

Security Control And Safety in Indonesia's Sea-Based by Building the Maritime Domain Awareness

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Abstract

International community has recognized Indonesia as an archipelagic country, by signing of the United Nations Convention on the Law of the International Sea, with the establishment of three Indonesian Archipelagic Sea Lanes (ALKI) as Sea Lane of Communication (SLOC), Sea Lane of Oils Trade (SLOT) and Sea Lane of Economic (SLOE) and the presence of four of the nine Choke Points in the world. Thus, Indonesia's position along with the potential for marine wealth in it becomes a challenge with a level of vulnerability, which can disrupt the stability of national maritime security and become a source of regional conflict, in the form of the emergence of Maritime Violence in the territorial waters of Indonesia's jurisdiction. The importance of national maritime security for the government has been conveyed through the concept of the marine sector, by making Indonesia the Global Maritime Nexus (GMN). Considering the condition and development of the strategic environment, it has affected the maritime environment in the Southeast Asia region, including the Indonesian maritime environment which is the Center of the Indo-Pacific region. MDA development as an effort to increase understanding of events in the sea and coastal areas as well as find the right solution in solving them, is carried out by all maritime stakeholders based on national interests at sea, both carried out by state and non-state actors to ensure national maritime security.

Keywords: Indonesia is Archipelagic State, Maritime Violence, Maritime Domain Awareness

Introduction

The international world has recognized Indonesia as an archipelagic state as declared in the United Nations Convention on the International Law of the Sea (UNCLOS) in Montego Bay, Jamaica on December 10, 1982 (United Nations, 1982). This has been ratified with the Law of the Republic of Indonesian No. 17 Of 1985. Thus increases the area of Indonesia, based on a survey conducted by Pushidrosal has an area 8,3 million km², 17.504 Islands and sea line 108.000 km (Marsetio, 2014).

Indonesia's geographical position is at the cross of the world between the continents of Asia and Australia, connects the Pacific and Indian oceans, As an archipelagic country, Indonesia has consequences for implementing and respecting the legitimate interests and rights of certain states, in The Right of Archipelagic Sealanes Passage (IMO, 1982), according to government regulations No. 37 of 2002 for determination of shipping lanes and the safety of world shipping in the form of Sea Lane of Communication (SLOC), Sea Lane of Oils Trade (SLOT) and Sea Lane of Economic (SLOE), and the existence of four of nine Choke Point in the world make Indonesia's position very strategic. The existence of the Malacca straits, the Sunda straits, the Lombok straits and the Ombai straits, based on world seaborne trade data, reaches 80%, by using ALKI reaches 58% in a year (National Research Council, 2008). Thus, Indonesia's position and its marine potential become challenges and vulnerabilities, which disrupt the stability of national maritime security and can become a source of regional conflict (Jamilah, 2020), in the form of Maritime Violence in the territorial waters of the Indonesian



Figure 1. *The Maritime Violence Ecosystem*

Source: *Global Responses To Maritime Violence, (Shemella, 2016)*

Van Bynkershoek stated that a country that has a sea area is very dependent on the ability to monitor and control or control the sea area that is its sovereignty (Kinji, 1998). This can be interpreted how to build Maritime Domain Awareness (MDA) by developing the ability to identify threats to the maritime domain as early as possible in the territorial waters, integrating intelligence, surveillance, observation and navigation systems into accessible general operations (Steven C. Boraz, 2007) to provide security, safety, economy or the environment. relating to or bordering the sea, ocean, navigable shipping lanes, including all activities related to maritime, infrastructure, people, cargo, ships and other means of transportation.

Focusing on the importance of national maritime security for the government which has been conveyed through the concept of the marine sector, by making Indonesia a Global Maritime Nexus (GMN). By considering the conditions and developments of the strategic environment, it has affected the maritime environment in the Southeast Asia region, including

the Indonesian maritime environment which is the Center of the Indo-Pacific region, to make Indonesia a key regional stabilizer. Maritime security in Indonesian jurisdictional waters as a barometer of the maritime security situation in Southeast Asia, has bordering the Pacific Ocean and the Indian Ocean is an important part of the interests of the world economy (Mattis, 2018) so that maritime security stability in Indonesian jurisdictional waters is a condition that cannot be compromised. For development MDA is an effort to increase understanding of events in the sea and coastal areas and find the right solution in solving, implemented by all maritime stakeholders based on national interests at sea, both carried out by state and non-state actors to ensure maritime security (National Maritime Domain Awareness The White House, 2005).

The influence of Indonesia's open democratic political model has a direct effect on the emergence of new phenomena in the form of asymmetric threats, is a threat posed by non-state radical groups that have an asymmetric advantage, ignoring the rules or values as well as applicable and agreed international laws and rules, using illegal entry methods, terrorism, sabotage, the use of weapons that take advantage of openness and freedom of action in economic globalization enabling multinational criminal syndicates (Transnasional Crime) expand for operating space in Indonesia territory, take advantage of the development of the information communication revolution and technological developments to expand the operating space by carrying out several activities, in the form of smuggling of drugs and firearms, money laundering, human smuggling and so on. Threats of this new dimension will be very difficult to detect and identify, for example activities with asymmetric threats, in the form of 1) Several countries have provided shelters for criminals/terrorists who are used as bases of operations to carry out illegal activities in maritime areas outside their countries. 2) Non State group taking advantage of the openness of national borders and advances in technology and communication, it is very possible to carry out control of agents scattered in various places, including in Indonesia. The success of attack in the sea area will have a major impact on the economic condition of a country, regionally and globally. Several groups have now been able to develop platforms in the form of mini submarines, unmanned vehicles, dropping zone markers to mini airplanes to support their actions in water areas. 3) Various transnational crimes with the sea domain and the use of the sea for criminal purposes have now become a factual threat. 4) Intention destruction of the marine environment will result in marine environmental disasters, have an impact on the economic sustainability of coastal countries, such as illegal fishing, marine pollution/pollution, which if left unchecked will result in conflicts between neighboring countries that can disrupt stability. national security. 5) The problem of illegal migration by sea is still a crucial problem for maritime security, with the increase in natural resource crises, political crises and welfare crises, such as the migration of South Asian citizens to Australia, all of which pass through Indonesian waters.

National and regional security stability is very important in the maritime aspect, several phenomena that have an impact on the stability of national and regional maritime security by taking into account several facts, among others : 1) The Southeast Asian region as a world trade route, with a very high intensity. 2) The shift of global geopolitics to the Asian region, caused by the "rift" of relations between the United States (Zulkarnain, 2018), disrupting instability in the South China Sea, involving several countries in the Southeast Asian region, the Malacca Strait as shipping access by preparing and offering alternatives for international shipping both from and to the Pacific and Indian seas through the Sunda Strait and Lombok Strait in Indonesia. 3) The global security condition is characterized by the increasing intensity of potential threats and factual threats whose forms, types, nature and spectrum are very dynamic, especially those related to the Russian-Ukrainian conflict. This happens because there are sea lanes that are not or have not been properly monitored and controlled (Kemhan, 2014). 4) The

scope of maritime security in the ASEAN, East Asia and Pacific regions, several countries are starting to look for influence to be taken into account by the world, in terms of the National Maritime Security Information Center (NMIC). 5) Several countries that have not yet ratified The United Nations Convention on the International Law of the Sea, with the demands of the East-West sea lane, so that there are still frequent territorial violations that have an impact on diplomatic relations between the Indonesian government and flag states. The improving maritime security stability, especially against asymmetric threats, it requires cooperation efforts or synergy of maritime sector stakeholders, with the implementation of synergy in policy formulation and implementation related to security and control at sea. This aims to maintain the integrity and safety of the Republic of Indonesia, improve marine security and shipping safety through the implementation of the Early Warning System support of the MDA concept, includes monitoring, surveillance, command and control, inspections (controlling) and legal actions (law enforcement) in or through the sea in the Indonesian jurisdiction, which are carried out in an integrated manner. The MDA dimensions of science and technology, with different sources and in different formats (satellite, radar, reconnaissance aircraft or humans) are stored and securely combined in a central database. As Boraz argues, “a large amount of data on all aspects of maritime activity must be collected, then cross-referenced, 'bundled' (in general, correlated across sources), and analysed, to detect anomalies that might indicate a threat/related behavior” (Lim, 2007). Information exchange activities (Information Sharing) and the importance of awareness of MDA as a Center of Building in the concept of connected contemporary maritime security to support operations in the maritime area which is understood as a “key enabler” to detect and anticipate anomalies in the maritime domain in Indonesia.

Based on the above description, regulatory reformulation is needed to strengthen national maritime security. This study aims to examine issues related to regulations, national marine security information systems and the importance of shared perceptions related to the enactment of the national maritime security law as an effort to develop a maritime security strategy, so several formulations of the problems discussed are related: 1) Security regulatory issues national sea, 2) How to realize an MDA-based information system and mechanism for the implementation of security in the national sea.

Research Methodology

This paper is compiled based on secondary data. The data is collected and analyzed to get a good conclusion and meet the requirements. The main technique used to obtain secondary data is by taking an inventory of various legal provisions or regulations governing the duties and functions of government institutions authorized to carry out law enforcement activities at sea and collected various information related to violations of law in Indonesian waters as well as strategic concepts in implementing MDA initiated by the Indonesian government. Data analysis was carried out qualitatively and presented in the form of descriptions to reveal information, processes and analysis results that have academic feasibility.

The theory use is the strategy theory by R. Adm Hendry E Eccles (1971) which increases the overall strength for the control of the situation and the area for the control of the control in the area of operation, so as to develop excellence. It is said that operations are a comprehensive set of strategies (St), Tactics (Ta), Logistic (L), Intelligence/surveillance (I) dan C4ISR (Command, Control, Communication, And Computerization, as well as Surveillance And Observation Information) interacting with each other in the perspective of national defense management (Suwarso, 1988).

$$\text{Operation} = (\text{St} \times \text{Ta} \times \text{L}) + \text{C4ISR} + \text{Intelligence}$$

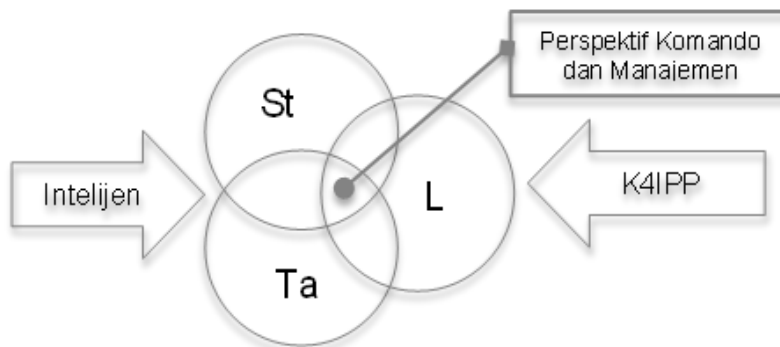


Figure 2. Military Operation Formula

Source: A collection of essays on the revolution on the issue of the Maritime, 1988

Results and Discussion

Library Survey

Maritime Security is a combination of preventive and law enforcement measures in protecting the maritime sector from threats and illegal actions directed at law enforcement, both civilian and military, as well as defense operations such as the navy (Sagena, 2013), According to Natalie Klein, in the economic aspect, maritime security emphasizes the importance of the sea in the development of a country, especially the management of the potentials of marine resources that are beneficial for the survival of a nation, so that it must be a concern to be developed and protected. According to Geoffrey Till, currently maritime security is not only traditional, such as the desire to control (sea control) and dispatch expeditionary military operations, but includes the desire to realize the maintenance of good order at sea. save natural resources, act as a medium of transportation, and become an important aspect of the environment (Samiaji, 2015).

Conditions of Maritime Governance and Maritime Security

Marine Governance has basically shown a commitment to a fairly strong legal level, there are at least twenty-seven laws related to the marine sector that regulate economic and security aspects by involving a total of fifteen ministries and institutions. All of these laws and regulations should be able to manage the economic and security aspects properly. With eight forms of threats such as IUUF, pollution at sea, terrorism at sea, territorial violations, piracy/piracy, accidents at sea, smuggling and invasion. To face all these threats, the ability to be present as a symbol of the state at sea is absolutely necessary in building Indonesia's MDA. Until now, there are at least eight ministries and agencies with patrol fleet capabilities at sea.

Table 1. List of Maritime Institutions Ministries, Authorities and Laws at Sea

JENIS TINDAK PIDANA	1	2	3	4	5	6	7	8	9	10	11	12	13
MELUKAPAL PATROLI	X	X	X	X	X	X			X	X			
12980/1939 PEMALAJARAN	X	X											
SU 12/1981 HARGA/BIAYA		X								X			
SU 5/1982 ZEEI	X			X						X			
SU 5/1982 KSOA	X	X				X				X			
SU 11/2013 B. CAGAR BUDAYA							X			X			
SU 6/2011 NEGARA		X			X					X			
SU 5/1987 PERKOTAPRATA		X						X		X	X		
SU 38/2009 KAMPOTIKA		X						X		X		X	
SU 41/1989 KEPABANGKARAN		X				X				X			
SU 17/2008 TERKAWANG	X	X	X							X			
SU 45/2008 PERKAWANG	X	X		X						X			
SU 17/2008 PELAYANAN	X	X							X	X			
SU 32/2009 LINGKUNGAN HIDUP		X				X				X			
SU 8/1996 GARIBAL NEGARA	X	X								X			
SU 4/2008 MINERBA		X								X		X	
SU 22/2001 NEGAS		X								X			X
SU 32/2014 KELAUTAN	X	X		X		X			X	X		X	X
SU 43/2008 WILAYAH NEGARA	X	X	X		X			X	X	X			X
SU 8/2018 KARANTINA RESERSTAN	X	X						X		X			

Source: Bakamla, 2021

Based on these conditions, Indonesia actually already has the initial capital in building Indonesia's MDA, however, the infrastructure system has not been optimally utilized by each stakeholder related to the maritime security aspect, there are inter-institutional disagreements, as an empirical fact.

Some important pointers in the implementation, in the form of: 1) Existing legislation is still sectoral in nature, giving rise to policy interpretations, authorities and overlaps in development programs and supervision or law enforcement. 2) The legislation made does not create a deterrent effect, this can be seen from light sanctions and the gap is still wide for criminals, 3) A weak political will at the national policy level, making it difficult to implement standard operating procedures.

Good governance is defined as “The way statement is used in managing and social resources for development of society.” can be interpreted good governance more emphasis on how the government manages social and economic resources for the benefit of community development (Renyowijoyo Muindro, 2010). United Nation Development Program (UNDP) define good governance is “the exercise of political, economic and administrative authority to manage a nation’s affair at all levels” means the implementation or application of political, economic and administrative authority in managing state affairs at all levels.” The above definition explicitly shows that there is a clear division of authority but synergies with each other, in ensuring the focus of the implementation of tasks according to their functions and synergizing with other related institutional duties and functions.

The concept of good governance is interdependence and interaction from various institutional actors who have separate roles but do not have absolute control. In the context of security at sea, the division of roles can be seen from the interaction between the in maritime elements (Politics, 2016).

Realizing Indonesia's MDA Needs and Challenges

MDA development in Indonesia is certainly an ongoing task and challenge, by looking at the current capabilities and opportunities it will raise questions about trust, identity, organizational culture, bureaucratic interests and routines, as well as the constellation of government or political interests and how these shape Indonesia's MDA activities. By unraveling the socio-political dimension, we are confronted with the existing strategic environmental conditions.

There are many maritime institutions with different organizational concepts and strategies as well as operational standards as a challenge to integrate maritime institutions in Indonesia were identified as very problematic issues, including: 1) Civil-military differences. The involvement of military actors in maritime defense and security is wider than that of civilian actors, making it difficult for civil-military coordination shown by misperceptions or different cultures and routines (Lim, 2007); 2) The public-private gap, namely, coordination between state institutions and the shipping industry, as a function of state control on maritime industry and trade carried out by private parties, who prefer services such as security reports or risk analysis, rather than relying on those provided by the state; 3) Information Sharing, MDA is strongly influenced by information sharing for certain interests, agreements, overlaps, and cooperation agreements, which have significant implications for the quality of information sharing. The basic types of information:

- 1) International Tracking System, Automatic Identification System (AIS) is a short-range tracking system based on ship sensors, which has been mandatory since 2005 for

international shipping vessels with a tonnage of more than 300 tons. Long-Range Identification and Tracking (LRIT) System is satellite-based ship tracking system that is mandatory since 2009 for passenger ships and cargo ships above 300 tonnage used in international shipping.

- 2) Reports of Incidents at Sea, which are in the public domain and reported by the media, thus sharing information only implies channeling the report through a public network, which has limitations, for example, to piracy, or covers a wider range, such as fishing crimes, migration or smuggling incidents. In addition, the information may only cover actual incidents, for example in the case of a hijacking, attempted robbery, or may also include suspicious activity. When shared in real-time, event data can be used for alerts and coordinating response and action;
- 3) Concerning Sensitive Data, it relates to data from criminal investigations or intelligence operations, which could also potentially be shared within an MDA frame. There are major barriers to information sharing for criminal investigation cases, legal issues, and information sharing on ongoing investigations. For intelligence data, one of the main problems is that countries are often hesitant to share information because it may reveal information about their ability to gather intelligence.

With a common interpretation and common understanding of MDA, both about maritime actors, information and challenges, it is necessary to have an organization that functions to "share information" in the Indonesian maritime domain, in the form of Information Fusion Centre (IFC) for the development of "understanding" together all data and information that do not stand alone and are held by only one. A process of interpretation or analysis is needed, where news or information cannot stand alone to respond as a process of securitization to which events or actors pose a threat to whom or for what. In the last decade various networks and centers for sharing information have become an operational necessity. These centers imply that security actors engaging in cooperation and interaction can provide prerequisites for more sustainable security interactions in the form of a maritime security community.



Figure 3. IFC in the World
Source : CSO Alliance Maritime, 2021

In accordance with the MDA development roadmap carried out by Bakamla RI through the construction of marine security and safety EWS as supporting facilities and infrastructure for the Command and Control Center (Puskodal) implemented development Ground Station (GS) integrated in the territory of Indonesia, and Regional Coordinating Center (RCC) in strategic areas equipped with Maritime Regional Coordinating Center (MRCC), Global

Maritime Distress and Safety System (GDMSS) can be displayed as National Picture Comilation (NPC) by Puskodal, according to standard International Maritime Organization (IMO) Flyer No. 79, related to the basic capabilities of shipping security and safety stations, including: Maritime SAR, Traffic Monitoring, Fisheries Protection, Marine Safety Broadcast and Marine Pollution Monitoring.

Analysis of MDA effectiveness in Indonesia

Through a thought-provoking approach that correlates with discussions related to the condition of maritime governance, the current needs and challenges of Indonesia's MDA, requires a good organizational system to ensure maritime security. The analysis in the MDA management model in Indonesia should ideally be under the ministry (Ministry of Maritime Affairs) through the establishment of the IFC organization, by optimizing the Maritime Information Center (Pusinfomar) TNI HeadquartersI (Kompas, 2022) and Indonesia Maritime Information Centre Bakamla (Bakamla, 2022) currently existing, by implementing the separation of maritime data and information domains in the defense aspect (TNI AL) and security aspect (Bakamla) involve maritime stageholder, refers to Law Number 32 of 2014 concerning the Maritime Affairs which gives authority to Bakamla in carrying out law enforcement within the framework of a single agency multitask. This will streamline the bureaucratic system, socio-political, civil-military relations, public and private and inter-institutional differences can be bridged, a culture of sharing is developed and a sense of shared understanding is organized.

MDA has the potential to bring maritime actors together. A well-organized MDA system will have a positive effect in ensuring collaboration across civil-military, media, private industry, and government institutions. PIM as one of the core domains of maritime security practice, will require manning (LO), good supervision and management, will require cross-disciplinary and cross-agency coordination, especially between computer technology and policy analysis.

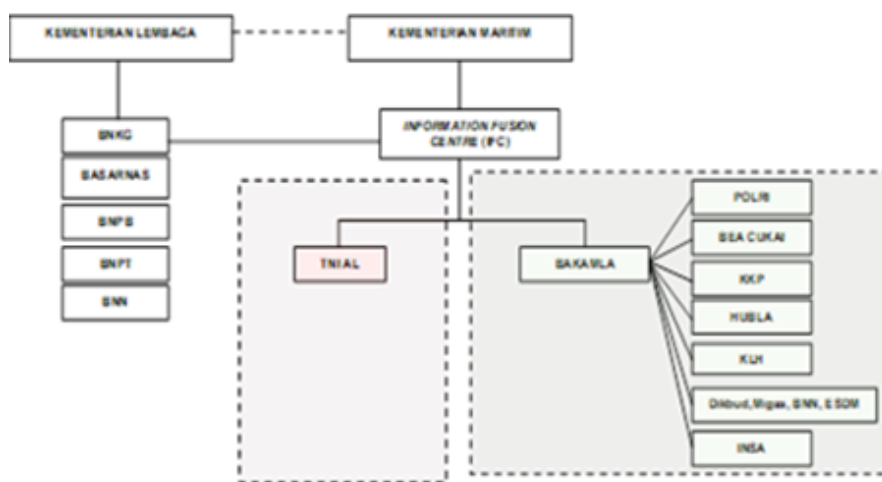


Figure 4. IFC concept in MDA
Source: Processed by Researchers, 2022

Through the MDA collaboration concept which aims to simplify maritime institutions, it aims to build a single door for law enforcement at sea, so we need a step called Omnibus Law of marine safety. In line with the world maritime axis policy of creating a single node that serves to assist the Coordinating Ministry for Political, Legal and Security Affairs to coordinate

different bodies of authority and provide strategic and routine advice on maritime affairs and maritime security governance(Laksmana, 2016).

Conclusion

So based on the results of research and analysis by researchers using management functions, the principles of transparency and accountability in making MDA effective in Indonesia in supporting the security and safety of shipping in the waters of the Indonesian jurisdiction. The development of a well-organized regional MDA will be very important to ensure maritime security. MDA is basically not just a technical challenge, with the development of communication systems and technology. Monitoring at sea. There needs to be a concept of organizational management in overcoming bureaucratic and socio-political barriers, civil-military, public-private relations, and differences between institutions can be bridged, a culture of sharing is developed and a sense of shared understanding is organized. MDA has the potential to bring maritime actors together. A well-organized MDA system will have a positive effect in ensuring collaboration across civil-military, media, private industry, and government institutions. PIM as one of the core domains of maritime security practice, will require good manning, supervision and management, will require cross-disciplinary and cross-agency coordination, especially between computer technology and policy analysis.

Recommendations to simplify maritime institutions are aimed at building a single gate for law enforcement at sea, so a step called the Omnibus Law on Kamla is needed. In line with PMD's policy of creating a single node that functions to assist the Coordinating Ministry for Political, Legal and Security Affairs to coordinate different authority bodies and provide strategic and routine advice on maritime affairs and maritime security governance, in the form of: Formulate and encourage the process of legal and institutional arrangement to strengthen the authority of maritime security enforcement.

- a. The government forms a node that functions to help the Presidential Office bridge the Coordinating Ministry for Maritime Affairs and the Coordinating Ministry for Political, Legal and Security Affairs (each of which holds the function of coordinating various maritime sector actors) as well as extracting and integrating information and policy considerations across sectors (especially related to the Navy and Bakamla and other maritime stakeholders).
- b. Organizing a Maritime Defense Diplomacy forum on a regular basis for maritime defense policy makers, government agencies, civil society and national fisheries sector entrepreneurs.
- c. Formulation of a crisis management system (both bilateral and regional) that can be activated at any time, subject to tension.
- d. Indonesia's incomplete participation in various international maritime and maritime law instruments, which can lead to different perspectives resulting in different procedures for handling maritime security or armed conflict at sea.

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