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Unmanned Underwater Vehicle (UUV) In The Indonesian Sea: Does Indonesian Maritime Defense Ready?

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ABSTRACT

As an archipelagic country, Indonesia has an open sea area and the existence of the Indonesian Archipelago Sea Channel (ALKI), which can cause vulnerabilities to various potential maritime threats. One form of this potential maritime threat could be foreign objects or Unnamed Underwater Vehicle (UUV) from other countries into Indonesian sea territorial sovereignty. That way, it is appropriate for the State of Indonesia to prioritize or focus on maritime security. This paper will analyze the Indonesian maritime defense strategy in response to the findings of UUV at various points in Indonesian territorial waters. In analyzing this, the authors use theories and concepts relevant to maritime defense and maritime security strategies. The research method used is descriptive qualitative, with a literature study approach. The next writer will formulate Indonesia's marine defense strategy in maintaining maritime security from potential threats that may occur. This study indicates that maritime security is not optimal in Indonesia, so that there are still many obstacles related to maritime defense in Indonesia. In conclusion, the maritime defense strategy in Indonesia can be improved in various ways, such as optimizing the Minimum Essential Force (MEF) in order to achieve targets and building sea power by fulfilling aspects of strength, capability, and deployment in order to achieve defense objectives in maintaining and protecting sovereignty. The state, the Republic of Indonesia's territorial integrity, and the safety of the entire nation from all forms of threats.

1. Introduction.

Indonesia is an archipelago, which two-thirds of them is the sea. That means most of the threatening potentials to Indonesia's sovereignty come from the sea, from the coastline to the seabed. The sea is a centralization for Indonesia. As the biggest archipelago country globally, Indonesia sees the sea as the archipelago's unifier. The sea is also seen as the national wealth source to develop the economic sector. However, the sea also has a medium role as the defence of the Indonesian nation. Therefore, Indonesia needs to maintain its maritime stability and security (Cassidy et al., 2016)

Other than that, according to geographic conditions, Indonesia is on the world's leading trading golden road that becomes the target for various parts of the world. Moreover, this condition makes Indonesia surrounded by open sea space bordering with another country. Many threatening potentials could affect Indonesia's sovereignty, defence, and security causing open potentials to come from various directions, especially from choke point control.

There are two different points of view related to threats, strategic studies, and security studies. Strategic studies are a military threat that is focused on the nation, while security studies are a non-military threat that is focused not only on the nation but also on non-state actors or sub-state groups. This research will focus on a strategic studies point of view under the Indonesian sea.

Threats from the sea, including the Indonesian Archipelago Sea Lanes (ALKI), including ALKI I, II, and III. ALKI is a strategic way because often used as a traffic way for trading around the world. The next one is the abundant of Indonesia's natural resources. Geographically, Indonesia has a strategic lo-

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cation between two oceans and two continents and threats under the sea. Indonesia is four of nine choke points of the world that potentially be violated by foreign ships (Legionosuko Tri et al., 2019). One of the recently happened cases in Indonesia is eight unnamed underwater vehicles (UUV) (see Figure 1).

That becomes a threat because of the existence of a foreign ship that unknowingly came into the nation's territory. Indirectly that could threaten Indonesia's potential, conditions, and resources, especially in the sea territory, and it violated the rules, starting Indonesian law by Peraturan Pemerintah No 36 Tahun 2002, CUES, COLREGs and UNCLOS.

Figure 1: Sea glider Points of Discovery in Indonesia.

Source: Author.

That was violating rules as is the function in UUV is to look for oceanographic data under the sea, record the existence of fishes, and predict the number of fishes, which could last for two years. It becomes a threat to Indonesia's sovereignty, specifically disrupting marine resources management and developing human resources poured into seven pillars of Indonesian marine policy.

This is because the number of ships completed by sonar is relatively limited and could not cover the entire ALKI. That written in the data published by (Ditjen KUATHAN Kemhan, 2020) stated that the amount of Indonesian Minimum Essential Force (MEF) is not fulfilled in the sea and the air and land. To build a healthy defensive posture, the Indonesian government use a capability-based planning concept that poured into MEF main strength program. MEF is the primary strength standard and minimum TNI that has to be prepared as a fundamental and main precondition Joseph di effectiveness of the leading job and function of TNI in order to face the threats (Rahman et al., 2015).

MEF rides the physical aspect of defence equipment. It recorded in 2019, MEF fulfils 74.2% of the army, 44.4% of the air force, and 68.72% of the navy or overall 62.58%, which means the defence equipment conditioned of TNI shows that Indonesia has fulfilment limitations of defence equipment to prop up Nations security system. Furthermore, when we see more detail of MEF in the navy, it divided into KRI defence equipment, submarine, aircraft, and marines combat vehicle, with each ideal posture sequentially 262 for KRI, 12 for submarines, 160 for aircraft, and 1,481 for marines combat vehicles (Ditjen KUATHAN Kemhan, 2020)

It recorded from 2010 until 2014 to the defence equipment that Indonesia has is only 55.50% from the MEF target, with the lowest percentage is the submarine physical aspect that only fulfilled 25% from the MEF target. From 2015 until 2019, generally, MEF is fulfilled only 68.72% with the same lowest physical aspect as 2010 until 2014, which is submarines defence equipment with only 50% from the ideal posture. In 2020 the total of KRI defence equipment achievement was 162, the submarine is 8, the aircraft is 100, and marines combat vehicles is 978, which is still far from the idol posture or the target of MEF (Fitri & Sanur, 2019). It compounded because not all KIR or submarines could have detected all these strange things well in the Indonesian sea and have not spread well. After all, the facilities owned are not complete in every area, specifically in the ALKI area. Other than that, the navy itself has not owned an optimal security system underwater. Thus, the foreign submarine or UUV is in high potential to pass the Indonesian sooner detection. In other words, there are still a lot of blind spots in the Indonesian sea. The underwater security system has to be prioritized, considering Indonesia is an archipelago and very vulnerable to these threats.

We are talking about defence equipment that has owned. It must be related to security industries that have owned. As contained an article 1 general provisions (Undang-Undang No. 16 Tahun 2012 Tentang Industri Pertahanan, 2012) stated that *"security industry is a national security that consists state-owned enterprises and private-owned enterprises individually or group determined by the government partly or wholly produce defence and security equipment, maintaining service to fulfil strategy interest in defence and security that located in all of the Indonesian areas"*. Next, in article 3 paragraph (b) about the aims of defence industrial operation stated that "*manifesting self-fulfilment of defence and security equipment; and"*. *Continue in paragraph (c) stated "improving the ability to produce defence and security equipment maintaining service that will use in order to build a reliable defence and security power*". This means the security industry's operation has to be the main crutch in the procurement of defence equipment that has owned to reach the ideal posture of MEF-designed standard.

The security industry becomes one of the spare heads to develop security systems independently, fulfil defence equipment quality and quantity of the risk that would be facing, and build deterrence effect to another country. The problems about answered with some defence industrial strategic steps by assembling and producing some defence equipment for TNI, defence equipment produced by national defence industrial are; Medium Tank (Joint venture PT PINDAD and FNSS Turki), CN235-220 MPA Maritime Patrol Aircraft (PT Dirgantara Indonesia) and Fast Missile Rudals 60 m (PT PAL) CSIS (in Fitri & Sanur, 2019). Unfortunately, in reality, there are several obstacles, like funding and cooperation with another country.

The funding referred to producing and data collecting on the security industry's needs to produce defence equipment with high technology that has efficient and strategic value. If we see the ministry of defence budget from 2014 to 2021 (see Table 1), it could said that it is increasing from year to year, but unfortunately, that increase is not significant. It has recorded according to data published by the ministry of defence in 2014, the bud-

get of the ministry of defence is 86.2T, 2015 is 101.4 T, 2016 is 98.1 T, in 2017 is 117.3 T, in 2018, 106.8 T, 2019 is 108.35 T, in 2020 is 131.2 T, and 2021 137.3 T (Direktorat Penyusanan Anggaran APBN, 2020).

Table 1: Defense Budget Posture from 2014 to 2021.

Fiscal Year	Budgeting Amount
2014	86,2 Trilun
2015	101,4 Triliun
2016	98,1 Triliun
2017	117,3 Triliun
2018	106,8 Triliun
2019	108,35 Triliun
2020	131,2 Triliun
2021	137, 3 Triliun

Source: Author.

According to the Indonesia Ministry of finance in 2019, the ministry of defence is considered the most productive in the budgeting field (Kubangun, 2019). This means the budget managed by the minister of defence is well absorbed. The most significant allocation in the defence budget is in employee spend 41.6%, spend on goods 32.9%, and capital expenditure 25.4%—this time, the Indonesian military budget has mainly distributed to the army. In 2019, the army or grand forces' military budget was 44.96 billion rupiahs, to the navy 17.44 billion rupiahs, and to the air force 13.76 billion rupiahs. In 2020 the budget for ground forces was 55.92 billion rupiahs, for the navy 22.8 billion rupiahs, and for the air force is 15.5 billion rupiahs. The ministry of defence is also allocated the budget to the defence equipment modernization program in 2020 as big as 10.86 T rupiahs that consist of 4.59 T for ground forces, 4.16 T for the navy, and 2.11 T for the air forces (Zahara & Rizky, 2020). After comparing Indonesia and another 138 countries, Indonesia has the 31st position of the defence budget (Global Fire Power, 2021).

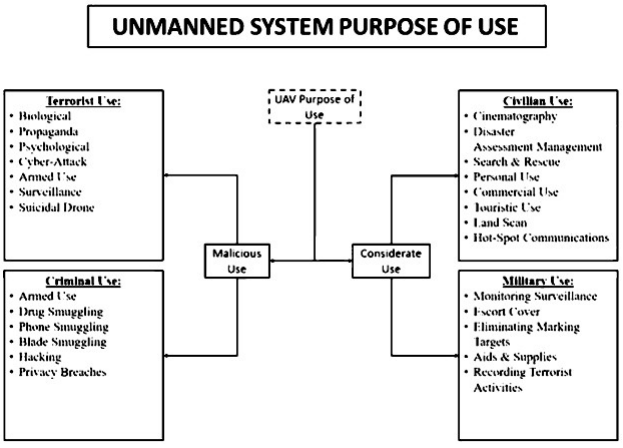
In the work and budget plan in 2021, the ministry of defence also continues the priority activity and strategy in order to support the fulfilment of MEF to ensure sovereignty, maintain Indonesia's territorial integrity, and protect the safety of the people from threats and distraction to the integrity of nation and state. Work and budget plan for the navy are Rp 3,751.2 billion for pursuant of fast patrol boats and improving the navy's aircraft also Rp 4,281.1 billion for the defence equipment supporting component maintenance (Kementerian Keuangan, 2021)

The limitation of the defence budget this time affected the detection system's ability and the limits to present surface and underwater elements. Facing this kind of condition requires creative applicative and solitude effort to keep observing ability underwater to monitor foreign submarines that passed in the Indonesian sea. The security methods referred to using acoustic technology active or passive sonar by setting solar station in ALKI gates such as Selat Sunda, Selat Lombok, and salad Makassar that radiate and receiving sound wave object reflection underwater that suspected as a submarine (Kementerian Pertahanan Republik Indonesia, 2019), the defence is a must (Adawiyah & Tobing, 2019).

2. Literature Review.

2.1. Under Sea Defence System.

Figure 2: Unmanned System Purpose of Use.



Source: Author.

There are two proposes of using the unmanned system (See Figure 2). First, as using crime and two aims to consideration. Using crime usually done for terrorist interests such as propaganda, psychology, cyber attack, weapon use, and suicide drone, while criminalism such as weapon use, drug smuggling, phone smuggling, weapon smuggling, hacking, and privacy violation. The purposes of consideration are civil use like interest for cinematography, the management or disaster assessment, livelihood and health, personal use, commercial use, tour use, scanning, and communication use. In contrast, the second purpose is used in the military sector to monitor or observe, guard, eliminate or make a target and record all terrorist activities (D. Mahamit, 2021).

2.2. Sea Defends Strategy.

The nation defence concept is arranged by prioritizing multiple defence concept which focuses on the cohesiveness of military defence and non-military defence. This concept aims to deterrence, solve and overcome military threats or non-military threats. Also, this concept is prepared to deal with drag on war.

Veterans function as a strategy that conducted in peace situations and as an effort to death defence integration that includes politics, economics, psychology, technology, and military aspects. In a national defence strategy book, this defence concept has two types: deterrence by refusing and revenge.

1. Deterrence by refusing this strategy used with a modern defence system based on sophisticated defence equipment as the main, which has a strong deterrence effect.

2. Deterrence by revenge the revenge conducted if one country has not military defence based on ideal defence equipment the execution is by the dragon war with guerilla strategy.

With consideration, Indonesia's deterrence strategy is combining both of them from the deterrence by refusing until the deterrence by revenge in the form of multi-layer circular defence with people supporting TNI as the main power (Legionosuko Tri et al., 2019).

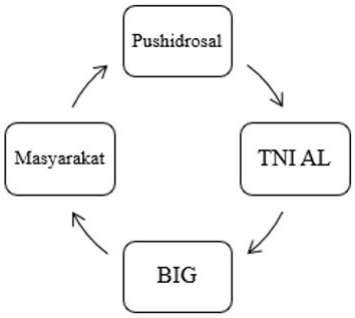
Indonesian Constitution number 34 2004 in chapter 4, article 6, paragraph 1 about the Indonesian national army (Undang-Undang RI Nomor 34 tahun 2004) explained that. The Indonesian national navy (TNI AL) is a part of TNI that has a role, job, and function as deterrence to all form of military threats and threats that use weapons that came from internal or external of the nation that could disturb national sovereignty, national integrity and national safety (DPR RI, 2004).

The implementation of Indonesian Constitution number 34 2014 in chapter 4 article 6 paragraph 1 applied in a doctrine named Eka Sasana Jaya which one of the TNI doctrines is TRIDEK (Tri Dharma Eka Karma) (DPR RI, 2004). The doctrine has a value that the national defence concept in the sea concludes that all of the defence efforts is universal and engage all of the people to guards the sea. This concept is a strategy done to support the national defence in the sea. This explained in a concept called Strategi Pertahanan Laut Nusantara (SPLN), part of the integral from Pertahanan Nusantara strategy. The SPLN principle based on three pillars that have an affinity: defence system and universal people defence, defence-in-depth, and deterrence. Active defence trait is a maritime defence paradigm is a defence strategy that has to be sustained by excellent sea power. SPLN is a strategy applied from the outermost territory of the sea according to the sea defence concept that prioritizing control enemy's approach path also maintains the security and law enforcement at sea (Legionosuko Tri et al., 2019).

2.3. Defence Under The Sea Strategy.

The defence under this strategy is one of the efforts that manifest complex defence by collaborating with several institutions. The navy TNI does the intellectual activity under the Indonesian sea, wild geospatial information institution (Badan Informasi Geospatial (BIG)) area, and strategy zone mapping, a sea defence strategic point in Indonesia. Pushidrosal does the area mapping with important information and decides the defence equipment needed to deterrence every threat that appears. The last one is people who have a role in reporting every event threat or related to the sea areas (Legionosuko Tri et al., 2019)—drawn in the picture below (See Figure 3).

Figure 3: Sea Security Synergy.



Source: Author.

Constitution number 34 2004 article 11 paragraph 1 (Undang-Undang No. 34 tahun 2004 Pasal 11 Ayat 1) explains that defence posture that has deterrence ability could be seen in three aspects: power, capability, and deployment. According to Letjen TNI (Purn), Kiki Syahnakri power is quality, and armours are quantity, showing personal skill and deployment is a placement geographically from the defence power with its supporting system a complement. The proper naval base and fleet access to every base are indicators of the maritime strategy's success. The base's role is to develop sea power to its operation area, or deployment forces position, which means has an important meaning and supports the success of the TNI navy operations (Agung, Darma; Arief, 2017).

2.4. Legal Standing.

Based on United Nations Convention on the Law of the Sea (UNICLOS) in chapter 2 article 19 about territorial sea and additional zone in innocent passage in territorial sea explained that something that passed and considered threatening nation's peace, discipline or security, if they do activities such as (a) threatens or territorial integrity or independence of a country's politic or with any other way that considered violating international law principle as listed in United Nations Charter; (b) every training or practice with weapons in any form; (c) every activity that has a purpose to collect information that could harm security and defence of a nation; (d) every propaganda that aims to influence security or defence of a nation; (e) launching, landing, or receiving every aircraft on the ship; (f) launching, landing, or receiving every military equipment; (g) loading or unloading every commodity currency or people that against Constitution physical immigration customs or state sanitary ware rules; (h) every defamation that done purposely and severely against with this convention; (i) every fishing activity; (j) survey or research activity; (k) every action that purposely disturbing every communication system or every facility or another installation; (l) every other activity that doesn't directly related to cross (United Nation, 1982). In point (a), (b), (c), (d), (e), and (f) also included in Indonesian Government Rule Number 36 2002 about Right and Obligation of Foreign Ship in Carrying Out Peaceful Crossings Through Indonesian Asea in chapter 2 article 14 (Peraturan Pemerintah Republik Indonesia Nomor 36 Tahun 2002 tentang Hak dan Kewajiban Kapal Asing dalam

Melaksanakan Lintas Damai Melalui Perairan Indonesia pada Bab II pasal 14) (Kementerian Kelautan & Perikanan, 2002).

3. Methods.

In this research, the writer used a qualitative approach with the library research data source and other data that could support this research. According to indicators that have made through Indonesia's political policy, this research's primary data source is various field data related to under the sea defence strategy. Secondary data that support this research are reports articles and any other documents related to this discussion object. Data analysis in this research uses content analysis to understand, define, compare, and analyze the national defence concept of Indonesia under the sea defence strategy.

4. Results and Discussion.

4.1. Flashback the Series of Discovery of Seaglider in Indonesia.

As an archipelago, the undersea defence strength is an essential thing for Indonesia. Various events that are potentially becoming threats from under the sea should be scrutinized. There are at least eight seed glider Discovery events in 2016 until 2020 that should be judged as a threat. Many speculations appear about the founding of the sea gliders. Many parties asked about who is responsible for those things. For the first time, on March 5th, 2016 founded Patnerplash by the local fisherman in Midai Kepri. The most recent one in December 2020 was founded Sea Wing UUV (Unmanned Underwater Vehicle) by a fisherman in Selayar. For detail, there is a picture of where the strange thing has been founded in the Indonesian maritime area (see Figure 1).

Three borders of ALKI divide several islands. First, ALKI I divides Sumatera and Java-Kalimantan. Second, ALKI II divides Java-Kalimantan Sulawesi, and third, ALKI III divides Sulawesi and Papua. In Indonesia's sea glider-founded context, those things have been at the border of ALKI that decided. As the discoveries of 6 sea gliders in ALKI, Midai Kepri, Berakit Bintan, Batu Putih, Belitung, and Bintan Kepri. There is also a discovery of sea gliders in ALKI II at Sampang Madura. Lastly, ALKI III founded sea glider in Selayar. With those funds, it has a big possibility that all this time, many sea gliders hanging around in Indonesia's territory to collect necessary geographic data and Indonesia's sea potentials, which means Indonesia's maritime security is very vulnerable to infiltration.

Numbers of experts presume unmanned sea glider that could fly above the sea. While TNI general, Jonni Mahroza, said these strange things are Sea Wing UUV (Unnamed Underwater Vehicle). According to information from KASAL (Rahayu, 2021), these sea gliders' ownership is still unknown because there are no signs of any country that owns it in the body. Nevertheless, KASAL did not deny that anyone could use the sea gliders to get important military interest information.

The opinion from KASAL is also supported by research from Pushidoral that stated sea glider released from a ship, then going down to the bottom of the sea and radiates CTD sensor, and the sensor could capture information is its mission. That becomes a typical cause. According to Pushidoral, every sea glider released has its mission. In more detail, Pushidoral stated that sea gliders have two primary purposes one used as a criminal action, and two used as consideration. However, the sea gliders founded in Indonesia are more likely used as a criminal action because the sea glider came into the Indonesian territory without any permission, and it is one of the privacy violations. Technically those sea gliders could last more than two years and operated 2000 m under the sea for six weeks with six knots speed or the same as 11 km per hour. While under the sea, gliders could float for nine days following the flow. When it rises to the surface, the data recorded will radiate and received by the operator, and it could confirm that the operator controls the sea glider through satellite (Vego, 2016).

4.2. The Existence Of Seaglider As Defence Threat Potential In Indonesian Maritime.

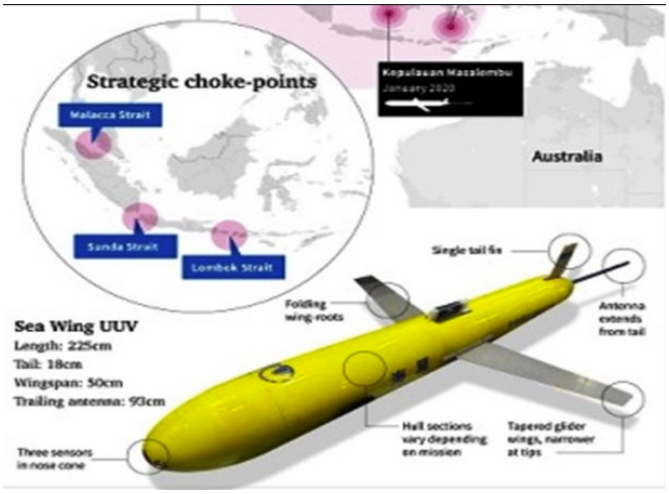
Based on the white book of Indonesian defence in 2020 (Buku Putih Pertahanan Indonesia Tahun 2020), the sea's threats categorized by two potential threats and real threats. Potential threat including military aggression that conducted by foreign parties, border dispute and conflict with never country. Real threats include law violations formed as smuggling, illegal fishing, pirates, transnational organized criminal, threats related to the sea and natural resources, and navigation dangerous threat.

In the context of sea glider discoveries in Indonesia, while 10 to the form of threat explained in Buku Putih Pertahanan Indonesia Tahun, 2020 is categorized as a real threat. It is because according to the United Nations Convention on the Law of the Sea (UNCLOS) in chapter 2 article 19 about territorial sea and addition zone in the innocent passage in the territorial sea the entry of sea glider to Indonesian sovereignty territory without any permission is one of the violations of the law of the sea in the form of launching landing and receiving strange things. The Ministry of Defence's research told that sea gliders discoveries are a real threat that potentially keeps happening and is a type of threat that has significant implications for Indonesian maritime in the present or the future.

The existence of an unknown item could threaten Indonesia's security and defence stability if it is left unchecked. If we see Indonesia's strategic location in geopolitics, it is no wonder if other countries want to take information from Indonesia through the sea. If we examine it more closely, the discovery of sea glider is using modern threat technique. It is because the threat source came from the sophisticated defence equipment from another country. The picture below shows a description of the sea glider found in Indonesia (Muhammad, 2015).

According to figure below (see Figure 4), let us see glider has several sophisticated specifications from the sensor that placed on the muzzle, antenna on the tail, and micro camera on the body. From those specifications, the seed glider has to be special attention, as KASAL conveyed that the sea glider could record data and do a survey of oceanography. This could become a threat potential when another country could hold Indonesia's sea or maritime data.

Figure 4: Seaglider Display.



Source: Author.

The existence of ALKI that could pass by international cruise formally makes the Indonesian sea open to threat potential across the country. The vast area and distribution of Indonesia's island made the supervision of the Indonesian water area very difficult when faced with TNI capabilities, especially the navy TNI as the main components of national defence in the sea. Therefore, needed special regulation or mechanisms in handling cross-country threat potential as in sea glider discovery phenomena.

This time, the Indonesian government found a little difficulty taking decisive action to respond to the sea glider discovery. This is due to no regulation in Indonesia that regulates sea gliders explicitly. If Indonesia counts on regulation in the form of the Constitution, it probably needs a long time. Nevertheless, if Indonesia considered this phenomenon a severe and precarious problem, the president could release a president's rules (Perpres).

If this rule has made, it could regulate how equipment types have to have permission to operated in Indonesian territory. Because all this time, the rules related to permission only applied for several types of equipment that has an identity, such as warship that pass across the Indonesian ocean. Sea glider found in Indonesia does not have a clear identity, so it could not confirm whether this equipment included in the warship category or military equipment for war or just industrial equipment. Therefore see glider permission could not equalized with war equipment ruled in several rules in Indonesia.

With this sea glider discovery phenomenon, Indonesia could be a reminder to improve its maritime security. There are at least three reasons for Indonesia to improve its maritime or sea security (Widyoutomo, 2020). First, under the sea is the security centre that is hardly detected and attacked by the enemy because the position and mobilization could be more concealed, without the hassle to prepare disguise as on land. The enemy could destroy the most sophisticated technology built on land and in the air at any minute. Meanwhile, under the sea, power could be more difficult to be attacked by the enemy. With a dominant sea area, decisions and mobility under the sea security power will be freer to control and give the advantage to protect the surface underwater, under the sea, or on land. National strategy objects must protected under the surface.

Second, the defence under the sea will be the superiority and uniqueness of Indonesian geography. Indonesia has a sea dominant geographic condition, and the fact that Indonesia is an archipelago country should make Indonesia underwater as the centre of gravity (COG) of Indonesian security. COG does not only have to be strong to attack but also has to be vital to stand. Indonesian active defensive defence doctrine (Doktrin Pertahanan Defensive Aktif Indonesia) needs a strong under the sea defence. Indonesia is fated to have a geographic condition that is suitable for building COG defence under the sea.

Third, still related to the geography, the enemy's entrance to Indonesia that wide open is the sea. It is illogical if we want to build a fence around the Indonesian sea. Nevertheless, Indonesia's security controls strategic points and possible, such as chokepoints and entrance along the ALKI.

4.3. Sea Defence Strategy According To Tni Doctrine In Responding Sea Glider Discovery In Indonesian Sea Territory.

In this globalization era, the interaction between individuals or countries supported by fast technological development may threaten dimensions more complex and vary. An article 30 paragraph 3 Undang-Undang Dasar 1945 (Undang Undang Dasar Negara Republik Indonesia Tahun 1945) stated that "TNI consists of ground forces, navy, and air forces as the national equipment to defend protect and maintaining the integrity and sovereignty of the country." As the mandate in Undang Undang Dasar 1945, the three dimensions must secure the country's integrity and sovereignty from any threat both from internal or external of the country following their duties. The navy TNI as the main component of country defence in the sea has three primary duties: first, to dude the duty of TNI in defence of the sea dimension. In carrying out its duties and specifically, the navy needs a doctrine as a guideline to achieve goals and as a reference to decide the direction of development policies and the use of sea dimension power.

National defence doctrine essentially teaches about fundamental principles that guide managing defence resources (Legionosuko Tri et al., 2019). That doctrine is a fundamental principle that has been believed as the truth, extracted from the Nations' value struggle and experience and then becomes guidance to develop defence and security concept for the country. As the part of TNI, Indonesian Constitution number 34 2004 in article 6 paragraph 1 (Undang-Undang RI Nomor 34 Tahun 2004 pada Pasal 6 Ayat 1) explain that doctrines of the navy TNI are Jalesveva Jayamahe. A doctrine has placed under the TNI doctrine "Tri Dharma Eka Karma" and has a position in strategic strata that becomes the highest guidance in drafting navy TNI doctrines below, while the Jalesveva Jayamahe is a strength-building doctrine for the navy of TNI (Kusuma et al., 2021).

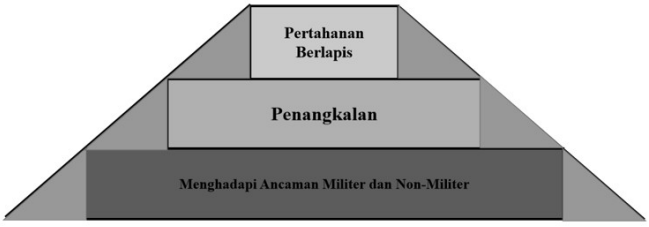
In doing their duty, the navy TNI needs a strategy to explain its doctrines that generally is a process to decide a plan by the

navy leaders that focused on the long-term goal, accompanied by the preparation of an effort to achieve the goal. According to Clausewitz, a strategy is using the battle to achieve the end of the war. Because of that, it has to give target to every military action and according to the war object (Bandaro, 2014).

In this technology development and change of order era, defence technology with the invisible ability and unmanned armour or unmanned aerial vehicle (UAV) like a drone has become a flagship product in the security industry in developed countries. With the development of underwater drone, move towards the threat that came from unmanned armours. Such as underwater drone found in the Indonesian sea (Indrawan, 2018).

Moreover, technologies changing drastically and fast, rise in this industrial Revolution 5.0, insist the military adapt faster and evolution to do a drastic change. According to this phenomenon, it could see that there is a significant move of the threats so that it is imposing Indonesia to change its security strategy. In drafting a security strategy, it has to tend to a multilayer national defence concept. This multi-layer security is the integrity of the military defence lawyer and the non-military defence layer. This concept aimed as a deterrence, resolve and overcome military or non-military threats. When Indonesia faces a phenomenon that potentially threatened its national defence and security stability, it will automatically apply a multilayer defence system (see Figure 5).

Figure 5: The pyramids of Indonesia's multilayer defence.



Source: Author.

The deterrence concept consists of two varieties. First, deterrence with refusing means that the strategy must build a modern and sophisticated defence system based on sophisticated defence equipment. Second, deterrence with revenge means that the strategy must do by drag on war with guerilla strategy. In the Indonesian context, the deterrence strategy used is a combination of both of them from the deterrence by refusing and deterrence that suitable for faced threat potential. Nevertheless, it should note that this deterrence strategy done by mobilizing every power that exists in TNI and people supports. In doing deterrence, it also uses TNI doctrines as guidance. The doctrines have a value that the national defence concept concludes every defence affords that universal by including every people in the national defence effort. In the response context to the sea glider discovery phenomenon, it needs a proper sea defence strategy.

The effort that could done to make a robust maritime defence is to add synergy between the elements (see Figure 2). Every element has their roles start from the navy TNI that conduct intellectual activity in Indonesian sea territory, while the geospatial information institution (Badan Informasi Geospatial (BIG)) does the area and strategic zone mapping the strategy points of Indonesian defence in sea territory. Pushidoral does the area mapping with important information that decides what defence equipment is needed and aims to deter every threat. Lastly, people or civilian that has a role in reporting every event or incident that could threaten or event related to the sea territory (Pusat Kajian Global Civil Society (PACIVIS), 2012).

In connection with the development of the situation about sea glider found in Indonesia, did navy t and I have to continuously improve sea defence strategy by continuously presenting the existing element in Indonesian sea territory. To improve Indonesia's sea defence power, at least the navy TNI has to fulfil the minimum essential force (MEF) (Pertahanan, 2010). This MEF became vital because it is a standard of primary power and has to be prepared for the central and essential precondition to achieve the effectiveness of jobs and main functions of TNI to face a threat. In more detail, MEF has three aspects power, skill, and deployment. First, in the power aspect, defence equipment informing modern defence equipment must be offset with a proper budget posture. There is a budget fluctuation when we see the defence budget from 2014 to 2021 (See Table 1).

Although the total defence budget is uncertain, the budget will still distribute to the three dimensions of TNI according to their individual needs. As the concrete steps to improve this power aspect, the navy has a prepared budget as big as 3,751.2 billion rupiahs used for the procurement of fast patrol ships, improving the sea dimension aircraft, and death looping sea glider. The navy also prepared a budget as big as 4,281.1 billion rupiahs to maintain the defence equipment and defence equipment supporting components. These steps considered well enough to imply and support MEF's fulfilment to guarantee the suffering it and the integrity of Indonesian territory and protect people and every Indonesian from the threats to the nation and country (Pertahanan, 2015). It must not stop there. The navy of TNI should be completed its base infrastructure under the sea that different from the ordinary sea base to make the country's secret be protected.

Moreover, the Indonesian security industry has to think to prioritize sea glider making with Indonesian characteristics. The sea gliders eventually could be armed with sophisticated bullet weapons, including attacking the target on land and in the air (Silmy, 2014). Then, the navy TNI capability could recalculate the navy and power that Manning the drone fleet under the water. The navy tent I projection in the future should direct to an unmanned ship fleet. Indonesia has to think out of the box, leaving the conventional navy posture that two focused on the surface with high vulnerability if attacked by the enemy. Lastly, in the navy aspect, TNI deployment could be done by mapping under the contours and plan the perfect position for the defence under the Indonesian sea. Research types and variation of the perfect weapon system to be placed around the points that have mapped.

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