

# **SMALL NAVY, BIG RESPONSIBILITIES: THE STRUGGLES OF BUILDING INDONESIA'S NAVAL POWER**

**I Gusti Bagus Dharma Agastia\***

agastia001@e.ntu.edu.sg

*S. Rajaratnam School of International Studies  
Nanyang Technological University*

## **Abstrak**

Sejak awal, Angkatan Laut Indonesia (TNI-AL) telah berjuang untuk mendamaikan kemampuannya yang relatif kecil dengan tanggung jawabnya yang besar. Makalah ini berpendapat bahwa reformasi yang signifikan perlu dilakukan dalam rangka meningkatkan kapasitas keseluruhan TNI-AL dan membangun kekuatan angkatan laut Indonesia. Visi Global Maritime Fulcrum yaitu memberi kesempatan ini, bagaimanapun, hal itu harus didukung oleh kepemimpinan politik dalam jangka panjang karena kekuatan angkatan laut yang berkembang tidak terjadi dalam semalam. Untuk itu, makalah ini membahas empat masalah utama yang dihadapi TNI-AL saat ini, yaitu (1) kurangnya pandangan maritim yang komprehensif, (2) kondisi anggaran yang ketat, (3) komando dan struktur pengendalian yang berorientasi kontinental, Dan (4) "perang darat" antara instansi terkait di pemerintahan. Makalah ini juga secara singkat membandingkan pengalaman Indonesia dengan pengalaman perkembangan angkatan laut China di bawah Hu Jintao dan Xi Jinping. Meskipun kedua negara bisa dibilang berbeda satu sama lain dalam banyak aspek, analisis ini berfungsi untuk menyoroti tiga pelajaran yang mungkin berlaku bagi Indonesia dalam mengelola pengembangan angkatan lautnya dan memahami kompleksitas dalam membangun kekuatan angkatan lautnya. Pelajaran ini mencakup (1) kebutuhan akan kemauan politik yang kuat dan berkelanjutan dalam mengembangkan kekuatan angkatan laut dan (2) memiliki tujuan strategis yang jelas untuk pengembangan angkatan laut, dan (3) sejumlah sumber daya yang besar diperlukan untuk membangun kekuatan angkatan laut.

## **Abstract**

From its inception, the Indonesian Navy (TNI-AL) has struggled to reconcile its relatively small capabilities with its large responsibilities. This paper argues that significant reforms need to be carried out in order to improve the overall capacity of the TNI-AL and build Indonesian naval power. The Global Maritime Fulcrum vision provides this opportunity, however, it must be sustained by the political leadership in the long term as developing naval power does not happen overnight. To that end, this paper discusses four chief problems that the TNI-AL continues to face today, namely (1) a lack of a comprehensive maritime outlook, (2) stringent budgetary conditions, (3) a continental-oriented command and control structure, and (4) "turf wars" between related agencies in the government. This paper also briefly contrasts and compares Indonesia's experience with China's experience with naval development under Hu Jintao and Xi Jinping. Although both countries are arguably different from one another in

---

\* The writer is currently pursuing his MSc in Strategic Studies at the S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore.

one way or the other, this exercise serves to highlight three lessons that may be applicable for Indonesia in managing its naval development and understanding the complexity in building its naval power. These lessons include (1) a need for strong and sustained political will in developing naval power and (2) having a clear strategic objective for naval development, and (3) a significant amount of resources are required to build naval power.

**Keywords:** Global Maritime Fulcrum, naval development, Indonesia, China, maritime strategy

## Introduction

Indonesia's defence system has long favoured the land forces over sea forces. In various defence documents, threat assessments highly prioritise internal threats, such as disintegration and separatism, over external threats that may come from the sea. However, there have been changes to that trend. President Joko Widodo has pledged to reassert Indonesia's maritime identity under the banner of the Global Maritime Fulcrum (GMF). Under this new maritime outlook, Indonesia seeks to be a major regional player in the Asia-Pacific. In order to achieve this goal, Indonesia would need to increase its attention on the Navy as an essential element in ensuring its maritime security, both in a domestic and regional sense.

The Navy (*Tentara Nasional Indonesia Angkatan Laut*; TNI-AL) is the second-largest branch of the Indonesian National Armed Forces (*Tentara Nasional Indonesia*; TNI), yet it possesses the most daunting task related to national defence. With only 65,000 personnel and a total amount of 11 principal surface combatants, 88 patrol and coastal combatants (with an additional 37 vessels as part of the Marine Police), and 2 submarines, the TNI-AL shoulders a big responsibility safeguarding the vast extent of Indonesia's maritime territory, which covers a combined area of roughly 140,000 square kilometres of water and coastline.<sup>1</sup> From its inception, it has struggled to reconcile its relatively small capabilities with its large responsibilities. There are four chief problems that the TNI-AL continues to face today, namely (1) a lack of a comprehensive maritime outlook, (2) stringent budgetary conditions, (3) a continental-oriented command and control structure, and (4) "turf wars" between related agencies in the government. These problems are rooted deep in the history of the Indonesian Armed Forces and are a result of a complex interaction between social, cultural, political, and strategic factors.

While this paper explores the chief problems of the TNI-AL, it also looks at China's recent naval rise as a case study. The case study highlights China's progress in building their naval power. Although both countries are arguably different from one another in one way or the other, this exercise serves as a means to contrast and compare the process naval development of both countries, allowing the reader to draw lessons in managing naval development and understanding the sheer complexity and arduous process of building naval power.

The focus of this paper is naval development, which is related to the development of naval forces – particularly the Navy – and how such development can achieve the objectives set by the state. As such, it looks at mostly the political domain of naval development, which can be further narrowed down to the organisational aspect, which is related to the structure and interaction of the political apparatus relevant to naval power; and the technological aspect, which is related to the extent of economic and industrial power in procuring and/or producing the materials required to build naval power.

---

<sup>1</sup> International Institute for Strategic Studies, *The Military Balance 2016* (Oxford, UK: Routledge, 2016).

## A neglected maritime outlook

A major problem that Indonesian naval planners have continued to face is the lack of a comprehensive maritime outlook. Despite being an archipelago, it has been only until recently that serious attention has been paid to the formation of an exclusively maritime outlook that takes into account new geopolitical trends and Indonesia's regional aspirations. Previous geopolitical outlooks have mostly emphasised a continental outlook that is centred on territorial defence. *Wawasan Nusantara* (hereafter, *Wasantara*), or the Archipelagic Outlook, constituted as Indonesia's overarching geopolitical outlook for the majority of Indonesia's history. The concept builds upon the 1957 Juanda Declaration, which advanced the notion of an "archipelagic principle". This would be taken further by Hasjim Djalal, one of the crafters of UNCLOS who was at the forefront in advocating additional territorial rights for archipelagic states. Through Djalal's efforts, Indonesia's territorial extent expanded due to the extension of the 3-mile limit to 12-mile and the addition of the 200-mile Exclusive Economic Zone. It was adopted as part of military doctrine in 1969 and was later adopted as an overarching geopolitical guideline in 1973.<sup>2</sup>

Despite having a maritime element, policy-makers interpreted *Wasantara* to be more of an introverted rather than an extroverted concept. *Wasantara*'s introverted tendencies are reflected in the implementation of the TNI's defence strategy. The military adopted a strategy of Total People's Defence System (*Sistem Pertahanan Rakyat Semesta*; *Sishankamrata*), which derives from the TNI's origins as a people's army in the guerrilla struggle against colonialism. One of the core requisites of *Sishankamrata* was a unified population capable of resisting external threats. However, uniting a sprawling archipelago with over 300 ethnicities over 17,000 islands would prove to be a tremendous task, especially for the fledgling TNI-AL. *Wasantara* thus limited the TNI-AL's commitments to maintaining national stability and defence from external powers, rather than projecting power abroad or being involved in regional maritime security operations.

The TNI-AL's operations have been mostly limited to the defence of territorial waters from external threats and counterinsurgencies, especially separatist movements. One of the largest operations was *Operasi Merdeka* (Operation Independence), which was a series of counter-insurgency operations conducted against the Permesta (*Perjuangan Semesta*; Universal Struggle) rebellion. The Navy and Marine Corps supported the Army in quelling the rebellion by aiding in amphibious landings and subsequent counter-insurgency operations.<sup>3</sup> In the 1960s, Indonesia operated twelve Whiskey-class submarines which were used to great effect as a deterrent against foreign powers and in safeguarding Indonesia's interests. In 1961, Sukarno prepared for a military operation under the People's Three Commands (*Tri Komando Rakyat*; TRIKORA) to liberate West Papua. In January 1962, a naval battle occurred between the Dutch and Indonesia in the Arafura Sea, which marked the start of the West Papua campaign. During the campaign, ALRI (*Angkatan Laut Republik Indonesia*; predecessor to TNI-AL) was tasked with patrolling West Papuan waters, conducting reconnaissance, and consolidating forward operating bases

---

<sup>2</sup> Michael Leifer, *Indonesia's Foreign Policy* (Boston: Allen & Unwin, 1983).

<sup>3</sup> Sugeng Sudarto, *TNI AL dalam Operasi Merdeka* (Jakarta: Dinas Sejarah Angkatan Laut, 1981).

along the Papuan border.<sup>4</sup> During the West Papua campaign, ALRI was also involved in a number of submarine operations that included infiltration, intelligence gathering, and destroying enemy vessels. An exception can be made in one case where the TNI-AL was deliberately used to wage an aggressive invasion against East Timor in 1975 under *Operasi Seroja* (Operation Lotus) and later in 1992 in *Operasi Aru Jaya* (Operation Glorious Aru), where the TNI-AL non-violently intercepted the Lusitania from entering contested East Timor territory.<sup>5</sup> Aside from military operations, the TNI-AL was also involved in a number of constabulary operations within Indonesian waters, albeit quite limited. During the Sukarno era, ALRI was involved in a number of expeditions to unite the archipelago and disarm remaining Japanese troops. During the Suharto regime, TNI-AL conducted operations to maintain good order in Indonesian waters through *Operasi Hiu Macan* (Operation Tiger Shark). As part of the *Sishankamrata* doctrine, TNI-AL also conducted *Operasi Bakti Surya Baskara Jaya* to provide development assistance to people residing in the outer islands, which remains to this day.<sup>6</sup>

*Wasantara* was a compromise between Indonesia's security needs and the actual capabilities of the TNI-AL. The newly independent Indonesia required extensive domestic policing to establish order, yet it could only do so much with a small navy. Furthermore, the expansion of maritime territory provided by UNCLOS added to the burden of the TNI-AL. While UNCLOS did provide Indonesia with an additional Exclusive Economic Zone (EEZ) which, in theory, could be exploited for Indonesia's economic development, it also bestowed more responsibilities on Indonesia to safeguard good order within the EEZ. The disparity between responsibilities and capabilities could be linked to the adoption of *Wasantara* as a means to balance the maintenance of domestic order and the obligations of UNCLOS, thus leading to an inward-looking defence posture. However, as Indonesia moved out of the Suharto regime, the inwardness of *Wasantara* has been criticised as being incompatible with Indonesia's aspirations to play a larger role in the regional environment. Anwar has criticised the doctrine as being "...reinforced by an acute sense of military weakness."<sup>7</sup> Sebastian *et al.* have also criticised the doctrine as being incompatible with Indonesia's regional aspirations. As an "inherently inward-looking concept", *Wasantara* serves to highlight Indonesia's interests in maintaining unity across the chain of islands, rather than emphasising Indonesia's regional interests.<sup>8</sup>

Though *Wasantara* encourages an inward-looking concept of security, Indonesia has strived to fulfil its obligations to UNCLOS in maintaining regional stability. The most prominent attempt was the MALSINDO patrols initiated by Singapore, Malaysia, and Indonesia, which started in 2004. Other programs

---

<sup>4</sup> M. Cholil, *Sedjarah Operasi-Operasi Pembebasan Irian Barat*, Seri Text-book Sedjarah ABRI (Jakarta: Pusat Sedjarah ABRI, 1971), 63.

<sup>5</sup> Adam Schwarz, *A Nation in Waiting: Indonesia's Search for Stability* 2nd ed. (Boulder, CO: Westview Press, 1999).

<sup>6</sup> Ristian Atriandi Supriyanto, "Keeping the Fleet Afloat: Indonesia's Naval Policy and Operation" (Master's Thesis, S. Rajaratnam School of International Studies, 2011).

<sup>7</sup> Dewi Fortuna Anwar. "Domestic Priorities Define National Security". In Muthiah Alagappa (ed.) *Asian Security Practice: Material and Ideational Influences*. Stanford: Stanford University Press. 1998.

<sup>8</sup> Leonard C. Sebastian, Ristian Atriandi Supriyanto, and I Made Andi Arsana, "Beyond the Archipelagic Outlook: The Law of the Sea, Maritime Security and the Great Powers," in *Indonesia's Ascent: Power, Leadership, and the Regional Order*, ed. Christopher B. Roberts, Ahmad D. Habir, and Leonard C. Sebastian (London: Palgrave Macmillan, 2015), 324.

include the Eyes-in-the-Sky and Regional Cooperation Agreement on Anti-Piracy (ReCAAP).<sup>9</sup> While these external operations indicate a certain outward-looking tendency, when it comes to its overall maritime strategy, Indonesia has insisted on maintaining its inward-looking posture. Defence White Papers from 1997 to 2008 maintain the continental element of *Wasantara* as a core focal point of Indonesia's strategic outlook, indicating a degree of political hesitance in looking outward.

It was not until 2014 when Joko Widodo proposed the GMF, which promised a new strategic outlook that would put heavy emphasis on the maritime realm and Indonesia's regional contributions to maritime security; a more outward-looking Indonesia. It aims to capitalise on Indonesia's geopolitical position and increase Indonesia's regional role as a global maritime fulcrum for the Asia-Pacific region by building on five pillars which included maritime culture, resources, infrastructure, diplomacy, and security.<sup>10</sup> In 2016, a GMF White Paper was published by the Coordinating Ministry for Maritime Affairs (*Kementerian Koordinator Bidang Kemaritiman*). The publication provided an authoritative elaboration on the aspects of the GMF and presented itself as a plan of action. However, it remains a lacklustre document. The publication only provided a brief reiteration of the goals of the GMF rather than an elaboration of the means that have and will be taken to achieve the overall goal, making it objective-based rather than means-based.<sup>11</sup>

The GMF is still in a period of early adoption and the lack of a concerted effort to clearly define and implement the concept could pose problems on the conduct of future maritime and foreign policy, especially in regards to Indonesia's regional partners such as Japan, U.S. and China.<sup>12</sup> The GMF still remains as political jargon rather than substantive thought. For starters, debates on the official terminology still persist. The official terminology in Bahasa Indonesia is *Poros Maritim Dunia*. The debate centres on the translation of the word *poros*, which can either be translated as "axis" or "fulcrum". The former is reminiscent of Sukarno's Jakarta-Beijing-Hanoi axis in the 1950s and is often thought to allude to Indonesia seeking to align with other countries, while the latter is used formally by the Ministry of Foreign Affairs and generally thought as putting Indonesia at the centre global maritime activity. Suropati *et al.* argue for the more appropriate term "nexus" to be used. This draws on the assumption that the concept would allow Indonesia to use its geopolitical advantage to act as a "nexus" where Indonesia can actively juggle between the converging great and middle power political interests in the Asia-Pacific region.<sup>13</sup> There is also still a lack of consensus as to the nature of the GMF: is it a policy, vision, or

---

<sup>9</sup> Catherine Zara Raymond, "Piracy and Armed Robbery in the Malacca Strait: A Problem Solved?," *Naval War College Review* 62, no. 3 (2009).

<sup>10</sup> Aaron L. Connelly, "Sovereignty and the Sea: President Joko Widodo's Foreign Policy Challenges," *Contemporary Southeast Asia* 37, no. 1 (2015): 7-8.

<sup>11</sup> IGB. Dharma Agastia. "Indonesia's Global Maritime Fulcrum: An Updated Archipelagic Outlook?" *The Diplomat*, <http://thediplomat.com/2016/12/indonesias-global-maritime-fulcrum-an-updated-archipelagic-outlook/> (17 December 2016)

<sup>12</sup> Brad Nelson and Yohanes Sulaiman, "The implications of Jokowi's global maritime axis," *Strategic Review* 5, no. 2 (2015).

<sup>13</sup> Untung Suropati, Yohanes Sulaiman, and Ian Montratama, *Arung Samudra bersama Sang Naga: Sinergi Poros Maritim Dunia dan Jalur Sutra Maritim Abad ke-21* (Jakarta: Elex Media Komputindo, 2016).

strategy?<sup>14</sup> An additional question may be posed for the TNI-AL: is it also a doctrine? The TNI-AL still operates based on their *Eka Sasana Jaya* doctrine, which has been in effect since 1965. Overall, the doctrine outlines the basics of naval combat, the role of the TNI-AL in maritime security, and conditions in which naval force will be used. In this sense, the GMF could not be considered a doctrine; it is more of a maritime strategy, albeit an unclear one at best. It would still take some time for the concept to permeate in Indonesian strategic thinking and even more so for it to diffuse into the operational and tactical levels due to organisational and operational constraints.

As these conceptual debates continue, it falls upon the initiator of the concept, President Joko Widodo and the appropriate ministries, to provide a definitive formulation of the GMF. Without a clear formulation, the GMF strategy risks being interpreted or implemented wrongly further down the ladder.<sup>15</sup> More importantly, efforts must be made ensure that it does not become a one-off policy that is forgotten when his term in office ends. As later examined in China's case study, the implementation of a reformist concept often requires heavy top-down political pressure to ensure that it is applied at all levels of strategy and even more so for it to remain entrenched within the political system in the longer run.

### **Territorial command and control**

The dominance of the TNI-AD can be seen in Indonesia's military command and control structure, known as the Military Regional Command structure (*Komando Daerah Militer*; KODAM). The archipelago is divided into fifteen KODAMs, sprawling from Sumatra to Papua. The KODAM system was devised under the guidance of *Sishankamrata* with three main objectives: (1) as an early response system should secessionist or separatist movements occur, (2) an assertion of Jakarta's power over the outer islands, and (3) as a means to build rapport with the people and enhance the military's role in civilian and political life. Conterminous with the continental system, the TNI-AL also divided the fleet into two main Fleet Commands (*Komando Armada*): the Western Fleet Command and Eastern Fleet Command. Each Fleet Command oversees a number of main naval bases (*Lantamal*): five bases under the Western Fleet Command and nine bases under the Eastern Fleet Command. The Military Sealift Command (*Komando Lintas Laut Militer*), stationed in Jakarta, was established to provide operational support and logistics to the services of the military.

Unlike other aspects of the military-dominated regime that characterised the New Order, the KODAM system remains relatively untouched despite democratic reforms. The continuing justification for the KODAM system lies in Indonesia's overall defence strategy. In four consecutive Defence White Papers (1997, 2003, 2008, and 2015), the overarching defence strategy continues to revolve around "deterrence by punishment" in the form of a protracted guerrilla war should an external invasion occur. However, the KODAM system, as Rabasa

---

<sup>14</sup> Janet Dyah Ekawati. "Indonesia's global maritime axis askew." Australian Institute of International Affairs, [http://www.internationalaffairs.org.au/australian\\_outlook/indonesias-global-maritime-axis-askew/](http://www.internationalaffairs.org.au/australian_outlook/indonesias-global-maritime-axis-askew/) (19 May 2016)

<sup>15</sup> See Geoffrey Till, "Indonesia as a growing maritime power: possible implications for Australia," *Soundings*, no. 4 (2015).

and Chalk argue, is ineffective and should be abolished.<sup>16</sup> As the KODAM is more suited to project the military's power onto the communities living on the outer islands rather than preventing external incursions, it inhibits a defence strategy that is more maritime-oriented and more responsive to the changes in Indonesia's surrounding strategic environment. The KODAM system also provides a means for the Army to continue meddling in local politics, which is backed by a "governmental assistance" clause in Law no. 34/2000 regarding the TNI.<sup>17</sup> In regards to Indonesia's vast maritime area, a foreign invasion would more likely come from the relatively under-guarded "strategic funnels" present in Indonesian waterways.<sup>18</sup>

A more sensible strategy would be to deny invaders entry at sea, a process that would require credible naval deterrence as opposed to repelling them on land. The Combined Regional Defence Command (*Komando Gabungan Wilayah Pertahanan*; Kogabwilhan) has been proposed as an alternative to the old command structure.<sup>19</sup> The *Kogabwilhan* would supposedly feature a multi-regional combined force posted near potential flash points. The structure would allow a larger degree of autonomy and a faster reaction time in addressing potential threats to maritime security.

### **Struggling with a small budget**

While the TNI-AL did enjoy a period of build-up during the West Papua campaign, in subsequent years, Indonesia shifted its focus to economic stability, which effectively slashed defence expenditure. The lack of clear external threats after the West Papua campaign contributed to the decrease in funding, especially for the TNI-AL, as a larger portion of the budget went to the TNI-AD to support their nation-building operations. The TNI-AL had to make compromises on the amount of security duties they can perform. As a small navy, the TNI-AL has focused more on tackling non-traditional security issues. From the 1980s, the TNI-AL shifted its focus to conducting internal humanitarian operations and non-traditional security. Other areas include non-traditional maritime security, such as counter-piracy operations and UN-sanctioned humanitarian missions.<sup>20</sup>

In 1983, after reaching peak defence spending at 4.2 per cent of GDP, Indonesia's defence expenditure began to decline until it reached 1.5 per cent of GDP in 1990 (roughly around US\$ 1.7 billion) despite a 7 per cent growth in GDP. This amount was relatively less than Indonesia's ASEAN neighbours: Singapore's defence budget in 1990 was US\$ 1.6 billion and rising; and Thailand's budget in 1990 was US\$ 2.04 billion. Indonesia's pattern was similar to Malaysia's, which also reached peak spending in 1983 (US\$ 2.36 billion) but declined in 1990

---

<sup>16</sup> Angel Rabasa and Peter Chalk, *Indonesia's Transformation and the Stability of Southeast Asia* (Santa Monica, CA: RAND Corporation, 2001), 62.

<sup>17</sup> The "governmental assistance" clause refers to article 7 (2) of Law no. 34/2004. See International Crisis Group, "Indonesia: Rethinking Internal Security Strategy," *Asia Report no. 90* (20 December 2004).

<sup>18</sup> Ristian Atriandi Supriyanto, "'Strategic Funnels': Deciphering Indonesia's Submarine Ambitions," *RSIS Commentaries* (3 December 2015).

<sup>19</sup> Prashanth Parameswaran. "Indonesia Plans New Joint Military Commands". The Diplomat. <http://thediplomat.com/2015/03/indonesia-plans-new-joint-military-commands/> (20 March 2015)

<sup>20</sup> Supriyanto, "Keeping the Fleet Afloat: Indonesia's Naval Policy and Operation."



(US\$ 1.56 billion).<sup>21</sup> However, as Lowry cautions, the figures do not account for "off-the-books" revenue which was acquired through the various legal and illegal business activities conducted by the military.<sup>22</sup> One might think that off-the-books revenue could have been used to supplement the acquisition process. However, Anwar suggests that these funds went to support the livelihood of the troops rather than being funnelled into procurement or modernisation.<sup>23</sup> Similar views have also been proposed by Samego *et al.* and Rieffel and Pramowardhani.<sup>24</sup> The effects of decreased funding were immediately visible in the inability to maintain platforms. Indonesia's submarine fleet, once comprised of twelve submarines obtained from the Soviet Union, eventually dwindled to only two units. The KRI *Cakra* and *Nanggala* are still in operation today due to life extension upgrades, but the small number of submarines has negatively impacted Indonesia's deterrence capability. Financial constraints have also hampered modernisation efforts, which were further exacerbated due to worsening relations with the Soviet Union, Indonesia's primary equipment supplier, during the Cold War.<sup>25</sup>

The financial constraints have lifted in the post-Suharto regime due to increases in GDP and subsequently, defence expenditure. After the Suharto regime, defence expenditure began to increase gradually, until reaching US\$ 7.57 billion in 2015.<sup>26</sup> In 2017, the defence budget is expected to reach Rp 104 - 108 trillion (around US\$ 8.0 billion).<sup>27</sup> The gradual increase in the defence budget since 1999 has allowed the TNI-AL to embark on a slow process of modernisation and fleet replenishment. In 2012, Indonesia agreed to procure three Type-209 submarines in a deal worth US\$ 1.1 billion. These new submarines are expected to replace the older Type-209s currently in service. It was also one of the three major purchases that the TNI-AL had made since 2000 after corvettes and landing ships.<sup>28</sup> Although the exact allocation for the TNI-AL remains unspecified in the 2017 budget plan, there are hints that a large portion of the budget will be used for fleet repair and maintenance<sup>29</sup> and upgrades to the Natuna naval base, which is possibly a response to increased Chinese activity in the South China Sea.<sup>30</sup>

---

<sup>21</sup> Dewi Fortuna Anwar, "Indonesia: Domestic Priorities Define National Security," in *Asian Security Practice: Material and Ideational Influences*, ed. Muthiah Alagappa (Stanford, CA: Stanford University Press, 1998), 506.

<sup>22</sup> Robert Lowry, *The Armed Forces of Indonesia* (New South Wales: Allen & Unwin, 1996), 24.

<sup>23</sup> Anwar, "Indonesia: Domestic Priorities Define National Security," 506.

<sup>24</sup> The seminal study on military business has been conducted by Indria Samego *et al.*, *Bila ABRI Berbisnis* (Jakarta: Mizan Pustaka, 1998). A continuation of the previous study can be found in Lex Rieffel and Jaleswari Pramowardhani, *Out of Business and on Budget: The challenge of military financing in Indonesia* (Washington D.C.: Brookings Institution Press, 2007).

<sup>25</sup> Yudi Yuliadi, "Alutsista Bergerak Milik Indonesia dalam 70 Tahun," *Wira: Media Informasi Kementerian Pertahanan* 57, no. 41 (2015).

<sup>26</sup> International Institute for Strategic Studies, *The Military Balance 2016*.

<sup>27</sup> ANTARA. "DPR sepakati anggaran Kemenhan 2017 Rp108 triliun."

<http://www.antaraneews.com/berita/591342/dpr-sepakati-anggaran-kemenhan-2017-rp108-triliun> (22 October 2016)

<sup>28</sup> Swee Lean Collin Koh. "Indonesia's Submarine Play." *The Diplomat*, <http://thediplomat.com/2012/01/indonesias-submarine-play/> (19 January 2012)

<sup>29</sup> Sekretariat Kabinet Republik Indonesia. "Inilah 10 K/L Penerima Anggaran Terbesar Pada RAPBN 2017." <http://setkab.go.id/inilah-10-kl-penerima-anggaran-terbesar-pada-rapbn-2017/> (18 August 2016)

<sup>30</sup> CNN Indonesia. "Kemhan Prioritaskan Anggaran untuk Pangkalan Militer Natuna." <http://www.cnnindonesia.com/nasional/20160701164757-20-142477/kemhan-prioritaskan-anggaran-untuk-pangkalan-militer-natuna/> (1 July 2016)

Although there have been clear increases to Indonesia's defence budget and the TNI-AL's share of the budget, the defence budget as a percentage of GDP remains below 1 per cent despite promises to increase it to 1.5 per cent of GDP.<sup>31</sup> The under-realisation of the defence budget would then have implications on the overall operational readiness of the TNI-AL. As Bakrie observed, in 2006, the overall operational readiness of the TNI-AL was around 50 per cent.<sup>32</sup> Considering that a majority of the TNI-AL's share of the defence budget is spent on platform maintenance and the maintenance of older platforms tends to increase over time, the TNI-AL would be unable to maintain an acceptable degree of readiness. A strained budget would also affect Indonesia's future maritime aspirations. This is particularly highlighted by Koh, who argues that if current conditions were to persist, it could result in a shortcoming of the TNI-AL's MEF objectives which envisions a fleet of 274 vessels under an optimistic scenario. One of the essential programs that could be affected is the PKR frigate program. The PKR frigate is considered important to the TNI-AL as the vessel's flexibility and operational advantages can be used in low- and high-intensity operations, which fit the threat assessment of the TNI-AL. For the TNI-AL to reach MEF, Koh suggests favouring a larger force of low-capability PKRs over a smaller force of high-capability PKRs.<sup>33</sup> Koh's suggestion would work for the TNI-AL as a larger fleet would be required to patrol the vast extent of Indonesia's maritime territory and ensure the maintenance of maritime security within the archipelago.

### **"Turf wars" over maritime security governance**

Under *dwifungsi*,<sup>34</sup> the TNI-AL was provided with the ability to insert active naval officers into civilian agencies, which provided the institution with large clout over maritime affairs. By 1977, the TNI-AL had around 900 officers in such positions.<sup>35</sup> The large clout that the TNI-AL possessed thus allowed for the formation of the Coordinating Body for Maritime Security (*Badan Koordinasi Keamanan Laut*; Bakorkamla) in 1972, which represented a small first step towards an integrated command and control system over maritime affairs. The formation of *Bakorkamla*, which was subordinate to TNI-AL, militarised maritime security.<sup>36</sup> *Bakorkamla* was expected to act as a coordinating agency for stakeholders of maritime security under the direction of the TNI-AL, yet the extent of its influence and effectiveness has been questionable. As Lowry notes, the *Bakorkamla* was a "toothless tiger", as it could not direct policy and the presence of conflicting legal responsibilities provided a disincentive for agencies to coordinate their activities with the *Bakorkamla*.<sup>37</sup>

<sup>31</sup> Kenneth Conboy, Craig Caffrey, and Jon Grevatt, "Indonesian defence minister reaffirms spending boost pledge," *Jane's Defence Weekly* 51, no. 51 (November 2014).

<sup>32</sup> Connie Rahakundini Bakrie, *Defending Indonesia* (Jakarta: Gramedia Pustaka Utama, 2009), 120.

<sup>33</sup> Swee Lean Collin Koh, "What Next for the Indonesian Navy?: Challenges and Prospects for Attaining the Minimum Essential Force by 2024," *Contemporary Southeast Asia* 37, no. 3 (2015).

<sup>34</sup> A policy enacted during the Suharto government which allowed active military personnel to be involved in political and civilian life. See Lowry, *The Armed Forces of Indonesia*.

<sup>35</sup> Jun Honna, "Instrumentalizing Pressures, Reinventing Mission: Indonesian Navy Battles for Turf in the Age of Reformasi," *Indonesia* 86(2008): 67.

<sup>36</sup> *Ibid.*, 68.

<sup>37</sup> Lowry, *The Armed Forces of Indonesia*, 82.

When the Suharto regime collapsed, so did the features of his regime that were beneficial to the TNI-AL. First, the military could no longer be involved in civilian and political life. This extended to the practice of instating uniformed officers in civilian posts, which result in a significant loss of political clout on part of the TNI-AL. Second, the separation of the National Police Force (*Kepolisian Negara Republik Indonesia*; POLRI) from the TNI initiated a "turf war" between the TNI-AL and POLRI, particularly in maritime security. Prior, the TNI-AL enjoyed near-absolute control of maritime security affairs. However, the separation of the Armed Forces effectively put matters of internal security and order under the jurisdiction of POLRI. In particular, authority over maritime law enforcement went to *Polair* ("Marine Police", *Polisi Air*). This has resulted in a conflict of interests over the functions of the *Bakorkamla* which hindered the agency from effectively carrying out its duties.

The "turf war" eventually subsided in 2003, when the Coordinating Ministry for Political, Legal, and Security Affairs (officially abbreviated as *Kemenkopolkham*) commissioned a Task Force to assess the possible formation of a new maritime security agency to replace the *Bakorkamla*. In December 2014, the new Maritime Security Agency (*Badan Keamanan Laut*; *Bakamla*) was formed under Presidential Regulation no. 178/2014.<sup>38</sup> Unlike its predecessor, which was subservient to TNI-AL, *Bakamla* is a civilian agency that answers directly to the President. The scope of *Bakamla's* duties, according to articles 2 and 4 of Presidential Regulation no. 178/2014 include drafting policies related to maritime security, establishing an early warning system within Indonesian waters, enforce maritime laws, synergise and monitor sea patrols, provide technical and operational support to related agencies, conduct search-and-rescue, and support other duties related to national defence. Related to the function of maritime law enforcement, the *Bakamla* is also empowered to conduct hot pursuit, detain suspected vessels, and integrate a national maritime security information network.

The formation of *Bakamla* indicates a major shift in Indonesia's maritime security governance from being military-oriented to civilian-oriented.<sup>39</sup> A clear demarcation between military and law enforcement allows the TNI-AL to focus on carrying out its function as a professional navy and to not be involved in turf wars. As such, there would be implications to the operations of the TNI-AL, particularly in capacity-building. The TNI-AL could tailor their procurement plans to solely focus on capabilities required to safeguard Indonesia's waters from external attacks and possibly, limited force projection, which would be in line with GMF objectives. Furthermore, sharing the maritime security burden with the *Bakamla* would allow the TNI-AL to lessen the operational costs of conducting low-intensity maritime security operations with warships.

However, these possibilities might need to be put on hold considering *Bakamla's* relatively young age, overlapping authority issues, and operational limitations. From a legal perspective, there is an overlap of authority among maritime security-related institutions. Under the TNI Law (Law no. 34/2000), particularly article 9 (b), the TNI-AL is empowered to conduct a full spectrum of

---

<sup>38</sup> Sekretariat Kabinet Republik Indonesia. "President Jokowi Officially Established the Maritime Security Agency." <http://setkab.go.id/en/president-jokowi-officially-established-the-maritime-security-agency/> (16 December 2014)

<sup>39</sup> Arief Satria, *Politik Kelautan dan Perikanan: Catatan Perjalanan Kebijakan Era SBY hingga Jokowi* (Jakarta: Yayasan Pustaka Obor Indonesia, 2015).

maritime security operations, including maritime law enforcement. At the same time, the *Bakamla*, under Presidential Regulation no. 178/2014 and also Law no. 32/2014 (also known as the "Maritime Law"), is also authorised to conduct maritime law enforcement in coordination with the Marine Police. This legal redundancy could spark another potential "turf war" between the *Bakamla* and TNI-AL over authority. From an operational standpoint, the *Bakamla* still lacks the capabilities it requires to effectively carry out its law enforcement duties. As of 2015, *Bakamla* operated three 48-metre vessels and sixteen catamarans.<sup>40</sup> Although plans have been made to increase *Bakamla's* operational capacity, such as plans to procure 110-metre Offshore Patrol Vessels<sup>41</sup>, the agency will still need to rely on TNI-AL to provide the necessary capabilities, especially patrol vessels.<sup>42</sup> The reliance on the TNI-AL has also been used as a reason to instate an active naval officer as the head of *Bakamla*, which raises questions as to the extent of the demilitarisation of maritime security governance.<sup>43</sup>

### Learning from China's naval rise

A contemporary example of a rising naval power would be China under Hu Jintao and Xi Jinping. This short case study serves to highlight prominent aspects in China's experience in naval development, focusing on the organisational and technological aspects. China's interest in building sea power can primarily be attributed to its accumulation of wealth, which is invested in expanding its naval power. China's wealth has allowed it to invest more in its shipbuilding industry<sup>44</sup>, allowing them to learn more about the technology needed to build and operate carriers, a signature mark of naval power. Complementing its robust resources is its ability to exert political pressure to ensure effective implementation of its maritime-oriented strategy, such as through restructuring the command-and-control structure and the military organisation, along with a clear conception of maritime strategy and naval doctrine.

China's naval rise can be traced from Hu Jintao's "New Historical Missions" reforms, which shifted the focus of China's security towards safeguarding its sea lanes of communication (SLOCs) and endorsed the operational concept of Information Systems-based System of Systems Operations (ISSO).<sup>45</sup> These reforms were later built upon by Xi Jinping at the structural level by centralising control of the military under the Central Military Commission (CMC), reducing territorial commands, and introducing 11 new CMC agencies. The reforms were

---

<sup>40</sup> CNN Indonesia. CNN Indonesia. "Tumpang-tindih Aturan Penegakan Hukum Maritim." <http://www.cnnindonesia.com/nasional/20151004163018-20-82691/tumpang-tindih-aturan-penegakan-hukum-maritim/> (5 October 2015)

<sup>41</sup> Ridzwan Rahmat, "Indo Defence 2016: PT Palindo discloses further details of 110 m vessel on order for BAKAMLA," *Jane's Defence Weekly* 121, no. 10 (December 2016).

<sup>42</sup> CNN Indonesia. "Tak Punya Banyak Kapal, Bakamla Diminta Wiranto Koordinasi AL." <http://www.cnnindonesia.com/nasional/20160830185406-20-154947/tak-punya-banyak-kapal-bakamla-diminta-wiranto-koordinasi-al/> (31 August 2016)

<sup>43</sup> See *supra* note 39.

<sup>44</sup> For a comprehensive and recent study of China's shipbuilding industry, see Andrew S. Erickson, ed. *Chinese Naval Shipbuilding: An Ambitious and Uncertain Course* (Annapolis, MD: Naval Institute Press, 2016).

<sup>45</sup> Nan Li, "China's Evolving Naval Strategy and Capabilities in the Hu Jintao Era," in *Assessing the People's Liberation Army in the Hu Jintao Era*, ed. Roy Kamphausen, David Lai, and Travis Tanner (Carlisle, PA: U.S. Army War College Press, 2014).

aimed at reducing the Army's immense influence in decision-making, which often affected China's strategic calculus.<sup>46</sup> Another influential aspect is China's development of the Anti-Access/Area Denial (A2/AD) operational concept, which builds upon its Offshore Defence doctrine. Based on this particular direction, Chinese naval development, particularly its procurement, has advanced along the lines of procuring and building vessels that are durable, can operate for long periods of time, have multi-purpose roles, and are capable of asserting sea control. In implementing the A2/AD strategy, China's technological development has been focused on the development of joint-strike capabilities, sea control, and "assassin's mace" weapons in electronic and information warfare.<sup>47</sup>

Two caveats should be heeded when comparing the two countries. First, both countries have different security commitments and interests. This particularly affects the trajectory by which their navies are being developed. Both countries also adhere to different defence outlooks and operational concepts, which would affect their fleet composition and procurement plans. On one hand, China seeks to achieve a blue-water navy capable of carrying out its security commitments beyond Chinese waters under its doctrine of Offshore Defence.<sup>48</sup> On the other hand, Indonesia's regional security commitments are still limited, although it has sought to increase them under the GMF. Second, there is a significant disparity between the economic capacities of both countries, as evident in the stark differences in their overall GDP and defence budgets. China's overall GDP is around USD 11 trillion, with a defence expenditure of around USD 151 billion; whereas Indonesia's defence budget of USD 8 billion is nowhere near China.<sup>49</sup> In addition, China's shipbuilding industry is significantly larger and more capable than its Indonesian counterpart. These caveats withstanding, China's rise can still be useful as a case study in understanding the requirements of building naval power.

Thus, two lessons can be extracted from China's experience. First, there is a need for sustained political will to carry out reforms that focus on building naval power. In China's case, the impetus for reforms began with Hu Jintao and was carried on by Xi Jinping. Second, the formulation of a clear strategic objective is necessary to provide guidance for other activities related to naval development. Procurement should be guided by the needs of doctrine, while doctrine should be tailored to meet the ends of strategy. Third (and perhaps most obvious), a significant amount of resources need to be allocated towards naval development.

## Conclusion

This paper has identified and discussed four chief problems that naval planners have to face in Indonesia, namely a lack of a maritime outlook,

---

<sup>46</sup> Charles Clover, "Xi's China: Command and control," *The Financial Times* 26 July 2016.

<sup>47</sup> Andrew Nien-Dzu Yang, "China's Revolution in Military Affairs: Rattling Mao's Army," in *The Information Revolution in Military Affairs in Asia*, ed. Emily O. Goldman and Thomas G. Mahnken (New York: Palgrave Macmillan, 2004).

<sup>48</sup> This includes a wide range of scenarios, such as (but not limited to) a Taiwan contingency, SLOC protection, and cooperative naval operations. See Ronald O'Rourke, "China Naval Modernization: Implications for U.S. Navy Capabilities — Background and Issues for Congress," (June 2016).

<sup>49</sup> Estimates according to the Centre of Strategic and International Studies, Washington D.C. See <http://chinapower.csis.org/military-spending/>

budgetary restrictions, the dependence on a territorial command and control system, and "turf wars" over authority. These problems are a result of a complex intertwining of historical, social, and political factors, all of which have had their respective impacts on how the TNI-AL operates and the problems that it faces. It has also compared and contrasted China's process of naval development with Indonesia's own process through a short case study, and highlighted some valuable lessons that can be learned.

As the analysis has shown, two problems could be considered more prevalent than others, namely the lack of a maritime strategy and persistent budgetary restraints. The lack of an overarching and definitive maritime outlook provides little direction for the TNI-AL to structure their forces, as reflected in the command and control structure that still emphasises land defences over maritime defences. Although a large amount of debate has been conducted over the viability of Indonesia's defence strategy, it would seem that the current system will not change any time soon. Limited funding has consistently hampered the TNI-AL's procurement plans and subsequently, its operational effectiveness. Without sufficient funding, the TNI-AL risks incurring higher operational costs due to raising maintenance costs on aging equipment and being operationally unready if a threat were to suddenly present itself. In terms of maritime security governance, the presence of *Bakamla* would allow the TNI-AL to focus more on its defence duties. However, considering the infancy of the *Bakamla* and its current reliance on the TNI-AL's capabilities, further coordination on the delineation of their respective duties to prevent potential incoordination and "turf wars" over authority in the future is required. In this regard, addressing the overlap of authority should be prioritised by clearly delineating the responsibilities in maritime security.

The comparative case study has shown there are significant influences from political, military, and industrial side in influencing the trajectory of naval development programs. Furthermore, both China and Indonesia's difference in security commitments and ambitions influence how they grow their navies. China has benefitted from political leadership that puts pressure on the military to reform and favour policies that benefit the navy. Its industrial capacity have also helped naval construction programs progress. In Indonesia, albeit political leadership being favourable towards the Navy, the Army's conservatism, reflected in its persistence on using old doctrines, has hindered significant progress in naval development. This is further exacerbated by a lack of funding and industrial capacity.

Building navies is no easy task; it cannot be done within a single stint in office. Looking at the TNI-AL's problems and China's naval development process, both indicate a need to have strong and sustained political leadership when it comes to developing naval power. While it is important for a leader to have a maritime vision, it is equally important to make sure that the vision permeates beyond the initiator's term in office. What matters in the future is the continuance of political in order to see actual progress in the development of the TNI-AL. Without continued political will, temporary solutions to Indonesia's naval problems may remain temporary and the TNI-AL may continue to be a small navy with big responsibilities incapable of achieving Indonesia's regional maritime aspirations.

## References

- Agastia, IGB. Dharma. "Indonesia's Global Maritime Fulcrum: An Updated Archipelagic Outlook?" *The Diplomat*, <http://thediplomat.com/2016/12/indonesias-global-maritime-fulcrum-an-updated-archipelagic-outlook/>, 17 December 2016
- ANTARA. "DPR sepakati anggaran Kemenhan 2017 Rp108 triliun." <http://www.antaraneews.com/berita/591342/dpr-sepakati-anggaran-kemenhan-2017-rp108-triliun/>, 22 October 2016
- Anwar, Dewi Fortuna. "Indonesia: Domestic Priorities Define National Security." In *Asian Security Practice: Material and Ideational Influences*, edited by Muthiah Alagappa. Stanford, CA: Stanford University Press, 1998.
- Bakrie, Connie Rahakundini. *Defending Indonesia*. Jakarta: Gramedia Pustaka Utama, 2009.
- Cholil, M. *Sedjarah Operasi-Operasi Pembebasan Irian Barat*. Seri Text-book Sedjarah ABRI. Jakarta: Pusat Sedjarah ABRI, 1971.
- Clover, Charles. "Xi's China: Command and control." *The Financial Times*, 26 July 2016.
- CNN Indonesia. "Kemhan Prioritaskan Anggaran untuk Pangkalan Militer Natuna." <http://www.cnnindonesia.com/nasional/20160701164757-20-142477/kemhan-prioritaskan-anggaran-untuk-pangkalan-militer-natuna/>, 1 July 2016
- . "Tak Punya Banyak Kapal, Bakamla Diminta Wiranto Koordinasi AL." <http://www.cnnindonesia.com/nasional/20160830185406-20-154947/tak-punya-banyak-kapal-bakamla-diminta-wiranto-koordinasi-al/>, 31 August 2016
- . "Tumpang-tindih Aturan Penegakan Hukum Maritim." <http://www.cnnindonesia.com/nasional/20151004163018-20-82691/tumpang-tindih-aturan-penegakan-hukum-maritim/>, 5 October 2015
- Conboy, Kenneth, Craig Caffrey, and Jon Grevatt. "Indonesian defence minister reaffirms spending boost pledge." *Jane's Defence Weekly* 51, no. 51 (November 2014).
- Connelly, Aaron L. "Sovereignty and the Sea: President Joko Widodo's Foreign Policy Challenges." *Contemporary Southeast Asia* 37, no. 1 (2015): 1-28.
- Ekawati, Janet Dyah. "Indonesia's global maritime axis askew." Australian Institute of International Affairs, [http://www.internationalaffairs.org.au/australian\\_outlook/indonesias-global-maritime-axis-askew/](http://www.internationalaffairs.org.au/australian_outlook/indonesias-global-maritime-axis-askew/), 19 May 2016

- Erickson, Andrew S., ed. *Chinese Naval Shipbuilding: An Ambitious and Uncertain Course*. Annapolis, MD: Naval Institute Press, 2016.
- Honna, Jun. "Instrumentalizing Pressures, Reinventing Mission: Indonesian Navy Battles for Turf in the Age of Reformasi." *Indonesia* 86 (2008): 63-79.
- International Crisis Group. "Indonesia: Rethinking Internal Security Strategy." *Asia Report no. 90* (20 December 2004).
- International Institute for Strategic Studies. *The Military Balance 2016*. Oxford, UK: Routledge, 2016.
- Koh, Swee Lean Collin. "Indonesia's Submarine Play." *The Diplomat*, <http://thediplomat.com/2012/01/indonesias-submarine-play/>, 19 January 2012
- . "What Next for the Indonesian Navy?: Challenges and Prospects for Attaining the Minimum Essential Force by 2024." *Contemporary Southeast Asia* 37, no. 3 (2015): 432-462.
- Leifer, Michael. *Indonesia's Foreign Policy*. Boston: Allen & Unwin, 1983.
- Li, Nan. "China's Evolving Naval Strategy and Capabilities in the Hu Jintao Era." In *Assessing the People's Liberation Army in the Hu Jintao Era*, edited by Roy Kamphausen, David Lai and Travis Tanner. Carlisle, PA: U.S. Army War College Press, 2014.
- Lowry, Robert. *The Armed Forces of Indonesia*. New South Wales: Allen & Unwin, 1996.
- Nelson, Brad, and Yohanes Sulaiman. "The implications of Jokowi's global maritime axis." *Strategic Review* 5, no. 2 (2015): 6-11.
- O'Rourke, Ronald. "China Naval Modernization: Implications for U.S. Navy Capabilities — Background and Issues for Congress." June 2016.
- Rabasa, Angel, and Peter Chalk. *Indonesia's Transformation and the Stability of Southeast Asia*. Santa Monica, CA: RAND Corporation, 2001.
- Rahmat, Ridzwan. "Indo Defence 2016: PT Palindo discloses further details of 110 m vessel on order for BAKAMLA." *Jane's Defence Weekly* 121, no. 10 (December 2016).
- Raymond, Catherine Zara. "Piracy and Armed Robbery in the Malacca Strait: A Problem Solved?". *Naval War College Review* 62, no. 3 (2009): 31-42.
- Rieffel, Lex, and Jaleswari Pramowardhani. *Out of Business and on Budget: The challenge of military financing in Indonesia*. Washington D.C.: Brookings Institution Press, 2007.



- Samego, Indria, Ikrar Nusa Bhakti, Hermawan Sulisty, Riza Sihbudi, M. Hamdan Basyar, Moch. Nurhasim, Nur Iman Subono, and Sri Yanuarti. *Bila ABRI Berbisnis*. Jakarta: Mizan Pustaka, 1998.
- Satria, Arief. *Politik Kelautan dan Perikanan: Catatan Perjalanan Kebijakan Era SBY hingga Jokowi*. Jakarta: Yayasan Pustaka Obor Indonesia, 2015.
- Schwarz, Adam. *A Nation in Waiting: Indonesia's Search for Stability* 2nd ed. Boulder, CO: Westview Press, 1999.
- Sebastian, Leonard C., Ristian Atriandi Supriyanto, and I Made Andi Arsana. "Beyond the Archipelagic Outlook: The Law of the Sea, Maritime Security and the Great Powers." In *Indonesia's Ascent: Power, Leadership, and the Regional Order*, edited by Christopher B. Roberts, Ahmad D. Habir and Leonard C. Sebastian. London: Palgrave Macmillan, 2015.
- Sekretariat Kabinet Republik Indonesia. "Inilah 10 K/L Penerima Anggaran Terbesar Pada RAPBN 2017." <http://setkab.go.id/inilah-10-kl-penerima-anggaran-terbesar-pada-rapbn-2017/>, 18 August 2016
- . "President Jokowi Officially Established the Maritime Security Agency." <http://setkab.go.id/en/president-jokowi-officially-established-the-maritime-security-agency/>, 16 December 2014
- Sudarto, Sugeng. *TNI AL dalam Operasi Merdeka*. Jakarta: Dinas Sejarah Angkatan Laut, 1981.
- Supriyanto, Ristian Atriandi. "Keeping the Fleet Afloat: Indonesia's Naval Policy and Operation." Master's Thesis, S. Rajaratnam School of International Studies, 2011.
- . "'Strategic Funnels': Deciphering Indonesia's Submarine Ambitions." *RSIS Commentaries* (3 December 2015).
- Suropati, Untung, Yohanes Sulaiman, and Ian Montratama. *Arung Samudra bersama Sang Naga: Sinergi Poros Maritim Dunia dan Jalur Sutra Maritim Abad ke-21*. Jakarta: Elex Media Komputindo, 2016.
- Till, Geoffrey. "Indonesia as a growing maritime power: possible implications for Australia." *Soundings*, no. 4 (2015).
- Yang, Andrew Nien-Dzu. "China's Revolution in Military Affairs: Rattling Mao's Army." In *The Information Revolution in Military Affairs in Asia*, edited by Emily O. Goldman and Thomas G. Mahnken. New York: Palgrave Macmillan, 2004.
- Yuliadi, Yudi. "Alutsista Bergerak Milik Indonesia dalam 70 Tahun." *Wira: Media Informasi Kementerian Pertahanan* 57, no. 41 (2015): 22-31.