

# Building Maritime Domain Awareness as an Essential Element of the Global Maritime Fulcrum: Challenges and Prospects for Indonesia's Maritime Security

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## Abstrak

*Poros Maritim Dunia menjadi landasan penting politik luar negeri dan dalam negeri Indonesia pada masa kepemimpinan Presiden Joko Widodo. Indonesia dibayangkan sebagai kekuatan maritim regional yang mampu menjaga keamanan di wilayah maritimnya sendiri dan wilayah Indo-Pasifik. Ini menunjukkan ambisi Indonesia yang menginginkan peningkatan ekonomi dari sektor maritim. Poros Maritim Dunia bentuk Presiden Joko Widodo telah berjalan selama tiga tahun. Meskipun dapat dilihat pembangunan secara fisik yang luar biasa, akan tetapi pembangunan kesadaran maritim atau MDA masih kurang diperhatikan. Sebagai dasar dari kebijakan maritim, menjadi penting bagi Indonesia untuk memastikan kapasitas pembangunan MDA yang memadai guna memberikan arah pemangku kepentingan dalam mengalokasikan dan memprioritaskan sumber daya. Tulisan ini membangun sebuah kerangka MDA untuk mengevaluasi pembangunan MDA Indonesia di tiga level: strategis, operasional, dan teknis. Kerangka ini mengidentifikasi tiga permasalahan, antara lain kurangnya kapasitas untuk mengadakan operasional MDA yang berkelanjutan, kurangnya koordinasi antar agensi, serta permasalahan pemahaman mengenai kemaritiman. Pada bagian akhir, tulisan ini memberikan beberapa rekomendasi yang bertujuan meningkatkan kapasitas Indonesia untuk membangun MDA.*

**Kata kunci:** *Kewaspadaan Lingkungan Maritim, Poros Maritim Dunia, kebijakan maritim Indonesia, keamanan maritim, pembangunan angkatan laut.*

## Abstract

The Global Maritime Fulcrum has been an essential cornerstone of Indonesian foreign and domestic policy for the Joko Widodo administration. It envisions Indonesia as a regional maritime power capable of providing maritime security within its territorial waters and the Indo-Pacific region. It also captures Indonesia's ambition to boost its maritime economy. The Joko Widodo administration has been building the Global Maritime Fulcrum for three years. Though physical development has indeed been remarkable, there has been a lack of a focus on developing maritime domain awareness or MDA. As an essential foundation of maritime policy, it is important that a state invests in ensuring adequate MDA-building capacities to guide its maritime policy. Without proper MDA, it would be difficult for maritime stakeholders to allocate and prioritise maritime resources to the key areas of concern of the Global Maritime Fulcrum. This paper constructs a framework of MDA, which is used to examine the issues with Indonesia's MDA-building process at three levels: strategic, operational, and technical. It identifies three issues, namely a lack of capacity to conduct sustained MDA operations, a lack of inter-agency coordination, and the problem of maritime 'sense-making.' Several policy recommendations aimed at increasing Indonesia's capacity to build MDA are proposed at the end.

**Key Words:** maritime domain awareness, Global Maritime Fulcrum, Indonesia maritime policy, maritime security, naval development.

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## INTRODUCTION

Since 2014, President Joko Widodo proposed Indonesia as being a centre of maritime and economic activity in the Indo-Pacific due to its lucrative geostrategic position in global maritime trade. At the 9<sup>th</sup> East Asia Summit, Joko Widodo iterated the five pillars of the Global Maritime Fulcrum (GMF), which includes maritime culture, economy, infrastructure, diplomacy, and defence. In the 2017 *Indonesian Ocean Policy* document, the initial five pillars have been reiterated and expanded to include (1) marine and human resources development, (2) maritime security, law enforcement, and safety at sea, (3) ocean governance and institutions, (4) maritime economy development, (5) sea space management and marine protection, (6) maritime culture, and (7) maritime diplomacy. An additional six principles on which the Ocean Policy will be carried out on, which includes (1) *Wawasan Nusantara* (Archipelagic Outlook), (2) sustainable development, (3) blue economy, (4) integrated and transparent management, (5) participation, and (6) equality and equitability (Indonesian Ocean Policy (Presidential Decree of the Republic of Indonesia no. 16/2017), 2017).

The overall goals of the GMF are strategic and economic in nature (Agastia and Perwita, 2015). Jokowi's GMF envisions the Indonesian Navy (TNI-AL) as being a regional green-water navy capable of handling security threats within and beyond Indonesian territorial waters. Upholding maritime security is an essential prerequisite for the fulfilment of the latter pillars, which are largely economic. The economic goals work at both the domestic and international level. These ambitions are reflected in Joko Widodo's ambitions in creating a 'sea highway' (*tol laut*), which comprises of large vessels capable of transporting large amounts of cargo and people. The end goal at the domestic level is to accelerate and ensure equal economic development across the archipelago by increasing inter-island connectivity. At the regional level, accelerating development of domestic maritime infrastructure is expected to better link Indonesian ports and harbours with international maritime trade routes and sea lanes of communication (SLOCs), particularly those spanning the Indo-Pacific.

Seeing these ambitions, there is an urgency for Indonesia to improve its maritime domain awareness (MDA) capabilities. For the purposes of this paper, the concept of MDA generally refers to having a comprehensive understanding of the maritime environment, which encompasses the physical/material and immaterial aspects such as (but not limited to) maritime traffic, geography, legal jurisdictions, and extent of maritime territory. From that understanding, maritime stakeholders allow the formulation of tactical/technical, operational, and strategic decisions as a means to further the national interest. Without proper MDA, it would be difficult for stakeholders to prioritise and allocate maritime resources to the key areas of concern of the GMF. As an illustration, constructing a sustainable maritime economy through fisheries would be difficult if those fisheries are not monitored adequately. The stakeholders would need to be able to monitor for potential violations - e.g. illegal fishing, use of prohibited fishing methods, etc. - and ensure adequate enforcement. These activities require extensive MDA capabilities which Indonesia continues to lack.

Marsetio has emphasised the importance of developing Indonesia's MDA capabilities due to Indonesia's geopolitical position (Marsetio, 2014, pp. 55-57). Indonesia is situated between the Indian and Pacific Ocean which hosts some of the world's most important maritime trade routes. Some areas of interest in Indonesia's vicinity include the Malacca Strait, a crowded and narrow maritime sea lane of communication that is prone to piracy and armed robbery; the contested South China Sea, which over the years has seen simmering tensions between China and claimant states; and the Sulu Sea, which has recently seen an increase in piracy incidents (Connelly, 2015; E. A. Laksmana, 2011).

Better MDA capabilities would allow Indonesia to formulate better maritime policy. Official documents tend to emphasise the end objectives of the GMF instead of the means for achieving the GMF. In the 2015 Defence White Paper, there are expectations to build a maritime surveillance system using 'satellites and drones'; however, further

elaboration on the specific details of implementation remain unclear (Defence Ministry of the Republic of Indonesia, 2015). The 2017 Indonesian Ocean Policy document also fails to elaborate the implementation of a possible maritime surveillance network that is necessary for building MDA capabilities. There is little mention of how the government intends on funding such a network, yet it emphasises the importance of being aware of the maritime domain. Furthermore, the document tells little of how Indonesia is expected to direct the thirteen agencies share varying degrees of authority in maritime security governance (Salim, 2015). While there seems to be consensus that Indonesia needs to increase its MDA capabilities as a requisite for fulfilling its maritime ambitions, a comprehensive framework or roadmap that combines analyses at the strategic, operational, and technical levels of MDA remains to be seen.

Thus, this paper argues that Indonesia's naval development requires a comprehensive understanding of MDA to achieve its fullest potential. While physical development is indeed necessary for Indonesia to become a regional maritime power, MDA – which is a fundamental strategic concept in maritime development – also need to be developed. The importance of developing MDA lies in its guiding and directive power over physical maritime assets. Without building proper MDA, maritime development risks progressing based on political whims rather than proper understanding of the maritime domain. In this paper, we propose a framework of building MDA. It seeks to illustrate the actors and objects in the MDA-building process at the technical, operational, and strategic level. Using the framework, it is then possible to (1) identify the limitations in the MDA-building process in Indonesia, and (2) provide recommendations to address these limitations in the MDA-building process.

## **CONCEPTUAL FRAMEWORKS**

### **UNDERSTANDING MDA AS A CONCEPT**

As with the term 'maritime security', maritime domain awareness continues to spark debate over its exact definition (Bueger, 2015b). The differences in defining MDA usually stem from the context of its usage. Generally, there are three levels at which MDA

is understood. In the technical domain, MDA originates from the practice of identifying and targeting the naval opposition. 'Awareness' is often limited to a vessel's immediate surroundings or 'maritime situational awareness' (Watts, 2006). Moving up to the operational level, MDA includes 'sufficient capacity for sufficient surveillance and awareness across particular sea areas.' At the higher strategic level, MDA can be generally understood as the capacity for policy-makers to understand the maritime environment and its traditional and non-traditional security dynamics which may affect the state either directly or indirectly. As stated in the *National Security Presidential Directive 41 (NSPD-41)*, MDA is '...the effective understanding of anything associated with the global Maritime Domain that could impact the security, safety, economy, or environment of the United States.' (*National Security Presidential Directive NSPD-41/Homeland Security Presidential Directive HSPD-13*, December 2004)

Based on these interpretations, MDA is essentially an enabler for the formulation and implementation of maritime policy. Having MDA means having the capability to understand the geostrategic benefits of the sea for the benefit of the state. This includes awareness and understanding of the utilisation of strategic maritime resources, such as (but not limited to) fisheries, domestic and regional maritime trade routes, and offshore energy resources. This knowledge will be the basis of maritime policy. In implementing maritime policy, MDA requires the capacity to exploit the sea for maximum utility. This means that maritime agencies ought to be capable of building awareness through information gathering and surveillance and then acting upon that intelligence. They are also required to be able to share that intelligence with fellow agencies (horizontal sharing) and with policymaking agencies (vertical sharing) to ensure an appropriate response can be formulated. This is especially important in states where there are many maritime security agencies operate simultaneously, such as Indonesia. Equipped with intelligence gained at the operational and technical levels, policymakers will be able to know how to use the sea and how to direct and guide the physical element – i.e. naval forces and their

auxiliaries – to achieve maximum utility of the sea in both domestic and foreign policy.

Possessing sufficient MDA entails three important benefits. Firstly, policymakers will be able to allocate appropriate maritime resources to key areas of maritime security. If intelligence at the operational and technical levels suggests a spike in pirate activities in a vital area, swift policy changes ought to be made as a response. The implementation of such decision may take form in the mobilisation of more naval or coast guard vessels, increased surveillance, or requesting assistance to an existing multilateral network. Second, sufficient MDA also means that policymakers know the limits of their naval capabilities, thus allowing them to not implement policies that are beyond their reach. It also allows policymakers to prioritise. If intelligence at the lower levels suggest a shortage in naval vessels and surveillance capabilities at the border areas, policymakers would then should not embark on policies that could leave maritime security compromised and instead consider options of fleet modernisation. Third, the policymakers will be able to understand trends and patterns in the maritime domain and adjust their policies to anticipate future trends to the best of their capacity.

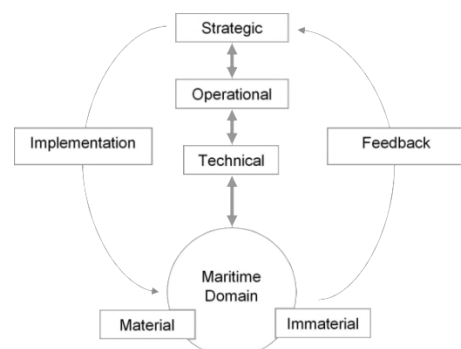
## A FRAMEWORK FOR MDA

In this section, we propose a comprehensive framework that shows how MDA can enable the formulation and implementation of a state's maritime policy. Some terms used in the framework ought to be elaborated. The 'maritime domain' is understood as a three-dimensional maritime space, including the 'areas and things of, on, under, relating to, adjacent to, or bordering on a sea, ocean, or other navigable waterway' along with its both material and immaterial features. Material features include, but are not limited to, features of maritime topography (particularly undersea and sea-level features), the presence of maritime vessels or infrastructure (offshore platforms, ports, harbours, etc.), and movement of maritime vessels within the maritime domain. This has been illustrated aptly in Boraz's interpretation of MDA as,

...finding the ships and submarines of friends and foes, understanding the entire supply chain of cargoes, identifying people aboard vessels, understanding the infrastructures within or astride the maritime domain, and identifying anomalies and potential threats in all these areas (Boraz, 2009, p. 141).

Yet, Boraz's definition remains incomplete as it does not fully regard the political aspect of the maritime domain. The states need to increasingly take heed of existing political and/or legal instruments which could be used to legitimise their utilisation of the maritime domain. Such instruments include the UN Convention on the Law of the Sea, COLREGS, the ISPS Code, or the 1995 UN Fish Stocks Agreement. As such, this framework adds an immaterial layer to the maritime domain which includes the political-legal aspects that permeates the maritime domain which influences the way a state may decide to adjust their maritime strategy. These may include (but not limited to) acknowledgement and implementation (or lack thereof) of the international law of the sea within a particular maritime domain, a state's maritime boundaries and probable contestations, and the imposition of restricted zones in a specific maritime domain. By incorporating both material and immaterial factors of the maritime domain, a clearer and more comprehensive 'maritime image' can be constructed, resulting in better MDA (see Figure 1).

Figure 1: The Maritime Domain Awareness Building Loop



At the lowest technical level, the MDA-building process is concerned mostly with maritime situational awareness, or gathering information on the material elements of the maritime domain. Should the need

arise, the agency in question may act to counter the identified threat. The MDA process at this level is simply being aware of one's maritime surroundings and acting based on that awareness. This level is mostly limited to the individual agency, such as the naval patrol vessel out at sea or coastal surveillance stations.

Moving up to the operational level or the middle rung of the ladder, the process of MDA-building becomes significantly more complex. The functions carried out at this level, in some ways, are similar to the technical level with an added layer of coordination and processing. Agencies at the operational level (henceforth, operational agencies) are concerned not only with the identification of threats, but also prioritisation ('Does this threat matter?') and information gathering. To do this, operational agencies have to consult the priorities set at the strategic level, until then deciding whether to act upon that threat through the available means. At this level, operational agencies need to be capable of understanding the extent of which the material and immaterial elements of the maritime domain may influence a particular decision.

One important task in MDA-building process at the operational level is the processing and compiling of information. As ships (both naval and civilian) at sea travel, operational agencies monitor their routes and receive reports and updates as they travel along their respective routes. At this level, the broad term 'information' becomes significant. 'Information' can be differentiated into three broad types: incidents, movements, and sensitive data such as naval intelligence or criminal investigations (Bueger, 2015a). Incidents at sea encompasses many instances, such as actual or attempted piracy, ship collisions, and transnational crimes. Information on movements allow the state to monitor its waterways and measure the volume of traffic. Sensitive data may be used to further pinpoint potential maritime threats. Combined together, this allows the operational agencies to construct a rudimentary 'maritime image' that incorporates trends and patterns drawn from information on movements and incidents of maritime vessels within the specified maritime domain. One example includes results from

MDA information-sharing centres such as the ReCAAP ISP Annual Report, which reports on piracy incidents in Southeast Asia.

However, this 'maritime image' is not enough. Amidst the cacophony of incident reports, movements, and sensitive information, operational agencies also need to fulfil a coordination and aggregation role. The collection of information on the maritime domain can hardly be conducted by a single agency; instead, many agencies – both military and civilian, government and non-government, national and international – are involved. The operational agencies are the ones who will coordinate these agencies so information-gathering activities at the technical level are directed towards a predefined agenda set at the strategic level. Sifting through these often complex networks and piecing together meaningful information into a coherent 'maritime image' is perhaps the most important task conducted at the operational level.

The 'maritime image' constructed at the operational level can further be refined and utilised at the strategic level. Policymaking requires the knowledge of the maritime domain gathered at the operational level, added with strategic analyses. Three core aspects of strategic MDA require understanding and knowledge of (1) the state's own maritime capabilities, (2) the strategic utility of the maritime domain, and (3) the trends and patterns occurring in the maritime domain. Based on this knowledge, the strategic level then outlines the priorities for the state's maritime strategy. For example, if the trends show an increase in activities related to piracy that have a direct impact on a state's maritime trade, at the strategic level, piracy ought to be prioritised in maritime strategy. In informing maritime policy, policymakers ought to engage routinely with informed advisers (Till, 2015). The task of establishing maritime governance is yet another important task at the strategic level. This includes creating a structure that ensures coordination and cooperation among the many agencies involved in building MDA, such as the navy, coast guard, and other civilian institutions. The end goal is to ensure that the MDA-building process operates smoothly without any hindrances at any levels.

## **ANALYSIS**

Once maritime strategy has been formulated, it is then implemented into the maritime domain. The state then continues its usual MDA-building loop, by which it also evaluates the changes in the maritime domain caused by the implementation of the maritime strategy. This feedback is collected either at the operational or technical level and then assessed at the strategic level. Thus, the state continues to adjust its maritime strategy according to its knowledge of the maritime domain.

### **Limitations to Build MDA in Indonesia**

Three problems have been highlighted, namely (1) the lack of capacity to gather and process information, (2) lack of inter-agency cooperation and coordination, and (3) lack of 'sense-making' resources.

#### **Lack of Capacity to Gather and Process Information**

At the operational and technical levels, creating the 'maritime image' requires equipment such as naval vessels, imaging technology, and information-sharing technology. There are thirteen agencies that are involved in safeguarding Indonesian waters and enforcing maritime security. However, these agencies often have to compete with one another for funding and resources. Some major agencies include the Navy, Marine Police (Polair), and Customs (Meliala, Ariando, Kusumo, Hartati, & Fatoni, 2016). The recently-established Maritime Security Agency (Bakamla) is also promising, however, it still suffers from a lack of equipment and manpower, for which it still needs to be dependent on the Navy (CNN Indonesia, 31 August 2016).

The Navy remains the most important actor in the MDA-building process, especially at the operational and technical level. Although the Navy is the most resourceful agency out of the thirteen maritime agencies, it still suffers from a lack of equipment. One of the primary tools in building MDA is naval vessels, as they can serve multiple roles. In building MDA, naval vessels serve the dual-role of defence and intelligence gathering. Currently, the Navy is struggling with both these roles. According to Minimum Essential Force (MEF) projections, the

Navy requires at least 154 vessels to maintain maritime security by 2024, with an optimal scenario of 274 vessels (Koh, 2015). To achieve MEF goals, Indonesia has been actively acquiring new naval vessels to replace its ageing fleet (Bakrie, 2009). In 2011, Indonesia signed a deal to purchase three Type-209 Chang Bogo diesel submarines from South Korean shipbuilding company, DSME (Afrida, 10 November 2016). In 2014, PT PAL and Damen Scheide Naval Shipbuilding (DSNS) agreed to jointly produce two Sigma guided-missile corvettes. The first vessel, the KRI Radden Eddy Martadinata, has completed sea trials in 2016 and has been handed over to the Navy in January 2017, while the second is expected to be handed over by the end of 2017 (ANTARA, 7 April 2017). The BAKAMLA has also placed an order for a 110m offshore patrol vessel (OPV), which is expected to bolster its capabilities as a Coast Guard (Rahmat, December 2016).

Building MDA also requires sophisticated imaging and sensors technology. In the 2015 Defence White Book, Indonesia has outlined a vision of establishing an archipelago-wide maritime surveillance system using drones and satellites to support the Global Maritime Fulcrum, however, the current surveillance system relies mostly on radar (Defence Ministry of the Republic of Indonesia, 2015, p. 2). Although efforts to create an Integrated Maritime Surveillance System (IMSS) have begun since 2008 with aid from the United States, the program has met some hurdles, particularly in the maintenance and operation of the equipment. The jointly-established IMSS covers the Malacca Strait, Makassar Strait, and the Moluccas Strait and comprises of 18 coastal surveillance stations (CSS), 11 ship-based radars, 2 regional command centres, and 2 fleet command centres (Febrica, 2017, pp. 105-106). As the producer of the equipment, the U.S. enacted a restriction on maintenance. Repairs on IMSS equipment could only be carried out under the permission of the United States. During a working visit to Riau in 2011, the radar at the Dumai naval base in Riau - part of the 18 IMSS coastal surveillance stations - was found to be damaged. The Navy could not repair them independently due to US restrictions, yet they could not afford to send the radar in for repairs. The First

Commission recommended the naval base to independently carry out repairs as the radar was a vital piece of equipment (Parliament of Indonesia, 2011b).

In another Working Visit in 2011 to Central Sulawesi, the Commission I found that the radar installed at the Palu naval base could only operate for two-thirds of a day and is heavily dependent on power supply from the state-owned power company. The Commission I also found that the base was undermanned, further limiting the capabilities of a naval base responsible for monitoring Archipelagic Sea Lanes II and III. (*Alur Laut Kepulauan Indonesia; ALKI*) (Parliament of Indonesia, 2011a).<sup>1</sup> In a 2010 visit to Tanjung Pinang naval base, located near the Malacca Strait, Commission I found that the base only possessed one radar which operated 24 hours non-stop and was supplied by electricity from a generator. These conditions caused the radar to not operate at maximum efficiency. Commission I thus recommended to acquire more radar units and connect the existing radar to the national energy grid (Parliament of Indonesia, 2010).

The Navy also continues to struggle with logistical issues. Working Visit Reports by Commission I of the Parliament indicate the Navy has been struggling with limited fuel and energy supplies to sustain naval operations and a lack of manpower and vessels for various duties, including operating surveillance equipment and sea patrols. Soldier welfare was also found to be substandard, with reports of delayed remuneration and unsatisfactory living conditions within the base. In a 2009 Working Visit to Riau, Commission I found that the Tanjung Pinang Main Naval Base often faced fuel shortages, which negatively affects the Navy's operational readiness (Parliament of Indonesia, 2009). The subsequent Specific Visit Report in 2010 provides the following details regarding the state of the Marines' living standards on Nipah Island, one of the outermost islands in Indonesia's territory near Singapore:

The barracks have been repaired, but the repairs are unsatisfactory. The walls are constructed from plywood or asbestos, and thus, the barracks could not be used as protective cover should an attack occur. The inside of the barracks was also very hot due to the low ceiling and lack of air

conditioning. There are no sources of clean drinking water. The soldiers drink distilled seawater, but according to lab results, the water does not meet healthy drinking water standards. Regular shipments of drinking water are dropped off from neighbouring areas using the Navy's vessels or traditional vessels. [...] Communications equipment are lacking and are heavily affected by bad weather. [...] The SS1 rifles are in poor condition. Soldiers also do not possess means of transportation. The three motor boats are damaged and cannot be used. [...] Daily meal allowances are considered inadequate, with each soldier only provided Rp 25,000 daily (around US\$ 2). [...] There are also no healthcare facilities. If a soldier falls ill, they have to wait for transportation to Batam either via Navy transport or fishing boat (Parliament of Indonesia, 2010, pp. 9-11).

Equipment and logistical issues mean that at the technical level, the MDA-building process occurs slowly and inadequately. Without quick and proper situational awareness, the Navy becomes severely limited in their capability to address potential maritime security threats. At the higher levels, this delays the formation of a coherent 'maritime image' which has further impacts on policy. It then becomes even more difficult to envision an integrated maritime surveillance system using drones and satellites.

### **Lack of Inter-Agency Cooperation and Coordination**

Building MDA ought to be a cooperative venture that involves many agencies within the government, smooth communication is essential so the many agencies can carry out their duties in a coordinated manner. A lack of coordination and cooperation may result in the production of a distorted 'maritime image', which has ramifications in the making of maritime policy. At the higher strategic level, the conflicting interests occurring at the operational-technical levels may potentially undermine efforts to build a coherent 'maritime image'.

There are several major actors that are heavily involved in the MDA-building process, namely the Navy as part of the Indonesian Armed Forces, the Ministry of Fisheries and Maritime Affairs (MOFMA), and the Maritime Security Agency (*Badan Keamanan*

Laut; BAKAMLA). Among these agencies, the Bakamla was formed to improve information-sharing between maritime stakeholders, along with the added authority to deploy maritime resources in line with its threefold mission of realizing national and international maritime security, safeguarding Indonesia's sovereignty, and strengthening Indonesia's maritime capabilities. Along with added authority, the Bakamla has also been equipped with additional personnel and vessels.<sup>2</sup>

Joko Widodo's intent was to transform the Bakamla into the equivalent of an Indonesian Coast Guard, capable of coordinating the twelve maritime security agencies. However, the agency has so far been powerless in breaking down institutional silos, which have persisted since the New Order and are exacerbated by internal competition and legal turf wars (Supriyanto and Rusdi, 2 January 2013). Friction tends to occur between the Navy, Customs, and Police due to the overlapping investigative authorities bestowed upon the agencies based on existing regulations. Each agency may claim jurisdiction over maritime law enforcement duties, which leads to less cooperation and a tendency to be involved in legal 'turf wars. A potential clash of authority may occur between the Bakamla, Navy, and Marine Police. Law no. 34/2000 provides the Navy with the authority to conduct maritime law enforcement operations within Indonesia's territorial waters and EEZ. The same authority is also provided to Bakamla, in coordination with the Marine Police, under Presidential Regulation no. 178/2014 and Law no. 32/2014. Coincidentally, Law no. 32/2014 provides similar authority for the Ministry of Transportation's Sea and Coastal Unit (*Kesatuan Penjaga Laut dan Pantai*; KPLP), the Ministry of Fisheries' Civil Service Investigations Unit, and the Customs (Agastia, 2017). At the operational level, whose authority ought to supersede the other in the rare case these agencies meet simultaneously?

Ideally, there ought to be a single maritime security agency that can coordinate maritime security activities. At the moment, the Bakamla is being fitted to fulfil this role. A single coordinating agency would serve to eliminate institutional silos and redundancies, thus potentially reducing turf wars. The elimination of silos would greatly increase the effectiveness of

building MDA, as information gathering and sharing would be conducted under one umbrella. There would, however, be costs to bear before seeing the Bakamla as the single coordinator of Indonesia's maritime security. Setting up such a mechanism would require rigorous institutional and legal overhaul. Existing legislation would need to be reviewed and revised to accommodate the Bakamla's new role, which means downsizing the less essential agencies (e.g. the Civil Service Investigations Unit of the respective Ministries) and integrating them into the Bakamla's structure. Institutional integration would also need to take into account the Ministry of Defence. It would take tremendous effort to bring together these agencies, and even more so to bridge existing differences.<sup>3</sup>

### **Seeing Through the Glass Darkly**

The issue at the strategic level is that policymakers tend to 'see through a glass darkly.' (Till, 2013, p. 338) It is difficult to predict future trends in an increasingly complex maritime domain, especially when the dynamics are ever-changing. Though there may be adequate information gathering measures at the operational and technical level, the information needs to be refined and analysed so that it can be turned into actionable intelligence that has direct influence on national maritime policy. In other words, at the strategic level, much of MDA activities centre on 'sense-making', or refining the 'maritime image'. This includes mapping out trends and patterns and then using these trends and patterns as a basis for analysing existing maritime policies.

At the strategic level, the *Indonesian Ocean Policy* document serves as an umbrella document for the formulation of the GMF, but not the implementation. It has provided a definitive interpretation of the GMF which envisions Indonesia as 'a sovereign, advanced, independent, strong maritime nation that is able to provide positive contribution for peace and security of the region and the world in accordance with its national interest.' (*Indonesian Ocean Policy (Presidential Decree of the Republic of Indonesia no. 16/2017)*, 2017, p. Introduction) Though the document may provide a shared interpretation of the goals of the GMF, along with the key areas of interests related directly to the



GMF, the document itself cannot be seen as a document that can unite existing programs under different ministries. It 'codifies and fleshes out the skeleton of the GMF', but does little in other areas (E. Laksmana, 23 March 2017). Firstly, it lacks a provision for the establishment of a central agency that has the power to control and coordinate the many maritime programs under the existing ministries. Secondly, the document provides little explanation as to how domestic programs will be linked to regional maritime security programs. In the case of MDA, not only is there little mention of the need for of domestic MDA capabilities, but also how Indonesian maritime security agencies can use existing multilateral MDA centres to achieve the objectives of the GMF.

Who would be able to shoulder the duty of 'sense-making'? Till proposes the formulation of maritime policy be aided by an 'informed commentariat'. The commentariat would consist of independent elements, ideally from academia/universities or civilian think-tanks. The scope of the commentariat in Indonesia, however, remains small (Till, 2015). Furthermore, interaction between maritime security stakeholders and the informed commentariat has been limited at best.

## **CONCLUSION**

Throughout the course of Indonesia's project to achieve the Global Maritime Fulcrum, it has overlooked maritime domain awareness as a crucial enabler despite having made significant progress in physical naval development. We have elaborated the myriad problems that Indonesia has in building its maritime domain awareness capabilities. These problems are apparent at all levels - strategic, operational, and technical - and in many maritime security stakeholders, which include limited operational-technical capabilities due to lack of relevant equipment, incoordination between the prominent maritime security agencies, and a limited understanding of MDA at the strategic level. To address these issues, we propose several policy recommendations.

A major hurdle in establishing a common maritime image is a lack of coordination between the

many maritime stakeholders in Indonesia. A 'hub-and-spoke' architecture would be an ideal structure for organising Indonesia's scattered maritime security actors (Bueger, 2015a). The Bakamla has the largest potential to become a hub for MDA in Indonesia in coordination with the Coordinating Ministry for Maritime Affairs. As a hub, the Bakamla would act as a facilitator for cross-agency capacity building. It would be where the academic expertise should be collated. Supervising the work of the Bakamla would come under the duties of the Coordinating Ministry for Maritime Affairs. The foundations of such a system would be a robust intelligence-sharing network between the actors.

The creation of indigenous information fusion centres, with functions mirroring the IFC and ReCAAP ISC, may be a possible option for increasing Indonesia's MDA capabilities. These agencies should ideally be independent, staffed with competent people, and have adequate links to other such centres in the region. In the Indonesian context, these centres ought to be government-run MDA centres run under a civilian-military partnership scheme. However, due to the sheer extent of Indonesia's maritime domain, coupled with the many international interests present in Indonesia's surrounding waters, it becomes important for Indonesia to look towards regional neighbours for their support through bilateral and multilateral initiatives. Existing initiatives tend to focus much on Indonesia's western waters, through schemes such as the Indonesia-Singapore SURPIC II, the ReCAAP ISC (to which Indonesia has yet to become a member), and the Eyes-in-the-Sky trilateral surveillance initiative (Supriyanto, 2017). In the eastern waters, Indonesia and Australia would benefit from the formation of a joint MDA centre. It would be best to make use of existing multilateral MDA centres that exist in Southeast Asia. Indonesia has yet to become a member of ReCAAP. By delaying membership, Indonesia only stands to lose more in the long run. Though Marsetio wrote of it being a shame that external agencies know more of Indonesian waters than Indonesia itself, Indonesia may be able to acquire knowledge and expertise to build its own domestic MDA centres (Marsetio, 2014, pp. 58-59). Furthermore, by joining regional MDA

centres, Indonesia can also gain access to their facilities and foster regional cooperation in maritime security.

Considering the proximity of the regions in Southeast Asia, maritime security should be a regional concern with ASEAN members sharing the burden proportionately according to their respective capabilities. However, there are several issues that need to be addressed beforehand. In the realm of security, a trust deficit between governments ~ and even more so for maritime security stakeholders ~ is apparent (Poole, 2015, pp. 156-157). This inhibits effective cooperation and ultimately, seamless intelligence sharing that is fundamental for collective maritime security. However, there have been steps to address this trust deficit through more security cooperation initiatives. The 'Our Eyes' initiative, proposed by Defence Minister Ryamizard Ryacudu during the 11<sup>th</sup> ASEAN Defence Ministers Meeting, should be a stepping stone towards further Indonesian involvement in building MDA. The initiative has been said to be limited for counterterrorism, however, it could serve as a starting

framework for better maritime intelligence sharing within ASEAN (Reuters, 12 October 2017).

In the end, to achieve the ambitions of the Global Maritime Fulcrum, Indonesia would need to seriously consider not only the physical aspect of maritime development, but also developing maritime domain awareness as an essential enabler for its regional ambitions. The way to do so is to not only rely on its own capabilities, but also by engaging its regional neighbours.

## END NOTE

- <sup>1</sup> In Indonesian strategic planning, there are three vital sea lanes known as National Sea Lanes I, II, and III. These are currently acknowledged as Indonesia's archipelagic sea lanes in accordance with UNCLOS. For further elaboration, see Sebastian, Supriyanto, & Arsana, 2015
- <sup>2</sup> This added authority distinguishes the Bakamla from its predecessor, the Bakorkamla (Badan Koordinasi Keamanan Laut), which previously only served an information-sharing function. Personal correspondence with Colonel Salim, Chief of Operation Strategic and Tactic, Naval Operation and Training Service, TNI-AL, 12 December 2017.
- <sup>3</sup> Personal correspondence with Colonel Salim, 12 December 2017.

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