WT2	W5, W6, W7	T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12	Developing Operation Kamla Tactics.

Source: Authors.

The overall strategy that has been compiled through internal factor analysis and external factor analysis has developed four types of strategies: SO Strategy (strengths - opportunities), WO Strategy (weaknesses - opportunities), ST Strategy (strengths - threats), and WT Strategy (weaknesses - threats).

e. Strategy Compilation and Integration.

The strategies that have been compiled in the SWOT matrix are then compiled to facilitate the next step in classifying strategies based on their categories in IDNCG as shown in the following Table:

Table 11: Strategy Compilation.

No	Code	Main Strategy
1	SO1	Increase Intelligence ability.
2	SO2	Improve the ability of Information Systems.
3	SO3	Increase Marine Security Operations and Patrol capabilities.
4	SO4	Increase the capability of Maritime Security Diplomacy.
5	SO5	Increase the capacity of the Kamlanas area Empowerment.
6	SO6	Improve operation Support capability.
7	WO1	Increase the number and modernization of IDNCG Ships.
8	WO2	Increase the amount and modernization of Maritime Security Information.
9	WO3	Increase IDNCG Base Capability.
10	WO4	Improve capabilities and modernize operating equipment.
11	WO5	Increase Logistics Resources and budget
12	WO6	Improve the interoperability of Sea Security. operations and patrols
13	ST1	Enhance International Cooperation by carrying out joint exercises and joint patrol operations.
14	WT1	Improving the Quality of Human Resources Professionalism by carrying out education and training.
15	WT2	Develop maritime security Operations Tactics.

Source: Authors.

f. IDNCG Capability Strategy Concept Classification.

The strategic concepts that have been compiled are then classified based on the criteria for the IDNCG capability component,

namely: (1) IDNCG Strengths, (2) IDNCG Capability, and (3) IDNCG Title Patterns, as shown in the following table:

IDNCG’s Strength Development Strategy Concept.

Table 12: Concept of Strength Development Strategy.

No	Code	Main Strategy
1	WO1	Increase the number and modernization of IDNCG Ships.
2	WO2	Increasing the Number and Modernization of Maritime Security Information
3	WO3	Increase IDNCG Base Capability.
4	WO4	Improve Capability & modernization of operating equipment.

Source: Authors.

IDNCG’s Capability Development Strategy Concept.

Table 13: Concept of Capability Development Strategy.

No	Code	Main Strategy
1	SO1	Increase Intelligence ability
2	SO2	Improve the ability of Information Systems.
3	SO3	Increase Marine Security Operations and Patrol capabilities.
4	SO4	Increase the capability of Maritime Security Diplomacy.
5	SO5	Improve the ability of the Kamlanas region Empowerment
6	SO6	Improve operation Support capability.

Source: Authors.

The Concept of Development Strategy for the Pattern of IDNCG Elements.

Table 14: Concept of the Elementary Degree Pattern Development Strategy.

No	Code	Main Strategy
1	WO5	Increasing Logistics and Budget Resources
2	ST1	Enhance International Cooperation by carrying out joint exercises and joint patrol operations
3	WT1	Improving the Professionalism Quality of IDNCG Human Resources by carrying out education and training.
4	WO6	Improve the interoperability of Sea Security. operations and patrols
5	WT2	Develop maritime security operations tactics

Source: Authors.

Conclusions and Suggestions.

Conclusions.

In drafting the Strategic Concept of IDNCG Capability development in supporting the creation of national maritime security, several conclusions can be drawn, including:

a. The results of the Internal Factors Analysis Strategic (IFAS) and External Factors Analysis Strategic (EFAS) identification results obtained a Conceptualization of the National Marine Security System which was presented at the National

Marine Security assessment which was influenced by 3 main aspects, namely (1) IDNCG Capability, IDNCG Operational Strategy and (3) Potential National Marine Security Threats.

These three main aspects form a system that interacts with one another to form the condition of National Marine Security. This means that the IDNCG Capability variable and the IDNCG Operation Strategy variable provide a significant dynamic balance to the National Marine Security Threat variable. Furthermore, the results of the identification of IFAS and EFAS factors can provide a significant analytical reference for the preparation of the IDNCG Capability Development Strategy Concept in supporting the creation of national maritime security to offset dynamic threats.

b. The result of writing this paper is in the form of a Grand Strategy Concept Formulation on IDNCG Capability Development in supporting the creation of national maritime security. The following are 15 Main Strategy Concepts (Grand Strategy) for IDNCG Capability Development (Avando Bastari, 2021):

1. Increase Intelligence ability.
2. Improve the ability of Information Systems.
3. Improved Sea Security Operations and Patrol capabilities
4. Improving Sea Security Diplomacy ability.
5. Improving the capacity of Empowerment of the Kamla region.
6. Improve Kamla Operations Support capability.
7. Increase the number and modernization of IDNCG Ships
8. Increase the number and modernization of Maritime Security Information.
9. Improve the ability of IDNCG Base.
10. Improve the capability and modernization of operating equipment
11. Increase logistical and budgetary resources.
12. Improve the interoperability of Kamla's operations and patrols.
13. Enhance international cooperation by carrying out joint exercises and joint patrol operations.
14. Improving the quality of professionalism of human resources by implementing education and training.
15. Develop maritime security patrol and operation tactics.

Suggestions.

This paper has formulated 15 (fifteen) main strategic concepts for developing the capability of the IDNCG organization in dealing with national maritime security threats. These main strategies can still be further developed and can be detailed into Sub-Significant Strategies and adapted to the dynamics of the ongoing system. The main strategy can be used as a reference and can be applied to the IDNCG Institution of course by considering other significant factors. Several things can be developed in the next writing, namely:

a. The relationship between variables of national maritime security can be defined and formulated both quantitatively and qualitatively with more detailed equations between variables.

b. It can be continued with the elaboration of 15 Main Strategic Concepts in developing IDNCG capabilities into significant "Sub-strategies".

c. It can be continued with the preparation of a Strategy Road Map as a form of implementing IDNCG Capability Development in a Strategic Plan, which includes the achievements or milestones of the Strategic Concept.

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References.

- Ahmadi, Zain, D., & Santoso, B. (2011). Determination of Naval Based Locations: Strategy to Maximize Performance Monitoring of defense and Security System in the Sea (Study on Maritime Security and Defense Sistem in Indonesia. *Jurnal Aplikasi Manajemen*, 9, 254-263.
- Athapaththu, H. K. (2016). An Overview of Strategic Management: An Analysis of the Concepts and the Importance of Strategic Management. *International Journal of Scientific and Research Publications*, 6(2), 124-127.
- Bastari, A., Sukandari, B., Widjayanto, J., & Hutabarat, D. (2020). Dynamic Probability of The Indonesian Archipelago Underwater Defence With Submarine Sonar. *Journal Asro-STTAL-International Journal*, 11(1), 21-31.
- GMTT 2030 Team. (2013). *Global Marine Trend 2030*. Singapore: Lloyds Register; Qinetiq; University of Strathclyde.
- Held, D. (2001). Globalization, Cosmopolitanism, and Democracy: An Interview. *Catalunya: IDEES of the Centre d'Estudis de Temes Contemporanis*.
- Hill, T., & Westbrook, R. (1997). *SWOT Planning* (30 ed.).
- Horwath, R. (2006). *The Origin of Strategy*. Strategic Thinking Institute.
- Ikhtari, R. w. (2010). Strategi Keamanan Maritim Indonesia dalam menanggulangi Ancaman Non-traditional security kasus illegal fishing tahun 2005-2010.
- International Maritime Bureau (IMB). (2019). *Piracy And Armed Robbery Against Ships*. London: ICC International Maritime Bureau (IMB).
- Kemenhan. (2014). *Doktrin Pertahanan Negara*. Jakarta: Kementerian Pertahanan Republik Indonesia.
- Kemenhan. (2014). *Postur Pertahanan Negara*. Jakarta: Kementerian Pertahanan Republik Indonesia.
- Kemenhan, D. (2015). *Buku Putih Pertahanan Negara*. Jakarta: Ditjen Stratahan.
- Kennedy, P. S. (2017). Tantangan Pertahanan dan Ekonomi Indonesia serta Kebijakan yang perlu dilakukan. *Fundamental Management Journal*, 2(1), 67-76.
- Kılınça, I., Oncüb, M. A., & Tasgit, Y. E. (2012). Sun Tzu's Principles of War Art and Today's Competition Strategies: a relative approach. *International Journal of Research in Business and Social Science*, 1(1), 8-17.

- Klein, N., Massop, J., & Rothwel, D. R. (2010). *Maritime Security: International Law and Policy Perspective from Australia and New Zealand*. London: Routledge.
- Latifah, & Larasati, D. (2017). Tantangan Internal dalam Mewujudkan Indonesia Sebagai Poros Maritim Dunia. *Jurnal Hubungan Internasional*, X, 99-116.
- Mahan, A. T. (1890). *The Influence of Sea Power Upon History*. Boston: Universitas of Toronto.
- Marsetio. (2013). Strategi TNI Angkatan Laut dalam Pengamanan Batas Maritim NKRI: Kajian Historis-Strategis. *Jurnal Sejarah Citra Lekha*, XVII(1), 1-18.
- Özleblebici, Z., Pinto, C., & Antonio, N. (2015). Variations in Strategy Perception among Business and Military. *International Journal of Research in Business and Social Science*, 4(1), 17-31.
- Poerwowidagdo, S. J. (2015). Blue Ocean Strategy in Managing Maritime Security. *Jurnal Pertahanan*, 1(1), 13-26.
- Pushidrosal. (2018). *Skep Negara Kepulauan*.
- Putra, I. N., Hakim, A., Pramono, S. H., & Leksono, A. S. (2017). The Effect of Strategic Environment Change toward Indonesia Maritime Security: Threat and Opportunity. *International Journal of Applied Engineering Research*, 12(16), 6037-6044.
- Sterman, J. (2000). *Bussines Dinamic System*. Cambridge: Irwin-McGraw-Hill.
- Suharyo, O. S., Manfaat, D., & Armono, H. D. (2017, March). Establishing the Location of Naval Base Using Fuzzy MCDM and Covering Technique Methods: A Case Study. *International Journal of Quantitative Management*, 23(1).
- Suryohadiprojo, S. (2013). *Makalah TNI AL : Tantangan dan Kendala Keamanan Laut Tanggung Jawab Indonesia*. Yogyakarta.
- Wheelen, T. L., & Hunger, J. D. (2012). *Strategic Management and Business Policy: Toward Global Sustainability* (13th ed.). New Jersey: Pearson Education.
- Yarger, H. R. (2006). *Strategic theory for 21st century: the little book on big strategy*. strategic studies institute.
- Yogi, P., Rizal, O., Ahmadi, & Suharyo, O. S. (2017). Feasibility Analysis of Naval Base Relocation Using SWOT and AHP Method to Support Main Duties Operation. *Journal of Defense Management*, 7(1), 1-8.