

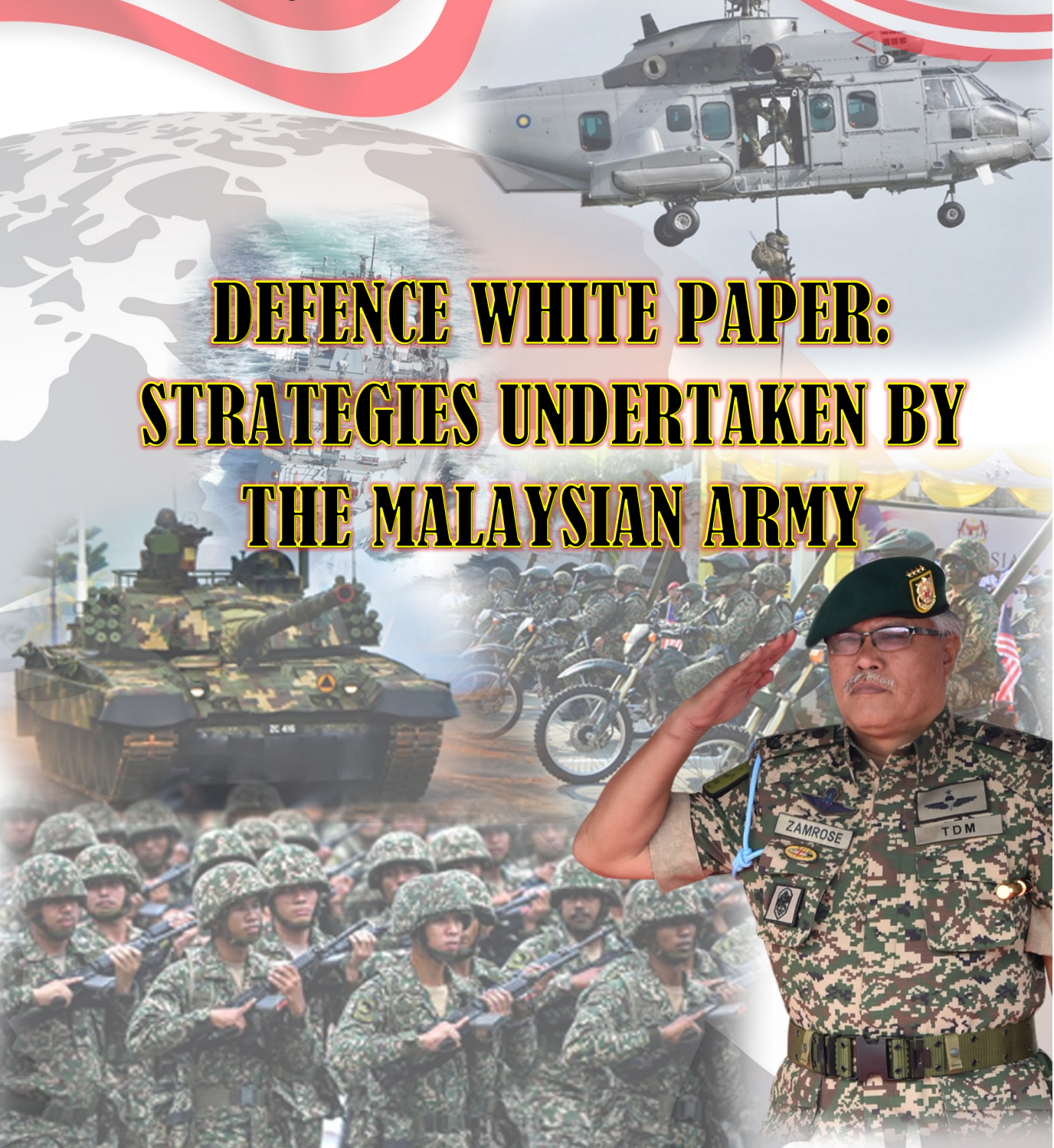
Sorotan **DARAT**

Volume 2, Number 79, December 2021



THE JOURNAL OF MALAYSIAN ARMY

DEFENCE WHITE PAPER: STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY





SOROTAN DARAT
JURNAL TENTERA DARAT MALAYSIA
THE JOURNAL OF MALAYSIAN ARMY

DITERBITKAN OLEH
JAWATANKUASA DOKTRIN TENTERA DARAT

SIDANG REDAKSI

PANGLIMA TENTERA DARAT

Jen Tan Sri Dato' Seri Zamrose bin Mohd Zain

**PENGERUSI JAWATANKUASA DOKTRIN
TENTERA DARAT**

Lt Jen Datuk Seri Mohammad bin Ab Rahman

**NAIB PENGERUSI JAWATANKUASA
DOKTRIN TENTERA DARAT**

Mej Jen Dato' Nazari bin Abd Hadi

KETUA EDITOR

Kol Mohd Imran bin Ibrahim

EDITOR

Lt Kol Mohd Zahir bin Wahab

Mej Mohd Hairil bin Jaafar

GRAFIK MUKA HADAPAN

Lt M Nur Hanan Syahirah binti Muhamad Rafiai

PENGEDARAN

Cawangan Publikasi Manual, MK PLDTD

KETERANGAN

Sorotan Darat ialah Jurnal Tentera Darat (TD) yang diterbitkan sejak 1 Mac 1983 bagi mempertingkatkan budaya ilmu di kalangan warga TD. Jangka masa pengeluaran ialah setiap 6 bulan iaitu pada bulan Jun dan Disember. Segala isi kandungannya termasuk sebarang ilustrasi, gambar, jadual dan rajah tidak dibenarkan dicetak semula dalam apa corak sekalipun tanpa mendapat kebenaran Kementerian Pertahanan melalui MK PLDTD terlebih dahulu.

Selaku sebuah Jurnal TD, Sorotan Darat adalah bertujuan mewujudkan satu forum bagi perbincangan perkara yang boleh menimbulkan minat profesional terhadap seorang perajurit. Artikel meliputi pelbagai isu dan tema adalah dipelawa dari segenap peringkat dan sesiapa sahaja yang mempunyai pengetahuan khas atau minat terhadap hal ehwal ketenteraan. Isu-isu kontroversi biasanya menjadi nadi penggerak sesebuah jurnal profesional yang mana ia dapat menimbulkan pemikiran dan perbincangan yang sihat. Artikel-artikel seperti ini akan diberi keutamaan, manakala artikel-artikel mengenai operasi-operasi, idea-idea latihan atau kegunaan peralatan adalah antara topik-topik yang sangat dialu - alukan.

Semua pertanyaan mengenai Sorotan Darat hendaklah dikemukakan kepada Ketua Editor iaitu Kol Doktrin, MK PLDTD.

Semua idea yang dikemukakan oleh penulis melalui artikelnya dalam jurnal ini, sama ada sebahagian atau seluruhnya adalah pendapatnya sendiri. Ianya bukanlah pendapat oleh Kementerian Pertahanan Malaysia atau pihak-pihak lain yang berkaitan.

TABLE OF CONTENT

FROM CHIEF EDITOR'S DESK	2
ARTICLE CONTRIBUTORS	3
DEFENCE WHITE PAPER: STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY Brig Jen Mohd Tamam bin Jamioon, ROC	6
DEFENCE WHITE PAPER – A CONTINUANCE OF TRANSFORMATION STRATEGIES Kol Dr Nizlan bin Mohamed, RAR	19
DEFENCE WHITE PAPER: STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY Kol Ishak bin Juhari, RER	38
DEFENCE WHITE PAPER: STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY Kol Nazlee bin Abd Rahim, RMR	49
DEFENCE WHITE PAPER: STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY Lt Kol Mohd Azmi bin M Salim, GSC (Education)	67
DEFENCE WHITE PAPER: STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY Lt Kol Hanasrul Imran bin Ghazali, RAR	78
DEFENCE WHITE PAPER: STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY Lt Kol Marzuki bin Md Yusof, RMR	91
CHALLENGES FOR MALAYSIAN ARMY IN THE NATIONAL DEFENCE ECOSYSTEM Lt Kol Marlinawati binti Mahmood, RAR	104
DEFENCE WHITE PAPER: STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY Lt Kol Shamsol Nizam bin Mohamad Kasim, RSC	117
DEFENCE WHITE PAPER: STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY Lt Kol Mohd Zahirin bin Zainol Abidin, RMR	130
PEMENANG ARTIKEL TERBAIK SOROTAN DARAT EDISI 78/2021	
PANDUAN UNTUK PENULIS	

FROM CHIEF EDITOR'S DESK

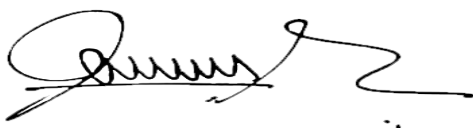
Assalamualaikum Warahmatullahi Wabarakatuh. With the name of Allah, the Most Gracious and the Most Merciful.

Praise to Allah s.w.t, as the second journal of the year 2021, Edition 79 is successfully published to acknowledge the writer's effort in enhancing the readers' mind with informative, useful and meaningful articles. The Editorial Council would like to express our appreciation to all writers who have contributed to the publication of this journal. The commitments given by the thriving writers are certainly a precious aptitude in producing a well-published journal. Nuggets of golden wisdom in thinking and actions come in many forms as they can be extracted from various sources. Therefore, *SOROTAN DARAT* provides such a platform for the readers to extract the ideas shared by the writers to gain knowledge.

The implementation of the Defence White Paper promulgated in 2019 marked the enormous transformation of the national strategy particularly in the defence and security of the country. It is a momentous document that signifies the ultimate composure of defending this country from all walks of life. Strategically, it reflects a testament to the government's firm commitment to Malaysia's defence and resilience to protect national interests, particularly to defend its sovereignty and territorial integrity. Defence White Paper entails the government's stance on national defence, presents its outlook for strategic trends and outlines the national defence framework to pursue the vision of Malaysia as a secure, sovereign and prosperous nation.

The Editorial Council welcomes and encourages more new aspiring writers to contribute articles for future publications. Constructive opinions, dynamics comments, and potential ideas as well as feedbacks from the readers are highly encouraged to improve the quality of the journal published in the future. Thank you.

Reading brings knowledge to inspire.



KOL MOHD IMRAN BIN IBRAHIM
Chief Editor

ARTICLE CONTRIBUTORS



Brig Jen Mohd Tamam bin Jamioon was commissioned into Royal Ordnance Corps on 18 Dis 1982. Throughout his service, he held notable appointments such as Commanding Officer of 74th Battalion Royal Ordnance Corps, Kol Logistik of MK PMBTD and currently serves as Director of the Royal Ordnance Corps. He holds a Master of Social Science & Strategic Studies from (UKM/MPAT) and a Diploma in Strategic and Defence Studies from UM.



Kol Dr Nizlan bin Mohamed was commissioned into Royal Artillery Regiment in 1989. He has held various appointments and positions in the artillery unit, the Artillery Directorate, as well as in the Army Headquarters as a staff officer. He attended the Command and General Staff College in Thailand in 2006 before obtaining his Doctor of Management (DMgt) from University Malaya in 2020. Currently, he holds the position of Director of Contemporary Security in the Malaysian Institute of Defence and Security (MiDAS).



Kol Ishak bin Juhari joined the service in 1990. Commissioned as an Army Officer in the Royal Engineer Regiment, he has held numerous staff and command appointment. He served at several units in Perlis, Sarawak, Perak, Kuala Lumpur, Johor, Negeri Sembilan and at United Nations – MALCON 1. He holds a Master in Manegement from University of Malaysia and trained as a qualified Royal Engineer Officer. Currently, he is the Commanding Officer of 94th Defence Engineering Services Division based in Kuala Lumpur.



Kol Nazlee bin Abd Rahim joined the service in 1994. He was commissioned into the Royal Malay Regiment and held numerous staff and command appointments such as MA to Deputy Minister of Defence, SO1 Traininig at PMB TD, Chief of Staf 13 Bgd ESSCOM, Officer of 16 RAMD, SO2 A RMR and several others. He was graduated from French Army Staff Collage in 2012 and French Joint War Collage in 2021. Currently he is the Director of War Game Center (POP TD).

ARTICLE CONTRIBUTORS



Lt Kol Mohd Azmi bin M Salim was born in Melaka. He holds a Bachelor of Education (Hons) degree from Universiti Sains Malaysia (USM), Pulau Pinang. He used to serve as a school teacher from 1995 to 1999 before decided to join the military service in 1999. He was then commissioned into the General Service Corps (Education) and since then has served in several training establishments, formations and service headquarters such as IPDA, SPPTD, 1 Bde, MTL, and Education Directorate. He is currently the Education Officer at 3 Div HQ.



Lt Kol Hanasrul Imran bin Ghazali was commissioned into the Royal Artillery Regiment on 16 May 2000. Throughout his career, he has held various important command and staff appointment such as SO 3 Coordination at Artillery Department, Training Officer at Army Warfare Centre, Assistant Commanding Officer at 21st Royal Artillery Regiment and 8th Royal Artillery Regiment Ad Hoc. Currently, he is the Deputy Commander of 506th Regiment Territorial Army. He holds a Diploma of Defence and Strategic Studies from UPNM, Bachelor of Science Computer from UTM and Master in Management from UM. He has also attended the Command and Staff Course at Malaysian Armed Forces Defence College in 2018.



Lt Kol Marzuki bin Md Yusof was commissioned into the Royal Malay Regiment in 2000. He has served in various important appointments within the regiment, namely as a staff officer at Armed Forces Headquarters and Army Headquarters. He has graduated from National University of Malaysia and holds a Master Degree in Management from University of Malaya. Currently, he serves as a Deputy Commander at 515th Territorial Army Regiment.

ARTICLE CONTRIBUTORS



Lt Kol Marlinawati binti Mahmood was commissioned into the Royal Artillery Regiment on 26 October 2002. She holds a Master Degree in Management from University of Malaya. She has written an article "Challenges for Malaysian Army in the National Defence Ecosystem". She is currently the Staff Officer 1 Readiness at MAF HQ – Inspectorate General Department.



Lt Kol Shamsol Nizam bin Mohamad Kasim joined the service in 1995. Commissioned as an Army Officer in the Royal Service Corps, he has then held numerous staff and command appointment. He has served in several units in Negeri Sembilan, Sarawak, Perak, Kuala Lumpur, Johor and also in the United Nations – MALBATT 850-4. He holds a Master Degree in Management from University of Malaya and was trained as a qualified Royal Service Corps Officer. Currently, he is the Commanding Officer of the 94th Royal Service Corps Battalion based in Sungai Besi, Kuala Lumpur.



Lt Kol Mohd Zahirin bin Zainol Abidin was commissioned into the Royal Malay Regiment on 29th May 2000. He has served in various important appointments within the regiment, namely as platoon commander, adjutant, company commander and also battalion 2IC. He has obtained a Master Degree in Management from University of Malaya and also Diploma in Defence and Strategic Studies from NDUM. Currently, he serves as SO2 Training and R&D in INSPEKA, Port Dickson.

DEFENCE WHITE PAPER (DWP): STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY

**By BRIG JEN MOHD TAMAM BIN JAMIOON
ROYAL ORDNANCE CORPS**

INTRODUCTION

Defence White Paper (DWP) is government document on the principles of national defence, and the basic security and military construction which are publicly issued by the countries concerned. It is named as such because it is usually covered with white paper. Firstly, the functions of the National Defence White Paper are to declare national defence policies and military strategies. Secondly, to guide the national defence and military construction. Thirdly is to demonstrate national defence strength and implement military deterrence. Fourthly is to increase military transparency and build military mutual trust. Fifthly is to popularize national defence knowledge and lastly is to strengthen national defence education. (Stationery Office Books, 2003).

In the 21st century, countries' defence white papers are more pragmatic, in a different format and release cycle, such as Japan and other countries once a year, South Korea every two years, India's defence white papers in the form of cross-year defence reports, while France and other countries' defence white papers are issued from time to time.

The United States of America (USA) does not issue defence white papers, normally they use to be like the Defence Department's annual Defence Report, the Defence Strategy Report, the Four-Year Defence Assessment Report, and the Joint Chiefs of Staff's National Military Strategy. Meanwhile, Russia does not have a unique national defence white paper. Still, from time to time, the Russian Federation National Security Concept (renamed the Russian Federation National Security Strategy after 2009) and the Russian Federation Military Doctrine, respectively, focus on the national security strategy and military strategy and guide the national defence, military construction guidelines, to a certain extent, with the function of the national defence white paper.

Based on the White Paper on Arms Control and Disarmament of China published in 1995, the Chinese Government has issued its

white paper on national defence in start from 1998 and continuously produce every alternate year and the last one was in 2019.

Malaysian DWP History

Our nation also has produced our first edition of DWP and promoted it to the citizens. DWP is a document that specifies the government's direction in protecting national interest and defending sovereignty and the region's integrity. DWP was developed using the approach of the whole of government and whole of society that is, taking into account the engagement and views of all ministries, government agencies and the voices of all levels of society, including Non-Governmental Organizations (NGOs) and the defence industry players, Malaysia Armed Forces (MAF) veterans and academicians. DWP is expressing challenges and opportunities resulting from Malaysia's geographical position as a maritime country with a diversity of discourse. Malaysia's potential was also adopted based on Malaysia's position as a solidarization gate between Asia-Pacific and the Indian Ocean. All Malaysians have to the full fill their duty to defend their country. DWP stated that Defence Strategy and outline the Basic Principles of Defence as below (Ministry of Defence: Malaysia, 2010):

- ❖ **Based Interest.** Making plans based on importance country based on concentric areas which consists of Core Area, Extended Area and Forward Area.
- ❖ **Neutrality Activities.** Adopting an independent policy, emphasizing inclusivity and shared prosperity, sharing and security of identity.
- ❖ **Aspiration Self-Reliant.** Reduce dependency on others, empowering the defence industry through progress defence science & technology
- ❖ **Innovation and Integration.** Enhancing Research and Development (R&D) in defence science and technology.
- ❖ **Good Governance.** Institutionalized good governance in national defence management.

Malaysian Army Needs

The security and sovereignty of our beloved motherland, which is Malaysia, can't be compromised. To ensure all Malaysians can live peacefully and in harmony, we must have a relevant and dependable armed force, especially the Malaysian Army, to protect the land component. All Malaysians, regardless of their religion and race and differential political views, must come together under one big roof and always be ready to protect and defend our nation. DWP stated that to unite our people and support our MAF in protect our beloved country from any threat. One of the key areas in the DWP which discuss in Chapter 7- Defence Science, Technology and Industry which will support toward implementation of DWP. As the Logistic Officer in the army, this paper will elaborate more on Defence Industry that will contributed to the achievement and successful of this DWP. In the DWP, already highlighted five (5) key trust and five (5) initiatives to boost up the Malaysia Defence industry.

Focus more on Land Component, the future development of the land force, which is the Capability Needs for the Land Domain is to increase firing power, mobility, communication, logistical capabilities and developing amphibious capabilities. The systematic procurement of MAF procurement can highlight the preparedness of MAF in the face of security challenges to advance the defence industry to achieve a vision of self-reliance and corner line economics. DWP suggested long-term planning for acquiring Assets / Capabilities for the Period 2021 – 2030.

Malaysian Army Role in DWP

The Malaysian Army Strategic Development Plan is a long-term development plan for the Malaysian Army from 2021 to 2050. (Tentera Darat Malaysia, 2021). The development of this plan is in line with the evolutionary changes in today's wars and the face of the new millennium wars. Therefore, the Malaysian Army needs to study the existing Malaysian Army capabilities and identify Malaysian Army capacity gaps to provide a blueprint of the Malaysian Army Development Plan that is more sustainable, realistic, and futuristic. Army 4nextG is regarded as Malaysian Army Capability Management is a plan developed to strengthen the Malaysian Army in the future, considering the goals and capabilities goals in terms of strategy, operational concepts, priorities, and financial capabilities acquired for the Malaysian Army. The primary purpose is to ensure that Malaysian Army development can be implemented in a structured, systematic,

and continuous manner until 2050. The implementation plan is known as the Base 60 Initiative Plan, which is planned to be implemented in stages based on the Malaysian Plan 2021-2025 (Rancangan Malaysia Ke Dua Belas). To enhance future Malaysian Army capabilities, detailed implementation plans for mobility procurement, communications, logistics/materials, and weaponry systems (firing power) must be carefully planned so that the financial allocation obtained can accommodate these needs.

Local Defence Industries

Malaysia also has its local defence industry players; they also can't escape from adjusting to change for these challenging times. We focus on the different ways defence companies are adapting to change. We should know about global defence industries, how are defence firms responding to changing market opportunities, evidence on the characteristics of successful and failed adaptations (including conversion), and the role of policy in supporting the adaptation process that have been conducted. (Great Britain, 2005).

Before independence, Malaysia had minimal defence production capacity. The Malaysian economy at that time was mainly agrarian, with only a few small Chinese-owned enterprises and larger enterprises dominated by foreigners, primarily British (Lawrence and Wheelwright, 1965). Post-Independence authorities recognized the need for the local defence industry. This was mainly for reasons of sovereignty and to support the pursuit of strategic and foreign policy objectives. However, progress was uncoordinated and ad hoc, with essential equipment, needs to be met by Armed Forces' in-house' military establishments designed to meet the needs of each branch of service. For example, Aircraft Repair and Overhaul Depot (AIROD) was established in 1976 as a public enterprise to maintain Royal Malaysian Air Force (RMAF) aircraft. (AIROD, 2021).

In addition, the state-owned company Syarikat Malaysia Explosives (SME) was established in 1972 to manufacture small arms, ammunition, hand grenades and pyrotechnics. The first two decades of the Malaysian defence industry thus broadly reflected a public investment process in critical sectors, with the progress both incremental and unambitious. The main objective then was to create a modest but credible defence industry capable of providing logistical support to Malaysia's Armed Forces (MAF) in the form of lifetime maintenance, repair, and overhaul.

DRB-HICOM Defence Technologies Sdn Bhd (DEFTECH) designs, manufactures, and supplies armoured and logistic vehicles for military, homeland security and commercial markets. The company's capabilities include research and development, assembly, fabrication, manufacturing, integration, modernization, repair, overhaul (MRO), retrofit, marketing, and military and commercial vehicles sales. The company also offers spare parts for all categories of commercial and military vehicles. (DEFTECH, 2021) DEFTECH's product portfolio includes wheeled armoured personnel carriers, maintenance and recovery vehicles, and trucks. The company also manufactures commercial vehicles such as city and intercity buses, ambulances and hearses, mobile communication centres and mobile counters. The company supplies to the Malaysian Armed Forces and other government and government-related agencies. The company is a wholly owned subsidiary of DRB HICOM Berhad. DEF TECH is headquartered in Shah Alam, Selangor, Malaysia. The company specializes in the manufacture and maintenance of defence equipment, particularly soft-sided vehicles under three tonnes. DEFTECH exports trucks to countries such as Bangladesh and Brunei.

The company was also the leading Malaysian partner in the joint development and local assembly of 64 Turkish APC 300s in 2000. Another local manufacturer of Armoured Vehicle is MMC Defence. Founded in 1976, the company has been involved in a wide range of offset projects, including the modernization of the MAF Ferret Scout Car and the development of the turbodiesel engine for the Chrysler A727. In 1993, MMC was contracted by the Malaysian Army to overhaul 96 Thyssen Henschell German Radpanzer Condor 4×4s, and later in the same decade, was hired to repair another 50 Condor 4×4s. In 1995, MMC participated in the upgrade of Scorpion and Stormer infantry fighting vehicles. In 2000, the company was appointed Malaysian recipient of compensation for the assembly of Korean Infantry Vehicle and Polish main battle tanks. MMC is one of the few Malaysian companies that has specialized exclusively in defence contracts since its inception.

A similar trend can be seen in Land Systems. For example, Syarikat Malaysia Explosives Bhd (MALEX) (SMEO, 2019) began operations in 1972 as a joint venture company to manufacture ordnance. It involved the Malaysian government and two local Malaysian partners which are Syarikat Permodalan Kebangsaan and Syarikat Jaya Raya Sdn Bhd and two foreign partners that are the German Dynamit Nobel and Swiss Oerlikon Machine Tools Company. By 1974, MALEX had become a Malaysian company, wholly owned

by Malaysians, and was granted private company status in 1990 and been rename as Syarikat Malaysia Explosive Ordnance Sdn Bhd (SMEO). Around the same time, SMEO signed an agreement with the Austrian company Steyr-Mannlicher for the licenced production of the Steyr-AUG assault rifle for the MAF. SEO is another specialized manufacturer of explosives and, like SME, is a subsidiary of NADI Corporation. SMEO began its operations as a state-owned company specializing in the manufacture of small-calibre ammunition. Then in 1993, SMEO was approved as a preferred supplier of weapons and ammunition for Royal Ordnance, BAE Systems. Since then, SMEO has successfully diversified its activities and developed a portfolio of pyrotechnic products, large-calibre ammunition and engineering plastics resulting from the opportunities created by offsets. Furthermore, SMEO become one of the areas where they provide practical and functional recommendations to strengthen the Malaysian defence industry and support its self-reliance.

Way Forward in Local Defence Industries Towards Self Reliance

Defence offsets are among the most critical and controversial issues in the broad field of defence economics. Defence manufacturers likely view offsetting investments as a distraction, fearing that they could negatively impact the bottom line. In contrast, policymakers in arms-buying countries see offsets as a way to promote technology transfer, employment, investment, and export sales. However, it is not easy to determine the actual impact of offsets. The subject is shrouded in mystery and myth, and anecdotes and generalizations dominate even the academic press.

Since the early 1990s, the primary mechanism for promoting the Malaysian defence industry has been offset. (Pejabat Perdana Menteri Malaysia, 2010). Major acquisitions such as BAE Systems Hawk training and combat aircraft, Russian MIG-29/SU-30 MKM fighters, US F/A-18s, French/ Spanish Scorpene submarines and Polish battle tanks have been linked to technology transfer requirements through offsets. Further major weapon system procurements are planned for the Ninth Malaysia Plan period (2006-2010), including A400M Heavy Lift Aircraft, Frigate Batch 2 warships, Pilatus PC7MKII aircraft, Very Short-Range Air Defence (VSHORAD) Systems and Multiple Launcher Rocket Systems (MLRS). Malaysia's growing national income has funded these high-value defence acquisitions.

The country's GDP growth, measured in constant US\$ prices, increased by 65% between 1994 and 2004, the same as Singapore's

GDP growth over the same period (Australian DoD, 2007). Although there was no formal Malaysian offsets policy until 2005, the country's high-value defence procurements have long been associated with ad hoc and uncoordinated demands for offset investment. This raises the question of what contribution offsets have made to developing an 'indigenous' defence industrial base. The sensitivity of offset deals means that there is little academic research on the experience of individual countries and none in the context of Malaysia. This lack of empirical research is surprising, not least because proponents of offset deals consistently claim that they are a "win-win" arrangement for both the foreign seller and the buyer country. There is also a perception that offsets represent a "third way to industrial and technological development" that is more effective than import substitution or export promotion for the latter countries.

In the context of force structuring, it was essential to making a case for Malaysia's type of defence industry. In the aftermath of the confrontation, these arguments focused, first, on the role of indigenous industry in expansion or mobilization and, second, on the ability to adapt and sustain the equipment of the Malaysian armed forces in low-level conflicts. In general, however, Malaysian strategic policy focused on broader issues. Applying policy principles to the stockpiling and domestic production of war equipment in support of MAF operations received less detailed conceptual and practical attention than it deserved. Self-reliance support was still cited as a criterion for determining "priority industry capabilities in 2019" White Paper. However, one gets the impression that defence industry segments were only considered because they currently exist, and the claimed strategic utility of the Malaysian shipbuilding industry probably does not stand up to scrutiny.

The development of systems specific to Malaysia's needs is a more coherent consequence of self-reliance. For example, for many years, the US refused to provide Malaysia with a working electronic defence system for the F-18 Aircraft Fighters and the source code for the radar warning receivers on the F-18 fighters (needed to detect aircraft from Western manufacturers South-East Asia). Given Malaysia's geographic location, an over-the-horizon radar was practical for air and sea surveillance in northern approach areas. This is when Malaysia turned to its industry for technology transfer to develop its radar system and long-term planning for the local defence industry to achieve self-reliance. This is to avoid Malaysia reliance on their powers and resources rather than from other countries.

Specific geographic requirements were also at the forefront of developing the Fighting Armoured Vehicles (FAV) ADNAN and the future armoured fighting vehicles that will replace it. If Malaysia did not want to rely on allies for surveillance and land operations, it had to find its technical solutions on its responsibility. This is not to say that certain aspects and implications of self-reliance have not been contentious or even hotly contested - prioritising force structure and force posture and the importance of the indigenous defence industry issue on which there are still widely differing views. And not all considerations have constantly been fully developed or explained by all White Papers. The DWP document stands out for its overall importance in Malaysian defence and foreign policy discourse and for defining a force structure concept to support the development of the Malaysian armed forces, supported by both sides. Later, White Papers never explained in detail how capability decisions emerged from this or a similar framework. However, a significant departure from the Dasar Pertahanan Negara (DPN) strategy arguably did not occur until the advocacy of an amphibious role for the Army in defence of Malaysia in the 2019 White Paper.

There are also operational shortcomings. While the Malaysian Ministry of Defence requires the submission of the original equipment manufacturers offset package as part of the tender, the box details are the subject of protracted negotiations. As a result, on several projects undertaken over the last decade, the offset arrangements appear to have been made after the fact and not included in the tender. Besides that, suppliers were often not informed of the compensation requirements until after the bids had been submitted, causing difficulties for both offshore suppliers and Malaysian defence contractors. Suppliers were not advised of the offset requirements and therefore could not include the cost of the offset investment in their bids. In turn, potential beneficiaries did not have sufficient time to plan for the compensation work.

Another problem associated with subsequent compensation demands was the loss of leverage to obtain the best possible compensation package from the vendor. The lack of tailored offsets project teams participating in the initial stages of procurement planning exacerbated the problem. Pricing and technical issues should be priorities in the procurement process, but the quality of the offsets must also be at the forefront of the initial procurement negotiations. In this way, both the government and OEMs can plan for technology transfer and conduct a peer review of potential local technology recipients to ensure local capacity aligns with offset-driven technology transfer. In addition, there is no central coordinating and

long-term planning body responsible for offset management. This contrasts with the general trend of countries establishing an offsets office to manage, monitor, and plan offsets implementation and facilitate better communication, coordination, and knowledge of local industrial capacity.

Reviewing Procurement Policy

Defence procurement is a highly differentiated product, and its regulation is highly complex. The 'defence organization' and 'industry' are the two main parties involved in procurement processes. Domestic defence procurement has long been promoted in most countries in the name of 'self-reliance'. Therefore, defence planners need to identify their material requirements and the defence-related manufacturing and service capabilities required for the country. But how much "self-reliance" is feasible and desirable, especially in smaller countries, to gain total self-reliance of their local defence industry. We will discuss and reviews issues and policy tools in defence procurement, reflecting the experiences of several small and medium-sized countries. We will cover issues that include changing user requirements, make-or-buy decisions, procurement, source selection, organizational structure, and international cooperation. These topics are considered in the context of global trends in defence spending, industry, and trade.

One of the main objectives of Malaysian offset programmes is to promote local employment opportunities. The other main objective is to attract quality investment. There will inevitably be a policy conflict between capital-intensive and labour-intensive projects. It appears that capital intensity takes precedence because, as will be discussed later, several hundred Malaysian offset projects have failed to create significant numbers of local jobs. Notwithstanding this negative outcome, however, there is evidence that offsets have increased capacity, improved local capabilities, deepened industrial specialization, fostered the development of local supply chains, and contributed to the beginnings of foreign defence market penetration. A Sapura-Thales offsets-related joint venture has facilitated the development of local skills in supplying VHS communications equipment to the Malaysian Army. A final example of the Turkish offsets project, ACV 300, has enabled DEFTECH to win an order from Brunei to supply 69 Malaysian 4×4 HICOM Handalan II trucks.

Under contracts with the defence industry, many companies have also set up shop to manufacture low-tech "commodities" for Malaysia's Armed Forces. These firms supply ration packs, military

boots, uniforms, and parachutes to both local and regional markets. Glow trade, for example, supplies parachutes to the Malaysian Armed Forces and exports them to Brunei and several other ASEAN countries; Pakaian Saling Erti employs 300 people and manufactures uniforms and accessories, and Semenanjung Selatan supplies inflatable boats for combat quantity 15 Under Eighth Malaysian Plan (2000-2005), government spending on items as diverse as uniforms and accessories, medical equipment, laundry, tailoring, and footwear amounted to about \$28 million, spread over 98 contracts.

To expand the value chain of Malaysia's high value-added, high technology defence industry, the government established SMIDEC in 1996. This parastatal is under the Ministry of International Trade and Industry (MITI). It provides advisory services, fiscal and financial support, infrastructure facilities, market access and other services to facilitate the development of a local supply base. This initiative is just one example of the government's recent push to promote defence supplier development programmes. A vital element of this "indigenization" policy is defence compensation deals. Since the early 1990s, all Malaysian purchases of significant land, sea and air weapon systems have been from foreign suppliers, and all these deals have involved offsets to a greater or lesser extent. The procurement of Turkish APC 300 tanks, Polish PT91 tanks, South African G-5 guns, the Brazilian MLRS Astros 11 and EADS helicopters has enhanced the opportunities for local value addition to foreign military equipment. Local content has been achieved by creating industrial clusters of indigenous small and medium enterprises (SMEs).

Similarly, the compensation work associated with the 2002 procurement of Anti Air Missile MBDA JERNAS (SAM) has produced several work packages for vehicle installation kits and stowed equipment from which MMC Defence and SMEA have benefited. The contracts awarded to SMEA have supported the development of 12 civilian subcontractors in Selangor to manufacture tooling, drilling jigs and fixtures for sub-assembly. However, our very own local defence industry players have not helped create absorption capacity for defence technology beyond developing local maintenance, repair, and overhaul capabilities. There is little incentive for foreign defence companies to engage in meaningful technology transfer when local production volumes are low, and tooling costs are high. The lack of investment exacerbates the problem of promoting indigenous scientific and technological capabilities, both by the government and by offshore OEMs (Original Equipment Manufacturers) the latter is more likely to secure sales than to achieve the Malaysian Ministry of

Defence's objective of enhancing the self-reliance of the defence industry. (NST, 2019).

OEMs are reluctant to transfer high-technology packages that represent decades of expensive research and development. OEMs are also sceptical that Malaysia can become a defence platform manufacturer, or even a subsystems manufacturer, in the foreseeable future. Again, economic realities dictate that the sizeable global defence corporations view "small" developing countries as economically inefficient, given their high capital outlay, long lead times and significant uncertainties in recurring volume and export performance. While it is argued that OEMs have helped build local value chains, there is concern that, apart from a small amount of design work, these subcontracts are essentially simple 'metalworking' and 'build-to-print' activities.

CONCLUSION

To summarize this essay, the 2019 Defence White Paper was drafted by a government that lost power. It seems, however, likely that the reinterpretation of self-reliance and its overall decline in importance for Malaysian defence policy will continue. The general analysis of Malaysia's international environment, the priority on defence engagement and the focus on greater cooperation with Five Power Defence Arrangements (FPDA) are likely to endure. Indeed, the Pakatan Nasional (PN) government may focus even more on Malaysia's contribution to stability in Southeast Asia than its predecessors. Self-reliance was a valuable strategic concept to prepare for the defence of Malaysia against any incoming enemy in the absence of direct FPDA support. That this is not the primary concern of Malaysian protection anymore is not surprising. It would be problematic if there were a new conceptual framework to underpin the new evolving policy. Instead, the PN government still trotted out the term 'self-reliance' to justify Malaysia's defence acquisitions and force structure.

Still, the concept itself has been hollowed out as strategic concerns increasingly focus on engagement with the region. Force structuring requires a way of assessing sufficiency and determining priorities. While the latter may to some extent be determined by consideration of Malaysia's particular geographic situation, the former is impossible without a specific level of threat for planning purposes presuming that the aim, indeed, remains an ability to conduct autonomous operations. The 2019 Defence White Paper contains no indication anymore as to how the government approached such

choices. In coalition operations, the sufficiency of Malaysian contributions is mainly dependent on the political judgments and actions of partners and allies' considerations that the concept of self-reliance is ill-suited to address. Continuing to frame Malaysian defence policy as 'self-reliance' thus distracts from a clear articulation of how Malaysia intends to work with its partners and allies in defence of itself and the region. The era in which Malaysia's defence policy could be described as 'the search for self-reliance' (Jon Grevatt, 2019) is made publicly by the Minister of Defence. If the subsequent White Paper were to lay out a new conceptual framework to replace it for the future, it would be doing an excellent service not only to the development of Malaysian defence as good public policy but also to defence transparency and the understanding of Malaysia's policy in the region.

Fundamentally financial factors are an essential part of translating Army planning into a reality to lead targeted inspiration. In addition, economic factors were also seen to influence developments in the country's financial position in assessing the success of the development planned by the Army. The impact of the state of the national currency and the global economy also affected the Army's financial allocation distribution. The implementation of the stated method will enable the Malaysian Army to manage portions and resources cost-effectively. The savings achieved will encourage positive efforts on the elements of capability management to be carried out objectively. However, it is acknowledged that this provision is below the capability level to increase Malaysian Army capability to the full Mission Capable (FMC) level. It will also be affected by the need according to the current situation that may change. For OE provisions, although the projections are sufficient to meet the requirements until 2050, this provisional data is subject to the government's fiscal policy and monetary policy position at that time. This means that a review of the allocation should be carried out from time to time to assess the level of implementation capability and monitor the performance of the Army 4nextG budget achievement. Ongoing efforts will be made so that the OE allocation received by the Malaysian Army does not affect the procurement, maintenance, replacement, infra upgrade and vital equipment plans in the Malaysian Army which is Army 4nextG Strategic Development Plan. The Army 4nextG Strategic Development Plan aims to meet future defence needs and is structured in stages according to the predetermined phases.

REFERENCES

- Great Britain. (2005). *Defence Industrial Strategy, Defence White Paper: Cm. 6697*: Stationery Office Books.
- Stationery Office Books. (2003). *Delivering Security in a Changing World: Defence White Paper and Supporting Essays*: Stationery Office Books.
- Tentera Darat Malaysia. (2021). *Army 4NextG Teras Pembangunan Keupayaan Masa Hadapan (Tahun 2021 – 2050) Edisi 1.1*: Markas Tentera Darat.
- AIROD. (2021). *Company Profile (Airod, Kuala Lumpur)*, Viewed 8 August 2021, <http://www.airod.com.my>
- DEFTECH. (2021). *Company Profile (DEFTECH, Kuala Lumpur)*, Viewed 8 August 2021, <http://www.deftech.com.my/>
- Jon Grevatt. (2019). Malaysia prepares new defence industry policy, Viewed 11 August 2021, https://www.janes.com/defence-news/news-detail/malaysia-prepares-new-defence-industry-policy_16010
- Ministry of Defence: Malaysia. (2010), *Defence White Paper*, Viewed 12 August 2021, <https://www.mod.gov.my/en/information/defence-white-paper>
- NST. (2019). DWP outlines plans for self-reliant armed forces, Viewed 10 August 2021, <https://www.nst.com.my/news/exclusive/2019/12/544321/dwp-outlines-plans-self-reliant-armed-forces>
- Pejabat Perdana Menteri Malaysia. (2010). *Dasar Pertahanan Negara*, Viewed 9 August 2021, <<https://www.pmo.gov.my/dokumenattached/Dasar/Dasar-Pertahanan-Negara.pdf>>
- SMEO. (2019). *Company Profile (SME Ordnance Sdn. Bhd., Kuala Lumpur)*, Viewed 10 August 2021, <<http://www.smeordnance.com.my/>>

DEFENCE WHITE PAPER – A CONTINUANCE OF TRANSFORMATION STRATEGIES

By KOL DR NIZLAN BIN MOHAMED
ROYAL ARTILLERY REGIMENT

INTRODUCTION

“Give me six hours to chop down a tree and I will spend the first four sharpening the axe”

- Abraham Lincoln

The implementation of the Defence White Paper (DWP) promulgated in 2019 marked the enormous transformation of the national strategy particularly in the defence and security of the country. It is a momentous document that signifies the ultimate composure of defending this country from all walks of life. Strategically, it reflects a testament to the government's firm commitment to Malaysia's defence and resilience to protect national interests, particularly to defend its sovereignty and territorial integrity (Lai & Kuik, 2020). As Malaysia's inaugural DWP, it entails the government's stance on national defence, presents its outlook for strategic trends and outlines the national defence framework to pursue the vision of Malaysia as a secure, sovereign and prosperous nation.

This DWP accentuates three key intentions which are:

- ❖ Do not take national security for granted.
- ❖ The whole of government and whole of society approaches are central to national defence.
- ❖ Non-alignment and shared security are the basis of Malaysia's credible partnerships.

The DWP is developed based on the national security policy, Malaysia's main national security document. It recognises the important roles played by the Ministry of Defence (MINDEF) and the Malaysian Armed Forces (MAF) in leading the nation's defence, as well as the participation of other stake holders and the Malaysian people, in embracing the national defence eco system.

In a nutshell, the DWP is structured into three parts which are Vision, Strategy and Implementation. It covers the ends, ways and means for protecting Malaysia's national interests. As shown in **Figure 1**, the first part, which consists of the introduction (chapter 1) and strategic outlook (chapter 2), sets the direction of the national defence. The second part covers defence strategy (chapter 3), the future force (chapter 4), people in defence (chapter 5) and international defence engagement (chapter 6) and discusses methods and approaches to galvanise the internal and external resources available to Malaysia to pursue the three pillars of the national defence strategy. The third part, which comprises defence science, technology and industry (chapter 7) and reforms, governance and funding (chapter 8), details the government's initiatives or strategies to ensure the successful implementation of the DWP.

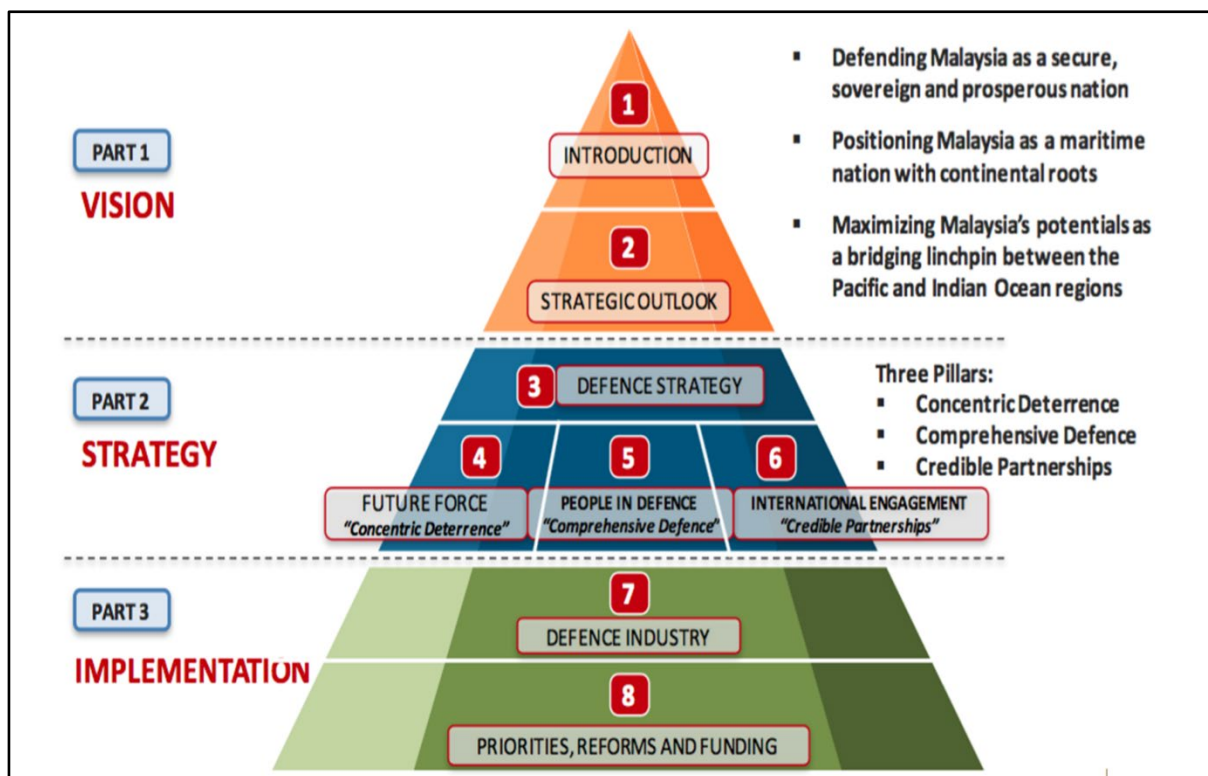


Figure 1: DWP Framework

In the process of executing the DWP, the MINDEF formed an interdepartmental group that was tasked with tackling various implementation issues. Six pillars were to be the central tenets of the implementation. These pillars are:

- Improving readiness and defence capabilities

- Enhancing defence capacity and competence
- Improving the welfare of personnel and veterans
- Strengthening civil-military cooperation (CIMIC)
- Development of defence science, technology, and industry
- Strengthening international cooperation

Across these pillars, five cross-cutting principles were important. Firstly, the implementation process had to be mission-oriented, in the sense that any effort the government undertakes must produce outcomes consistent with its intentions. Secondly, integrity and good governance must be emphasized to prevent leakages and effective delivery. Thirdly, the Armed Forces and the Ministry should see themselves leading the charge and becoming a catalyst for change and innovation. Fourthly, any implementation effort should be driven by data-centric methods. Finally, there must be a whole of government and whole of society approach to ensure participation by all, both within government and among all stakeholders.

FUNDAMENTAL STRATEGIES OF DWP

The continuity of strategies endured in the DWP is significantly tailored towards its proposed timeline. Effective and concurrent implementation of these initiatives is the ingredients towards ensuring a balanced, sustainable and productive defence ecosystem for the country in the long run, following the good governance principle. The DWP recognises the important roles played by the MINDEF and the MAF in leading the nation's defence as well as the participation from other stakeholders and the Malaysian people, in the national defence ecosystem. In realising this aspect, the DWP stresses pursuing the fundamental strategies by enforcing the defence transformations in institutionalising and restructuring a prudent and effective working relationship between MAF personnel and the civil service as well as the Malaysian citizens.

The implementation of defence transformations is carried out through the Defence Investment National Plan (*Pelan Pelaburan Pertahanan Negara, 3PN*) that emphasizes three major elements which are the defence capability transformation, defence capacity

transformation and defence industry transformation. The concentration of these defence transformations in sequence after the DWP is to develop the National Defence Industry Policy (*Dasar Industri Pertahanan Negara, DIPN*), subsequently followed by a Defence Capacity Blueprint (*Rangka Tindakan Kapasiti Pertahanan, RTKP*) to achieve the 3PN.

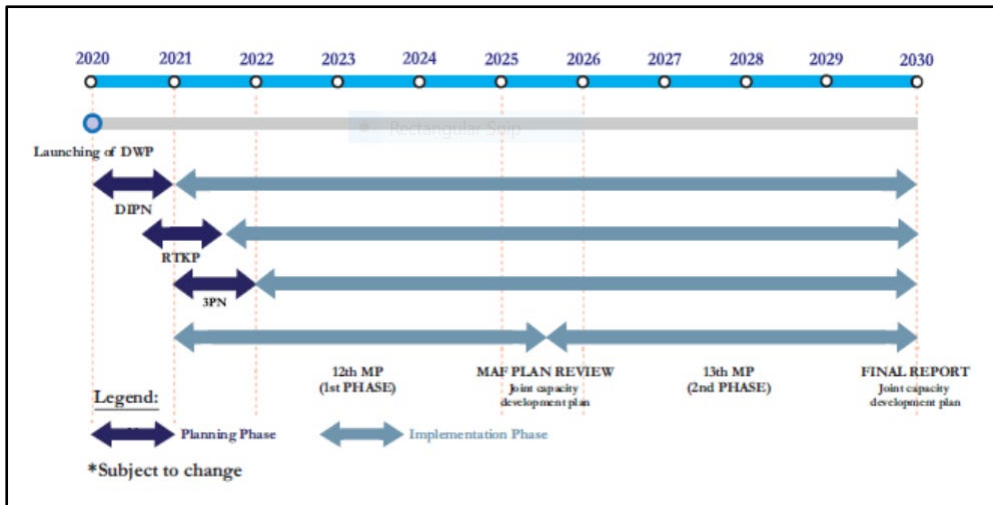


Figure 2: Defence Reforms Timeline

FORMULATION OF NATIONAL DEFENCE AND SECURITY INDUSTRY POLICY (DIPKN)

In tandem with the DWP, the subsequent action plan that needs to be formulated is the implementation of the National Defence Industry Policy (DIPN) or recently proclaimed as National Defence and Security Industry Policy (*Dasar Industri Pertahanan dan Keselamatan Negara, DIPKN*). This policy is specified in the defence industry transformation. The final draft of the policy is expected to be completed by end of 2021. The policy encompasses a wide range of national strategic plans for defence and security purposes in the country.

The defence and security industry (DSI) is a strategic sector of the nation due to its nature of contribution to the country's well-being. Ahmad Fajil et al. (2020) mentioned the industry offers a significant spillover outcome in terms of employment opportunities, signifies value-added and export market, contribution to the regional economic development; and its influence on other industries through innovation perspectives. The national defence and security industry as a strategic sector covers a wide range of activities ranging from research & technology, training & education, design & engineering,

manufacturing, integration and servicing of military, security and enforcement materials, equipment and facilities across the automotive, aerospace, maritime, ICT, weaponry and other defence and security shared sectors.

The effective and efficient use of technology underpins modern defence capabilities and enables operational advantages such as controlling airspace, providing real-time situational awareness and intelligence gathering.

As the industry evolves, the government investment in defence technology ranges from buying “off-the-shelf” through providing manufacturing dimensions to building fundamental research and technology for indigenous capacity and capability. Dual-use products and services become more dominant in the market as it provides better supply chain management and increase industry sustainability. In formulating the DIPKN, the emphasis of DSI examined 4 key areas which are:

❖ **Human Capital Development** - The policymakers are placing high importance to nurture and developing skills and talent to ensure sustainability incompetency and capability. It is also vital to absorb knowledge related to IR4.0. Hence, the smart collaboration concept is meant to produce a relevant and highly skilled workforce for the local industry. Preparing the future talent with the latest technology know-how will ensure the industry’s readiness and sustainability.

❖ **Industry Development** – Industry development is very well covered by a majority of the policies and initiatives. This underlines the efforts by policymakers to build better current industry productivity, capacity and capability. Strong emphasis on empowering the SMEs to evolve into technological competent companies, with the emergence of Industry 4.0 and cross-sectoral activities complement the existing industries for greater conducive industry prospect.

❖ **Technology Development** – Partnership and cooperation between government, industry and research institutions are the basis for the development of research and technology to enhance local industrial capabilities and capacities. IR4.0 has become a future potential and value creation. In emerging industries, with pervasive applications such as the Internet of Things (IoT), and Artificial Intelligence (AI), the dual-use application can be utilized widely.

❖ **Self-Reliance and Global Market Penetration** – Self-reliance and global market penetration are less approached in this context. Hence, these two driving forces can only be achieved when human capital, technology and industry are optimally developed. MITI and MINDEF are two ministries supporting the initiatives to penetrate the global market in the commercial and defence sector. The expansion of these capabilities involved the integration of 4 sectors namely: aerospace, maritime, automotive and information and communication technology.

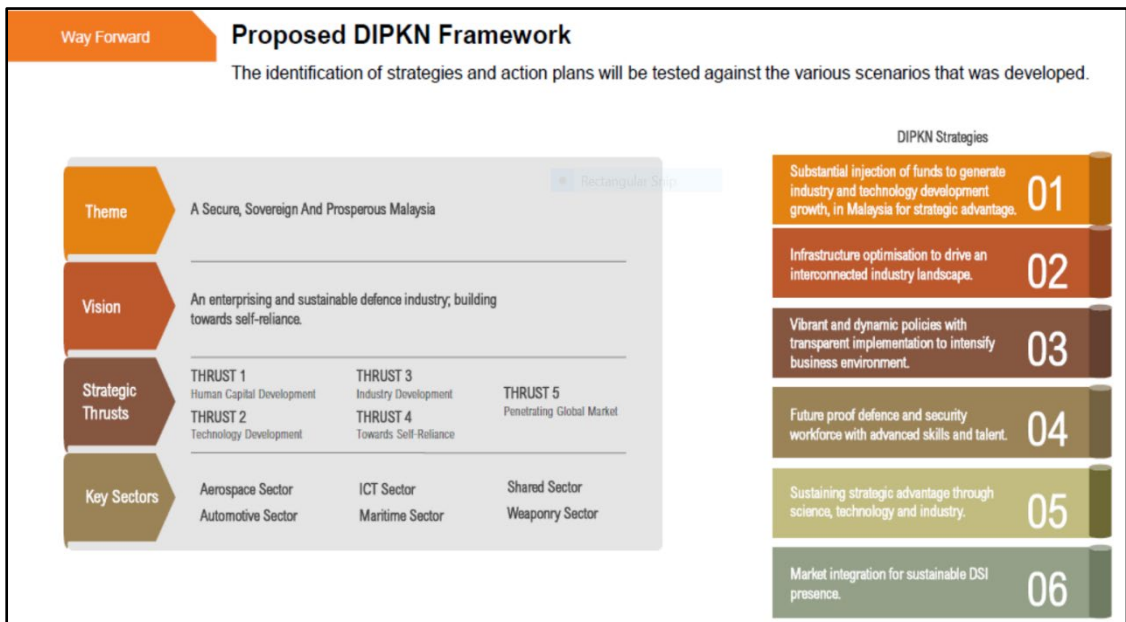


Figure 3: The Proposed Development Of DIPKN

IMPLEMENTATION OF DEFENCE CAPACITY BLUEPRINT (RTKP)

The subsequent initiatives in accordance with the formulation of DIPKN, hence empowering the human resources capacity is by establishing the Defence Capacity Blueprint (*Rangka Tindakan Kapasiti Pertahanan, RTKP*). This defence reforms strategy is stated under the defence capacity transformation. The emphasis of this strategy is to maximize the effectiveness of the human resources capabilities in the defence workforce, particularly personnel in the regular and volunteer forces as well as those in civilian counterparts in the defence and security establishments.

To capitalise on the cooperation between all three services of the MAF and through the jointness camaraderie concept, a Joint

Force Command (JFC) is established to further fortify this synergy. The development and enrichment of professional soldiers will be implemented through a combination of education, training and self-development programmes. The focus will be channelled to enhancing science, technical expertise and management towards creating smart and skilful soldiers.

The significant roles of veterans in the projection of the defence capacity blueprint are certainly acknowledged from their invaluable contributions and sacrifices to the country. The government through this strategy will continue to explore new initiatives to further increase the veterans' competitiveness in the job market by utilising their experience and skillsets gained during their services in the military. This would include strengthening the employment opportunities in the public and private sectors. The government plans to create a specialised cluster of defence and security personnel to allow civilian officials and professionals to be rotated among the core security and defence agencies to ensure a beneficial institutional memory and policy coherence in the defence and security cluster.

The government will identify efforts to encourage the citizens, particularly the younger generation to participate in national defence through existing mechanisms such as the volunteer forces. The RTKP will also foresee new efforts to instil patriotism spirit among all citizens as it develops the foundation for achieving comprehensive defence. The RTKP will also outline approaches to cultivate talents in defence science, technology and industry fields. In this regard, the government is committed to strengthening the education and research ecosystem. This will include working closely with reliable partners to train officers in defence-related R&D.

DEFENCE MECHANISM DEVELOPMENT OF DWP

Concurrently, under the defence transformation, the defence mechanism development is strategized under the defence capability transformation. The main essence of this transformation under DWP is to modernize the MAF to face new and emerging threats, such as cyber warfare, non-traditional threats warfare, and increasing maritime challenges. Prior to the introduction of the DWP, each service branch had come up with a separate service-centric capabilities program in line with the future force namely the Army4NextGen for the Army, 15-to-5 Transformation Programme for the Navy, and CAP55 for the Air Force. These programs fell under the umbrella of "4D MAF" or Four Dimension Malaysian Armed Forces

and the National Military Strategy (SKN). All the programs designed are suited and strategized in line with the DWP aspiration.

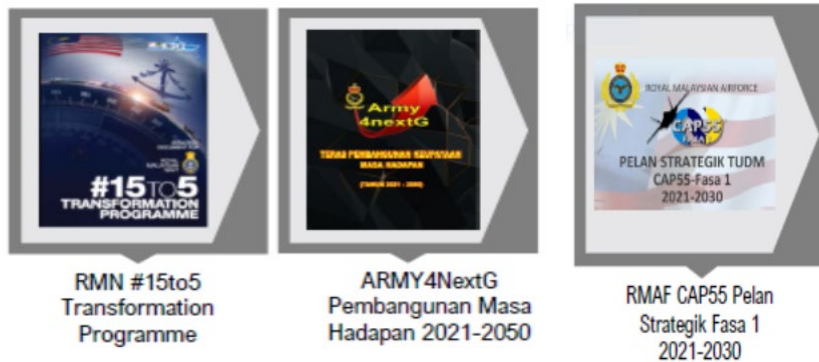


Figure 4: MAF Tri-Service Strategic Plan

NATIONAL MILITARY STRATEGY

The MAF are on the verge of improving the National Military Strategy (*Strategi Ketenteraan Negara, SKN*) 2.0 document which cohesively propels the country towards a sovereign, secure and prosperous Malaysia. In the process of culminating the strategy, the defence mechanism is structured in accordance with the developments of military core elements of national power and other national policies. Eventually, the SKN 2.0 was formulated to provide a wide range of military options in dealing with crises, conflicts and wars that could happen to the country.

Relatively, the SKN 2.0 also emphasises the reform of the 'Forces of the Future' through features that include togetherness, interoperability, technology-based, ability to operate simultaneously in two regions and mission-oriented. The future force reform must be implemented in detail through a design approach driven by a clear direction as well as force development incorporating the entire mechanism such as human resource capacity, military assets capabilities and decisive strategical measures.

FOURTH DIMENSION MALAYSIAN ARMED FORCES (4D MAF)

In the rapid changes of the global and geo-regional strategic environment, meshes with the development of emerging technologies and revolution of military affairs will shape the future wars. In view of this eclectic composure, the MAF had adopted a capability-based development plan and progressively endure towards future force structure that is known as Fourth Dimension Malaysian Armed Forces or 4D MAF. The MAF fully holds that this endeavour will address the

capability gap and enhance its future capabilities in warfighting and providing credible deterrence. The strategic 4D MAF plan has three key elements which are a joint force, information superiority and multi-dimensionality in subsurface, surface, air and information realms.

4D MAF main aim is to transform MAF into a “joint and versatile force capable of depicting a deterrent posture”. The plan also stipulates MAF’s intention to structure its development beyond 2020 through a capability-based approach. This new approach is to restructure from its traditional threat-based approach, which has been the basis for its transfiguration in the 2nd and 3rd dimensions. In the current phase, MAF endeavours to develop core capabilities to meet multi-spectral challenges through a combination of capability-based and network-enabled forces (Ananthan & Inderjit, 2014). In the process, some of the identified critical capabilities are enhancing combat power, protection of bases, persistent surveillance, leveraging on information technology and the ability to deploy rapidly (MAF HQ, DPD, 2013).

ARMY4NEXTG (A4NG)

The essentiality of Army 4NextG is to prepare the Malaysian Army to face the multi-domain operating environment in the future landscape. This army capacity strategic development plan is enacted as a guideline for all leaders and all army personnel in the next generation to comprehend the capacity development plan and strategize the future mechanism of the Malaysian Army across the period of 30 years from 2021 to 2050. This comprehensive plan is derived from the DWP, the national military strategic requirements and the principles laid down in 4D MAF.

The Army 4NextG is a long-term strategic plan for the army’s operational capabilities, supported by systematic capacity development management with emphasis on the goal of capability detection, survival and strike, sustainment, protraction and nation-building. Evidently, the plan would be part of the force in the future that would allow army personnel to perform their tasks in a multi-domain environment.

The architectural planning is constructed using technology-based which includes information and communication technology (ICT), weaponry technology advancement, human resource development and training as well as planned logistics management. The Army 4NextG focuses on the establishment of an army covering elements of combat, combat support, service support as well as

human capital development to enable army personnel to respond to diverse situational threats.

In today's technological advancement, our country needs to have a military force that can identify multiple threats, be able to distinguish the threats faced, thus enabling us to take swift action based on the situation. The Army 4NextG emphasizes intelligence gathering and intellectual input to deal with eccentric threats and changes in the geostrategic environment in ensuring national sovereignty and the well-being of the people are preserved.

MALAYSIAN ARMY STRATEGY

The 28th Chief of Army (COA) Superior Order outlines the three principles and five pillars (3P+5T), which are applied as a driver for the Malaysian Army towards excellence. COA stated that the 3P + 5T concept is in line with the action plan and aspirations of the top leadership of the MINDEF and MAF. During the 88th Army Day Celebration, the COA explained the theme “Synergy of Army and People: Pillars of National Sovereignty”, was raised as a manifestation of commitment to strengthen the cooperation between the Malaysian Army and the government through the implementation of Defence White Paper (DWP).

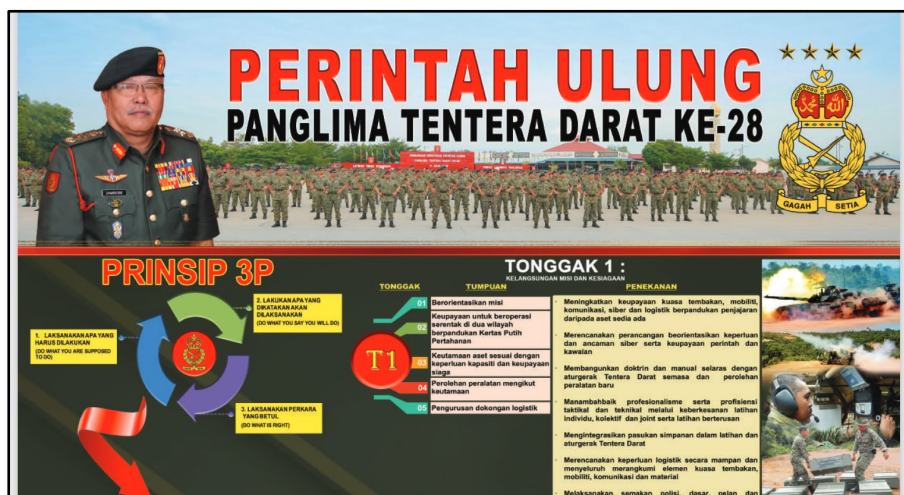


Figure 5: Excerpt Of 28th COA Superior Order

The first principle stated that each army personnel has the responsibility to carry out their duties to ensure the organisation is managed effectively and efficiently thus achieving the set mission. Subsequently, the second principle elaborates that all army personnel must walk the talk, as their commitment and strive towards

accomplishing their task is to be carried out prudently. Hence, the third principle specifies that efforts to achieve the mission and fulfil their responsibilities are significantly dependent on each army personnel's ability to do things correctly in accordance with the rules and regulations.

The 5 pillars or 5T concept reckon that all parties and Army personnel require to carry out their respective obligation to the country. In the first pillar, namely "mission continuity and preparedness", the Malaysian Army has successfully developed the army strategic management system (2021-2025) as a guideline for effective strategic management planning. The acquisition of assets to enhance the ability to operate in the two regions simultaneously is also in full swing.

For the second pillar, "organizational integrity", the army structuring process is showing a very positive development. Restructuring of assets and human resources to support the army operational functions in the two regions is underway. Meanwhile, the third pillar, namely "preservation of personnel's well-being", emphasizes efforts to upgrade and address the issue of military housing, which is the focus to improve the well-being of the army personnel.

The fourth pillar, "strengthening defence relations", states the implementation of regional and international cooperation activities, thus continuing to implement diverse approaches by utilising the use of virtual media. The fifth pillar, "improving army and civil relations" shows the efforts and commitment of the army in providing assistance and cooperation to the government and the people in the implementation of "military operations other than war" (MOOTW).

In continuing its efforts to achieve the set targets, the COA also outlined three key factors identified as obstacles and challenges, namely finance, pandemics and leadership. These three barriers should be addressed prudently to ensure that all planned targets are not hindered or disrupted. The COA specifically emphasized the three main focuses that need to be implemented in the long run to achieve the target, namely implementing a reassessment, setting a precise commitment, and implementing the normalization process.

All these strategies are cascades down to encapsulate the overall mechanism of defence and security of the nation to prepare for current and future engagements. These strategies are constructed to meet the enduring challenges encounter by the military

organisation together with other government agencies in facing the reality of today's circumstances.

Let us embrace this united organisation with a saying, *"No matter how much falls on us, we keep ploughing ahead, That's the only way to keep the roads clear"*. In realising these circumstances, we must also need to rectify and comprehend the real predicament we are facing and address these phenomena accordingly.

LANDSCAPE OF EMERGING TECHNOLOGIES CHALLENGES

Amidst this COVID-19 period witnessed how information and communication technologies (ICTs) become increasingly entangled into the fabric of our daily work and lives. Jones et al. (2021) specified that the use of social media to communicate, interact and share information with others are significantly increased since 2020. The rise in personal, business and government data transactions through the internet and between devices have inadvertently exposed users to the risk of cyber threats. Ever since the pandemic outbreak, the world has undergone more accelerated and dynamic digital transformation, pushing people, businesses, and governments to adopt digitalisation in adapting to the new norms.

The emerging and disruptive technologies such as IoT, Cloud Computing, Big Data, Deep Learning, 5G and Artificial Intelligence (AI) have exposed military operations to cyber threats. They may disrupt system functions, as well as modify and steal data. As mentioned in the DWP, the country's cyber governance, led by the National Cyber Security Agency (NACSA), necessitates more coordination, cooperation, enforcement, investment and seek more active response strategy across the span at the national, state, corporate and community levels.

In facing the uncertainties in the rapidly evolving digital era, the government is determined to take effective measures to protect the country's Critical National Information Infrastructure (CNII) from cyberattacks. Malaysian defence planners are developing a coherent cyber doctrine in line with the Malaysia Cyber Security Strategy (MCSS) to enhance defence resilience and cyber security that requires among other things, putting in place the right management and operational governance mechanisms with cyber-savvy manpower and the right technology.

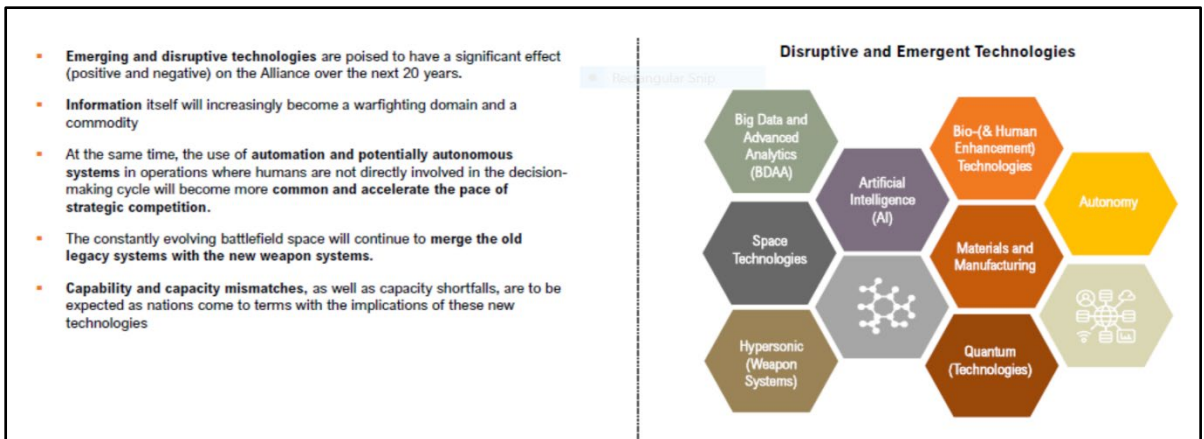


Figure 6: Global Emerging Technology Challenges

As such, no one in the field of cybersecurity and environmental has suggested that cybersecurity is an important tool for economic development, but at the same time, the target of cyber threats to critical infrastructure from defence perspectives has become extra critical given the harsh environmental conditions and vast distances.

As a reflection towards the cyber realm in the DWP, this implies the need to create a plan at the intersection between emerging technologies such as cybersecurity, artificial intelligence and harsh environmental conditions. In this new way of thinking, the environment, cybersecurity and critical infrastructure interact with social and human intelligence determinants. Cybersecurity needs to be reconceptualised from the green perspectives that link it to environmental considerations to ensure sustainability regarding both environmental and human security issues as well as a healthy, stable global ecosystem.

The cyber domain is similarly becoming an increasingly more important space. The use of cyber capabilities enables both enemy nation-states and non-state actors to influence the hearts and minds of the people and the international community, to target otherwise physically hardened areas, and to hide their activities from the public eye. It enables hybrid warfare, further blurring the line between traditional and non-traditional security threats. Meanwhile, the development of artificial intelligence combined with the cyber domain will make the current inventory of weapons even more lethal, as exponentially increasing computing power will also lead to faster target acquisition and processing, thereby shortening the kill chain.

As for the MINDEF and MAF standpoint, the essentiality to keep abreast with the advanced technologies equipment to uplift the defence and security paradigm in the country is vital. Accordingly, *“the cyber security and defence aspects of the MAF are monitored at all times to counter any threat that could disrupt the MAF defence communication network”*, as mentioned by the MAF Chief General Tan Sri Affendi Buang.

Appropriate actions and measures needed to be implemented by cyber system administrators as a measure to address any possible cyber-attacks by foreign elements that could disrupt the operation of the MAF and MINDEF cyber system. *“MAF always monitors and steps up its cyber security through its Defence Cyber and Electromagnetic Division (DCED) and the Cyber Defence Operations Centre (CDOC). DCED and CDOC not only strengthen the MAF’s monitoring and defence communications network but also protect the country’s strategic defence communications network,”* the MAF Chief said in a statement recently.

Obviously, the accelerated growth in the use of digital technologies posts COVID-19, including the sudden shift from the conventional office environment to working from home has increased security risk and exposed us to various *modus operandi* of cyber-attacks, including through email, social media and mobile application platforms.

COLLABORATION INITIATIVES - NATIONAL TASK FORCE (NTF) AND CIMIC

NTF was established on May 6, 2020, aiming to strengthen the country's border control from the entry of illegal immigrants to curb COVID-19. This operation is implemented by mobilising integrated forces to control the land, maritime and air, through the 6D method, namely Deter, Detect, Deny, Detour, Detain and Deportation.

MAF was appointed as the lead agency in the NTF along with the Royal Malaysia Police, the Malaysian Maritime Enforcement Agency (MMEA) and 15 other enforcement agencies including the Health Ministry (MOH).



Figure 7: National Task Force Composition

Eventually, the NTF has made a significant breakthrough with the involvement of the security forces together with other 19 enforcement agencies and MOH through the implementation of Operation *Benteng*. This major operation is deemed to be an extraordinary mission entrusted by the national leadership. Interestingly, these 19 agencies are a mixture of uniformed forces and non-uniformed government agencies and pertinent departments.

With all the collaboration effort in this operation, NTF succeeds in tightening land and sea border controls and facilitating the work process of each agency. This relates that most aggression activities are interconnected with other cross-border crimes. Besides that, NTF also coordinates the sharing of intelligence information between the agencies involved through the Combined Intelligence Working Group and coordinates the logistics procurement of the agencies. Previously, Operation *Benteng* has recorded 10,234 multiple cases of offences committed until 22 August 2021.

The integration of the land, sea and air components under the NTF also succeeded in enhancing cooperation in terms of information sharing from the tracking system and strengthening the communication system network. This synergy operation and the prevalence of NTF certainly reflects three main messages in the DWP: avoid taking national security and defence lightly, emphasize the mobilisation of the entire government and society (the whole of government and whole of society), and also the credible partnerships for national security both from internal and external of the country. Thus, NTF success can be used as a cornerstone and benchmark for further cooperation to be explored and implemented by the

government, private sectors, NGO's and other agencies across other fields for the benefit of the country.

Additionally, the government is increasingly extent the Civil-Military Cooperation (CIMIC) activities to support the comprehensive defence pillar. CIMIC activities represent the MAF's primary mechanism for synergy effort with civil agencies and the Malaysian citizen.



Picture 1: Joint Forces Headquarters CIMIC Program In Kuantan

Continuous participation by the Malaysian citizen together with MAF personnel in activities raise the public's awareness of the importance of security and defence agenda. This includes grassroots programmes organised by civil society organisations, social groups, NGOs and individuals, to facilitate events with common values and serve the national interest. There are numerous CIMIC activities organised, which includes engaging in coordinated events of vaccination activities for local citizens organised by Joint Forces Headquarters with civil authorities in Sg Panching, Kuantan, Pahang recently. It involved 68 military personnel with a total of 1836 civilians (1st dose) and 1794 civilians (2nd dose) in these activities that commenced for 6 days from 3rd August until 5th August and 24th until 26th August 2021.

CONCLUSION

The consequences of the reality we are facing are certainly apparent and requires strategic coordination and cooperation as clearly stated in the DWP. Amid the pandemic situation nowadays, we need to gear up, anticipate and make necessary amendments to our

present planning procedures based on the current circumstances. The need to maximise and synergize our effort from all agencies requires firm dedication and commitment from all walks of life. Ultimately, the DWP represent the aspiration and way forward for the government to shape the nation for the next 10 years. It is a culmination of our determination, perseverance and willpower to ensure the survivability and sustainability of the country. We must also reaffirm our pride, dignity, and resilience to nurture the country and prevail in years to come.

The sensible outcomes of the DWP are to ensure the government of Malaysia's commitment to pursue the three pillars of strategy, namely concentric deterrence, comprehensive defence and credible partnerships in line with the vision of Malaysia as a secure, sovereign and prosperous nation. As mentioned by the Prime Minister, that pledge to serve the best for the nation will uphold three principles namely to be sensitive to people's needs, responsible and honest to restore the confidence of the people.

"How far that little candle throws his beams! So shines a good deed in a weary world"

- William Shakespeare

REFERENCES

- Jones. R., Mougouei. D., & Evans. S. L. (2021). Understanding the emotional response to Covid-19 information in the news and social media: A mental health perspective. *Human Behavior and Emerging Technologies*, 1– 11.
- Mohamed Fajil Abd. Batau, Nazariah Osman, Mohamad Faisol Keling (2020). Kepentingan Industri Pertahanan Malaysia Kepada Keselamatan Negara, *Malaysian Journal of Social Sciences and Humanities (MJSSH)* 5(2), 7 - 12, 20.
- S. Ananthan, S. Inderjit (2014). Capabilities-Based Planning for Force Development: Issues and Challenges for the Malaysian Armed Forces, *ZULFAQAR International Journal of Politics, Defence & Security*, (1), 1-12
- Yew Meng Lai & Cheng-Chwee Kuik (2020): Structural sources of Malaysia's South China Sea policy: power uncertainties and small-state hedging, *Australian Journal of International Affairs*, 1-28.

<https://refsa.org/where-is-defense-reform-in-malaysia-headed/>

<https://www.army.mod.gov.my/index.php/ms/>

<https://www.mafhq.mil.my/index.php/en/#HkhxQVuyBzw>

<http://www.navy.mil.my>

<http://www.airforce.mil.my>

<http://www.mod.gov.my>

<https://www.nst.com.my/opinion/columnists/2021/07/704835/national-task-force-realises-total-defence-concept>

<http://www.jointforces.mil.my/index.php/en/about-us/mkab-history>

<http://www.jointforces.mil.my/index.php/en/about-us/function-and-responsibility>

<http://www.onenews.my/strategi-ketenteraan-negara-2-0-asas-pembangunan-nasional/>

<https://www.utusanborneo.com.my/2021/09/22/tambah-baik-dokumen-strategi-ketenteraan-negara-20-dalam-peringkat-akhir>

<https://www.pmo.gov.my/dokumenattached/Dasar/Dasar-Pertahanan-Negara.pdf>

<https://www.thestar.com.my/news/nation/2021/05/18/military-constantly-monitoring-cyber-threats>

<https://www.straitstimes.com/asia/se-asia/malaysias-armed-forces-confirms-cyber-attack-on-network>

<https://www.thesundaily.my/home/atm-ensures-defence-communication-network-monitored-at-all-times-atm-chief-DE7868261>

<https://digital.gov/topics/emerging-tech/>

<https://www.malaymail.com/news/what-you-think/2021/09/16/in-defence-of-the-defence-white-paper-liew-chin-tong/2006022>

<https://www.straitstimes.com/asia/se-asia/malaysia-unveils-first-defence-white-paper-critics-find-10-year-plan-lacking>

https://www.delltechnologies.com/uploads/2019/11/A-Perspective-on-the-Emerging-Technology-Landscape_John-Roese.pdf

MAF HQ - Defence Planning Division. (2013). Capability management and development in MAF. Lecture at NDUM, Kuala Lumpur.

Strategy working workshop seminar on NDSIP conducted by MIGHT/BIP in June 2021.

DEFENCE WHITE PAPER (DWP): STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY

**By KOL ISHAK BIN JUHARI
ROYAL ENGINEER REGIMENT**

INTRODUCTION

National Defence Policy is a mechanism or system that aims to maintain sovereignty and protect national interests. This policy is designed based on geographical, socio-economic factors, internal and external threats which are contributors and influence the implementation of the National Defence Policy. From a geographical point of view, Malaysia's strategic position between the Straits of Malacca and the South China Sea is also a link to the route between the Indian Ocean and the Pacific Ocean. This situation exposes Malaysia to any possibility and threat which is not impossible if this route is seized by regional countries and the world's great powers in the future. This position also makes the waters of this area the busiest route in the world. So the possibility of a disaster that will affect the security of the environment and the Malaysian economy cannot be denied. As a precautionary measure and early preparation, Malaysia needs a National Defence Policy that is sustainable and always relevant to the time and circumstances.

The National Defence Policy approved by the National Security Council in 1987 is oriented and focused on internal threats and more focused on local defence. In 1991 it was re-analysed by focusing on national strategic interests, regional security interests as well as internal interests based on the following capabilities and needs: Self-Reliance. Regional Co-operation. External Assistance. The implementation of this National Defence Policy is not only focused on the Armed Forces but also the commitment of all parties, government and non-government as well as all Malaysians together to work together to defend the country's sovereignty. To realize this, the Comprehensive Defence Concept (HANRUH) has been introduced as one of the elements contained in the National Defence Policy. This concept requires the involvement of all national resources, materials and people's energy to be mobilized when necessary. To provide a large and complete armed force requires a large allocation of expenditure. On the realization that military strength alone is not enough to guarantee national security and national expenditure can be leveraged on other developments, the concept of Total Defence was formed. The concept of Comprehensive Defence is not only

specific to the military aspect but also includes social, economic, psychological and civil defence. This concept has long existed and been implemented, for example the creation of RELA teams, Rukun Tetangga and so on. However, it is not taken seriously, the lack of precise and positive commitment from government agencies and the cold response by the local community shows the notion that national security is solely on the shoulders of the military and cannot be denied. The latest development is the implementation of National Service to school leavers. The purpose of this program introduced is to overcome the growing social problems and instil a patriotic spirit that is increasingly eroded among the young youths now. The draft implementation is still under discussion and is expected to be launched from 1 January 2004. Responsibility has been handed over to the Minister of Defence as Chairman of the Cabinet Special Committee to formulate the program. Whether the implementation of this program will succeed in overcoming the above two problems is still a question.

This Defence White Paper (DWP), the first by Malaysia, embodies the Government's firm commitment to strengthen national defence. It presents the Government's strategic outlook for the coming decade, sets forth the direction for the defence sector and formulates a long-term strategy for defending national sovereignty and territorial integrity from all forms of external threats and security challenges. As a Government paper, this DWP outlines a national defence framework to safeguard Malaysia's interests. It recognises the important role played by the Ministry of Defence (MINDEF), the Malaysian Armed Forces (MAF) and other relevant agencies, in ensuring Malaysia is secure, sovereign and prosperous. The MAF, with the Yang di-Pertuan Agong as its Supreme Commander as enshrined under Article 41 of the Federal Constitution, serves as the nation's protective shield. The Armed Forces Act 1972 governs the roles and functions of its three Services, i.e. the Malaysian Army, the Royal Malaysian Navy (RMN) and the Royal Malaysian Air Force (RMAF), alongside the Volunteer Forces.

The DWP aligns defence policy with the Government's national security policy, foreign policy and other related policies in accordance with the whole-of-government approach. This inaugural DWP presents a Malaysian national defence vision, which balances the near and long-term national interests, strategic needs and fiscal considerations. It affirms the Government's commitment to invest in Malaysia's defence capabilities and resilience in a sustainable manner. Naval, military and air forces and other armed forces; arms, fire-arms, ammunition and explosives; national service; and civil

defence. manoeuvres; defence works; military and protected areas; naval, military and air force bases; barracks aerodromes and other works; war and peace; alien enemies and enemy aliens; enemy property; trading with an enemy; war damage; war risk insurance; any armed forces attached to or operating with any of the armed forces of the Federation; visiting forces

THE MALAYSIA ARMY IS COMMITTED TO SUPPORT THE GOVERNMENT AND CITIZENS IN ANY SITUATION

The Army is always committed in helping the government and the people in any situation regardless of natural disasters or health disasters and is always ready to work with other government agencies. This is evidenced through the cooperation established in preventing the spread of COVID-19 epidemic through the implementation of OP PENAWAR and OP BENTENG where the involvement of Army in both operations showed a very significant success. Today, we are in an era of fifth -generation warfare that demands Army balance its ability to deal with multi domain and complex threats. New, more comprehensive strategies and approaches need to be taken to address the various threats in accordance with current needs, so a defence strategy with the concept of Whole of Government and Whole of Society has been formulated. In line with the concept of Whole of Government and Whole of Society, the 88th Army Day celebration this year themed Synergy of Army and People: Pillars of National Sovereignty was chosen in accordance with Army commitment to prioritize cooperation between army and the government and society. government in the implementation of the National COVID-19 Immunization Program to coordinate the COVID-19 Vaccination Program nationwide where the Deputy Chief of Army Staff was appointed as the Joint Project Director in the Project Management Team for the COVID-19 Immunization Task Force.

The cooperation between army and the people is also evidenced through the Jiwa Murni Program (PJM) which involves efforts to repair homes and public facilities where the implementation of various PJM clearly reflects the close relationship between army, government agencies and the people. Apart from the role played by TD, the people can also play their respective roles in helping army in defending the country's sovereignty where contributions from the people are needed for TD to deal with threats coming from various angles. The Army Strategic Capability Development Plan (Army 4NextG) 2021-2050 is a long-term strategic plan based on Army ability to operate simultaneously in two regions. nation building. Army

4NextG will prepare army to be part of a future force capable of performing tasks in a multi-domain environment. The Army 2021-2025 Strategic Management System Handbook is a reference and guide for all levels of TD governance to achieve the vision, mission and objectives set based on the values and elements contained in the Army Strategic Plan and it also supports the Defence White Paper, Plan MINDEF Strategic, ATM Strategic Management System 2021-2025, 4D MAF and Army 4NextG 2021-2050. The Army is also committed in realizing the National Military Strategy (SKN 2.0) and the Fourth Dimension of the Malaysian Armed Forces (4DMAF) as one of the initiatives to strengthen the Malaysian Army in carrying out its mission. In addition, the Malaysian Army is also involved in various global peace missions at both the regional and international levels. Starting from the Second World War, confrontation, emergency, dealing with the threat of communist terrorists to the incident of aggression in Lahad Datu, all these events have matured the Malaysian Army.

The Malaysian Army has also exhibited excellence in various world peace missions both under the banner of the United Nations and other humanitarian missions. Apart from being actively involved as an observer, the Malaysian Army has also been prominent in its deployments in Namibia, Somalia, Cambodia, Bosnia Herzegovina, Timor Leste, Afghanistan and Lebanon. The Army has also been entrusted to lead the International Monitoring Team (IMT) in Mindanao, Philippines. The 28th Order of the Commander-in-Chief of the Army which has been outlined as based on three principles and five pillars that are being implemented will determine the success of the Malaysian Army in carrying out military operations as well as humanitarian aid missions. The five pillars are the continuity of the mission and vigilance, organizational integrity, preservation of the well-being of citizens, strengthening of defence relations and enhancing the Malaysian Army's relationship with the public will be the main guides. The action plan drawn up has started to show positive achievements although we are still facing various challenges including the Covid-19 pandemic that hit since the beginning of last year. Several challenges are faced by the Malaysian Army to achieve the highest level of alertness in safeguarding the interests and defending the country's sovereignty. In line with efforts to enhance the capabilities of the Malaysian Army, several new asset acquisitions have also been successfully implemented including the acquisition of the 8 X 8 Gempita Armored Car and the addition of 105MM Cannon units. Several other successes can be seen in terms of operations, administration and logistics. Another achievement is the effectiveness of operations carried out by the Malaysian Army in helping the

government manage disasters whether health disasters or natural disasters. The Army is also directly involved in controlling the spread of Covid-19 through Ops Benteng through cooperation with other authorities. In addition to increasing comfort in the Army Family Homes and technical buildings, we have also intensified comprehensive welfare visits to each formation.

The Army is improving the Career Path System for Officers and Members of the Malaysian Army where better opportunities are provided for promotion purposes. The Malaysian Army is developing a Strategic Capability Development Plan or Army for The Next Generation (Army 4NextG) which is a dynamic plan and focuses on comprehensive development encompassing combat troops, combat assistance and service assistance. In general, Army 4NextG is specifically designed to meet the needs of the next generation of the Malaysian Army by taking into account the diverse spectrum of warfare, the volatile geostrategic environment as well as the rapid development of defence technology in the future. In fact, the Malaysian Army will also move one -third of its total strength of 80,000 officers and members to Sabah and Sarawak to further enhance defence capabilities there.

STRENGTHENING THE ARMY FIST

The Malaysian Army is committed to strengthening its grip in 2021 by focusing on the operational, governance and logistics aspects so that the mission and vision can be implemented more effectively. In addition, TDM will continue to operate the Defence White Paper (KPP) which is the basis of TDM's strategic planning and is committed to realizing the National Military Strategy (SKN 2.0) and the Fourth Dimension of the Malaysian Armed Forces (4DMAF).



Picture 1: Malaysian Army In Action

❖ Aspects of movement

Apart from continuing to acquire strategic assets to complement the ability to operate two regions simultaneously, Malaysian Army will also improve existing policies and directives. This is one of the efforts to enable Malaysian Army to continue to operate either in core operations or operations to assist the government in humanitarian and natural disaster operations. Malaysian Army will also equip members' combat and personal equipment needs to 100 percent. Personal equipment is an important aspect not only in terms of increasing the level of alertness of Malaysian Army personnel in the mission, but it is also an important element in maintaining the morale and fighting spirit of the members.

❖ Aspects of governance

The Malaysian Army will continue its organizational restructuring initiatives to improve the effectiveness of Malaysian Army operations and administration as a whole. The focus continues on locating assets and human resources in the two regions to enable the ability to operate simultaneously in the two regions to be achieved. The moral and identity aspects of members will also be the focus of Malaysian Army in 2021 to strengthen the competence of human resources as the main asset of Malaysian Army. Meanwhile, the aspect of cultivating innovation will continue to be strengthened to enable the organization to be managed more efficiently and effectively.

❖ Logistics aspects

To strengthen the logistical aspect, Malaysian Army has decided to focus on improving physical security involving security installations and military camps. The next priority is given to improve the welfare aspects including the maintenance of residential and technical buildings. Improvements will also continue to be implemented on training facilities to ensure that training can be implemented properly and effectively. Malaysian Army also plans to improve the comfort and convenience aspects for all military personnel. In proceeding with the planned action plans, some modifications to the existing approach need to be implemented so that it is in line with the new norms and current situation. To ensure that the competencies of the members are maintained, training activities must be continued based on the new norms despite the restrictions in terms of exercises involving foreign countries. Activities

to enhance professionalism need to be continued by applying new approaches. In addition, defence relations with foreign countries will also continue to be implemented through the use of new virtual media and also through cooperation with defence representatives in the country.

ARMY STRATEGIC CAPABILITY DEVELOPMENT PLAN (ARMY 4NEXTG)

The Army 4nextG Strategic Capability Development Plan has been launched. This long -term plan will provide guidance to all leaders and citizens of the next generation Army (Next Generation) on the planning and direction of the Army based on capacity development beyond 2021 to 2050. This plan is developed to support Security Policy and National Defence as well as in line with the national development agenda. It also takes into account the needs of the National Military Strategy (SKN) as well as the principles of the Future Forces as outlined in the Defence White Paper (KPP).

The Strategic Goal that has been outlined under the 4nextG Army Plan is the ability of the Army to operate in two territories of the country simultaneously. To support this strategic goal, the Army 4nextG Plan also takes into account aspects such as technology-based multi-domain operating environment, togetherness, operability and mission-oriented, knowledge based human resource development and training as well as targeted management of logistics and financial resources and planned. By 2021 and beyond, the Army will be faced with a complex and uncertain concept of future warfare known as 5th Generation Warfare. This threat cannot be addressed with a military response approach alone, but requires collaboration with the government and the people through a Whole of Government and Whole of Society approach. This future situation will also require a force that is able to provide a military response in a multi -domain warfare environment (Multi Domain Operating Environment). Thus, the development of the Army in the future is based on five capability goals, namely Detection, Survive & Strike, Sustainment, Protraction and Nation Building.

By 2020, Army 2 10 Plus 10 aims for army to be a modern, credible, balanced, capable and ready force to carry out its mission as part of the core components of the ATM. Critical capabilities such as combat power are enhanced through Firepower acquired through the acquisition of Tanks, Infantry Combat Vehicles, Double Smooth Rocket System and Air Mobility capabilities were also introduced through the establishment of PUTD. However, the focus of army at

the time was more on the improvement of kinetic capabilities. Therefore, in line with the changes of future warfare Malaysian Army needs to implement a transformation that covers all aspects of capability. Emphasis should be given to non -kinetic capabilities that will enable Malaysian Army to cope with Multi -Domain Operating Environments.

CAPABILITY-BASED TRANSFORMATION

The transformation of army in the future will be the basis for the development of TD which is guided by the evolution of technological progress and global development. The Malaysian Army which was originally a War Against Insurgency -oriented punch has evolved into an Objective Force. In the future Malaysian Army will need to be comprehensively structured to enable it to operate in a multi -domain operating environment. Meanwhile, the influence of the Fourth Industrial Revolution required army to prepare its forces to face the challenging and complex digital era.

The plan will focus on capacity building through increased professionalism through the synergy of MAN-MACHINE-METHOD elements as well as an appreciation of the core values of the National Security Policy (Capability in the military context is translated as “ability to achieve a military operational objective or mission”). Military capability consists of four main components that carry the following definitions:

- **Force Structure.** A structure that describes the number, size and content of a unit that makes up an army.
- **Modernization.** Technological developments that affect the progress and modernity of a force that include the technical sophistication of weapons systems, equipment, technology, human resources and doctrine.
- **Standby.** The ability of a force to use weapons systems, equipment and human resources can be mobilized based on the mission that has been given.
- **Sustainability.** A force is able to operate consistently through the support of an integrated and organized logistical assistance network.

STRATEGIC CAPABILITY DEVELOPMENT PLAN CONCEPT ARMY

The Army Strategic Capability Development Plan is an army transformation plan that encompasses modernization efforts that are appropriate to the regional geopolitical and security environment. Thus, this transformation is a critical requirement to enable army to operate more effectively in the future. This systematically developed development plan uses a Capability-Based Development methodology that takes into account the duties and responsibilities of army in supporting national development. The terms of reference used are government policies, DKN, DPN, 4D MAF, SPD and the development of the geostrategic environment as well as the concept of future warfare. Next, a capability gap analysis of army was carried out based on the current capability of army in performing its responsibilities guided by the Battlespace Operating System (BOS). The results of this analysis have identified the Strategic Goal of army which is to be able to operate in two regions simultaneously and the Capability Goal needed to support this Strategic Goal. Intended Capability Goals include Detection Capability, Survival and Combat, Sustainable Strategy, Sustainability and National Development. Furthermore, this development plan is also developed taking into account the elements of capability, defence priorities, financial constraints and is strengthened by support plans.

THE EVOLUTION OF ARMY LOGISTIC OPERATIONS MANAGEMENT

The Army will see the integration of more dynamic logistics operations mechanisms and support the development of technologies capable of improving army combat power. This integration will include aspects of the logistics team structure that are mission-based, command and control clearer and more simplified. This integration will also be supported by an integrated and real-time database system. The results of this integration will enable inventory management to be implemented efficiently and effectively, operating and maintenance costs can be optimized. Thus, the army logistics operation mechanism is more dynamic and predictive and agile.

CAPACITY MANAGEMENT TRANSFORMATION

The army Capability Management Transformation is implemented in a focused manner based on limited resource management and taking into account technological developments covering aspects of robotic, bio-mechanical, nuclear and information

systems engineering. This will cover the core capabilities of Life Cycle Management, Comprehensive Maintenance Program, dynamic Technology Management and finally the use of resources that are implemented in a transparent and sensitive to cost and impact of results.

CAPABILITY MANAGEMENT TRANSFORMATION

❖ **Holistic Life Cycle Management.** Army owns assets that have a high turnover value and need to survive a lifetime of economic operations or known as a lifetime. Therefore, each procurement program must take into account the life cycle elements to all assets covering aspects of operational requirements, design, manufacturing, manoeuvring and disposal.

❖ **Life Cycle Extension Program.** The optimization of the use and acquisition of assets will be able to be improved through the implementation of life cycle extension as well as enhancing the technology available on the assets.

❖ **Comprehensive Maintenance Strategy.** The optimal operation of these assets is entirely dependent on the implementation and adherence to maintenance programs based on preventive and forecasting elements.

❖ **Limited Resource Management.** The principles of limited resource management, i.e. prioritization, operations and risk management will be fundamental in the overall TD Logistics Operations.

CONCLUSION

The Defence White Paper (DWP) is a symbol of the government's aspirations in strengthening defence and creating strategic direction and priorities for national security. KPP will be an action plan to formulate policies related to national defence and security. As a public document, the DWP will provide an understanding of the role of the Ministry of Defence in defending the country as enshrined in the Federal Constitution. The DWP will also be linked to foreign policy and internal security policy. Cooperation between ministries and agencies is also important in implementing effective work plans for national defence and security. In line with that, the Army has formulated long-term and short-term strategies in line with the Defence White Paper and for the continuity of the increasingly challenging tasks of this century. The strategy that has

been formulated by the top leadership of the Malaysian Army is a preparation and mold for the excellence of this organization in the future and meets all angles.

REFERENCES

Asian Defence Years Book 2000 - 2001, Syed Hussin Publications, Kuala Lumpur, 2001.

Azman Abdul Razak. (2009). Konsep Pertahanan Menyeluruh di Malaysia: Cabaran dan Masa Depan Angkatan Tentera Darat.

Burchill, Scot et al. (2001). Theories of International Relations. New York: Palgrave.

“Dasar Pertahanan Negara” dalam majalah Perajurit. Kuala Lumpur: Julai 2004, ms.55-58.

Jeneral Tan Sri Datuk Zambrose bin Mohd Zain (2021). “Maklumat Perutusan Rasmi: Perutusan Rasmi Panglima Tentera Darat.

Nooraimy Musa, Mohd. (2009). “Dasar Pertahanan Negara: Menganalisis Kemampuan Angkatan Tentera Malaysia dalam Mendukung Dasar tersebut pada Era Globalisasi” dalam majalah Perajurit. Kuala Lumpur: April.

Pelan Pembangunan Keupayaan Strategik Tentera Darat (Army 4nextG) 2021-2050 dan Buku Sistem Pengurusan Strategik Tentera Darat (SPS TD) 2021-2025 (2020).

Zulkairi Zainuddin (2005). ATM: Pertahankan Kedaulatan Bumi Bertuah. Perajurit.Disember.

<https://www.mod.gov.my/ms/maklumat/kertas-putih-pertahanan> (2021).

DEFENCE WHITE PAPER (DWP): STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY

**By KOL NAZLEE BIN ABD RAHIM
ROYAL MALAY REGIMENT**

INTRODUCTION

On December 2019 Malaysia tabled its first Defence White Paper (DWP) in Parliament. It meant to function as the country's 10-year policy plan for defence and national security, structured to not only deal with internal challenges like natural disasters and terrorism threats, but also external geopolitical risks. The DWP is an inclusive, whole-of-government and whole-of-society approach to engage key stakeholders and the public in implementing national security and defence measures. The paper considering the right tools, strategies and skills to protect the country's national interests. DWP is also a blueprint on building a national policy on defence and security that inclusive across ministerial. As a public document, the DWP seeks the people's support for an affordable budget, while emphasising that defence is a responsibility of all.

The DWP makes no mention of who our enemies are. Instead, it contains a set of guiding principles for the armed forces to enhance its combat preparedness to undertake missions effectively. Malaysia Army have constantly collaborated with other government agencies at home, as well as with external partners, to address challenges at multiple levels. This DWP emphasises national security is the responsibility of all in the government and all in the society, including the people, whose awareness and participation form the backbone of national resilience. These are all crucial matters, because internal resilience and external partnerships are, respectively, the foundation and the extended line of defence for Malaysia's security. This paper intends to outline and discuss how Malaysian Army (TD) responding to the DWP. It looks at the strategic planning undertaken in realisation the content of the paper. As military establishment and core component of DWP, aligning and shaping the forces is crucial to ensure it support the overall framework of national security.

Overview of Defence of White Paper

The Defence White Paper (DWP) represents the Government's firm commitment to Malaysia's defence and resilience to protect national interests, particularly to defend its sovereignty and territorial

integrity. As Malaysia's inaugural DWP, it details the Government's stance on national defence, presents its outlook for strategic trends and outlines the National Defence Framework to pursue the vision of Malaysia as a secure, sovereign and prosperous nation.

This DWP underline three key messages that are do not take the national security for granted, the Whole-of-Government and Whole-of-Society approaches are central to national defence; and non-alignment and shared security are the basis of Malaysia's Credible Partnerships. The DWP is developed based on the National Security Policy, Malaysia's main national security document. The DWP recognises the important roles played by the Ministry of Defence (MINDEF) and the Malaysian Armed Forces (MAF) in leading the nation's defence, as well as the participation of other stakeholders and the *rakyat*, the Malaysian people, in the national defence ecosystem.

The DWP is structured into three parts: Vision; Strategy; and Implementation. They cover the ends, ways and means to protect Malaysia's national interests. The first part, which consists of Introduction (Chapter 1) and Strategic Outlook (Chapter 2), sets the direction of the national defence. The second part covers Defence Strategy (Chapter 3), The Future Force (Chapter 4), People in Defence (Chapter 5) and International Defence Engagement (Chapter 6), and discusses methods and approaches to galvanise the internal and external resources available to Malaysia to pursue the three pillars of the National Defence Strategy. The third part, which comprises of Defence Science, Technology and Industry (Chapter 7) and Transformation, Governance and Funding (Chapter 8), details the Government's initiatives to ensure the successful implementation of the DWP.

In line with the concept of Whole of Government and Whole of Society, the 88th Army Anniversary celebration this year is themed ***Army and People Synergy: Pillars of National Sovereignty*** was chosen in accordance with Army's commitment to prioritize cooperation between Army, the government and society.

DWP Strategy

Malaysia's defence strategy is centred on three pillars, namely Concentric Deterrence, Comprehensive Defence and Credible Partnerships. Government will implement this strategy in ways that serve Malaysia's National Defence Interests and Objectives. The steps taken to pursue the long-term defence strategy include: (1)

upgrading defence capability and strengthening jointness across the MAF and other security agencies; (2) increasing security awareness and defence preparedness through the whole-of-nation approach; and (3) taking a more active role in advancing progressive

Aligning Malaysia's defence posture with the national security policy and foreign policy. Priorities, the Government has developed a three-part National Defence Framework that consists of national defence vision, interests and objectives (refer **Table 1**). The National Defence Vision depicts "Malaysia as a secure, sovereign and prosperous nation".

NATIONAL DEFENCE VISION				
"Malaysia as a secure, sovereign and prosperous nation"				
NATIONAL DEFENCE INTERESTS				
Security	Sovereignty		Prosperity	
Defending the nation's land masses, MMZ, strategic waterways, airspace and critical lines of communication	Preserving independence and preventing external interference		Protecting economic prosperity, development and growth opportunities, including interests abroad	
NATIONAL DEFENCE OBJECTIVES				
Developing multiple domain capabilities to detect, deter and deny any threat to Malaysia's national defence interests along the concentric layers of the core, extended and forward areas	Enhancing Malaysia's internal resilience through comprehensive defence by adopting the whole-of-government and whole-of-society approaches	Strengthening Malaysia's defence capacity and security through credible partnerships, chiefly by promoting innovative initiatives, deepening cooperation and pursuing multi-level defence engagements in a complementary manner	Advancing Malaysia's defence industry as an economic catalyst and a niche-based self-reliance stimulant through progressive programmes in developing the nation's defence science, technology and industry	Ensuring good governance practices in strengthening the defence sector by consolidating transparency, accountability and excellence in pursuing organisational transformations

Table 1: National Defence Framework

Taking into account the National Defence Framework and the Fundamental Principles of Defence, the Government outlines a three-pillar defence strategy to protect Malaysia's interests along the concentric areas. These pillars are Concentric Deterrence, Comprehensive Defence and Credible Partnerships. They are interrelated and mutually reinforcing, involving different participants, purposes and processes (refer **Table 2**).

1st Pillar: CONCENTRIC DETERRENCE	2nd Pillar: COMPREHENSIVE DEFENCE	3rd Pillar: CREDIBLE PARTNERSHIPS
Who Malaysian Armed Forces	Who Whole-of-Government & Whole-of-Society	Who External Partners (Bilateral & Multilateral)
Purpose "Deterrence" Dissuading all forms of external intrusion or conflicts	Purpose "Defence Resilience" Building and strengthening internal resilience	Purpose "Partnerships" Strengthening and widening external defence partnerships
Process "Concentric" Jointness in defending national interests along the three concentric layers	Process "Comprehensive" Continuously building internal unity, defence capabilities, security preparedness, inter-agency coordination, and overall resilience	Process "Credible" Maintaining Malaysia as a credible partner, while contributing towards capacity-building and regional stability

Table 2: 3 Pillars of Defence Strategy

Future Force

DWP's first pillar of the defence strategy. The MAF serves as the "Nation's Shield" entrusted by the Government to uphold the National Defence Objectives at all times. Primary role is to protect national interests, particularly to defend national sovereignty and territorial integrity from traditional and non-traditional threats by conducting maritime, air, land and cyber electromagnetic operations. While secondary role is to conduct Military Operations Other Than War (MOOTW) including Humanitarian Assistance and Disaster Relief (HADR), Search and Rescue (SAR) and Non-Combatant Evacuation Operations (NEO) among others, assisting the civil authorities in enforcement, nation building and supporting world peace efforts through the United Nations (UN) Peacekeeping Operations (PKOs).

A critical part in this force development is the Government's long-term investment in enhancing the MAF's preparedness with the necessary assets and equipment, as well as a knowledge-based and skilled workforce geared towards the smart soldier concept and other capabilities which embraced integration, agile and focused concept. The Future Force also possesses five main characteristics which are jointness, interoperability, technology-based, able to operate simultaneously in two theatres and mission-orientated. Possessing these, the force is rapid, deployable and multi-role, capable of operating in all four domains covering maritime, air, land and cyber electromagnetic, and able to engage multiple challenges along the concentric areas.

The Government's long-term plan to develop the Future Force is focused on the need to build capabilities and bridge identified gaps to protect national interests, as well as to defend the sovereignty and territorial integrity. The essential capability requirements based on priority are Strengthening the MAF's defence intelligence; developing Cyber Electromagnetic Activities (CEMA) capability; enhancing Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) capability; building Network Centric Operation (NCO); building Satellite Communication (SATCOM) for enhanced Joint Command and Control capability; sustaining and enhancing the MAF Special Forces capability and operational; enhancing firepower, mobility, communications, logistic capability of land domain and developing amphibious capability.

People in Defence

The defence workforce consists of MAF personnel from all three Services of the Regular Forces, namely the Malaysian Army, RMN and RMAF; as well as the Regular Forces Reserve (RFR), Volunteer Forces, veterans and civil servants in the defence sector. In order to develop new capabilities for future operations, the MAF will realign its current structure and review the deployment of its personnel in the coming decade.

To meet future demands, enhanced human resource management is essential in order to continuously strengthen the MAF's preparedness. Operational readiness and mission accomplishment can only be ensured if the MAF personnel are recruited, developed and their skills retained in ways that enhance the nation's overall ability to meet and confront all emerging challenges. These require the MAF to reassess into the concept of raise, train and maintain to achieve Comprehensive Defence. To meet the MAF's future requirements, the Government shall review the current roles of the RFR. The RFR is made up of ex-military personnel who are required to serve for a term of five years upon completion of their services. The Government will also increase Civil-Military Cooperation (CIMIC) activities to support the Comprehensive Defence pillar. CIMIC activities represent the MAF's primary mechanism for synergy with civil agencies and the *rakyat*. In order to address the ever-changing security environment, the Government will continue to modernise the MAF through recruitment, career development and retention of personnel in line with the requirements of the Future Force.

International Defence Management

International defence engagement is an integral element of the DWP. It explores and expands Malaysia's Credible Partnerships, the third pillar of the national defence strategy. Establishing and maintaining foreign relations that have been shaped through defence cooperation with other countries is a practice and tradition of MINDEF and the MAF. The partnerships serve Malaysia's defence interests by shaping a conducive external environment and security relations, boosting the nation's defence capacity building and strengthening ASEAN centrality for regional stability and prosperity.

The nation's defence partnerships are credible through two approaches. First, through active participation in various defence activities at regional and international levels. Second, by promoting and forging new defence partnerships that provide value to the nation, the Southeast Asian region and the broader international community. The Government's goals in promoting a new level of Credible Partnerships are to shaping Malaysia's defence relations with other countries; Managing shared security challenges; Fostering regional stability in accordance with international laws, conventions, rules and norms; Enhancing the MAF's capabilities and defence preparedness; and Advancing Malaysia's position and interests in the international arena.

Malaysia's future defence engagement will be further developed upon needs and comparative advantages. That is, all enduring and emerging partnerships would be forged based on Malaysia's current and long-term security needs. Malaysia's bridging, building and binding roles will continue to strengthen the Credible Partnerships in ways that complement each other, achieving the National Defence Vision while contributing to regional stability and global peace.

Aligning Army Strategic Planning with DWP

Malaysian Army (TD) strategic planning in supporting the National security policy in general and DWP in particular has been continuation from Army 2 10 Plus to 4nextG plan. Both of the plan covers the ATM Capability Development Plan (4D MAF). This plan has taken into account all aspects covering the geopolitical environment, the spectrum threats, national policies and policies as well as current fiscal strength. Approach which has been taken as compared to the previous development plan is through the use of Capability - Based Planning methodology which leads to a plan to

obtain critical ability for TD rather than to acquire assets on a regular basis focused on the Core Brigade. The implementation of this plan in general is more comprehensive, systematic and more in line with goals strategic to operate in two regions simultaneously to maintain sovereignty and territorial integrity.

TD will be developed intensively and balanced in both regions with a focus on Detection Goals, Survive and Strike, Sustainability, Protraction and National Development (Nation Building). These efforts also include Human Resource Development, Doctrine and Exercises that focus on the cognitive, psychomotor elements and spirituality as a whole. This strategic development plan will become more sustainable and able to adapt to the current situation. Apart from that, this plan is also supported by several Management Strategies Systematic and realistic Capability Development. This plan development approach is also in line with the Strategy Land Warfare that would allow TD to operate efficiently and effective in a Multi - Domain Operating Environment.

Today, we are in the era of the fifth-generation war which demands TD to balance the ability to face the threat of multi-domain and complex nature. More comprehensive strategies and approaches need to be taken to address various threats in line with current needs, so the defence strategy with the concept of Whole of Government and Whole of Society has been formulated in DWP concept.

Malaysian Army (TD) is always committed in assisting the government and the people in any situation regardless of natural or health disasters and is always ready to work with other government agencies. This is evidenced by the cooperation forged in preventing the spread of the COVID-19 epidemic through the implementation of OP PENAWAR and OP BENTENG where the involvement of TD in both operations has shown to be very significant success.

Malaysian Army Strategic Transformation Plan

The transformation of TD in the future will be fundamental to TD development which guided by the evolution of technological advances and universal development. TD was initially a Counter Insurgency warfare force has evolved to become an Objective Force. In the future TD needs to be structured as a whole for allows it to operate in the operating multi-domains environment. While, the influence of the Fourth Industrial Revolution needs TD to provide the forces to face the digital age which is full of complex challenges. This plan will provide concentration on development capability through and

increased professionalism through synergy elements of MAN-MACHINE-METHOD as well as an appreciation of the core values of the National Security Policy. Military capability is composed of four main components that are Force Structure. Structures which describe the number, size and the contents of a unit that makes up an armed force. Secondly is modernization that includes technological developments that affect progress and the modernity of a force that encompasses technical sophistication armament systems, equipment, technology, human resources and doctrine. Thirdly is readiness which is the ability of a force to use the armaments system, equipment and human resources can be mobilized based on mission that has been assigned. Finally, is sustainability as a force is able to operate consistent through the support of an integrated logistics assistance network and planned.

Concept of Capability Development

The TD Strategic Capability Development Plan is a transformational plan that encompasses modernization efforts corresponding to geopolitical environment and regional security. Hence, this transformation is a critical requirement to enable TD to operate more efficiently effective in the future. This systematically development plan using a Capability-Based Development methodology taking into account the duties and responsibilities of TD in supporting country development. The terms of reference used are government policies, DKN, DPN, 4D MAF, SPD and the development of geostrategic environment and concepts future wars. Next, the TD capability gap analysis has been implemented based on TD's current capabilities in performing its responsibilities which are guided and based Battlespace Operating System (BOS).

The results of this analysis have identified the TD Strategic Objectives which is capable to operate in two regions simultaneously and Capability Objectives which required to support this Strategic plan. Capability Objectives include Detection capabilities, Survive and Strike, Sustainability, Protraction and Nation building Subsequently, this development plan was also taking consideration the elements of capability, defence priorities, financial constraints and reinforced by support plans.

Criteria and Focus of Capability Development

Based on roles and duties analysis of TD in supporting national policies, several criteria have been taken into account in formulating this plan. The criteria stated are guidelines for a structured planning.

In principle, it covers the developmental aspects of the TD based on duties and responsibilities for security and defence country, the application of technology as the basis of capacity development and optimal resource management approach.

Objective and comprehensive focus has been taken into account for strengthen the implementation of this strategic plan in the future. The plan includes some of TD’s critical capabilities that will make an impact positive in supporting SPD. The Criteria and Focus Capability Development are shown in **Chart 1 and 2** below.

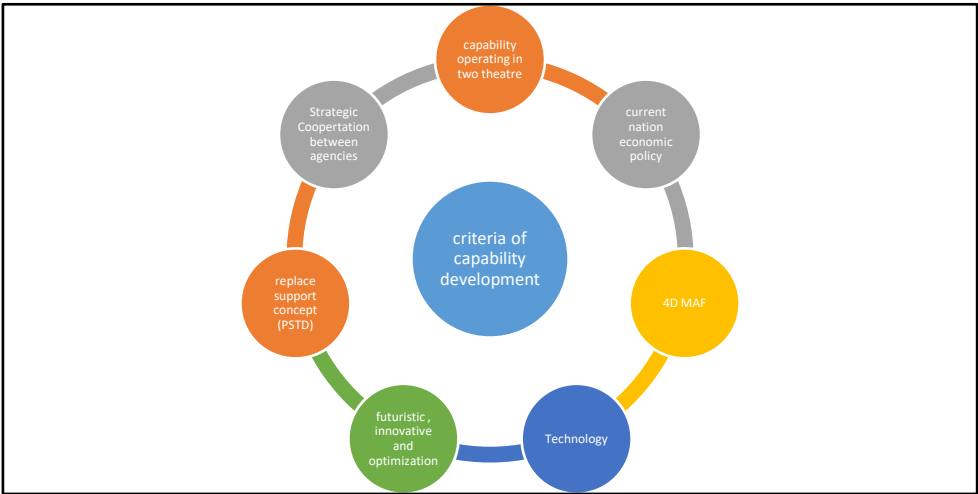


Chart 1: Criteria Capability Development

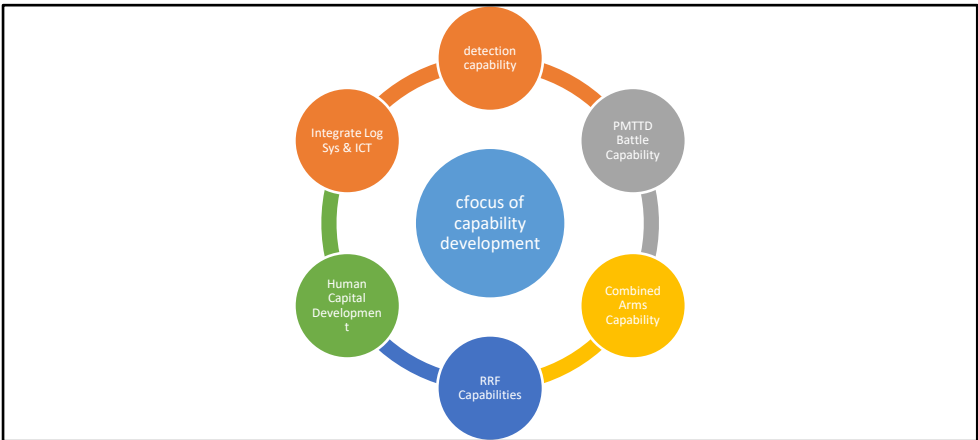


Chart 2: Focus of Capability Development

ARMY CAPABILITY DEVELOPMENT STRATEGY

Capability Development Strategy uphold the capability of the army to operate on both theatres effectively and simultaneously. The objectives of capability to achieve optimally the elements of Detection capabilities, Survive and Strike, Sustainability, Protraction and Nation building. The overall capability development strategy is shown in Chart 3.



Chart 3: Capability Development Strategy

Detection Capabilities

Tracking Capabilities is a critical strategy for enables MA to operate in a Multi-Domain Operating Environment. Ability to accurately identify threats as well as targets has the potential to challenge national sovereignty and territorial integrity is a key requirement for MA operations that will fully support national defence policy. It also has the effect of preventing obstacles and can improve action reciprocate military combat.

Thus, to enable MA to achieve detection capabilities overall, MA needs to increase its capability in C4ISRT (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance) as well as Information Operations (IO) which includes Offensive IO and Defensive IO. All forms of threats from the enemy can be detected as early as possible and accurate real-time

distribution of information can be implemented with more efficient while increasing the punching ability of MA to make decisions accurately in the time required. Existence fusion centre will increase Information Warfare capabilities.

Survive & Strike Capabilities

MA will acquire the ability to protect forces protection and deal with medium level threats through operations. Command and Control Centre equipped with Information Fusion Centre (IFC) and supported by Network Centric Operations (NCO). Therefore, targeting process can be implemented effectively through the integration and synchronization of the weapon sensor system or other non-kinetic elements.

This capability can be achieved by comprehensive with enhance internal capabilities perform combat combined operations through the establishment of the Armor Brigade in West Field Command and Brigade Mech in East Field Command that will further enhance Capabilities Fighting in the area. This capability is also enhanced through the ability of mobility and tactical air strikes by PUTD to achieve dexterity in regulating the movement of the Field Command. Fire power existing in MA need to be thoroughly upgraded to include Field Artillery units and Air Defence Artillery unit in the East Field Command to balance MA capabilities in both regions.

Sustainment Capabilities

Development of field and general engineering capabilities is enhanced in both theatre through the integration of the entire team of engineers through the establishment of an organic Field Engineer Group to West Field Command and East Field Command. This group of engineers will have defensive capabilities against nuclear, biological and chemical threats, tactical bridge systems, engineering field as well as general duties. In addition, MA also needs to focus on development infrastructure and human resources trained in Army Reserve Forces (ARF/ PSTD). The ability to sustainable can be met by MA and can indirectly maintain optimal level of alertness at any time in the face of any war spectrum.

Protraction Capabilities

This Strategy is a non-conventional/ asymmetric option aims to weaken the enemy or threat by Attrition Warfare. MA will continue to fight to prolong the resistance against the enemy with all the strength

and assets to restore the sovereignty of the country. Asymmetric warfare is an option that will be used until the enemy defeated by attrition. Competence in operations against insurgency will strengthened while strengthening the existing logistics system. MA need to apply this asymmetric warfare at all strategic, operational as well as tactical levels so that the MA combat strength advantage can concentrated to where the enemy is more vulnerable and will always preserve freedom of action.

Increasing capacity in waging war asymmetric in addition to having ability to improve patriotic spirit among all the citizens. This ability will allow MA to increase in maintaining national sovereignty at any time in any situation with high cooperation both within the military and civilians. Concentration on implementation on this readiness is dependent completely to the integration in a comprehensive at the national level as well as internal cooperation.

Nation Building Readiness

This capability will be able to contribute to the development of the country, MA needs to be able to produce a positive image to gain support from the citizens and target groups as a whole. The people believe that MA is the pillar of sovereignty and national integrity is the core to the existence of MA to remain relevant in current society. MA ability in performing operations towards Military and Civilian Cooperation and Civil Operations Humanity and Natural Disasters need to be enhanced to help the country in determining the well-being and safety of the people.

In addition, MA's ability to support national responsibilities in international level with the involvement and contribution of devotion in the Mission in United Nations (UN) also needs to be stepped up from time to time. Strengthening global security aspirations will continue be the backbone of the existence of MA in the future. MA will be in line with the concept of UN security mission operations that based on the mission to create a safe and conducive environment.

In an increasingly threat to the current environment with the activities of terrorist groups, MA needs to be able to fight any form domestic and foreign violence. To determine the safety of the citizens and the well-being of the nation is guaranteed, MA also needs to be able to perform secondary task side like National Blue Ocean Strategy (NBOS) to help the people. MA ability in giving contributions to peace and national stability will make MA remain relevant in any

situation and to make sure all citizens know that MA are just not only relevant while at war outbreak only.

Army Strategic Human Resource Plan

Human resources are a key element in enabling TD operate efficiently and effectively. In line with that, this plan needs to be supported by a fully managed Human Resource Development Strategy to achieve the level of operational readiness that has been targeted. Generally, human resource management refers to practice, policies and systems that influence behaviour, attitudes and resource performance human beings in an organization. The effectiveness of a military organization requires competent, professional and possessed human resources with high fighting power and will. Therefore, through a solid strategy will allow the MA to be able to respond in Multi-Domain Operating Environment. This strategy should have selection and recruitment characteristics (recruitment), human resource development (development), planning (planning), and retention of human resources (retention). It is implemented in a comprehensive by taking into account the cognitive, psychomotor and spiritual aspects.

Army Training

MA future training strategies should focus on abilities to perform a task or multiple tasks (multi tasking) either individually or collectively. The concept of training will include human resource development through military education and training will form a highly skilled, professional military individual and intellect without neglecting basic needs from a cognitive, psychomotor aspect and spirituality. The main goal of this strategy is to produce members who has the ability to think critically and innovatively (thinking soldier) and able to generate MA as a learning organization (learning organization) and knowledgeable (knowledge army).

Strategic Logistic Support Plan

In order to empower the future, MA must take into account the goal of capability without compromising on national policy, concept of operation, priority and strength. All the factors that have been stated will have a significant impact on the implementation of the plan this. A systematic approach taking into account all needs elements of capability i.e. human resources, communications, mobility, logistics/ material and firepower will enable MA to maximize target overall strategic outcomes in a resource environment limited. Expenditure planning application on Budget Based Outcome Based Budgeting is

the key to success implementation of this plan. Minister of Defence can ask the permission from the Parliament to increase the budget of the Ministry of Defence to make sure TD always are at par at least with nearest neighbours' country (Singapore).

In the future, MA Logistics Operations will have such features responsive, integrated network and agility assistance services logistics. These features are intended to enable logistics operations to be performed continuously and consistently and adhere to the philosophy of managing source wisely. This implementation plan is will be implemented in stages in three stages (Transition, Stabilization and Progressive) in line with the Financial Plan (RMK12 - RMK 17). This plan is a holistic approach in determining level of ability and readiness of MA, it will focus on strategy planned capacity management as well as capacity sensitive current finances.

MA will see the integration of more logistics operating mechanisms dynamic and support the development of technologies that are capable of improving TD combat power. This integration will cover aspects of team structure clearer mission-based logistics, command and control as well simplified. This integration will also be supported by the database system integrated and real-time. Integration success this will enable inventory management to be implemented efficiently and effective, operating and maintenance costs can be optimized. Thus, the mechanism in MA logistics operations is more dynamic and predictive and agile.

PRIORITIES IN IMPLEMENTING OF ARMY STRATEGIC PLANNING

Sustainability of Mission and Readiness

Army will adopt mission-oriented force which has capability to operate simultaneously in both theatres. The implementation is based on our recent Defence White paper. It also means ensure prioritizing of asset take place within capacity requirement and readiness capability. The procurement must consider the urgent needs of the essential items. The implementation must impeccably increase our firepower capabilities, mobility, communication, cyber and logistic by aligning with available of current assets. TD must also develop needs-oriented planning on cyber threats which include command and control capabilities.

Developing doctrines and manuals in line with current TD programs and new equipment are pivotal in support the

implementation of Army Strategic Planning. This provide impetus in upgrading personnel professionalism and proficiency in term of tactical and technical It can be achieved through effective training programs that emphasised on individual, collective, joint and continuous training. Army also must consider the integration and augmentation of the reserves in the training and employment in the operations. Beside that, managing the logistic needs to be holistic and comprehensive that include fire power mobility, communication and material. In ensuring the sustainability, the strategic planning must constantly validate and updating the policy, plan, Standing Operating Procedures timely.

Strengthen Organization

Building up professionalism among the members within the establishment would ensure the credibility of the organization. It includes enhancing competency of the people with knowledge, skills and attitude especially in our domain and task responsibility. This effort can be ensured and empowered with military identity and ethos by internalising *Rukun Negara, Taat Setia and Ikrar Kesatria*. Subsequently the strengthen organization could further reinforces unity of the force in performing our core duty. Well coordinated and synergy between the members and departments could ensure the army producing the intended ends state in serving the nations.

Strengthening organization also requires the culture of integrity, ethical values and morale courage among the people in the service especially in all level of leadership. Culturing value requires the awareness of our noble responsibility in conducting our task in all aspects include sound management. Stabilizing good governance in organization should be the priority in supporting this effort. Besides establishing systematic and transparency governance, the encouragement of creativity and innovation culture could also give impetus to strive future excellence of the organization.

Maintaining of the Well-Being of Soldiers

Improving the quality of life of military personnel and their families needs to be a major agenda and require full support of both the Ministry of Defence and TD. This is referring to the aspect of creating a conducive environment in the workplace, accommodation of members and also the family accommodation. Along with this, several units have to be relocated to enable every member of the Army to obtain a more comfortable and conducive place to work and accommodation. Similarly, with family homes, through the concerns of

the ruling government, improvements to military family homes must continue to be implemented and remain a priority in ministerial budget.

In terms of education especially the children, several initiatives need to be boasted to ensure that the level of education of military family members are always at the highest level. Beefing up Initiatives such as the Education Excellence Award, upgrading of several schools in the Army Camp creating Cluster Schools of Excellence, Special Assistance School Program, Adoption School Program, Online Tuition Program are efforts can be lauded in order to provide opportunities for military children to get quality education and academic success. In addition, other services such as school bus services to replace school ferries are also continued to ensure the comfort and safety of these soldiers' children.

Regarding the aspect of house ownership, the Army must look the necessity and responsible for helping coordinate the home ownership process for Army personnel. The establishment of responsible unit task is important to ensure that every member of the ATM can own a house before retiring from service. This wish is also extended to veteran members who do not yet own their own homes at this time.

In tackling the rising cost of living, more initiatives are paramount in support the welfare of military personnel and veterans. Through the price ca of military market like PERNAMA, military personnel and military veterans can be offered goods at a much cheaper price than the market price. This situation clearly gives some relief to military personnel and veterans in making financial management to offset this rising cost of living especially during the pandemic

Strengthening Defence Ties

Commitment to protect national interests by leveraging on defence cooperation with friendly countries through partnerships, information exchange, defence discourse, border cooperation, joint exercises and operations, training and capacity building programs as well as working visits and courtesy calls. Bilateral regional and international cooperation needs to be enhanced by strengthening cooperation with cooperation committees with Southeast Asian and international countries.

Enhance Army-Civilian Relations

The people's recognition and confidence in the army must be realized by establishing a cooperative relationship between the agency and the public (civil-military cooperation). Apart from that, cooperation with the government and the public can be vitalised especially in the realm of Military Operation Other Than War (MOOTW). In addition, collaborations with relevant departments and agencies with holding programs together in improve the quality of life of military personnel must be initiated. Overall, this goal should support policies in line with national aspirations to develop the nation.

CONCLUSION

The main challenge for the Army strategic planning in ensure the success of DWP is to cover all the mentioned tangible and intangible success factors. As a long-term development plan, this plan is very sensitive to external and internal elements that may affect the aspirations of the goal strategies that have been outlined. It is essential to continuously aligned and identified the positive relevance to the overall implementation strategies based on the concept of future warfare as supported in DWP.

The Army Strategic Planning must represent the Army senior leadership's vision of how the Army will fulfil its mission to provide necessary forces and capabilities to the in support of the National Security and Defence Strategies. It also communicates the Army's priorities for employing available resources. An analysis of the strategic environment, national guidance, and operational requirements must support the structured our forces and systems to achieve. TD has also entered a period that requires funding modernization priorities while simultaneously building readiness to meet current demands. We must identify and preserve sufficient levels of current readiness while balancing future readiness in our strategies.

Strategic transformation of the forces will not be easy an easy task, but it is a practice that appears many times in our establishment. We must examine, design, and develop new solutions for a sovereignty, as we have done so successfully in our past. This will require the deep and personal commitment of every member of the Army team, every leader, every soldier, every civilian, and every family member.

REFERENCES

Army 4NextG *Teras Pembangunan Keupayaan Masa Hadapan 2021-2050*.

C. Balakrishnan. (2019). Why Malaysia Needs A Defence White Paper. *The Journal of Defence and Security*, 11(2), 7-V.

Defence White Paper First Published 2020 © Ministry of Defence (MINDEF).

Ismail, A. S. E. (2019). The Defence White Paper 2019 Offers Chances For Reforming Military And Security Thinking In Malaysia. *The Journal of Defence and Security*, 11(2), 36-VIII.

Dhillon, K. S. (2019). The Defence White Paper: Stating Malaysia's Case. *The Journal of Defence and Security*, 11(2), 5-IV.

DEFENCE WHITE PAPER (DWP): STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY

**By LT KOL MOHD AZMI BIN M SALIM
GENERAL SERVICE CORPS (EDUCATION)**

INTRODUCTION

The concern about a coherent defense system was clearly illustrated by the government of Pakatan Harapan through the materialization of the Defense White Paper (DWP) in 2019. A Defence White Paper is a government document about the country's strategic direction and defence planning. DWP was based on national defense policy and taking into account the views of other parties, including the Malaysian Concept of Comprehensive Defense (HANRUH). The DWP serves three purposes: (1) engaging the public and relevant stakeholders; (2) evaluating the ever-changing strategic environment; as well as (3) exploring approaches towards enhancing Malaysia's defence capability and readiness. Generally, the documents consist of three main parts: "Vision", "Strategy" and "Implementation". DWP is published for the public to see and understand MINDEF and MAF's role in supporting national interests, sovereignty, and people. This DWP also looks at changing geostrategy and the need to combat the evolution of threats. The document emphasizes the importance of the responsibility of people and other stakeholders as Malaysians intend to protect their nation. Ideas to involve the Malaysian as a stakeholder in protecting the nation are to raise national spirit and a sense of belonging among the Malaysians themselves. Protecting sovereignty is not only the responsibility of the security forces, but also a comprehensive effort by the people of Malaysia. In addition, the Malaysians will be grateful for the security forces, will support the MINDEF initiatives to protect the sovereignty of Malaysia. MAF believes DWP is the best platform for reforming and restructuring MAF's plan to unite, flexible and focused forces as a core contributor to national defense.

Analyzing current policies and doctrines is vital to ensure that the Malaysian Army remains relevant for the future and is able to contain threats of rebellion. Policies and doctrines are appropriate to combat current threats and are in line with people's perceptions. Inter-agency operations and joint operations are the main challenge for the Malaysian Army in the future to meet DWP requirements. The roles of the Malaysian Army and MINDEF in defense diplomacy and international cooperation must continue to maintain peace and

preparedness for any undefined global threat. "Value for money" and government reimbursement of defense spending for national development are now a top priority. The Malaysian Army needs to effectively prepare its assets, soldiers and equipment to maintain combat readiness with adequate budgetary allocations. On the other hand, the defense industry sectors play an important role in meeting the needs of the Malaysian Army and continue to develop new technologies in the future. The focus on the local defense industry is the basis for increasing our military assets, and active R&D is needed to support the development of the Malaysian Army's operations and increase self-reliance. Thus, the demands of the Malaysian Army will significantly stimulate the local defense industry, which will contribute to the growth of the national economy.

The Malaysian Army will also face a number of challenges with DWP, especially when operating in a multi-agency environment. A series of meetings and collaborations is needed to build understanding on the SOPs of other agencies and to take advantage of the opportunities offered by other government agencies. In the context of resolving tensions between the stronger powers in the region, the Malaysian Army needs to cooperate with other military forces in the region through bilateral or multinational agreements. Series of military exercises will be held and the ability of military personnel to work with other military forces will be tested. The knowledge, experience and competence of military personnel must be transferred from the context of traditional threats to the context of non-traditional threats. The non-traditional threats come in all forms such as extremism and terrorism, kidnapping for ransom, sea robbery and piracy as well as cyber threats. Evolution requires a huge transformation in training and is a challenge for the Malaysian Army in terms of human capital development. On the other hand, current assets are more for the conduct of the talk war than for other military operations. The transformation of the assets of the Malaysian Army reflects the defense budget, which requires a huge amount of government funds. In short, DWP provides a concrete platform for transforming the Malaysian Army into a vigilant military that protects national interests, sovereignty and Malaysian interests. The challenges and weakness of DWP for the Malaysian Army is a problem that can be solved, and Malaysian Army will use the proposed opportunities to minimize the resulting gaps.

At the end of 2019, the Department of Defense (MoD) issued the first Defense White Paper (DWP), as this public document reflects the intention of the Pakatan Harapan government towards peaceful competition. we and a developed nation in the future. DWP was

developed around three core principles: (1) transparency, (2) obviousness, and (3) inclusiveness. In terms of transparency, DWP stressed the need for transparency between the public and the public in relation to the long-term decision of the national defense policy. Likewise, the idea is to provide a clear direction for developing the capabilities of the Malaysian Army and to raise public awareness of the government's approach. In addition, DWP reviewed previous National Defense Policy 2010 and HANRUH are combined with the current requirements of the threat environment and finally with the current state of the Malaysian Army's capabilities as evident for the formation of DWP. This ingredient also provides a clear understanding of the public regarding the allocation of the defense budget for the modernization of the Malaysian Army in the future. The third principle highlighted in the DWP is inclusiveness, whereby all stakeholders considered defense relevance in the preparation of the DWP. The documents are not military and not MINDEF oriented, but they represent inclusive ideas of the entire government and the whole society, aimed at developing a comprehensive and forward-looking plan for a national defense position. The DWP is the basis for the Malaysian government, which has instead issued a statement of intentions, capabilities and future national defense policies for neighboring countries and internationally. Likewise, other countries have taken earlier steps to produce DWP, namely Australia, New Zealand, Indonesia, and Vietnam. To a certain extent, this step can strengthen mutual understanding regarding Malaysia's defense capabilities and its relationship to regional and global defense. Defense diplomacy is the way forward to safeguard national interests and the integrity of sovereignty, used by a small country to survive in the VUCA environment. The interest of China and the United States in the South China Sea (SCS) has raised concerns in the region, especially in terms of national sovereignty and regional stability.

As the global fight against the economic crisis and uncertainty, the remuneration budget is a sensitive issue for the public. As a taxpayer, society is concerned with annual budget allocation and long-term government planning. DWP emphasized the role of the Malaysian Army in protecting national interests and gives a clear view to the public about the future modernization plan of the Malaysian Army. Public attitudes towards the security forces are factored into the DWP and provide clear guidance to the Malaysian Army to develop an action plan that is consistent with public perception. Thus, the Malaysian Army also plays an important role in achieving national results, promoting peace and providing insurance to the nation. A stable nation will attract foreign investors and companies to set up businesses in Malaysia, thus indirectly generating national income.

Mutual understanding between the public and the Malaysian Army in terms of protecting national interests gives the Malaysian Army the opportunity to ensure that the national gross domestic product (GDP) at a fixed rate is included in the annual defense budget. DWP provided concrete views on the needs of the Malaysian Army to shift its role from focusing on traditional threats to non-traditional threats that combine with multiple areas, complex environments and uncertainty.

The Malaysian Army must stand firm and be able to fulfill the demand designated "Future Force" for the nation. The roles of the Malaysian Army are clearly defined in the DWP (Chapter 4), divided into (1) major and (2) minor roles. The main role of the Malaysian Army is to protect national interests, in particular, to protect national sovereignty and territorial integrity from traditional and unconventional threats through sea, air, land and cyber-electromagnetic operations. Second, the Malaysian Army is capable of conducting military operations other than war (MOOTW), including humanitarian and disaster relief (HADR), search and rescue (SAR) and non-combat evacuation (NEO) operations, among others, helping civil authorities in enforcing, nation building and supporting peacekeeping efforts around the world through United Nations (UN) peacekeeping operations (PKOs) in peacetime as secondary roles. Meanwhile, the future strength characteristics highlighted in DWP are: (1) Compatibility, (2) Interoperability, (3) technology-based, (4) Ability to operate simultaneously in 2 theaters, and (5) mission-oriented. The listed characteristics set a clear directionality to develop an action plan to modernize the Malaysian Army, charting a future concept of operations and training competent military personnel.

Regarding the joint capabilities of the Malaysian Army, MAF is consistently conducting exercises of the three types of troops through the planning of the Joint Force Headquarters (JFHQ). However, the context of the teachings is more centered in a conversation war setting, with the result that the demand for existence is directed towards MOOTWs such as NEO, HADR and SAR. Requirements for MAF to coordinate army, air and navy resources for secondary missions have become a major concern in recent years. Thus, the DWP clearly states that the Joint Forces headquarters will use joint operations opportunities, and nevertheless, the government will allocate a budget for the creation of funds for the joint operation MAF. The Malaysian Army is currently working on a proposal for the creation of a Marine Corps Brigade, which requires exclusively integration into the three services.

DWP has had some impact on the interoperability of the Malaysian Army, working with other agencies and other foreign countries to carry out domestic or regional security missions. The Malaysian Army considers it necessary to revise the existing doctrines and the competence of personnel, to coordinate with other SOP agencies and integrates with other foreign military institutions. For example, the Malaysian Maritime Institute (MIMA) emphasized the need for a joint Malacca Security Initiative to deter piracy and protect the line of communication along the Malaysia-India maritime border. As a maritime nation, as stated in the DWP, it is vital for MAF to protect SLOC, partnering with other agencies such as the Malaysian Maritime Compliance Agency and TNI-AL. In addition, this initiative indirectly provides security insurance along the Strait of Malacca and improves conditions for the shipping industry, increases national income and attracts foreign companies to Malaysia. Currently, the Malaysian Army's interoperability capabilities are still under development and require further research by the MAF, defense research institutions and the defense industry in order to form the Malaysian Army to ensure full mission interoperability. In contrast, understanding the legal perspective due to targeted "do and don't" forces is ambiguous. Overlapping roles and rules between agencies working in ESSCOM pose a problem, especially with regard to boundaries, legal rights and authority issues. As such, the government body, the National Security Council should develop clear guidance on the roles and powers of MAF when working with other agencies.

The Malaysian Army requires the use of IR4.0, AI and in order to be able to serve; and prepare soldiers to adapt to the changing landscape of operations. DWP is committed to autonomous and automation technologies for future forces that could reduce the number of employees in an institution. Long-term planning for the transformation of the Malaysian Army will be carried out, as a result of which robotic systems, drones and high-tech equipment will be purchased. In fact, the inventory of the U.S. armed forces increased significantly from 167 drones in 2002 to 7,000 drones in 2010 to support their campaign in Afghanistan, fighting terrorists in an isolated environment. Military aviation has also shifted its research from fighters to unmanned aerial vehicle technology (Committee on Oversight and Government Reform, 2010). This presents a tremendous opportunity to modernize the assets of the Malaysian army and increase the MAF's ability to survive in a multi-domain and difficult combat environment in the future. On the other hand, the qualifications of military personnel and their ability to work with such high-tech technologies are important. Consequently, the Malaysian

Army needs to focus on human capital development, from selection, basic training and specialized training to military technology. An ongoing initiative capable of producing future generations of competent professionals capable of operating high-tech military equipment. The suitability of high-tech equipment for operation in the current zone must be analyzed in detail in order to avoid wasting public funds.

The geography of Malaysia includes two main continents which is East and West of Malaysia, separated by SCS, requires a balanced concentration of the Malaysian Army on both continents. After a sharp rise in interest between the US and Chinese governments in SCS and the invasion of Lahad Datu in 2013, awareness in East Malaysia. The DWP pledged the ability of the Malaysian Army to operate simultaneously in east and west Malaysia in the future. The development of the potential of the Malaysian army in the East Malaysia region will accelerate significantly over the next 10 years, the balanced potential of the forces provides a better security environment in East Malaysia compared to the current situation. The creation of ESSCOM in 2013 and the 5th Infantry Division in 2019 in Sabah demonstrated MAF's active commitment balanced military power in both regions. Meanwhile, its imposed The Malaysian government is seriously concerned about the protection of national sovereignty and regional security due to tensions in the SCS. In turn, MAF needs to cover the costs of moving staff, family members and property from west to east Malaysia. Millions of ringgits are required to transport property and soldiers, family members have experienced intercultural changes since the initiative was launched. Indirectly, operating costs have increased to meet the need and reluctance to purchase new assets.

Finally, the strategic geographic location of Malaysia, which encompasses 4 dominant SLOCs, namely the Strait of Malacca, the South China Sea, the Sulu Sea and the Sulawesi Sea, posed serious maritime safety concerns. DWP highlighted its focus on enhancing maritime safety by enhancing air, maritime and coastal capabilities to raise maritime awareness (MDA). The initiative has given the Air Force a clear intention to focus on projecting forces across the sea when a situation arises. From the stand, this is an opportunity for MAF to develop RMN capabilities, especially in relation to the coastal maneuver concept. Taking into account the creation of other maritime authorities, it is necessary to strengthen the close coordination of roles and legal issues in order to reduce duplication of responsibility.

The Malaysian Army always focuses on the person behind the vehicle. As the evolution of threats is considered, it creates a new perspective for the Malaysian Army, making military personnel adaptive, competent and reliable. As DWP has highlighted the expectations of future forces, the Malaysian Army is demanding human capital development to costume with anticipation. Military personnel are required to have a deep understanding of joint operations, multilateral / bilateral operations, and the ability to use high-tech military tools in the current operational landscape. PESAMA (Malaysian Joint Warfare Center) plays an important role in the reform and training of military personnel in joint operations. Meanwhile, the joint forces headquarters as the lead area for the integration of troops and assets from the three services to be able to conduct joint operations and demonstrate the capabilities of the MAF joint operation. For example, the competence of military personnel in setting up joint operations was successfully tested during the EX-PAHLAWAN in November 2019. On the other hand, it is necessary to concentrate the competence of military personnel in working with other armed forces on the basis of a multilateral agreement. There are loopholes or gaps in English proficiency among other ranks for communication with foreign soldiers and intercultural awareness. The Malaysian Army is expected to work with other agencies, especially in the context of MOOTW, which has given soldiers less opportunity to participate in multi-agency operations recently. It is necessary to focus on the development of human capital at the Malaysian Army institute through appropriate training modules in order to form military personnel capable of meeting the characteristics of the "forces of the future".

The introduction of DWP has had a significant impact on the modernization of the assets of the Malaysian Army, the development of human capital and the ability to expand operational capabilities in the country, in the region, as well as outside the ASEAN regions. Meanwhile, the public and neighboring countries are able to generally understand the initiatives to modernize the Malaysian Army and create a better perspective for future regional security. The Malaysian Army has fulfilled the government's expectations regarding Roles and opportunities of MAF as a future force to protect national sovereignty and interests, and assist the government in national building programs.

MINDEF, through MAF modernization, has introduced comprehensive measures to develop a vigilant nation focused on countering future threats, namely cyber threats and maritime security. This approach reflects the foresight and reliable defense capability of

the state, as well as the confidence of foreign investors that they can conduct their business in Malaysia. The coherence between the various parties, including the economic sector, in promoting DWP, the recognition of their ideas and the space for expressing their intentions regarding the military sector, creates mutual understanding between both sectors. As noted earlier, the 5 sectors are interdependent and indirectly responsible for ensuring the stability and growth of the national economy. In addition, the approach promoted by the current government, with an emphasis on defense diplomacy, opens up various dimensions for strengthening international relations in the future and developing a peaceful region that is sustainable for a long-term business center. Likewise, the opportunity for Malaysia was selected as a business partner above due to the strategic geography and active actions taken to understand future threats, which increased the confidence of global companies in the economic environment of Malaysia.

The modernization of the Malaysian Army is accelerating the development of military capabilities to counter current and future threats of rebellion. DWP has identified ten capability requirements for the Malaysian Army in the future and indirectly provides guidance on future military procurement. Thus, the local defense industry is the basis for modernizing the assets of the Malaysian Army and increasing the number of forces in the military research and development sectors. The government currently intends to reduce its dependence on foreign defense enterprises and increase the country's ability to self-sufficiency in the future. The idea is to build the economy, strengthen local heavy industry, and provide long-term cost recovery through local expertise and entrepreneurship. The proliferation of the local defense industry creates employment opportunities for young people and indirectly contributes to better lifestyles in society. Meanwhile, the use of local resources to reduce operating costs, thus offering the Ministry of Defense a better margin to develop the capabilities of the Malaysian Army at the expense of the lower costs offered by the local company. For example, PT Pindad is the main defense industry owned by the Indonesian government. The company has successfully developed its own military technology and supplied TNI's needs such as military vehicles (tanks, light amphibious tanks), weapons and ammunition. Recently, a joint venture between PT PAL (Indonesia) and the Korean company Daewoo Shipbuilding and Marine Engineering (DSME) successfully developed the first Indonesian submarine for TNI-AL. Local defense enterprises should use the opportunities provided by the government to develop the defense industry in Malaysia. In the long-term planning, the Malaysian defense industry's commitment to the

company as a major contribution to the production of high-tech military weapons is feasible and will contribute to the country's economic growth.

DWP formulation dealt several blows to the Malaysian army. MAF praised the government's commitment to modernizing the Malaysian Army and developing human capital in the service. However, the Malaysian Army must live up to people's perceptions of the role of the guardian of the nation. The ability and professionalism of the Malaysian Army to deal with temporary threats is the main thing that MAF proves to Malaysians that the Malaysian Army is still relevant in the years to come. The understanding between neighboring countries regarding Malaysia's security landscape is clearly reflected in the DWP. He viewed the Malaysian government's approach to strengthening regional stability as positive. DWP as concrete documents analyzed by the public regarding the next steps in the field of national security. The document is a comprehensive document that addresses the various points of view of Rakyat, other government agencies / ministries, and non-profit organizations. The consideration of multiple domains ensures mutual understanding between the parties involved and is relevant to all Malaysians. In other words, the documents are not entirely military or the views of the Ministry of Defense, but they are a collective effort of all Malaysians. DWP promotes transparency, which has recently become a major concern for Malaysia, and a clear direction for the Malaysian government's approach to safeguarding Malaysia's interests. Meanwhile, DWP understands Rakyat better in terms of MAF modernization and reduces the future defense budget vacuum. The Holistic Malaysian National Interest Defense Plan is the main strength of the DWP and provides a concrete platform for the modernization of the Malaysian Army in the future. Despite its shortcomings, DWP also provides Malaysia with the ability to protect national interests in the region through defense diplomacy. Since the inception of ASEAN, Malaysia has played an important role in ensuring regional stability. With its emphasis on defense diplomacy in DWP, it fosters mutual understanding between neighboring countries, especially in the Malaysian government's efforts to regional stability. In the meantime, neighboring military forces will explore other potential approaches to enhancing military cooperation for regional stability in the future. From a growth perspective, DWP is giving a clear direction to the defense industries to focus on developing new technology to enhance MAF's capabilities in the future. For example, DWP has highlighted the need to enhance networking capabilities at MAF. Thus, it provides a clear indication for defense industries to explore the potential of network-centric technology. Long term DWP

contributes indirectly to the growth of the national economy through the profits of the local defense industry.

However, the DWP will simply be a document similar to what MINDEF had before, unless the development of the Malaysian Army is based on what the DWP has emphasized. One day, a political change in the elections of the next 5 years may change defense policy or a new version of DWP will be released. Consistent and sustained efforts by the Secretary of Defense are a major key to overcoming the shifting repetition of DWP. In addition, the threats against DWP come from the concerns of all parties involved in the DWP. If the sector cannot fulfill its expected roles, it will affect other parties in the system. DWP does require a comprehensive effort from the local defense industry, other agencies, MAF, and Rakyat itself to bolster national security. Consequently, each individual organization spun off in DWP plays an important role in achieving DWP's goals. There are several guidelines to use the capabilities offered by the DWP and to close the gaps in the Malaysian Army.

CONCLUSION

The following guidelines establish a close relationship with local defense industries when upgrading the assets of the Malaysian Army. In the future, MAF will be equipped with end user-oriented equipment, with existing doctrines revised in line with DWP requirements. The Malaysian Army needs to reorient the concerns highlighted in the Future Forces which clearly outlines the future roles of the Air Force, strengthen military cooperation among other militaries to protect national interests and regional security, and prepare soldiers to operate high-tech military equipment in the future. DWP focuses on network-centric capability, which requires a highly trained soldier to operate the system, preparing comprehensive plans for the Malaysian Army to meet DWP requirements by creating an R&D team to work on it.

REFERENCES

Committee on Oversight and Government Reform, Rise of The Drones: Unmanned System and the Future War. 2010. <https://republicans-oversight.house.gov>.

Expert: Increase Defence Budget. 2019. <http://Thestaronline.com>.

Defence White Paper, Ministry of Defence, 2019.

Defence White Paper Commentaries, The Journal of Defence and Security, MiDas Volume 11 Number 2/2019, 2019.

HK Economy and Businesses Hit by Social Unrest: Financial Secretary. 2019. <https://www.businesstimes.com.sg/>

Ria Nadia Rahim, Eksesais Pahlawan Uji Keberkesanan, Kecekapan Anggota dan Aset ATM, 2019. <http://www.airtimes.my>.

South China Sea: Message for Beijing in Vietnam. Malaysia Defence White Paper. 2019. <http://www.scmp.com>.

DEFENCE WHITE PAPER (DWP): STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY

By LT KOL HANASRUL IMRAN BIN GHAZALI
ROYAL ARTILERY REGIMENT

INTRODUCTION

Various types of defence policies have been tabulated and implemented in Malaysia since Malaysia gained independence back in 1957. All the policies vary according to the security environment that the nation has gone through and it has been consistently evaluated and improved to meet the security need for the nation over half the century. Most of the defence policies are classified as confidential and only be accessible to authorized personnel based on the requirement for the policy designed. On the 2nd of December 2019 this has entirely changed when the former Defence Minister Mohamad Sabu tabled the nation's first ever Defence White Paper in the parliament (QUICK, 2019). Defence White Paper that was introduced is tabulated mainly in managing the country's strategic direction which further derives the defence planning for the country in accordance to current and future security threats. Defence White Paper is unique in its way as it can be accessed by public compared to the classified defence policy papers. It does not content any confidential materials which explain the country's security assessment, defence posture alongside with the military capability development. Defence White Paper is constructed to further enhance the Government of Malaysia's aspiration in empowering the national defence and enhancing its directions. Apart from that it is constructed in such way to strategic the priorities for the nation's security (Mohamed, 2020).

Defence White Paper that has been introduced has been constructed into three parts namely the vision, strategy and implementation. All these three structures are concerned in protecting Malaysia's national interests in enhancing the security in the regional. Three structures have been illustrated in the **Figure 1** below.

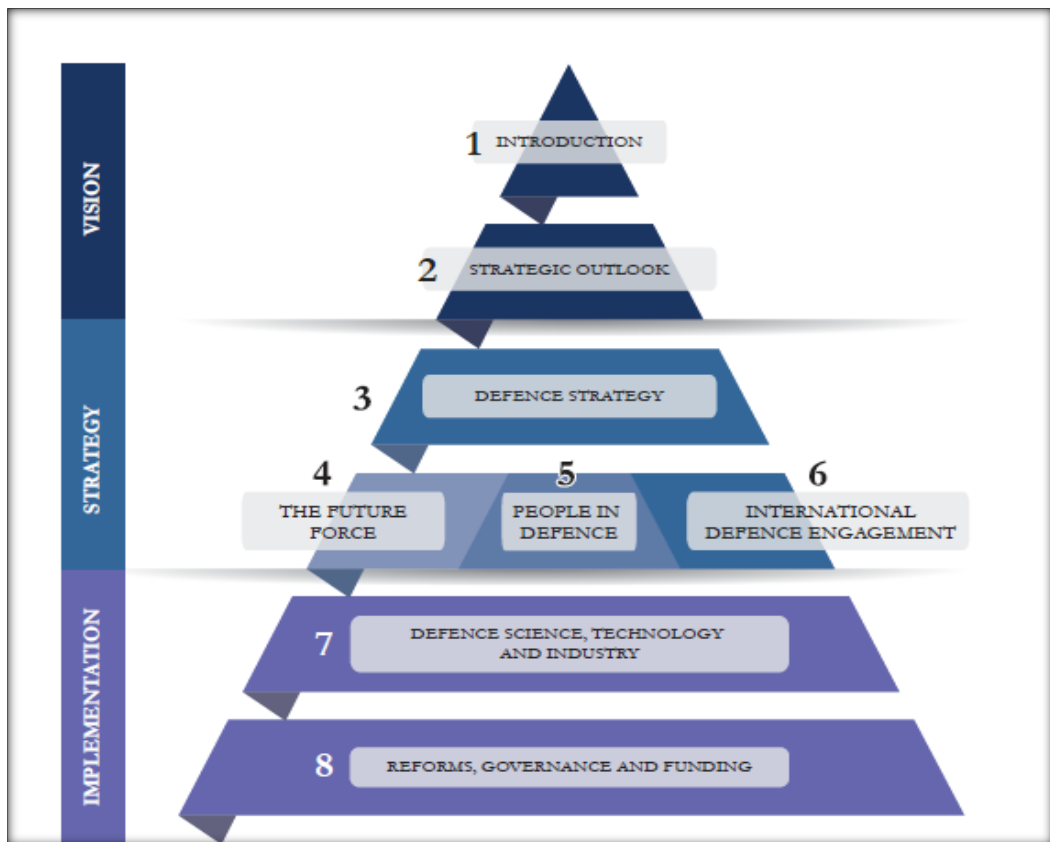


Figure 1. Illustration of Main Three Parts In Defence White Paper (MINDEF, 2020)

As for the vision in the Defence White Paper it is focused on the government strategic in further enhancing the national defence in the coming decade. It is designed in the form for long-term strategy in defending the national sovereignty along with the territorial integrity which includes all kind of security and external threats to the nation. Mainly it explains the importance and vital task of the Ministry of Defence (MINDEF), Malaysian Armed Forces (MAF) along with other security agencies in safeguarding the sovereignty of Malaysia. According to the Armed Forces Act 1972, it states the roles and the functions by the three services under the Malaysian Armed Forces (MAF) which are the Malaysia Army, the Royal Malaysian Navy (RMN) and the Royal Malaysian Air Force (RMAF), alongside the Volunteer Forces. Such layout has been illustrated in the **Figure 2** below.

(a) naval, military and air forces and other armed forces;	(b) any armed forces attached to or operating with any of the armed forces of the Federation; visiting forces;	
(c) defence works; military and protected areas; naval, military and air force bases; barracks aerodromes and other works;	(d) manoeuvres;	
(e) war and peace; alien enemies and enemy aliens; enemy property; trading with an enemy; war damage; war risk insurance;		
(f) arms, firearms, ammunition and explosives;	(g) national service; and	(h) civil defence.

Figure 2. Roles and Functions of MAF Along With Other Related Agencies According To NINTH SCHEDULE [Articles 74, 77] FEDERAL CONSTITUTION (Malaysian Constitution, 1957)

STRATEGIES

As for the strategic outlook in the part of the Defence White Paper it describes the countries current and the future interests which are revolved in the uncertain and also ever-changing security environment. As for the strategic in the Defence White Paper it outlines the strategic perspective need to be considered in the next ten years and from that it is then has been described in laying the government long-term strategy which has charted directions in protecting the national interest which particularly in defending Malaysia's sovereignty with territorial integrity along with the regional and global security environment. As the outcome of this drafting, it as resulted in the international strategic landscape which has become more complex and the situations has vastly shown becoming unpredictable in the future. Even though Malaysia does not face any immediate military threats or conflicts in the current situation or environment the country still facing three main security challenges which are the uncertain big power relations, complex Southeast Asian neighborhood and increasing non-traditional security threats (MINDEF, 2020). Further to highlight the strategies taken by Malaysian Army in accordance with the Defence White Paper the

defence policy that has been derived in this paper shall need to be highlighted beforehand. Defence White Paper has tabulated defence policy to confront the increasing challenges posed by the uncertain security environment. Defence Strategy that has been renewed is that the strategy has been emphasized in enhancing the overall defence capabilities. Strategy that has been developed is derived from the new National Defence Framework which is aimed to boost the countries defence readiness along with maximizing the potentials as part of a maritime nation that has continental roots. In other words, Malaysia will serve as a bridging linchpin between the Asia-Pacific and Indian Ocean regions. Concentric Deterrence, Comprehensive Defence and Credible Partnerships have been chosen as the three pillars in developing the Malaysia's defence strategy. Three pillars that have been chosen in formulating the national defence strategy vastly contribute to the strategies taken by the Malaysian Armed Forces generally and Malaysian Army specifically. Pillars that have been formulated are illustrated in the **Figure 3** below.

1st Pillar: CONCENTRIC DETERRENCE	2nd Pillar: COMPREHENSIVE DEFENCE	3rd Pillar: CREDIBLE PARTNERSHIPS
Who Malaysian Armed Forces	Who Whole-of-Government & Whole-of-Society	Who External Partners (Bilateral & Multilateral)
Purpose "Deterrence" Dissuading all forms of external intrusion or conflicts	Purpose "Defence Resilience" Building and strengthening internal resilience	Purpose "Partnerships" Strengthening and widening external defence partnerships
Process "Concentric" Jointness in defending national interests along the three concentric layers	Process "Comprehensive" Continuously building internal unity, defence capabilities, security preparedness, inter-agency coordination, and overall resilience	Process "Credible" Maintaining Malaysia as a credible partner, while contributing towards capacity-building and regional stability

Figure 3. Illustration Of Three Pillars In National Defence Policy (MINDEF, 2020)

National Defence Policy that has been derived has shaped the long-term defence strategy that has been formulated in the Defence White Paper which includes the upgrading of the defence capabilities in terms of the technologies and weapons procurements. Such

strategies that have been adapted by the Malaysian Army can be seen from the procurement of new weapons system such as the LG MK II that has been delivered into the Artillery Corps back in 2020. Apart from that, strengthening jointness between other security agencies has also been derived and the near example of the joint force operation that can be seen would be the operations between the Malaysian Army with the Malaysian Police Force along with the health agencies that been collaborated to meet the COVID-19 pandemic situation in Malaysia. In Defence White Paper it is also mentioned the need for the Malaysian Army role in supporting the nations interest by increasing the security awareness and defence preparedness through the whole of nation approach by taking into a more active role. By adapting this role, the government would be able to achieve the objective to advance progressively in terms of initiatives, able to widen the partnerships and also able to shape the regional affairs. Looking into the fundamental of the national defence strategy derived in the Defence White Paper the for the Malaysian Armed Forces in general and Malaysian Army particularly, it requires the force to adapt the strategy to reform into an integrated agile force that would make its capability to be focused on protecting the national interests which in particular form Malaysian Army to defend the national's territorial integrity and sovereignty. As for the implementation the Defence White Paper has outlined its key policy enhancing the Defence science, technology and industry form a strategic component of Malaysia's defence ecosystem. Malaysia defence science, technology and industry formation in the country has been established initially back in early 1970's. Such role has ensured that Malaysia is capable in Maintenance, Repair and Overhaul (MRO). Apart from that Malaysia is also capable in manufacturing and catering to the supply-chain requirements of Original Equipment Manufacturers (OEMs). Defence White Paper has identified that Malaysia has still room for significant growth and improvement in the long-term vision which has derived in the outcome as Malaysia will be able to develop the capacity in designing, testing, developing and market the state-of-the art weapons and technologies. It is stated that government will ensure the production of profitable and sustainable of defence science, technology and industry development.

Malaysian Army has to be in line with the Defence White Paper that has been tabulated and the there are various strategies that has been undertaken by the Malaysian Army. In the Defence White Paper, it has mainly described the development of the future force in safeguarding Malaysia. Importance of developing the future force has been highlighted so that Malaysia can implement the concentric deterrence to protect the nation. Malaysian Army as part of the

Malaysian Armed Forces serve as the nation's shield which has been entrusted by the government in upholding the National Defence Objectives at all times. As mentioned earlier the first pillar of the Defence White Paper is the defence strategy the role of Malaysian Armed Forces has been described as to play the primary role as to protect the national interests. Malaysian Army strategy in playing this primary role is in particular defending national's sovereignty along with the territorial integrity from the traditional and non-traditional threats. Malaysian Army has been conducting land operations at the borders in safeguarding the nation and it will be further enhanced along the with the vision of the Defence White Paper with the more sophisticated force by enhancing the equipment's and technologies to meet with the current increasing security threats. Apart from the Malaysian Armed Forces will further enhance its maritime and also cyber electromagnetic operations. Apart from strategy that has been adapted by the Malaysian Army is to play the secondary role in safeguarding the nation security by conducting Military Operations Other Than War (MOOTW) along with the Humanitarian Assistance and Disaster Relief (HADR), Search and Rescue (SAR) and Non-Combatant Evacuation Operations (NEO) among others, assisting the civil authorities in enforcement, nation building and supporting world peace efforts through the United Nations (UN) Peacekeeping Operations (PKOs).

Defence White Paper has enlightened the Malaysian Armed Forces need to be reshaped to better meet the uncertainty in facing the security environment. Malaysian Army will take the strategic outlook in meeting this requirement by repurposing and reprioritizing in the force in order to meet the future requirements needed to face the ever-developing threats. Malaysian Army will give further emphasis in the development of joint capabilities to be ready for any contingency which various from the possible armed interventions to natural disasters. Such situation has further brought to the strategy needed to conduct two-theater operations simultaneously between the Peninsular Malaysia, Sabah and Sarawak. Such condition has added to national awareness towards the uncertain security environment which bring to the coordination between the Malaysian Army along with other security agencies thus making the coordination with external partnerships has been developed as part of the national defence ecosystem. Malaysian Army strategy is centered based on the policy derived in the Defence White Paper and one of the key strategies is required from the Malaysian Armed Forces in safeguarding the nations territory would be the ability to operate simultaneously in two theaters. It is aware that the Malaysia's geographical factor which is divided into two namely the Peninsular

Malaysia and East Malaysia has always given the huge challenge for the Malaysian Armed Forces in conducting the operations in these two theaters simultaneously. Taking into considerations in the development of the rising South China Sea issues and also the near incident that happened in Lahad Datu intrusion back in 2013 (Sariburaja, 2016) the threat has increased vastly over near years. In other words, Sabah and Sarawak facing much greater threats thus requires stronger defence in safeguarding the territory. Facing these increasing threats requires the Malaysian Armed Forces to have the high mobility which will be the key for the success of forces in the near future where rapid deployment is needed between these two theatres when required. Realignment and redeployment of forces between Peninsular Malaysia and Sabah and Sarawak is another effort to ensure the success of the two-theatre operation which such circumstances have brought the adaptation of a vital strategy undertaken by the Malaysia Army in developing more units and establishing a two new artillery division which is the 1st and 5th Artillery Division in the East Malaysia regional.

Defence White Paper has mentioned that the government has a long term- planning into developing the Future Force that will be focused on building the capabilities of the forces. Such policy that has been derived will serve as the bridge that will identify the gaps in protecting the national interests that will enable the Malaysian Army in playing its part to defend the sovereignty along with the territorial integrity. Meeting this policy that has been derived it is stipulated based on the essential capabilities required as per follow. Firstly it would be derived to strengthen the Malaysian Armed forces intelligence, developing Cyber Electromagnetic Activities (CEMA) capability, Enhancing Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) capability, Building Network Centric Operation (NCO), Building Satellite Communication (SATCOM) for enhanced Joint Command and Control capability, Sustaining and enhancing the MAF Special Forces capability and operational tempo, Maritime Domain – Enhancing Maritime Strike and Maritime Sustainment capability, Air Domain, Enhancing Air Defence and Air Strike capability, Land Domain – Enhancing firepower, mobility, communications, logistic capability and Developing amphibious capability (MINDEF, 2020). Capabilities required meeting the need for the Future Force is illustrated in **Table 1** below. Such derived capability requirements will enable the Malaysian Army particularly and Malaysian Armed Forces generally to have high level of preparedness to operate at the maximum level of capability required. Developing the future force is not a task that can be carried out in the short period of time. Realizing this Malaysian Army has adapted the

strategy which comes along with the government policy to address the capability gaps which further would prevent deterioration of the readiness level. Adapting to this strategy would be the action taken by the Malaysian Army by replacing the assets that currently in the service which are ageing and obsolete. Apart from that emphasize has been given in maintaining the current operational assets to ensure the serviceability of the assets. Strategies that have been adhered is also based on taking into considerations faced by the nation in term of economic challenges thus making the derived strategies focused more towards the long-term proposed plans which is made for the next ten years and will be reviewed periodically.

ALL DOMAINS	COMMAND, CONTROL, COMMUNICATIONS AND COMPUTERS		
	INTELLIGENCE, SURVEILLANCE, TARGET ACQUISITION AND RECONNAISSANCE		
	SPECIAL FORCES OPERATION		
	COMBAT SERVICE SUPPORT		
CYBER ELECTROMAGNETIC DOMAIN	CYBER ELECTROMAGNETIC ACTIVITIES		
AIR DOMAIN		STRATEGIC STRIKE	
	AIR DEFENCE/AIR PATROL		
	CLOSE AIR SUPPORT		
		MARITIME AIR PATROL/ANTI-SUBMARINE WARFARE/ ANTI-SURFACE WARFARE	
	TACTICAL AND STRATEGIC AIR LIFT/COMBAT SEARCH AND RESCUE/MOOTW		
MARITIME DOMAIN		ANTI-AIR WARFARE/ANTI-SURFACE WARFARE/ ANTI-SUBMARINE WARFARE	
		PATROL/SEARCH AND RESCUE	
		MINE WARFARE	
		STRATEGIC SEA LIFT/AMPHIBIOUS OPERATION/MOOTW	
LAND DOMAIN	MOOTW/CBRNe		
	GROUND BASED AIR DEFENCE/ COASTAL DEFENCE		
		WATER MOBILITY/ AMPHIBIOUS OPERATION	
	TACTICAL AIR LIFT/ ARMED RECONNAISSANCE		
	LAND MOBILITY & MANOEUVRABILITY/FIRE POWER		
	CORE	EXTENDED	FORWARD

Table 1: Capability Requirements for the Future Force (MINDEF, 2020)

Highlighting one of the strategies adapted by the Malaysian Army based on the Defence White Paper in developing the future force would be the Network Centric Operation as part of the plans that has been explained in the previous part of this paper. Network Centric Operation system is not a system which can be integrated and exploited for the usage in any military forces over the night. Air dominance is vital for the maximum effectiveness of the network centric operations. Air dominance is vital due to the fact that the UAV's which has been a major part in the network centric operation elements usually carries the thermal cameras which is able to provide visualization through darkness and also rains. If the visuals obtained are clear and accurate it will definitely help the military forces the boost in level of confidence in planning and conducting the missions (Sproles, 2001). Such conditions usually can contribute to saving the time consumes in conducting for rehearsals and contingency plans. Anyways, in some conditions the early air-dominance could not be possibly achieved thus making the UAV's and also other Intelligence Surveillance and Reconnaissance (ISR) aircrafts unable to provide the required data or information's needed for the network centric operation system to function effectively. Other than that, another challenge faced in the operation of the network centric operation would be the collision of the authority and power during the decision-making process which leads to the action plans that will be derived. For instance, under the network centric operation many forces or agencies leaders will be able to monitor and be a part of the decision-making process. Sharing and dissemination of various information's under one network has made this situation complicated as to whom will have the authority in making the final decision. Some circumstances would only allow one crucial decision need to be made for the operation and these leaders have the conflict on whose call it should be.

It takes many steps and procedures which are definitely time consuming for the operation system to be integrated and to be utilized. Malaysia is not exceptional for this statement. Malaysia has developed the strategy for the implication of the network centric operation system in five major phases. Phase 1 Alpha which is the Experimental Joint Force phase has been implemented since the year 2011 till 2015. Currently the Malaysian Armed Forces is in its Phase 1 Bravo which has been planned from 2016 till 2020. Following phase which is Phase 2 has been planned from 2021 till 2025 while Phase 3 will be implemented from the year 2026 till 2030 and finally the full integration has been planned which is the Phase 4 from the year 2030 till 2035 (Defence, 2015). Phase 1 Alpha has been tested with the X-Band communication system which the satellite for the X band

is owned by the Malaysian government and being managed by the satellite experts by the Malaysian Air Force unit. Operation which has been practiced is being tested under highly encrypted form and also comprises of high level of cyber protection. Phase 1 Alpha and Phase 1 Bravo which has been used is solely run by the local agency namely the Sapura Technologies which comprises of 120 local ventures. This is to ensure the maximum security and self-reliance on operating the network centric operation system. Otherwise, Malaysian Armed forces need to have the involvement of the third parties to operate the system which eventually defeats the purpose of having the network centric operation system encrypted.

Network Centric Operation in the Malaysian Armed Forces has been conducted with the four main elements as the basic principle in the integration and conduct of the system itself. First would be the observation where in this element the observation towards the enemy location and the need for observing the valuable tactical and strategic assets are highly required for the military operations to be carried out. As the observation takes place comes the second element which is the orientation element. Orientation in this context refers to the evaluation of the battle situation which is crucial to determine and decide the follow up actions need to be taken. This process is vital to help in the next step which is the decision-making step. Under the decision-making step the appropriate approach along with the equipment's and weapons needed for the conduct of the operation based on the evaluation is vital. Incorrect evaluation will definitely cause the wrong steps planned and worst the wrong equipment's being used or engaged which can cause unwanted collateral damages. Finally, the action step will be put in place and the actions implemented is conducted based on the precise observation, orientation and also the decision-making process to ensure the victory of the mission carried out. As for the network centric operation demonstration that has been made during the Fire Power Demonstration in the year 2018 where the former Defense Minister was able to engage the target locked at the Asahan range which is located at Gemas from Kuala Lumpur definitely proves the high capability and ability of the network centric operation. It shoes that the network centric operation can lessen the time consumed for the Malaysian Armed Forces in order to track on enemies, evaluate information's on the enemies, ability to distinguish between the friendly forces and enemy forces and also allows the correct and precise decision making to engage on the enemy's center of gravity (COG).

Another key policy of the Defence White Paper that shaped the strategies taken by the Malaysian Armed Forces and influence the strategies adapted by the Malaysian Army would be the outcome of the government renounces the use of forces as means that would settle the disputes or conflicts as part of adopting peaceful settlements of those disputes. Concentric Deterrence has been chosen by the government in manifesting this as a part of the national defence strategy. Such policy has been derived which is also in line with the Interest-Based principle that allows the Malaysian Armed Forces to systematically protect the national interests according to the core, extended and forward areas. Malaysian Army would take the strategy of defending the core area covering the landmasses while the Malaysian navy would cover the territorial waters and Malaysian Air force would cover the airspace of the nation. In fulfilling this task, the Malaysian Army has taken the strategy to seriously look into the Counter-Insurgency (COIN) operations as these operations is considered to be in high relations based on the Lahad Datu incident that occurred back in 2013. Such incident shows that the threats possessed by the militant groups could make Malaysia to be a convenient place to conduct their operations based on the geographical advantages for them. Thus, the Malaysian Army has adapted to overcome these threats by further enhancing operations along with consistently upgrading the weapons and technologies to support the operations. Apart from that, rapid developments are the urban area has also increased the threats in those areas which have brought to the strategy developed by the Malaysian Army in concentrating for Operations in Built-Up Areas (OBUA). Neglecting the importance of the OBUA would result in the incident of Mosul and Mawi back in 2017 (Semmaché, 2018). Such incident shows that the Malaysian Army is serious ensuring to be able to conduct OBUA and Close Quarter battle (CQB) more effectively by the building up of the OBUA training facilities at the PULADA, Ulu Tiram. Based on the Defence White Paper throughout the implementation period it would be focused to support these types of operations by giving priority is given towards enhancing detection capabilities with sophisticated ISTAR systems supported by a faster decision making and communication loop, via NCO initiatives. Defence White Paper has highlighted during the first term the Malaysian Armed Forces will focus on enhancing its detection capabilities by adding into new air defence radars, coastal surveillance radars and unmanned systems to support its operations in the core area. Communication equipment will also need to be upgraded for more secure communications and better coverage.

Malaysian Army has taken this strategy by starting to develop new artillery units and in the process acquiring more advanced indirect fire support weapons such as the 155mm Self-Propelled Howitzer (SPH) that would be the primary weapon for indirect fire support which can also be utilized for coastal defence. Apart from that the Malaysian Army is also in the process of replacing its 105mm Pack Howitzer with newer guns that have longer range and better precision such as the LG MK II that has been in the service with the 1st Royal Artillery Regiment (PARA). Apart from the upgrading of the weapon system the Malaysian Army has focused in establishing various units in order to strengthen the military capabilities to meet with the growing threats thus the establishment of new units such as the 8th, 22nd and 35th artillery units have been planned and the formation of these units will be established soon. Such strategy is in-line with the defence white paper requirements in establishing a more dynamic military force in Malaysia. Initially the establishment of the Eastern Sabah Security Command (ESSCOM) as a part of the counter action for the 2013 Lahad Datu incursion which has been a part of the Malaysian Armed Forces to further enhances the security in the Sabah region to face the increased threats that has been faced by the nation. Formation of the ESSCOM has been always been part of a crucial strategy for the Malaysian Army in handling the threats at Sabah region and this strategy which is in-line with the Defence White Paper strategy.

CONCLUSION

Defence White Paper that has been presented back in 2019 has been a great milestone for the Malaysian Armed Forces to further provide better service in safeguarding the nation. Although the policies that have been derived is to be seen as the long-term policies it will enable the nation to deal with the threats are emerging in various forms in the region. As for now after two years the Defence White Paper has been presented the Malaysian Army has adapted the strategies that is required to meet the need of the policies along with the National Defence Policy 2019. Defence White Paper is seen to be by far a good outline in shaping up the national defence capabilities that will be suitable with the evolving threats not only in the regional scale but also globally that could directly and indirectly affect the sovereignty of Malaysia. As for the Malaysian Army all the strategies are by far shaping the organisation in meeting the policies that has been derived and as per stipulated the Malaysian Army will be able to meet the requirements of the service by Malaysia. Externally the Defence White Paper reaffirms the government's commitment in ensuring the nation's security not only according to the

current threats but also taking into considerations of future threats thus the policies have seemed to be the right measures that can ensure the national security in future. Based on the policies that have been derived the Malaysian Armed Forces has been working other related security agencies to fulfil all the strategies, pillars and policies that has been the core of the Defence White Paper. In accordance to that, the Malaysian Army is also playing its key role in ensuring the policies requirement can be met for the enhancement in terms of the security for Malaysia.

REFERENCES

(1957). *Malaysian Constitution*.

Defence, M. o. (2015). *ArmyNext4G*. Kuala Lumpur: Ministry of Defence.

MINDEF, M. o. (2020). *Defence White Paper*. Kuala Lumpur: Percetakan Nasional Malaysia Berhad.

Mohamed, Y. T. (2020). *Defence White Paper*. Kuala Lumpur: Percetakan Nasional Malaysia Berhad.

QUICK, B. H. (2019). The Making Of Defence White Paper. *New Straits Times, Malaysia*, 2.

Sariburaja, J. J. (2016). *The Lahad Datu Incursion & It's Impact on Malaysia Security*. Kuala Lumpur: The Southeast Asia Regional Centre for Counter-Terrorism (SEARCCT), Ministry of Foreign Affairs.

Sproles. (2001). A System Approach to Establish Effectiveness for Command and Control. *ICCRTS*, 22.

DEFENCE WHITE PAPER (DWP): STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY

**By LT KOL MARZUKI BIN MD YUSOF
ROYAL MALAY REGIMENT**

INTRODUCTION

A Defence White Paper (DWP) is a government document about the country's strategic direction and defence planning. It is different from classified defence policy papers in that a DWP is an open document accessible by the public, with no confidential material. Both documents present a country's security assessment, defence posture and military capability development, but with different purposes and emphasis. The Malaysian Army play an important role in order to fulfil the requirement of DWP.

In recognition of the Malaysian Army, it has evolved over the years. Since its establishment in 1933, the Malaysian Army was equipped to fight insurgency in two different phases, conventional warfare and into new generation warfare. There are two factors that influence the warfare, that is threat-based and capability-based. The threat-based (3rd Generation Warfare), it consists of insurgency warfare and conventional warfare. In insurgency warfare, the Malaysian Army had played an integral part in the success of defeating the communist terrorists during Malaysia's early days as an independent nation. As time went by, the Malaysian Army was developed to fight in conventional warfare. The development of conventional warfare was especially necessary considering the end of the cold war and the first Iraq War, where conventional warfare seemed to be the common warfare that occurred within interstate conflicts.

Subsequently, the nature of warfare shifted to 4th generation warfare, where non-traditional threats were becoming more prominent. Threats such as terrorism and transnational crimes were threatening national security, and the Malaysian Army had to prepare to face these threats. Thus, the Army Plan 2 10 plus 10 was developed. Next, a new generation of warfare has emerged known as the 5th Generation Warfare. This warfare would require an objective force, one that is able to fight both in a real physical environment and at the same time fend off threats from a virtual or cyber environment.

The Malaysian Army, therefore, has to evolve with time and developed to be able to fight in all possible eventualities and environments. Thus, Army 4nextG was initiated. To prepare the army for 5th generation warfare, as well as the continuation of the Army Plan 2 10 Plus 10, which has reached its maturity, a new plan called Army 4nextG has been developed (refer to **Figure 1**). The strategic goal for Army 4nextG (known as land force strategy) is to operate in two theatres simultaneously. These goals are supported by capability goals which include detection, survive & strike, sustainment, protraction and nation-building strategy. However, the achievement of capability goals must be based on the requirements and needs of each capability, which will be the foundation in developing the army's future strategic plan. Therefore, the aim of this article is to analyze the strategies that had been used in land force strategy consists of detection, survive and strike, and protraction and techniques to conduct the strategies in order to fulfil the requirement of DWP.



Figure 1: The Army 4nextG derived from National Defence White Paper

THE LAND FORCE STRATEGY

The Malaysian Armed Force has derived from Defence White Paper and highlights the three concentric areas that are core, extended and forward. The core is covered by the Malaysian Army consists of the land masses of peninsular Malaysia, Sabah, and Sarawak, the territorial waters (up to 12 nautical miles), and the air space above. For the extended area, are covered by Royal Malaysian Navy (RMN), consists of the Malaysian Maritime Zone (MMZ), Strategic Waterways, Airspace, And Critical Lines of Communication. Last but not least, for Royal Malaysian Air Force (RMAF), forward area consists of locations beyond the extended area where Malaysia's national interests are affected.

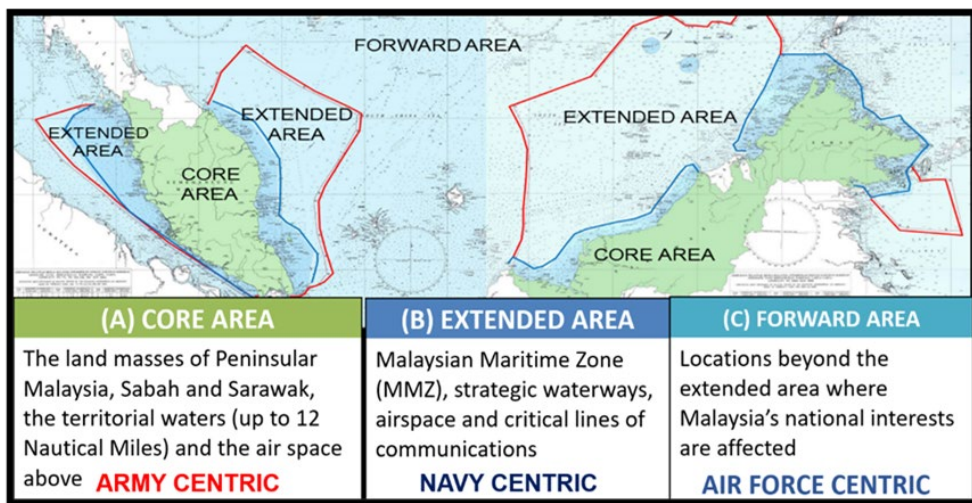


Figure 2: National Concentration Area

Performing land force strategy by the Malaysian Army is important in order to implement Comprehensive Defence, the DWP's second pillar of the defence strategy. The strength of land force operations depends on the Malaysian Army to operate jointly with Royal Malaysian Air Force (RMAF) and Royal Malaysian Navy (RMN). Capable weapons systems, firepower, mobility, protection, and logistics support are all required to complete the mission. Due to Malaysia's vast borders, the Malaysian Army must be able to respond quickly as a united force to any threats. In peacetime the Malaysian Army practices peacetime engagements encompassing good relations with civilian. Additionally, the Malaysian Army needs to be involved in national development and cooperate with civilian enforcement agencies in addressing national security issues.

In order to accomplish the objective of Army4Next to operate in two theatres simultaneously, the administration of the army's division is divided into two, that are west field command and east field command. that are peninsular and south Malaysia (refer to **Figure 3**). The strategy involve in this strategic development plan is detection, survive & strike and protraction.



Figure 3: The Malaysian Army's Command

DETECTION STRATEGY

The Malaysian Army will apply this strategy to detect the enemy's activities, intentions and identify potential targets at the onset. This strategy will be implemented in peacetime by utilizing the various detection systems that the Army has in place; be it electronically based or by Human Intelligence (HUMINT), operating in the various designated area of responsibility of the respective Divisions. During war or armed conflict, the focus will be to collect information and real-time battlefield data to assist effective tactical and operational decision-making processes by Commanders at all levels. The ability to anticipate changes in the security environment also requires a forward-looking strategy and an effective organization to implement it continuously. During this pandemic, the Malaysian Army play their roles by assisting government to control the spread of this virus. For instance, the Malaysian Army performing early detection by cordon the area that had been contaminated by the virus, and controlling the people from entering the area. China used smartphone apps to track the virus's spread, Russia used a facial recognition system to track down people breaking rules, and Tunisia used police robots to approach and question people walking down

deserted streets. Drones have been utilized in India to monitor lockdown as well as to measure people's body temperatures.

South Korea, for example, mandated bracelets to deter people from defying quarantine. In the post-pandemic environment, some of these or comparable practices will persist. Several governments may force citizens to use wearables or divulge their locations in the sake of "national security" or the "common good.". Unfortunately, such tactics will be used primarily to spy on political opponents and silence dissenting voices. People in some nations are already being forced to choose between their safety and their personal liberty, which is extremely concerning. Next, detection is used by the Malaysian Army to overcome the cyber threat in Malaysia. It is handled by Cyber Defence Operation Centre (CDOC) using Anti-Geolocation or usually known as Geo-tracking. Geo-tracking is a security capability in mobile devices that enable admins to track the real-time physical location of roaming-users devices. Generally, the physical location obtaining by GPS data through our smartphone or our gadget. This Geolocation is modern threat that will exposed to threat about our military camp location and other military vital location. Step taken by CDOC that traces the geotagging being used in military camp and before being posted to social media. CDOC is capable to demolished the sources or the link from exposed to threat main in social media. This are another solution taken by CDOC for solution counter modern cyber threat in the Malaysian Army.

Furthermore, another precaution taken by CDOC in order to prevent cyber threat in MAF are with capabilities of code breaker or cryptography protecting devices or database from unauthorized access. Cryptography is essential to many models of cyber security its applied algorithms to shuffle the bits that is represent a data in such a way that only authorized users can unshuffled them to obtain the original data. Finally, in term of exploitation for countermeasure modern cyber threat in MAF. CDOC conduct are threat intelligence. Threat intelligence referring to the data that is collected, processed, and analyzed to understand modern cyber threat actor's motives, targets, and attack behaviours. Threat intelligence enables us to make better educated, data-backed security decisions and shift from reactive to proactive behaviour in the battle against threat actors, primarily in terms of Armed Forces data bases.

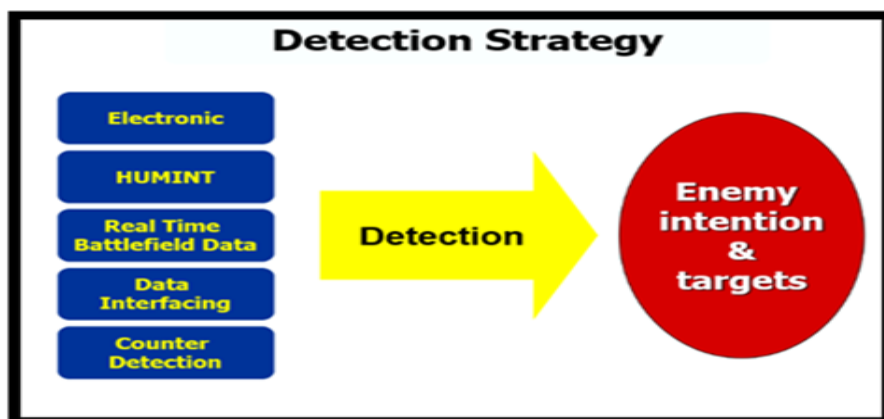


Figure 4: Detection Strategy

SURVIVE AND STRIKE STRATEGY

The objective of this strategy is to survive the initial onslaught while holding the enemy at a specified line of defence. By doing so, the enemy's depth echelon will be isolated; thus, allowing counter-offensive to be launched to neutralize the enemy forces and hitting him at his 'Centre of Gravity (C of G)', eventually driving them off the country. The tenets of this strategy require the application of survivability by operating forces while its success is dependent on a sustainable and integrated logistics support system. The land force strategy implementation is heavily reliant on the demand to enhance defence self-reliance skills in order to make the most of limited resources. A country's level of self-reliance is defined as its ability to maintain its territorial integrity and national sovereignty with its own resources rather than relying on external aid. These resources include enough infrastructure and highly trained human resources, as well as a proficient national defence industry capable of providing complete logistical support to the Malaysian Army. The ability to lower the cost of procuring foreign equipment and assets is an evident benefit of defence self-reliance. Furthermore, the development of the Command, Control, Communications, Computers, Intelligence, Surveillance & Reconnaissance capabilities (C4ISR) is an important aspect of the land force strategy implementation. For the time being, existing C4ISR capabilities are sufficient for the Malaysian Army to carry out its missions. The Malaysian Army, on the other hand, is working to embrace the notion of network centric operations (NCO) (also known as network centric warfare (NCW)) in order to improve its C4ISR capabilities and turn them into a more effective warfighting capacity.

NCO enables a well-connected force to communicate information through a secure infrastructure, allowing for self-synchronization and, as a result, more successful military operations. NCO is based on four tenets: a well-connected force improves information sharing; information sharing improves the quality of information and shared situational awareness; shared situational awareness enables collaboration and self-synchronization, as well as command sustainability and speed; and these, in turn, dramatically improve mission effectiveness. In addition, NCO represents a step forward from previous command and control (C2) levels such as C3I, C4I, and C4ISR. It is defined by the ability of geographically scattered forces to develop a high level of shared operational awareness that may be used to meet the commanders' mission objectives through self-synchronization and other NCO actions. It promotes command speed by converting superior information into action, and it has the ability to help military activities at the tactical, operational, and strategic levels come together.

The application of new technologies to existing platforms and organisations isn't the only part of a successful NCO implementation. It necessitates the incorporation of operational concepts, information infrastructure (infrastructure), C2 techniques, organisational forms, doctrines, force structure, and support services into the Mission Capability Package.



Figure 5: Survive And Strike Strategy

PROTRACTION

This strategy will be launched once the conventional option is untenable or no longer viable. The essence of this strategy is to deplete the enemy through attrition by asymmetrical means. The

Army will continue to combat a prolong war to weaken the challenging force and its will to fight; and subsequently defeat him through attrition. The Army's core competency and experience in counter-insurgency warfare is of paramount use here; hence it needs to be maintained and sharpened indefinitely. The Malaysian Army, through the presence of the Volunteer Forces in the community, the noble values of the Malaysian Army are shared with the civilian, hence promoting better civil-military relations. The Malaysian Army remains committed to strengthening the primary roles and functions of the Volunteer Forces, which is to augment or mobilise with the Regular Forces during emergencies or war, or when required, and to assist the civil authorities during emergencies and disasters. Apart from the existing roles, the Government is dedicated to enhancing the capabilities of the Volunteer Forces to mirror those of the Regular Forces in carrying out the following duties as defined in the Armed Forces Act 1972 (Act 77):

- Ready to be mobilised and assume responsibility or as replacement to the Regular Forces when required;
- Assist and provide defences (including Low Level Air Defence or local defence in a sector) to important targets and installations, and critical points or zones;
- Implement and provide immediate support in various areas such as reconnaissance, access control and anti-colonial activities.

The Volunteer Forces is a conducive platform to inculcate patriotism among the youths. Thus, the Malaysian Army will step up measures to encourage the youths to join the Volunteer Forces including to constantly review the allowances' structure. Concurrently, additional efforts will be undertaken to strengthen patriotism and increase diversity among the Volunteer Forces personnel. The management of the Reserve Officer Training Unit (ROTU) will be reviewed to ensure that it is optimised to serve the wider national interests. The government will also boost the number of commissioned ROTU officers serving in the Volunteer Forces and place a greater emphasis on the program's quality. The Malaysian Army with support from the government is determined to sustain and enhance the employers' support and commitment to the Volunteer Forces. Among the measures to be taken are strict enforcement and public awareness of the 1972 Armed Forces Act (Act 77) concerning employers' responsibilities. The Volunteer Forces currently has

expertise in signals and engineering, covering telecommunications, ports, water supply, electrical power and railway services. The Malaysian Army will focus on new fields of expertise in specific areas such as satellite engineering, cyber security, systems integration, cloud computing and big data to respond to current and future threats. For the log capabilities in protraction strategy, logistics assistance aspect must be enhanced so that it will be effective and efficient in giving quality services to MA. Logistics people should change, smart and focus on their tasks. Other than that, equipment maintenance should be planned meticulously with comprehensive and precise maintenance schedule. In the aspect of spare parts acquisition, it should be planned meticulously by making comprehensive and precise maintenance schedule for every piece of equipment so that it will fulfill MA readiness.



Figure 6: Protraction Strategy

TECHNIQUES TO PERFORM THE LAND FORCE STRATEGIES

First, strategic life cycle management, by reducing the variation of existing assets to facilitate management, maintenance to save overall operating costs. Mobility and firepower are important for maneuvering and fighting in modern warfare. The Malaysian Army needs to replace its ageing Armoured Vehicles (AVs) with newer ones with better protection, increased firepower, higher endurance and with amphibious capability. This is to ensure Armoured and Mechanised formations can be deployed throughout the core area where terrain can be very challenging particularly in Sabah and Sarawak. The Malaysian Army would also require Tactical Transport Helicopters for quick deployment and assault boats for riverine and coastal operations. Meanwhile, the Malaysian Army will maintain the existing armoured vehicles for current operational requirements. Additional

Troop-Carrying Vehicles (TCVs) and combat engineers' bridging equipment need to be added to increase mobility within the core area.

Second, the effectiveness of the training system where computer-assisted and simulator-based training will be increased. Simulation is a computational method used to evaluate a model numerically. Simulation is able to incorporate randomness through identified probability distributions based on real data, and is thus useful for studying the many interactions that occur in a complex helicopter maintenance system. We use discrete-event simulation (DES) because of its capability in modeling real-world systems where state variables change at discrete points in time². There are many advantages of using DES to make inferences about the real performance of the system and suggest changes if required. In this thesis, we perform a DES optimization experiment to determine the appropriate number of personnel for the maintenance crew of the new MAA helicopter fleet, while also considering personnel workloads. Simulation training is a method of simulating weapon system performance, combat environment, combat opponent, combat mission, and combat process with high fidelity using modern simulation technology based on computer technology, virtual reality technology, distributed simulation technology, and artificial intelligence technology, in order to make the department (sub-team) and trainee more effective. Simulation training is less affected by economy, weather, and personnel because it is built in a realistic simulated training environment and relies on modern science and technology. It can objectively and effectively reflect the training level of the training unit and has stronger training pertinence. As a result, the research and implementation of simulation training technology is highly valued both at home and abroad.

Simulation is used to enhance the process of collecting training. In the Malaysian Army, the term collective training refers to training events in which units of soldiers (e.g., teams, squads, platoons, companies, and above) learn, practice, and demonstrate how to perform group activities that are key to their missions. Because it builds on individual training and prepares soldiers and smaller units for success in larger unit training events. Virtual training is characterized by real people operating simulated systems to perform such tasks as learning or exercising motor skills (e.g., flying a jet or driving a tank), making decisions, (e.g., when or where to execute fires), or communicating (e.g., among members of a command). As example, the Malaysian Army inaugurated its Immersive Virtual Training Simulator (VIRTSIM) on 14 August at Syed Sirajuddin Camp in Gemas. The system enables tactical training for

an infantry squad to be conducted in a virtual environment within an actual basketball court-sized space. In addition, the integration of the training system will also be implemented with the combination of several training centers into one sustainable and effective organization. As example, the Malaysian Army had been followed the doctrine that being published by Malaysian Army Training and Doctrine Command (TRADOC). It is known as PL&DTD, a military command in charge of all Malaysian Army training centres, facilities and museum. The National Centre for Defence Studies (Pusat Pengajian Pertahanan Nasional, PUSPAHANAS), which includes the Malaysian Armed Forces Staff College (MAFSC), Malaysian Armed Forces Defence College (MAFDC), and the National Resilience College (NRC), is the next training centre for the Malaysian Army. It offers a variety of strategic and defence studies programmes. The goal of PUSPAHANAS is to become a dynamic centre for strategic and military affairs research and education through leadership development programmes aimed at improving the professionalism of the MAF and other important security and defence stakeholders.

Next, logistics training centre will house service corps, ordnance and electrical and mechanical engineering in a single training centre. As example, PULNORD (Ordnance Corps Training Centre) may be a single training centre in the Malaysian Army in conducting training in the aspects of distribution and maintenance of logistics. In addition, Royal Ordnance Corps (KOD) must play the important role in conducting this logistic training. KOD must responsible for ensuring that every asset and inventory is taken into account at all times, and monitor all the logistic parts in formations under the Malaysian Army. For example, based on military resources, material and equipment assistance for the conflict must be considered. The cost of existing spare parts will be included in the machine aspect, which is based on current defence equipment. If there is a decline in inventory stock, KOD will take that into account by updating the current ready status. This case demonstrates a flaw in the MAF logistic system practice. The Malaysian Army's readiness will be directly affected by the delay problem and management in logistic governance.

Moreover, in this digital era, the use of robotic systems such as Explosive Ordnance Disposal (EOD), Unmanned Aerial Vehicle (UAV), Unmanned Ground Vehicle (UGV) and other systems must be enhanced. The digital development is also in line with the army's requirements to operate in multiple domains and various environment. To meet the digital development in the army requires the use of network-centric operations (NCO) Each brigade will also be equipped

with assets that provides added value in carrying out humanitarian aid operations and public order. Malaysian Army is directly involving in the efforts of managing the illegal immigrants, especially at the borders such as the involvements in Op BENTENG. With the involvements in National Task Force, the Malaysian Army personnel need to adapt with the emerging issues. Military Operation Other Than War (MOOTW) are become more common for time to time.

The Malaysian Army also must recognize cyber electromagnetic as a new operational domain. This domain provides critical capabilities that enables the Malaysian Army to conduct operations safely across all other domains. The usage of Unmanned Systems such as drones as destructive weapons has become a more widespread practice³. In September 2019, an attack employing drones was launched against Saudi oil processing facilities. Meanwhile, rebel groups in Syria had executed multiple strikes on military bases utilising drones with explosive payloads. Such incidents prove that these threats are a reality that we must confront. For the purpose of military operations, the combination of cyber operations with Electronic Warfare (EW) capabilities forms up the Cyber Electromagnetic Activities (CEMA) efforts to protect Critical National Information Infrastructure (CNII). EW is a promising countermeasure element in combating drones of all sizes and mission profiles. Last but not least, defence can be carried out through Electronic Warfare (EW) to disrupt the navigational system, communication, fuses and weapon trigger functions, and may potentially take over the control of the drones. In the near future, a combination of weapons and AI technology will pose a new threat to the nation. Potentially, AI will not only increase the efficiency and lethal effect of kinetic weapons, but also guide weapons. Such AI-guided weapons, defined as Autonomous Weapons Systems (AWS), can independently select and attack targets without human intervention.

CONCLUSION

There is uncertainty in the future of war. Armed conflicts and wars may occur but the scale and the location might be limited. With the increasing complexity of current and future wars, planners and strategists have a more challenging task in enhancing the Malaysian Army capabilities and conduct of wars. Investment in modern military technology is the best choice for the Army. However, advanced technology alone is insufficient to determine success in war. The most important aspects of warfare still lie in the soldiers and the leadership. Therefore, the Army has to keep abreast in military technology, professionalism and command in order to perform its given role to

defend the nations' integrity and sovereignty. In the land force strategy, we can conclude that logistic play an important role in the Malaysian Army. The ability to maintain logistic support throughout the operation is referred to as sustainability. The sustainable concept focuses on achieving long-term goals and meeting the needs of the team that is being supported and also maintain combat power to the Malaysian Army. Furthermore, logistic also influence the readiness of the Malaysian Army. The operation should not begin until the minimum level of assistance is in place. To summarize, there are 3 strategies in conducting land force strategy (Army 4nextG) that are being applied by the Malaysian Army in order to fulfil the requirement of Defence White Paper. The strategies that are being applied by the Malaysian Army are detection, survive and strike and protraction. In order to conduct the strategies, the techniques such as strategic life cycle, effectiveness of training system, simulation and virtual training, integration of training system, logistic training centre, use of robotic system and cyber electromagnetic must be applied to make sure the successfulness of the land force strategy (known as Army 4nextG).

REFERENCES

- Hundley, H. O., & Anderson, R. H. (1995). Emerging challenge: Security and safety in cyberspace. *IEEE Technology and Society Magazine*, 14(4), 19-28.
- Law, A. M. (2013). *Simulation modeling and analysis* (5th ed.). Boston: McGraw-Hill.
- Tang K. (2020). Movement control as an effective measure against Covid-19 spread in Malaysia: an overview. *Zeitschrift fur Gesundheitswissenschaften = Journal of public health*, 1–4. Advance online publication. <https://doi.org/10.1007/s10389-020-01316-w>.
- Wilson, C. (2007, March). Information operations, electronic warfare, and cyberwar: Capabilities and related policy issues. Library of Congress Washington DC Congressional Research Service.
- 12 Technological Advancements of World War I. Retrieved from <https://www.mentalfloss.com/article/31882/12-technological-advancements-world-war-i>.

CHALLENGES FOR MALAYSIAN ARMY IN THE NATIONAL DEFENCE ECOSYSTEM

**By LT KOL MARLINAWATI BINTI MAHMOOD
ROYAL ARTILLERY REGIMENT**

INTRODUCTION

The Defence White Paper (DWP) has been published for public perusal in early 2020. It demonstrated the Government's initiative in protecting and defending Malaysia's national interest. Malaysia national interests focus on the vital effort to preserve its strategic environment well as to protect its national security from internal and external threats (NDP 2010). DWP (2020) states that it is objectively the Government's stance on national defence; presents its outlook for strategic trends and outlines the National Defence Framework to pursue the vision of Malaysia as a secure, sovereign and prosperous nation.

The Malaysian Armed Forces (MAF) has made known its planning in developing the future force in the DWP 2020 to enhance military capability. Military capability can be defined as "the ability to deliver lasting effects or results which is relatively connected to the threat, the environment and the combination of both" (Military Balance 2019). The DWP stated that the government plans to develop the MAF into a force that is able to cope with the dynamic geostrategic landscape. In order to create a credible future force which has the ability to achieve strategic objectives, a thorough planning must be executed. It will involve the highest level at the MAF and Ministry of Defence (MOD). In line with this, the 4D MAF concept was formulated much earlier than the DWP. Under the umbrella of the 4D MAF, all tri-services defence capability development plans were constructed, including the Army for Next Generation (Army 4NextG) program.

The Army 4NextG 2021-2050 is a long-term strategic plan on the Army's operational capacity, supported by systematic capacity development management with a focus on the goal of capability detection, survival and strike, sustainment, protraction and nation-building. The Army 4NextG is one of the most important strategies taken by the Army to develop its capabilities and capacities which is in line with the DWP.

The Army 4NEXTG Concept

The Army 4NextG concept is a continuation of the Army 2 10+10 approach that emphasises holistic measures through sustainable capability development. While force projection and personnel development are paramount, the cumulative approach to ensure a balanced development of firepower, command and control, service support and all other operating systems in the military is an important aspect that is given due consideration in adhering to the requirements of the DWP. One of the major considerations put into this is the geo-strategic environment that is ever-evolving. The threat dimension that has both traditional and non-traditional elements has altered the way nations perceive and manage threats and thus also causing the MAF to gradually adapt to the security demands of today.

Having said that, the concept considers the multi-dimensional operational environment that includes humanitarian, information, space and maritime, among others. This demands a concerted effort to develop capabilities in all spectrums of threat and in all domains. While it requires consistent and simultaneous development of all services, it greatly demands capability development for the army to be at par with both the RMAF and the RMN, which will enable the army to have high inter-operability with these forces. This also relates to the ability to provide a synergy towards kinetic and non-kinetic capabilities that will further enable swift response in all spectrums of threats. With threats being highly fluid, the Army 4NextG approach is found to be highly responsive and anticipative of the DWP.

In addition, the Land Warfare Strategy of the army is gradually enhanced to meet the demands of the security environment. As such the army continues to develop its capabilities in the multi-dimensional operating environment through the transformation of its doctrines, organisation, training, materials, leadership approach, human resource and facilities. This transformation is relevant to the operational demands and technological advancement that is crucial to ensure the operability of the army in the current and future environment. It also demands adaptation to methods and approaches to enable innovation and improvisation of organisational routines to keep up with the development pace.

In spite of that, the Army 4NextG approach focuses on the four main pillars which is Force Structure, Modernisation, Readiness and Sustainability. Force Structure requires detailed and thorough planning into the required strength and composition of the force to be relevant to the security environment. This will require reconstructing

of the organisation to meet the force requirements. Modernisation is a challenge as it involves budget implications. However, it is crucial as it relates to equipment, human resource and even doctrine. Readiness on the other hand will require the army to ensure that all aspects of deployment is fulfilled to enable the troops to be mobilised whenever required. This will require high sustainability in all situations for the army to operate optimally.

CHALLENGES

❖ Man (Man Power/Human Resource)

Man is the most important in the five M's, the first of the five M's. It means the challenge to get the right personnel for the right job in order to ensure the effectiveness and efficiency in the military organisation. According to the characteristics of Future Force under Army for NextG, one of the characteristics is **Technology-based** (DWP, 2020). Previously, the force structure and force posture were depending on manpower and it elaborated further that the Army will review existing doctrine and incorporated more automated and autonomous technology. Refer the basic function Human Resource cycle (Suriakala, 2020) and the **Technology-based** characteristic in Army for NextG Future Force, the Army should put a consideration about having technology-based human resources in the future especially for the lower ranks in the organisation. Therefore, the product of human resources in the Army will be more complex in terms of recruiting and training which need to be designed and shaped for the future force. Once the human resources is available, another challenge will be the retention period and they may have becomes a valuable workforce to the private sector market later on. Therefore, the basic function of HRM practitioners needs to scrutinise the cycle of human resources in terms of recruiting, career development and retain in order to meet the concept of raise, train and maintain.

❖ Machine (Hardware and Assets)

As stated above, in terms of desired military capabilities; Malaysia is unable to rely heavily on its defence industry. Even though the government supports the defence industry, the status of Defence industry is questionable and still in the infant stage (Adam 2020). This will be a challenge for Malaysia to full fill the desired capabilities according to the future capabilities in the core area, extended area and forward area. The capabilities planner will face these challenges due to limited options in term specification and design since it relies on COTS Aaron Karp (1990) "military

procurement be tricky guessing game". In order for the Army to have the capabilities to meet its future military capabilities particular, there are several factors that need to be considered. Firstly, is the assessing the strategic environment in Malaysia, secondly is the development of warfare technology, thirdly is the affordability of Malaysian Government to spend for the Army modernisation and lastly, the expectation of nations towards MAF in general. As what been mentioned by CDF during his keynote address "*...in term of resources, we are system dependent, if we need the system, we have to buy from the system and it will cost dollars and cents...*" (CDF 2020). Therefore, decision making will be not an easy task for military capability planners in order to meet the capabilities required for future force.

Dinesh (2010) stated that the defences policies and force modernisation often encounter constraint budget allocations or unpredictable budgetary cuts. This will lead into a predicament of strategy resource mismatch. For instance, maintenance of current operation (maintenance) also will be a huge problem for the Army. In the period of DWP 2020, MAF need to consider defence procurement in all domains and the same time needs to maintain/retrofit the ageing capital assets. Due to the uncertain defence budget, the Army has had to be pragmatic in its spending between current operational needs and force developmental aspirations given the fiscal realities in the past few years (Ananthan 2018). The reduced budget means that defence planners will have an uphill task of full filing force transformation goals while at the same time meeting all operational requirements. This highlights the dichotomy of maintaining and supporting forces for current operations versus force development. The constant hikes in prices of goods and services nationwide suggest a rising cost of sustaining current security operations. This is likely to impact military modernisation efforts, which may see many planned and anticipated programmes to be scaled down.

❖ **Method (Doctrine/Policies)**

DWP (2020) stated that Malaysia is a maritime nation with continental roots due to its geographical location which the centre heart of Asian Region. As a maritime nation, the Army need to consider the restructuring of its organisation structure to meet this requirement. This will incorporate 4th industrial revolution technologies such as AI, robotics, and quantum computing. In addition, the formation of amphibious forces and the use of autonomous equipment will be vital for the aspired future force of the Army. Hence, the Army must re-evaluate its present doctrines to suit

these cutting-edge technologies as it will introduce more autonomous systems, reducing soldiers' workload (Liew 2019).

❖ **Money (Financial Support)**

Malaysia is a developing country and aspiring middle power (Liew 2019). Even though the economic trend has been increasing for almost two decades, the economic trend recently is slowing down and fluctuating and this has positioned Malaysia financial weaker than before. WDI (2019) reported that Malaysia Gross Domestic Product (GDP) is has been running an average of 5 per cent for a number of years (Figure 6). Meanwhile, the defence budget is not determined through a fixed percentage of the national GDP. NDP (2010) stated that the allocation of defence funding will not be based on the GDP meanwhile DWP 2020 does not quantify the basic percentage of defence funding. According to Tan Sri Abdul Wahid Omar (2020), the basic percentage of defence funding is not more than 1 per cent of the annual GDP.

In comparison with other ASEAN countries such as Singapore and Indonesia, Singapore defence spending is 2.7 per cent meanwhile Indonesia is 1.8 per cent (Military Balance 2019). The development of future force will involve the development expenditure Having said that, this will course the uncertainty and development expenditure is unpredictable. This will give an impact on the capability of planners to forecasted developments plan. The uncertainty of annual budgets will affect the development programmes. If this situation occurs, therefore it is forecasted that the development of future forces may be routinely adjusted due to budgetary constraints and perhaps may not produce coherent force structure and force posture.

Another challenge is cost estimation (Ananthan 2014). Cost estimation is a high risk for military capability planners. Wrong cost estimates can result in serious damages of the desired future structure and future posture. Wrong cost estimates may lead to budgets cut for lower priority but vital items. Cost estimates need consistently scanning of the strategic environment which is dynamic from time to time and it is essential to oversee for changes and risks. If the defence projects cost estimates go wrong due to poor estimation quality and volatility of world prices. Given the aforementioned vagaries of political influence as well as financial and budgetary inconsistencies, the challenge to MAF's capability planners are indeed formidable in this particular area. It must be realised that even cost estimates are routinely corrected. Due to factors like the

global economy changes in government policy and project delays, they will remain volatile.

❖ **Material (Logistic Support)**

Without materials, human resource is made redundant. For example, a group of cement factory workers waiting for supply of limestone may have nothing much to do for as long as the supply does not arrive. In relations with Army 4NextG future force, the military capabilities planner should consider the availability of assets and the infrastructure and the quality of assets in good standards. As characteristic of force structure which is integrated, agile and focussed, therefore the desired assets must be ready to be operationalise together with the human resource readiness with adequate training. DWP (2020), the focus on Network Centric Operation in all domains which will be integrated, jointness and agile across all the services will be a challenge. The military capabilities planners need to scrutinise the vital requirement in term of specifications, operational design and operational cost in line with financial constraints. On top of that, the quality of material, the suitability of infrastructure and the platform require deep research by the military capabilities' planner.

WAY FORWARD

❖ **Man**

The Army has been entrusted with preserving national sovereignty and territorial integrity. To achieve this, a credible, versatile and balanced force is required as such human resources have become a key element in the Army towards the realisation of protecting the nation from multifaceted threats.

MAF modernisation including the Army 4NextG has been the main theme of DWP. With the current global geo-strategic and security environment being volatile, uncertain, complex and ambiguous (VUCA), the MAF modernisation is vital to respond to these emerging vulnerabilities. This modernisation includes the transformation of MAF's human capital. Under the DWP, strategies to minimise capacity gaps and attract the right talent through Defence Capacity Action Plan have been formulated (Ministry of Defence Malaysia 2020). This action plan serves to enrich the efficacy of the overall defence workforce to meet the requirements of future warfare. In addition, Army's future force is also envisioned to be highly advanced equipped with cutting-edge technologies to cope with multi-domain and complex threats. Thus, the Army needs to be staffed by

highly competent soldiers with excellent technical and analytical proficiencies.

Hence, the utmost critical criteria for Army's human resources recruitment should be 'quality was through 'targeted recruitment'; the Army can select personnel with appropriate knowledge and skills to fill vacancies. Besides that, there must be a retention strategy to balance young and experienced soldiers in order to overcome sudden attrition. The Army can optimise the K-Force concept to continuously enhance professional development among its personnel (Ismail & Abdullah 2017).

❖ **Machine**

The Lahad Datu intrusion was an eye-opener for the Army to relook into its capability requirements against future threats. A capability gap analysis found that most Army's assets are dilapidated due to operations beyond its economic life and are unlikely to cope with new-fangled threats. Through the DWP, the government has demonstrated its commitment to progressively address the gaps to maintain the forces' operational readiness (Ejaz 2020). The DWP has incorporated the single service capabilities development plan under the 4D MAF that was introduced well before the DWP.

However, none of these plans have been tabled in Parliament and cabinet; thus, MINDEF has to expedite the process to acquire approval from the government to ensure sufficient funding is provided for the realisation of the plans. Besides that, these plans also need to be streamlined under the new mission requirements of the future force as specified in the DWP.

The Army should also acquire capabilities that incorporate state-of-the-art technologies such as Artificial Intelligence (AI) and sensors to allow real-time surveillance as the NTS threats have become advanced. The use of autonomous equipment such as the UAVs was successful during the 'OP BENTENG' in detecting illegal immigrants (Bernama 2020). Therefore, investments in autonomous equipment (unmanned vessels and ground vehicles) are crucial for round-the-clock monitoring in remote areas along the borders that complement other existing assets such as all-terrain vehicles, littoral combat ships and radars (Krishnan, 2020). Leveraging these technologies will undoubtedly revolutionize how the Army responds to the threats, thus enhancing its agility, robustness, and efficiency.

❖ Method

Under the purview of DWP, the aspired Army's future force will incorporate 4th industrial revolution technologies such as AI, robotics, and quantum computing. Hence, the Army must re-evaluate its present doctrines to suit these cutting-edge technologies as it will introduce more autonomous systems, reducing soldiers' workload (Liew 2019).

Inter-agency collaboration is also paramount in ensuring these menaces are addressed efficaciously. The Army and other agencies must enhance premeditated interoperability and cooperation to be able to operate decisively. This is to avoid another 'Wang Kelian incident' where no concentric efforts from the enforcement agencies, as recorded during the inquiry (Dzulkifly 2019). Hence, primarily all present doctrines, Standard Operating Procedures (SOP) and agreements must be revisited and upgraded to include new techniques, procedures and arrangements that able to mitigate present and future challenges. In addition, vital resources (information, assets and expertise) can be shared through unity of efforts besides ensuring these agencies are well organised.

❖ Material

Lahad Datu intrusion taught a valuable lesson to the Army where operation through single theatre command proves inefficient and logistically unsustainable as Sabah and Sarawak are located miles away from Peninsular. For this reason, the DWP gives importance to the MAF's organisational reforms to enhance its ability to function concurrently in eastern and western theatres.

The establishment of ESSCOM certainly has curtailed the trans-border crime rate (Bernama 2017). However, with a vast land area to cover, irrefutably two brigades (under the 5th Infantry Division), operating in East and West of Sabah, together with other enforcement agencies, definitely are unable to provide inclusive security. The Army should ramp up efforts in establishing more infantry battalions, armour and artillery, especially in East Malaysia (Sidom 2019).

❖ Money

Malaysia's annual budget has always given importance to socio-economic development compared to defence and security. With an average yearly budget of 1.5% of GDP (Daniel 2019), the MAF has a challenging task in ensuring the organisation continues to be a

formidable force with robust deterrence capabilities against any threats. Although there was a slight increase in the 2021 defence budget (Bernama 2020), it was still insufficient to implement defense modernisation as per schedule. The lack of political will to bolster defence capabilities due to the intangibility of threats to national security needs to be addressed (Zuber et al. 2021). Therefore, serious defence reforms will need to involve a committed ministry and a strong defence industry. Continuously training in defensive, offensive mode and irregular tactics must be enhanced in a collaborative environment to prepare for future incursions. Government and politicians alike need to re-evaluate and reprioritise efforts focusing on defence and security.

More recently, the Covid-19 pandemic has severely dented Malaysia's economy and the cause of this collapse will be felt for a long time. This will force the government to take stringent measures on annual expenditures. Thus, the government should make prudent choices to guarantee that defence investments are made effectually and strategically to have long-term benefits to national security. Considering the rapid changes in security architecture, the government must immediately adopt identified reforms from the DWP. This will require political will and a clear direction on the defence modernisation program to be undertaken. Concurrently, the Army has to learn to manage scarce resources efficiently and 'to do more with less' (David 2017). It has to quickly adapt and seek unorthodox means to change this challenge into an opportunity and spend prudently in acquiring capabilities to fight NTS threats. The Army should focus on the selective-based acquisition of force multiplier strategic assets capable of providing effective deterrence even with limited numbers.

CONCLUSION

The paper has highlighted the strategies undertaken by the Malaysian Army in relation to the DWP. The DWP has indeed shed light on the defence and security requirements in the new and emerging security environment and this has enabled the MAF especially the Malaysian Army to strategies and focus on the development of the force and every aspect of the defence requirements. The strategies relate or is based on the pillars for force structure, modernisation, readiness and sustainability. While the challenges can be seen in the aspects of Man, Machine, Method, Material and Money. Needless to say, finance and budget will always be the main concern for modernisation of the force, however, the

alternate approach provided in the DWP in every level of operations must be considered to enable optimal operations.

The DWP also resonates with the planning and aspirations of the army. Much of the strategies which were already outlined in the Army4NextG publications, can be related and explained through the requirements of the DWP. As such, it can be said that the army is in the forefront and forerunner in adapting and fulfilling, the requirements and aspirations of the nations through the DWP. It is therefore hoped that every effort to complement and synergise the DWP within the army construct will be greatly beneficial. As the DWP takes precedence in stages, the MAF especially the army should always be vigilant and ready to face any form of threat.

REFERENCES

- Azilayati, S.N & Hashim, M.A. 2020. An Analysis on the Aftermath of Lahad Datu Incursion. *Journal of Media and Information Warfare*.13(1):87–104. <https://jmiw.uitm.edu.my/images/Journal/Vol123Paper3.pdf> [17 July 2021].
- Bernama. 2017. Esscom on right track in keeping cross-border crimes at bay. *The News Straits Times*. 5 December. <https://www.nst.com.my/news/nation/2017/12/310765/esscom-right-track-keeping-cross-border-crimes-bay> [30 July 2021].
- Bernama. 2020. Budget 2021: Defence Ministry's allocation increase shows govt's commitment to national security, says senior minister. *Malay Mail*. 7 November. <https://www.malaymail.com/news/malaysia/2020/11/07/budget-2021-defence-ministrys-allocation-increase-shows-govts-commitment-to/1920422>[7 August 2021].
- Clark, D. 2020. CPB implementing Autonomous Surveillance Towers. *Homeland Preparedness News*. 7 July. <https://homelandprepnews.com/stories/51904-cpb-implementing-autonomous-surveillance-towers/> [5 August 2021].
- Daniel, T. 2019. *Issues Impacting Malaysia's Maritime Security Policies and Postures*. Institute of Strategic and International Studies (ISIS) Malaysia. <https://www.isis.org.my/2018/06/16/issues-impacting-malaysias-maritime-security-policies-and-postures-2/> [8 August 2021].

- David, A. 2017. Budget constraint a 'blessing in disguise', says navy chief. *The News Straits Times*. 9 February. <https://www.nst.com.my/news/2017/02/210832/budgetconstraint-blessing-disguise-says-navy-chief> [9 August 2021].
- Dollah, R. 2017. Non-State Actor and National Security in Malaysia: The Royal Sulu Army and the Lahad Datu Intrusion 2013. *Akademika* 87(3):15-29. <https://ejournal.ukm.my/akademika/article/view/12936> [15 July 2021].
- Dzulkifly, D. 2019. Wang Kelian RCI: Aksem commander reveals lack of cooperation among agencies on border security. *Malay Mail*. 15 May. <https://www.malaymail.com/news/malaysia/2019/05/15/wang-kelian-rci-aksem-commander-reveals-lack-of-cooperation-among-agencies/1753165> [28 July 2021].
- Ejaz, A.S. 2020. Military modernisation programme a necessity. *The News Straits Times*. 24 October. <https://www.nst.com.my/opinion/columnists/2020/10/634790/military-modernisation-programme-necessity> [20 July 2021].
- Geraldine, A. 2016. PM launches Tun Sharifah Rodziah sea base. *The News Straits Times*. 28 May. <https://www.nst.com.my/news/2016/05/148287/pm-launches-tun-sharifah-rodziah-sea-base> [4 August 2021].
- Halizahari, M. 2020. Military Logistics Support in Sabah and Its Impact on Readiness and Interoperability of Malaysian Armed Forces. *Solid State Technology*. 63(6):35-43. <https://solidstatetechnology.us/index.php/JSST/article/view/5064> [19 July 2021].
- Hamzah, B.A. and Forbes, V. 2019. *Maritime Security in the Sulu Zone: Readings on History, Peacemaking and Terrorism*. Kuala Lumpur. Centre for Defence and International Security Studies (CDiSS), NDUM.
- Ismail, M., & Abdullah, R. Y. 2017. Perception of Knowledge Creation, Knowledge Management Processes, Technology and Application In Military Organisations. *Malaysian Journal of Library & Information Science*. 16(1): 73–85. <https://ejournal.um.edu.my/index.php/MJLIS/article/view/6685> [18 July 2021].

- Krishnan, D.B. 2020. Border control: 'Adopt new technology, bolster regional cooperation'. *The News Straits Times*. 2 December. <https://www.nst.com.my/news/nation/2020/12/646029/border-control-adopt-new-technology-bolster-regional-cooperation> [25 July 2021].
- Liew, C.T. 2019. Malaysia's Future Force. *The News Straits Times*. 22 July. <https://www.nst.com.my/opinion/columnists/2019/07/506222/malaysias-future-force> [27 July 2021].
- Lokman, R. 2019. Defence preparedness and gearing for future wars. *New Straits Times*. 10 June. <https://www.nst.com.my/opinion/columnists/2019/06/495304/defence-preparedness-and-gearing-future-wars> [29 July 2021].
- Ministry of Defence Malaysia. 2020. *Defence White Paper*.
- Mely, C.A. & Cook, A. 2015. *Non-Traditional Security in Asia: Issues, Challenges and Framework for Action*. Institute of Southeast Asian Studies (ISEAS).
- Nik, M.R. & Kwek, I. 2020. Where Is Defense Reform in Malaysia Headed? *The Diplomat*. 7 July. <https://thediplomat.com/2020/07/where-is-defense-reform-in-malaysia-headed/> [19 July 2021].
- Noor, E. 2017. Security Challenges for Malaysia: Defending the Nation. *NIDS Joint Research Series Journal*. http://www.nids.mod.go.jp/english/publication/joint_research/series15/pdf/chapter04.pdf [22 July 2021].
- Peters, D., Jennifer, C.K.L., Saat, G., Estim, A. & Sebastian, M.A. 2019 (eds.). *Holistic Development And Security For ESSZONE*. Sabah: Penerbit Universiti Malaysia Sabah.
- Sebastian, M.A. 2019. Importance of being organised against organised crime. *The News Straits Times*. 26 June. <https://www.nst.com.my/opinion/columnists/2020/06/603688/importance-being-organised-against-organised-crime> [26 July 2021].
- Sidom, P.R. 2029. Lahad Datu needs an army camp, says Sabah CM after Tambisan kidnapping. *The News Straits Times*. 24 September. <https://www.nst.com.my/news/nation/2019/09/524116/lahad-datu-needs-army-camp-says-sabah-cm-after-tambisan-kidnapping> [1 August 2021].

- Zarina, O., Mohd Kamal, O., Firdaus, A.J. & Nor Azizan, I. 2016. Memelihara Keselamatan Negara Malaysia: Peristiwa Lahad Datu, Sabah. *Malaysian Journal of Society and Space*. 12(7): 147 – 159. <https://ejournal.ukm.my/gmjss/article/view/17690/5437> [20 July 2021].
- Zuber, F., Ainuddin, M., Lee, I., Abdul, S. & Syed, H. 2021. Total Defence in National Defence Policy: Case Study of Territorial Army Analysis of Problems and the Effects on MAF Readiness. *Turkish Journal of Computer and Mathematics Education*. 12(3): 2447–2459. <https://turcomat.org/index.php/turkbilmat/article/view/1237> [20 July 2021].

DEFENCE WHITE PAPER (DWP): STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY

**By LT KOL SHAMSOL NIZAM BIN MOHAMAD KASIM
ROYAL SERVICE CORPS**

INTRODUCTION

Hybrid security challenges have been the most prevalent current threats confronting the armed forces around the world. These challenges require a country to modernize its armed forces and redesigned its defense force planning so they are better postured to address security challenges. One of the defence dimensions that need to be reshaped to match the contingencies associated with those hybrid threats is the force structure. Designing a force structure is important to ensure that they can acceptably responds to the wider range of risk possibilities and hazards associated with the wider range of security challenges being considered (Leung et al. 2010), however, with a consideration of defence budgets and uncertainty.

Hence, what characteristics should shape the force structure such as Malaysian Army? It is believed that strategic policy guidance is necessary for shaping the development of the Malaysian Army. In regards to strategic policy guidance, Malaysia has a Defence White Paper 2020 which provides a clear framework for force structure development especially in future capability enhancement within the Malaysian Army; thus, propelling it further to transform into a full spectrum force. According to the Malaysia's Defence White Paper 2020, the force structure should possess five main characteristics which are jointness, capabilities, technology-based, able to operate simultaneously in two theatres, and mission-orientated. With all these characteristics, the force can be considered as rapid growth, able to deployed at any times, possesses multi-role, capable of operating in all four domains covering maritime, air, land and cyber electromagnetic, and able to engage multiple challenges along the concentric areas.

This essay analyses the strategies that have been undertaken by the Malaysian Army in regards to the Malaysia's Defence White Paper 2020. The discussion is concentrates on seven areas of strategies, namely as training/exercises, the Future Force, defence technology and industry, people in defence, governance and funding, international defence engagement, and Whole-of-Society approach.

MALAYSIA'S DEFENCE WHITE PAPER

The first comprehensive Malaysia's Defence White Paper proposal was formed in 1981 and tabled in 1986 but it has been rejected by the Cabinet. Efforts to produce the Defence White Paper were continued by conducting research and review in several years and presented to the cabinet in 2018, but again were rejected by the Cabinet. The latest Malaysia's Defence White paper was again tabled and finally approved on 2nd December 2019 (Bernama 2020). This policy document contains an analysis on possible national security threats in political, economic, social, and technology advancement as well as strategic defence direction plans for a period of ten years to protect Malaysia's interests and defend the sovereignty and territorial integrity.

As a Malaysia's primary national security document, the Defence White Paper 2020 highlights several requirements to enhance its force structure. In response to hybrid threats, the country's defence forces need to expand its whole spectrum, and this is where Malaysia needs a Defence White Paper to legitimate the demand to pursuit of defence self-reliance (Ministry of Defence 2020). There are three main messages brought by this Malaysia's Defence White Paper 2020 which are (a) take high consideration about national security and stability; (b) the need to mobilize a whole-of-government and whole-of-society approach to national defence; and (c) credible partnerships based on the principles of neutrality and mutual security (Ministry of Defence 2020). **Figure 1** depicts five principles of national defence strategy namely as national interest-based, neutrality of activists, aspiration of self-reliance, innovation and integration, and best governance.

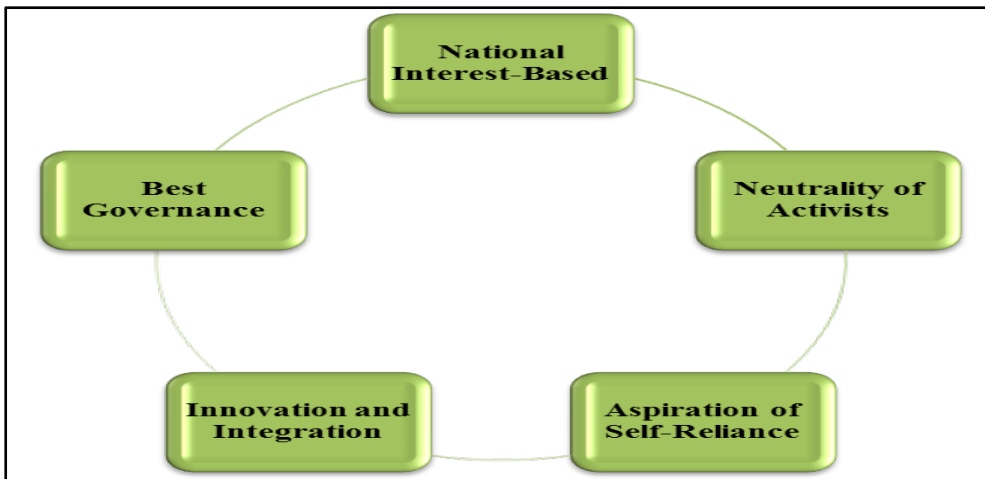


Figure 1: National Defence Strategy

STRATEGIES UNDERTAKEN BY MALAYSIAN ARMY

The Malaysia's Defence White Paper 2020 is essentially a blueprint for the development of a force structure and capabilities that is to be adopted by the Malaysian Army. It is geared towards transforming the Malaysian Army into a versatile and fully integrated force that is ever ready to take-on a whole spectrum of challenges of varying dimensions and magnitude. This development strategy is also in line with the concept of Total Defence (HANRUH) in relation to the National Defence Policy (NDP), Dasar Keselamatan Negara 2021-2025, Services Doctrine, and numerous other ideas on the concept of future wars and conflicts. This national-level direction fostered the ability of force planners to tie military force structure to implied national and military objectives.

To pursue the long-term defence strategies for a credible force structure, the Malaysia's Defence White Paper 2020 highlighted several steps to be taken includes (a) upgrading the defence capability and strengthening jointness across the Malaysian Army and other security agencies; (b) increasing security awareness and defence preparedness through the whole-of-nation approach; and (c) taking a more active role in advancing progressive initiatives, widening partnerships and shaping regional affairs. The strategies to be taken under the Malaysia's Defense White Paper 2020 highlight a serious desire to develop defence capabilities in order to increase its capacity and national resilience. Next sub-sections present the strategies that have been undertaken by the Malaysian Army in

consideration of what being stressed in the Defence White Paper 2020.

❖ Training/Exercises

Malaysia's Defence White Paper 2020 fully supported that defence capabilities can be achieved through training/ exercises through establishment of joint military training, army personnel exchange training program, and additional training prospects with internal or external training institutions. This training program not only enhances personnel' skills and knowledge, but they might share the experience and doctrine of the respective service to other countries within the laws and policies. The mechanisms for sharing and exchanging information between the two countries will increase from tactical to strategic level, with countering terrorism and maintaining peace as the main focus of the joint training effort. This is an opportunity for the Malaysian Army to strengthen its defence capabilities and build their future capacity. This is also part of the government's objective to achieve the goals of Credible Partnerships.

Malaysian Army has continuously conducted training exercises to ensure that the competence of its personnel is always at the best level. For instance, the Exercise PARA PREDATOR Series 1/2021 has been conducted in August 2021 with the purpose to increase the level of alertness and competence of each Leading Para Battle Group (LPBG) of 10 Brigades (Para). This exercise is also designed to assess the level of leadership of each layer of government, the level of competence or ability of each combat team in this brigade, as well as test the physical and mental resilience of members of this brigade to face the pressure of high realism as the real situation when war and crisis. This exercise's approach is geared towards three main objectives namely as (a) 'To Train' (the Troop) which is to provide exposure to threatening situations through training; (b) 'To Project' (the Army), whereby to provide an overview of the alertness and real capabilities of the Malaysian Army movement; and (c) 'To Educate' (To Create Public Awareness), means that to educate and share knowledge and apply public awareness on the role of Malaysian Army in national security.

Another training/exercise that has been conducted is an "Expertise and Competency Training of Reconnaissance and Sniper Elements" for PANDURA Company (Para) in March 2021. The purpose of this exercise is to improve and enhance the standard operating procedure (SOP) of team and platoon combat elements. This training is conducted with a system oriented of Combat Realism,

Induce Stress in Training, and Analytical Thinking of Small Unit Leaders be applied holistically so that every member of the PANDURA Comp Team (Para) is more confident and willing to carry out the mission in whatever the conditions, weather and dimensions of the threat. This exercise is also to support the continuation of the mission and readiness of the Malaysian Army as mandated by the Chief of the Army.

Overall, this military training/exercise is the most important requirement and becomes the core business of Malaysian Army, while being in a state of peace to maintain a high level of alertness at all times. These training/exercises combine skills and expertise in the aspects of contemporary warfare and operation in an effort to provide an environment in a more realistic direction according to the current situation. These training/exercises are in tandem with Defence White Paper 2020's aspiration whereby the Malaysian Army should place a high priority on the capabilities of the its armed forces in conducting special operations in the forward area. The implementation of these training/exercises is also in line with the First Pillar of the Supreme Command outlined by Chief of the Army, namely, "Continuity of Mission and Readiness", which focuses on increasing the level of readiness of Malaysian Army to be deployed at any time.

❖ The Future Force

Under the Malaysia's Defence White Paper 2020, the government's plan to develop the Future Force which adopts a defensive posture, in line with Malaysia's position that is against the use of force to solve any dispute or conflict. The development of the Future Force is based on five characteristics, namely as (a) jointness; (b) interoperability; (c) technology-based; (d) able to operate simultaneously in two theatres; and (e) mission-orientated. It identifies several capability requirements to reform the Malaysian Army into an integrated, agile and focused force, and to effectively perform the tasks of detect, deter and deny along the concentric areas.

The concept of jointness requires Malaysian Army to conduct operations in the joint context, which represents troops and assets integration of several services. "Ops Benteng" has reflected the spirit of togetherness of the security forces in Malaysia. "Ops Benteng" involves integrated operations by the Royal Malaysian Police (PDRM), Malaysian Armed Forces (MAF), Malaysian Maritime Enforcement Agency (APMM), and Malaysian Border Security Agency (AKSEM) as well as other security agencies, introduced in line with the implementation of the Movement Control Order (MCO) to

oppose the transmission of the COVID-19 epidemic and the influx of illegal immigrants. This joint operation has strengthened national security at the country's border as well as combat cross-border crime effectively. Implemented in May 2020, this "Ops Benteng" has successfully seized a total of 319 boats/ships and 1,465 land vehicles with a value of RM306 million (Bernama 2021). Until Feb 2021, this joint operation has arrested a total of 12,087 illegal immigrants and 922 tekong (Bernama 2021a). The success of this joint operation proves that the modern battlespace requires high level jointness and capabilities to achieve maximum synergy of security services in Malaysia.

The ability to deploy integrated forces between the two theatres is another aspiration of the Defence White Paper 2020. Supporting this aspiration, the Malaysian Army (TDM) has enhanced its artillery combat capability by established the Eighth Royal Artillery Regiment (8 RAD) Ad Hoc on 8th September 2021. The establishment of a new team under the 8 RAD was implemented in line with the realignment of Malaysian Army units based on its Strategic Capability Development Plan (Army 4NextG). Stationed at the Kuching, Sarawak, this is an initial effort which aims to enhance the ability of artillery fire assistance to both territories simultaneously more effectively and efficiently. The establishment of such new units is also in line with the First Pillar of the 28th PTD Superior Order, "Continuity of Mission and Preparedness", which emphasizes on improving combat capability and the ability to operate in two-theatre operation simultaneously.

The Malaysia's Defence White Paper 2020 also stressed that the Future Force will incorporate the latest technologies in the force structure and posture to fulfill the requirements of current and future operations. The 99th Cyber Warfare Regiment (99 RSPS) is a manifestation of the Malaysian Army's determination in strengthening its capabilities and preparedness to face cyber challenges and threats. The main mission of the establishment of the 99 RSPS is to control the cyber domain to achieve the objectives of the Army Information Warfare which includes operations in two regions, whether in peacetime, conflict or war. Taking into account the acquisition of state-of-art assets and systems, Malaysian Army continue to strive to strengthen, maintain and integrate the Command, Control, Communication, Computer, Intelligence, Reconnaissance and Targeting (C4ISRT) Systems. In order to reform the current force structure and posture that rely heavily on manpower, the Malaysian Army has reviewed existing doctrines and incorporates more automated and autonomous technologies such as Satellite

Communication (SATCOM) to ensure jointness to operate at the most optimal decision making without command, control, and communications loopholes.

❖ **Defence Technology and Industry**

Another focus of the Malaysia's Defence White Paper 2020 is to enhance the capabilities of the force structure through man and machine. The Malaysian Army has recognised cyber electromagnetic as a new operational domain. Currently, among the key technology trends that are expected to influence defence and security are artificial intelligence (AI), AI-enabled cyber defence, sensors and network connectivity, big data analytics for defence, robotics and autonomous systems, Internet of Things (IoT), blockchain technology, cognitive computing, next-generation sequencing for biological threat preparedness, space as a battlefield, human enhancement, as well as renewable energy and energy weapons. Hence, this domain demands critical capabilities that enable the Malaysian Army to conduct operations safely across all other domains.

Supporting Government's aspiration, the Malaysian Army launched its Cyber and Electromagnetic Command (BSEP) in December 2020 as part of the preparation to counter any cyber and electromagnetic threats. The establishment of the command was aimed at strengthening the development of existing defence capabilities to face current threats with increasing complexity. BSEP focuses on cyber electromagnetic activities (CEMA) as a new domain in its list of priorities without changing its conventional role, such as in development and management, communication aspects, information and communication technology as well as the electromagnetic domain. BSEP strengthens the central monitoring and network defence that acts as the main 'firewall' protecting the strategic national defence communication network and acts as the leading agency for the Armed Forces and the Defence Ministry to coordinate all cyber and electromagnetic issues. All cyber electromagnetic domain activity implementation is being centralised under a single command which finally makes the BSEP command and control more organised, managed and efficient.

Further, the Malaysia's Defence White Paper 2020 has put a concern to reduce dependence on external parties by empowering the local defence industry through the advancement of defence science and technology. TARANTULA is one of the outputs under the defence industry for Malaysian Army. 'TARANTULA', is the name given to the 4x4 High Mobility Armored Vehicle (HMAV), a combat vehicle made by a local company, and this HMAV has been delivered to Malaysian Army in April 2021. This HMAV 4x4 vehicle has its own

advantages due to its ability to be maneuvered in various terrain. It is capable of reaching speeds of up to 110 km/h while its weapon system is capable of shooting 360 degrees. Such combat assets are seen as very suitable for the implementation of operational tasks not only for the Malaysian Army, but also for other Malaysian security agency forces. This effort is in line with the Malaysia's Defence White Paper 2020's emphasis on defence self-reliance in specific areas including providing critical assets and equipment as well as services such as basic combat equipment for intelligent soldiers in Future Force.

❖ **People in Defence**

Throughout the Defence White Paper 2020 implementation period, priority has been given towards improving the force structure's capabilities through the recruitment, career development, and retention of personnel in conjunction with its other requisites. Currently, Malaysian Army had embraced the concept of Knowledge Force (K-Force) that stressed on acquiring high-quality knowledge of personnel to ensure that people in defence are in line with the development of smart soldiers and national agenda towards a "knowledge-based society". Besides, with the adoption of new technologies to the force structure, it requires a change in military competency capability, or else the technology becoming stuck in a sea of irrelevancy due to lack of "man behind the machine". Due to this, Malaysian Army has stressed the importance of leadership aspects using wisdom to mix human elements, equipment and method (man, machine, and method).

To cultivate professionalism among the Malaysian Army's personnel, competent military personnel has been identified to further their studies in relevant fields on scholarships through the MAF Higher Learning Education Scheme to enhance their capabilities and competencies in their respective expertise. A total of 16 officers were nominated as Army Trainer Exchange Program Officers at the TD Australia Training Center (TDA) for the Year 2022/23 and Overseas Staff Course Officers (TLN) for the Year 2022. The selected officer will serve for 2 years as a Visiting Coach at the TDA Training Center, while for the 2022 TLN Course Officer candidates will be offered to attend the TLN Course in Australia or Singapore, starting from the November 2021 Session. Selected candidates have been strictly chosen to ensure that each candidate is truly qualified in ensuring organisational excellence.

❖ Governance and Funding

One of the aims in the Malaysia's Defence White Paper 2020 is ensure a stable funding for the defence sector in order to facilitate a long-term and comprehensive capability development of the force structure. To ensure smooth execution and implementation of funding strategies under the Defence White Paper 2020, proactive measures towards achieving good governance in defence spending and procurement has been initiated by the Malaysian Army. At the organisation level, the Malaysian Army has adopted a Zero-Based Budgeting mechanism whereby all expenditure items are subjected to be reviewed and scrutinized constantly. On the other hand, for the purpose of assets procurement, the Malaysian Army has initiated a strict review process of assets acquisition, as well as stringent implementation and monitoring of physical and non-physical projects.

❖ International Defence Engagement

International defence engagement is an integral element of the Malaysia's Defence White Paper 2020. International defence engagement describes Malaysia's engagements with neighbouring countries, as well as countries of interest at the bilateral and multilateral levels. The Credible Partnerships are vital to achieve five defence relations goals: (a) shaping Malaysia's defence relations with other countries; (b) managing shared security challenges; (c) fostering regional stability in accordance with international laws, conventions, rules and norms; (d) enhancing the Malaysian Army's capabilities and defence readiness; and (e) promoting Malaysia's position and interests in the international arena.

Establishing and maintaining foreign relations have been shaped through defence cooperation with other countries is a practice and tradition of MINDEF and the Malaysian Army. Malaysia's bilateral ties with Southeast Asian countries have been progressed and strengthened well. On 26 August 2021, Malaysia and Indonesia relation continued to flourished when the Indonesian Defense Advisor, Infantry Colonel Tri Andi Kuswanto, paid a courtesy call to the Chief of the Army, General Tan Sri Datuk Zamrose bin Mohd Zain (Bernama 2021b). The courtesy call was aimed at introducing oneself and discussing bilateral cooperation between the Malaysian Army and the Indonesian National Army (TNI). During the session, the mechanisms for sharing and exchanging information between the two countries have increased from tactical to strategic level, with countering terrorism and maintaining peace as the main focus of this joint effort.

Further, Malaysia and Thailand have enjoyed a relationship that is based on confidence and trust between the two countries based on shared interests in promoting stable borders and common regional interests. The defence engagement with Thailand continued to embrace by the Malaysian Army when the top leadership of the Armed Forces organisations of both two countries conducted a virtual conference on early September 2021 (The Star 2021a). This video conference shows both countries' Army Chiefs exchanging views and ideas, as well as discussed on the improvement of military cooperation such as the implementation of joint exercises, official visits of the two Army Chiefs, courses and officer exchange plans, and Subject Matter Expert (SME) exchange visits between the two Armed Forces.

Beyond Asia, Malaysia has a strong foundation of long-standing defence partnerships with several extra-regional countries, including Australia. Bilateral relations between the Malaysian Army and the Australian Army, continued to be strengthened in August 2021 when Chief of the Army of both countries conducted a virtual discussion session as one of the measures to maintain and strengthen the relationship (Military Times 2021). Among the topics discussed were touching on the COVID-19 pandemic situation and the assistance of military deployments in both countries in helping efforts to curb the epidemic. Also discussed are the existing cooperation and bilateral relations, especially in the aspect of various military training such as Exercise Bersama Shield, Exercise Bersama Lima/Gold, Exercise Suman Warrior, Exercise Southern Tiger, Exercise Dusk/Dawn Tiger and Exercise Haringgaroo. The Malaysian Army's Chief also voiced the idea to further enhance this bilateral relationship in the long run with the proposed implementation of the Army Top 10 professional interaction program, Cyber Security Program, and also CBRNE between the two countries.

Another strategy to strengthen international defence engagement conducted by the Malaysian Army is through military training/exercises with foreign military organisations. Recently, the Malaysian Army has shared experience and expertise in the War against Insurgency, especially Forest Operations with the Australian Army through the implementation of HARINGGAROO Exercise Series 71/2021(Malaysian Army 2021a). This exercise is a continuation of bilateral cooperation under the Malaysian Australian Joint Defense Program (MAJDP). This exercise conducted in two stages, namely cross training exercise (CTX) and field training exercise (FTX). This joint military training/exercise facilitates expertise development and confidence building with foreign militaries particularly during trainings,

exercises and operations. In addition, it is also an excellent field to share knowledge and expertise as well as to know and understand each other's cultures and customs.

These partnerships serve Malaysian Army's interests by shaping conducive external environment and security relations, boosting the nation's defence capacity building, and strengthening ASEAN centrality for regional stability and prosperity. Such bilateral discussion sessions with various countries are in line with the 'International Defence Engagement' stressed by the Malaysia's Defence White Paper 2020. Besides, it is also consistent with the Fourth Pillar of the PTD's Superior Order, namely "Strengthening Defence Relations" which focuses on aspects of strengthening defence cooperation at the regional and international levels. The Malaysian Army promised to continue its commitment in the implementation of bilateral exercises to strengthen cooperation and bilateral relations as well as the friendship between the Malaysian Army and security organisation of other countries.

❖ **Whole-of-Society Approach**

The Government views defence and security as all-encompassing. Whole-of-Society Approach under the Malaysia's Defence White Paper 2020 calls for a wholesome effort that includes the involvement from the society at large. Apart from promoting a transparent administration whilst embracing openness, inclusivity and accountability, the Defence White Paper concept form an integrated commitment for the society to equally assume responsibility to defend the nation.

One of the efforts embarked by the Malaysian Army is "Food Chain Sustainability Pilot Project" with the Syarikat Desatera Sdn Bhd which has been started in August 2021 (Malaysian Army 2021b). The food sustainability pilot project initiative is collaboration between the Malaysian Army and Syarikat Desatera Sdn Bhd aiming at improving the quality of life of Malaysian Army's residents. The main objective of this pilot project is to create integrated agricultural initiatives in the military camp area to assist the residents in obtaining fresh agro-food crops, increase employment opportunities and human capital development, and further act as a solution in addressing problems in the food supply chain when the country was hit by the crisis. This initiative able to supplies 50 percent of the integration farm produce at 30 percent lower than the local market price.

This project will be used as a model to this initiative to be applied to every military camp in the future so that food resources for military members and families are always secured. The initiative is in line with the Third Pillar of PTD's Superior Order, namely "Preservation of Citizens' Welfare", and this collaboration between Malaysian Army and private companies is also in line with the principles of the "Whole-of-Society" approach contained in the Defense White Paper 2020.

CONCLUSION

The Malaysia's Defence White Paper 2020 presents transformative strategies which can enhance force structure defence capabilities in a coherent way. This 10-years blueprint seeks to translate the elements of national power into national strengths, which are comprehensive enough to continuously build resilience at home, as well as credible enough to attract and expand circles of partnerships locally and abroad. The Government's long-term plan to develop the future force structure is focused on the need to build capabilities and bridge jointness to protect national interests, as well as to defend the sovereignty and territorial integrity.

To maximise synergy between Malaysian Army and its strategic partners, various efforts and strategies have been implemented in several areas includes the development of professional soldiers through a combination of joint- and exchange training, education, and self-development programmes, the development of Future Force, the procurement of various sophisticated technologies to support Cyber Electromagnetic Activities (CEMA) doctrine, enhancing science, technical expertise and management towards creating smart soldiers, facilitates a stable long-term funding for defence sector, empowering the local defence industry towards self-reliance, strengthening international defence empowerment, and whole-of-society participation. Overall, by strengthening full spectrum domains through various efforts are believed able to develop amphibious capability for the Malaysia's force structure.

REFERENCES

- Bernama. 2020. *Kertas Putih Pertahanan Terus Jadi Panduan: Ismail Sabri*. Sinar Harian Online.
- Bernama. 2021a. *Op Benteng: 319 Bot/Kapal, 1,465 Kenderaan Darat Dengan Nilai RM306 Juta Dirampas*. Sinar Harian Online.
- Bernama. 2021b. *TD Malaysia and Indonesia Relations Continue to be Forgotten*. Utusan Online.
- Leung, C., Rick, N. V. & Robert, P. 2010. Capability-based planning for Australia's national security. *Security Challenges*. 6(3), 80-82.
- Military Times. 2021. *Malaysia Army and Australia Continue to Strengthen Defence Relationship*. Military Times Online.
- Ministry of Defence. 2020. *Defence White Paper: A Secure, Sovereign and Prosperous Malaysia*. Kuala Lumpur: Percetakan Nasional Berhad.
- Malaysian Army. 2021a. *HARINGGAROO Exercise Series with the Australia Army*. Malaysian Army Official Website.
- Malaysian Army. 2021b. *Food Chain Sustainability Pilot Project - Improving The Quality Of Life Of Army People*. Malaysian Army Official Website.
- Tentera Darat. 2010. *Malaysian Army Strategic Doctrine (The Army, M1 TD)*. Malaysian Army.
- The Star. 2021a. *Two-way Relations between the Malaysian Army and the Royal Thai Army, Close*. The Star Online.
- The Star. 2021b. *TD Malaysia and Australia Relations Continue to be Forgotten and Strengthened*. The Star Online.

DEFENCE WHITE PAPER (DWP): STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY

**By LT KOL MOHD ZAHIRIN BIN ZAINOL ABIDIN
ROYAL MALAY REGIMENT**

INTRODUCTION

The Defence White Paper (DWP) is a strategic direction and national defence strategy document. Unlike the hierarchical National Defence Policy document, the DWP is an open document that everybody will see and does not contain any classified information. The two documents cover the same ground in terms of national security assessment, defence posture, and defence capability development, but with different goals and priorities. As an open document, DWP aims to spread awareness that security is a serious issue that should not be ignored. Governments have constantly been dedicated to safeguarding national interests and territorial sovereignty and integrity, but these efforts are susceptible to a variety of risks, dangers, and uncertainties posed by the ever-changing security environment. With this understanding, Ministry of Defence (MINDEF) and Malaysian Armed Forces (MAF) continue to collaborate with government agencies both at domestically and overseas to address issues at all levels. The DWP emphasises that national security is the responsibility of ALL government agencies and ALL levels of society, implying that all parties' awareness and participation is the foundation of national resilience. All of this matters because internal resilience and external cooperation serve as the foundation and expansion of National Security defence reach. Three DWP main goals namely to involve societies and stakeholders, to assess the country's ever-changing strategic perspective and to explore approaches to improve national defence capabilities and preparedness. The details as deliberate below:

- **Involve Societies and Stakeholders**

The process of national defence necessitates the active participation of the people. As a result, the government is committed to engaging the public in defence and related issues. The DWP allows the government to interact with and inform citizens, whether individuals or groups, as well as all stakeholders in the public and private sectors, about current and future plans to strengthen national defence. People's and stakeholders' involvement is one of the components implemented through the Total Defence (HANRUH)

concept, with each individual playing a role in defending the country. The concept, introduced in 1986, is an approach that emphasises the involvement of all levels of society in defending the country, including government agencies, the private sector, non-governmental organisations, and the general public. Educating the public on security issues is a critical step toward involving them in national defence.

The MAF primary role is to keep the peace and be prepared to deal with any armed conflict in order to protect the country's interests from external threats. "Si vis pacem, para bellum," the Latin proverb goes, "if you want peace, prepare for war." Defence readiness is the best guarantee of a country's security. Malaysia, as a country that values peace and mercy, heavily relies on diplomacy when dealing with foreign countries. MINDEF and MAF actively engage in defence diplomacy with regional and global strategic partners. The MAF also participates in several peacekeeping operations around the world under the charter of the United Nations (UN). The MAF also assists public authorities in dealing with national security issues and in promoting national development efforts. In 2010, an open version of the National Defence Policy (NDP) was released for public consumption in accordance with the spirit of HANRUH, a classified document developed by the government prior to the DWP. The main reference document is the National Security Policy (NSP), which was published in 2017 by the National Security Council (NSC). NSP is the overarching document that governs all security-related policies. In line with the DWP, there are two other documents, namely the New Malaysian Foreign Policy Framework published by the Ministry of Foreign Affairs (KLN) and the Public Security and Order Policy (DKKA) published by the Ministry of Home Affairs (KDN) in 2019. All of these key documents demonstrate the government's emphasis on inter-agency coordination in the security sector.

- **Evaluate the Country's Ever-Changing Strategic Perspective**

The volatile security environment at the global and regional levels necessitates a security environment reassessment. Continuous assessment of the volatile security environment is critical, given that change is an unavoidable reality in the international security ecosystem. Geographical conditions, complex neighbourhoods, and relative military capabilities all have a direct and indirect impact on national interests. "Geography is a condition." Malaysia is a small country divided into two mainland regions: Peninsular Malaysia and Sabah and Sarawak, which are strategically located between the two

Asia-Pacific regions and the Indian Ocean. Malaysia has a rich natural resource, making it a country with both advantages and challenges. Despite the transition of major powers, the country faces geopolitical challenges. Although Malaysia is no longer threatened by a stronger military power as it was during the European colonial era and the Second World War, the actions and interactions of the major powers continue to have an impact on the country's interests today. Malaysia, as a country with two main land territories, faces not only the political challenges of superpowers, but also non-traditional security threats. Because of the country's small size and capacity, the government recognises the need to be more proactive and pragmatic in addressing strategic risks. In order to accomplish this, an ongoing assessment of the safety environment is required. A security environment assessment enables the government to make adjustments or changes to strategic planning. The MAF was transformed from an insurgency-fighting force to a more conventional force following a reassessment in the 1980s. This situation shifted defence policy from a threat-based to a capability-based approach. Defence policy has recently been aligned with an interest-based approach, according to recent assessments. Malaysia has changed the form of defence cooperation as a result of a reassessment of changing international realities. Foreign policy adjustments have also significantly affected the country's internal resilience. The term "resilience" refers to the country's ability to withstand challenges, inter-agency coordination, and the ability and consensus of people from all walks of life in dealing with the country's problems. National unity, government coherence, development, and community involvement in security preparedness are examples of these. Defence and development always go hand in hand from a national standpoint, as emphasised in KESBAN (Security and Development), a concept adopted during the Second Emergency.

- **Improving National Defence Readiness and Capability**

The third and most important goal of the DWP is to identify methods and approaches for improving national defence capabilities and military readiness. Defence Strategy, which explains the three pillars of defence strategy as a plan to improve national defence preparedness, translates the vision into direction. Unified Resistance Prevention, Comprehensive Defence, and Competent Partnership are the three pillars. Reform, Governance, and Financing, as well as Defence Science, Technology, and Industry. It describes the government's strategy for implementing the three pillars, which include strengthening the defence development plan, implementing

defence reforms, empowering the national defence industry as an economic catalyst, and ensuring stable defence financing. All of this is intended to transform the MAF into a unified, agile, and focused force. Several documents detail defence capability development efforts, most notably the Malaysian Armed Forces Strategic Development Plan, also known as the Fourth Dimension of the Malaysian Armed Forces (4D MAF).

To sum it up, the DWP demonstrates the government's commitment to strengthening national defence and resilience in order to protect national interests while also defending territorial sovereignty and integrity. This paper, Malaysia's first DWP, describes the government's position on national defence, provides a strategic perspective, and outlines the National Defence Framework to ensure national security, regional stability, and global peace. This DWP expresses three key messages: (1) do not take national security and stability lightly; (2) mobilise a whole-of-government and whole-of-society approach to national defence; and (3) credible partnerships based on the principles of neutrality and mutual security. The development of the DWP is coordinated in accordance to the National Security Policy, which serves as a national security umbrella document. DWP recognises the MINDEF and the MAF as national defence leaders, as well as the role of stakeholders and the people in the national defence ecosystem.

The DWP outlines plans to develop the Malaysian Armed Forces as a future force with five key characteristics: togetherness, interoperability, technology-based, the ability to operate simultaneously in two regions, and mission-oriented. Future defensive forces will be integrated, agile, and focused, and will be able to respond to all threats to national defence. These efforts are strengthened by the participation of the entire government and the people in ensuring the country's internal integrity. Malaysia, as a neutral nation that values peace and wishes to be friendly with all, is determined to strengthen credible partnerships through inclusive defence diplomacy initiatives. Malaysia's strengths and resources, as well as the aspirations of other countries, can be brought together through defence diplomacy to achieve national security, regional stability, and global peace. The government is committed to implementing defence sector reforms and ensuring stable and sustainable financing to ensure smooth planning and procurement of defence capabilities, as well as the defence industry's driving force as a catalyst for the national economy. Through the best governance, all DWP plans will be successfully implemented with high validity, acceptability, and reliability.

MALAYSIAN ARMED FORCES GENERAL PLANNING

The focus of the Chief of Defence Forces (CDF) in setting the direction of this force is based on this Defence White Paper, with four core priorities as the backbone to support the vision of the existence of the Defence White Paper, which is to make "Malaysia a country that is safe, sovereign, and prosperous".

- Firstly, is to improve the Malaysian Armed Forces' asset readiness.
- Second, is to empower Malaysian Armed Forces personnel through the cultivation of integrity, the avoidance of corruption, and the provision of integrity education.
- Third, the Malaysian Armed Forces' Cyber Domain capabilities are being strengthened.
- Fourth, Translating the Defence White Paper.

At the Service level, a number of documents have been produced in order to transform the service and strengthen defence capabilities. This document was created by balancing existing resources with national strategic interests. The documents are as follows:

- The Army Strategic Development Plan (Army 4nextG) aim to improve the Army's capabilities through 2050,
- RMN #15to5 Transformation Programme (#15to5), to propel RMN toward becoming a "credible and versatile navy" by 2050; and
- RMAF Capability Development Plan 2055, (CAP55), which outlines the RMAF's modernization strategy through 2055.

STRATEGIES UNDERTAKEN BY THE MALAYSIAN ARMY

In order to support the DWP and in line with CDF mandate and aspiration, the Army comes with the idea know as Army 4nextG. Army 4nextG is an extension of the Army 2 10 Plus plan 10, which supports the MAF Capability Development Plan (4D MAF). This plan considered all aspects of the geopolitical environment, the spectrum of threats, national policies and policies, and current fiscal strength. In

comparison to the previous development plan, the approach has been taken through the use of Capability-Based Planning methodology (Capability Based), which leads to a plan to obtain critical ability for Army rather than to acquire assets on a regular basis focused on the Core Brigade. In general, the implementation of this plan is more comprehensive, systematic, and timed in accordance with strategic goals of operating in two regions at the same time to maintain sovereignty and territorial integrity.

Detection Goals, Survive and Strike, Sustainability (Sustainment), Sustainable Strategy (Protraction), and National Development will be prioritised in both regions (Nation Building). These efforts also include Human Resource Development, Doctrine, and Exercises focusing on cognitive, psychomotor, and overall spirituality. This strategic development plan will become more sustainable and adaptable to changing circumstances. Aside from that, this plan is backed up by a number of Management Strategies, including Systematic and Realistic Capability Development. This approach to plan development is also consistent with the Land Warfare Strategy, which would allow Army to operate efficiently and effectively in a Multi-Domain Operating Environment. *Strategi Peperangan Darat* (SPD) will undergo a transformation as a result of the Multi-Domain Operating Environment in terms of doctrine, organisation, practise, material, leadership, human resources, and facilities. To provide an appropriate military response to any type of threat, the application of Army capabilities for supporting SPD's must be able to cross Multiple Operating Environments Domain and combat system functionality in terms of space and time.

Army 4nextG's multi-domain capabilities will be strengthened by the ability to have balanced elements, prevent resistance, mutual service, be resilient, and viable. Army will be able to integrate all elements of combat, combat support, and combat services support in order to operate in a Battle Group in a more effective and efficient manner. Long range fire accuracy capability (range precision strike) as well as a focus on information superiority capabilities (Information Superiority) through mastery of the information domain and cyber. The integration of these capabilities will highlight the impact of action Army response that is more consistent, cost effective, and decisive against SPD implementation.

This plan will provide focus on development capability through increased professionalism through the synergy of elements MAN-MACHINE-METHOD, as well as an appreciation of the core values of the Safety Policy Country (Capability in the military context is defined

as "the ability to achieve an objective or mission of a military operation"). The following definitions apply to military capability, which is made up of four major components:

- **Force Structure.** Structure of Force Structures that describe the number, size, and contents of an armed force unit.
- **Modernization.** Technological advancements that affect the progress and modernity of a force, including armament systems, equipment, technology, human resources, and doctrine.
- **Readiness.** A force's ability to use system armaments, equipment, and human resources can be mobilised based on the mission that has been assigned.
- **Sustainability.** A force can operate consistently with the help of a planned and integrated logistics assistance network.

This development plan was systematically developed using a Capability-Based Development methodology, taking into account Army's duties and responsibilities in assisting developing countries. Government policies, NSP, NDP, 4D MAF, SPD, and the development of geostrategic environments and concepts for future wars are the terms of reference. Following that, the Army capability gap analysis was carried out based on the Army's current capabilities in performing its responsibilities, which are guided by the Battles pace Operating System (BOS). In general, it covers the developmental aspects of the Army based on duties and responsibilities for security and defence of the country, the use of technology as the foundation of capacity development, and the optimal use of a resource management approach. Army 4nextG is an all-encompassing Army development strategy that aims to create a dynamic, modern, and innovative environment. Correlation Analysis between the capability element and the SPD is used to develop Army Strategic Capability Goals. Capabilities for future Army operations have been detailed, and they include detection capabilities, survival and turbulence, sustainability, a sustainable strategy, and national development.

❖ **Detection Capabilities**

A critical strategy for enabling Army to operate in a Multi-Domain Operating Environment is detection capability. The ability to

accurately identify threats and targets has the potential to undermine national sovereignty and territorial integrity, and is a critical requirement for Army operations that will be fully supported by NSP. It also has an impact on preventing resistance and can improve military counter-force action. To achieve overall detection capability, Army must improve its capabilities in C4ISRT as well as Information Operations (IO), which includes Offensive and Defensive IO. All types of enemy threats can be detected as early as possible, and the transmission of accurate information in near real time can be implemented more efficiently while increasing the Army fist's ability to strike. Make decisions precisely at the appropriate time Existence Fusion centres will improve the capabilities of information warfare. Through operations Command and Control Centre, equipped with Information Fusion Centre (IFC) and supported by Network Centric Operations (NCO), Army will acquire the ability to protect the force protection and address medium-level threats. As a result, the targeting process (targeting process) can be effectively implemented by integrating and synchronising (synchronising) the weapon sensor system or other non-kinetic elements.

❖ **Survive and Strike**

This capability can be achieved in a comprehensive and thorough manner with the establishment of the Armour Brigade in the Army West Field Command (PMB TD) and Brigade Mechanize in the East Field Command (PMT TD), which will further enhance Capabilities Clashes in the area. This capability is also enhanced by PUTD's mobility capabilities and tactical airstrikes to achieve agility in managing the Field Command movement. Army's capability in terms of existing firepower must be comprehensively upgraded to include Field Artillery and Air Defence Artillery units in the East Field Command in order to balance Army capabilities in both regions.

❖ **Sustainment**

Sustainable capacity development is critical to the effectiveness of Army in operating in a variety of dynamic domains. The capability of Army Logistics Operations is a key factor that will support management Army capability. Innovative logistics management will allow all elements of inclusive capabilities communications, mobility, logistics/materials, and firepower to be integrated to support Army's Strategic Goals. The formation of Divisional Logistics Group (KLD) and Logistics Group Brigade (KLB) is consistent with the Army's focus on achieving Capability Goal Sustainment. The purpose of establishing this organisation is to

balance organisational development in terms of providing integrated logistical assistance based on competent and effective logistics management. The integration of the entire engineering team through the establishment of an organic Field Engineers Group to PMBT and PMTTD enhances the development of field and general engineering capabilities in both regions. This team of engineers will be able to defend against nuclear, biological, and chemical threats (PNBK), as well as tactical bridge systems, engineering fields, and general. Furthermore, Army must prioritise development infrastructure and Army Reserve Force (PSTD) trained human resources. Capability requirements that are sustainable can be met by Army and, in turn, can maintain an optimal level of alertness at any given time in the face of any type of war.

❖ **Protraction**

The Continuous Strategy is a non-traditional/asymmetric option that uses Attrition Warfare to weaken an enemy or threat. Army will continue to fight the enemy with all of its power and assets in order to re-establish state sovereignty. Asymmetric warfare is a strategy that will be used until the enemy is defeated by attrition. Competence in counter-insurgency operations will be strengthened, as will the existing logistics system. Army will use asymmetric warfare at all strategic levels, both operational and tactical, so that the advantage of Army combat strength can be focused on more vulnerable enemy locations while maintaining freedom of action. Capability in Strategic Planning Continuous goals, attainable by Army by increasing capacity in carrying out asymmetrical wars, as well as having the ability to improve patriotic spirit among all people. This capability will enable Army to maintain national sovereignty at some point in any situation with high military and civilian cooperation. Focus on implementation this capability is entirely dependent on the integration of comprehensive at the national and international levels.

❖ **Nation Building**

This capability will be able to contribute to the country's development; however, Army must be able to project a positive image in order to gain the support of citizens and target groups as a whole. The people's belief in Army as a pillar of sovereignty and national integrity is at the heart of Army's continued relevance. The ability of Army to carry out operations Military and civil cooperation, as well as auxiliary operations in humanitarian and natural disasters, must be improved in order to assist the country in determining the well-being and safety of its citizens. Furthermore, Army's ability to support state

responsibilities on the international stage through involvement and devotion in the Mission the United Nations (UN) must be upgraded on a regular basis. Strengthening global peace aspirations will continue to be the backbone of Army's existence in the future. The punch of Army will be streamlined in accordance with the UN peacekeeping mission's concept of operation, which is based on the mission's goal of creating a safe and conducive environment. In today's increasingly dangerous environment, with the activities and activities of terrorist groups, Army must be able to combat all forms of domestic and foreign violence. To ensure the safety of the people and the well-being of the country, Army's must also be able to perform tasks such as the National Blue Ocean Strategy (NBOS) to assist the people.

❖ **Human Resource Development**

Human resource management, in general, refers to the practise, policies, and systems that influence resource behaviour, attitudes, and performance in an organization's human beings. A military organization's effectiveness requires it to be competent, professional, and to have a large fighting force. As a result, a solid strategy will enable the Army fist to react in a Multi-Domain Operating Environment. This strategy must include elements of selection and recruitment (recruitment), human resource development (development), planning (planning), and human resource retention (retention). It is implemented in a comprehensive manner, taking cognition, psychomotor, and spiritual aspects into account.

❖ **Doctrine and Training Development**

Future Army training strategies must emphasise competence in performing a task or multiple tasks (multitasking) either individually or collaboratively. The concept of training will include human resource development through military education, and training will form a highly skilled, professional military individual and intellect without ignoring the basic cognitive, psychomotor aspects of a person. The main goal of this strategy is to produce members who can think critically and innovatively (thinking soldiers) and who can generate Army as a learning organisation (learning organisation) and knowledge Army.

❖ **Capacity Development Management Strategy**

Army Capability Development Management Strategy is a set of plans designed to empower Army in the future while keeping national policy, operational concepts, priorities, and fiscal strengths in mind. All of the factors mentioned will have a significant impact on the plan's

implementation. A systematic approach that takes into account all capability needs, such as human resources, communication, mobility, logistics/material, and firing power, will allow Army to maximise overall strategic outcome targets in a resource-constrained environment. Expenditure Planning Based on a Budget The key to the successful implementation of this plan is Application Outcome Based Budgeting.

❖ **Implementation Plan**

Future Army Logistics operations will include responsiveness, an integrated network, and the agility of assistance services logistics. These features are intended to allow logistics operations to be carried out continuously and consistently while adhering to the source management philosophy. This plan is known as the Initiative Plan Base 60, and it will be implemented in three stages (Transition, Stabilization, and Progressive) in accordance with the Financial Plan (12MP - RMK 17). This plan is a comprehensive approach to determining Army's level of ability and alertness; it will concentrate on planned strategy and capability sensitive management of current finances.

SUPPORT PLAN

❖ **Army Logistics Operations Management Evolution**

Army will see the integration of more dynamic logistics operations mechanisms, as well as the development of technologies capable of improving Army combat power. This integration will cover aspects of team structure, mission-driven logistics, clearer command and control, and simplified command and control. This integration will also be supported by an integrated and real-time database system. If this is successfully integrated, inventory management will be more efficient and effective, and operating and maintenance costs will be reduced. As a result, Army's logistics operations are more dynamic, predictive, and agile.

❖ **Transformation of Capability Management**

Army Capability Management Transformation is implemented in a focused manner based on limited resource management and taking into account will technological developments covering robotic, bio-mechanical engineering, nuclear, and information systems aspects. This will cover the core capabilities of Life Cycle Management, Total Maintenance Program, Management Dynamic

technology, and finally the transparent and sensitive use of implemented resources to the cost and impact of success.

❖ **Life Cycle Management on a Holistic Scale**

Army has a high turnover value asset that must survive for a period of time economic operating life, also known as life span. As a result, each procurement programme must consider the elements of the life cycle to all assets, including operational requirements, design, manufacturing, arrange motion, and disposal.

❖ **Life Cycle Extension Program**

The implementation of cycle extensions life as well as improving the technology available on the asset will be able to improve usage optimization as well as asset acquisition.

❖ **Comprehensive Maintenance Strategy**

Asset operation at its best it is entirely dependent on implementation as well as adherence to a maintenance programme based on prevention and prediction elements.

❖ **Limited Resource Management**

The principle of limited resource management will be fundamental in overall Army Logistics Operations, as will prioritisation, operations, and risk management.

CONCLUSION

Army 4nextG is an extension of the Army 2 10 Plus 10 plan, which supports the MAF Capability Development Plan (4D MAF). This plan considered all aspects of the geopolitical environment, the spectrum of threats, national policies and policies, and current fiscal strength. In comparison to the previous development plan, the approach has been taken through the use of Capability-Based Planning methodology (Capability Based), which leads to a plan to obtain critical ability for Army rather than to acquire assets on a regular basis focused on the Core Brigade. In general, the implementation of this plan is more comprehensive, systematic, and timed in accordance with strategic goals of operating in two regions at the same time to maintain sovereignty and territorial integrity. Army will be intensively and evenly developed in both regions, with a focus on Detection Goals, Survive and Strike, Sustainability (Sustainment),

Sustainable Strategy (Protraction), and National Security. These efforts also include Human Resource Development, Doctrine, and Exercises focusing on cognitive, psychomotor, and overall spirituality. This strategic development plan will become more sustainable and adaptable to changing circumstances. Aside from that, this plan is backed up by a number of Management Strategies, including Systematic and Realistic Capability Development. This approach to plan development is also consistent with the Land Warfare Strategy, which would allow Army to operate efficiently and effectively in a Multi-Domain Operating Environment.

The Army 4nextG capability development concept aims to establish Army as a modern and credible force capable of dealing with any future threat scenarios. Strategic Goals: The ability to operate in two regions at the same time is central to how Army will operate and remain relevant in the future. Army will foster a creative and innovative culture among its citizens in tandem with future capacity development, in keeping with the dynamically evolving technological revolution. The use of modern and sophisticated technology will shape Army into a force that is responsive, credible, adaptable, and combative. Furthermore, the existence of a reserve team that operates on the Auxiliary Concept Substitute to support the ground defence mechanism as a whole reinforces the concept of development. Cooperation among agencies is a significant value-added component in achieving the HANRUH principles outlined in the NDP. The responsibility to defend the country from external as well as domestic threats is a collective effort at the national level that must be appreciated by every layer of this country's people. It can be concluded that Army 4nextG is a creative and innovative plan. It employs a realistic implementation strategy that is also practical for dealing with a time-sensitive strategic uncertainty front. In the event of a contingency that necessitates a military response, Army capabilities will be managed cost effectively without sacrificing combat capability. This is consistent with the responsibility to maintain the territory's sovereignty and integrity.

REFERENCES

Army 4nextG Jil 1. 2019

Malaysia Defence White Paper, 2019

Perintah Ulung Panglima Angkatan Tentera (PAT) ke-21, 2020.

Perintah Ulung Panglima Tentera Darat (PTD) ke-28, 2020.

PEMENANG ARTIKEL TERBAIK SOROTAN DARAT SIRI 78 EDISI JUN 2021



Artikel Terbaik

MALAYSIAN ARMY SUPPORTING THE WHOLE OF GOVERNMENT APPROACH DURING THE COVID-19 PANDEMIC AND ITS IMPACT

Brig Jen Padman Bhaskaran, RAC



Artikel Kedua Terbaik

THE STRATEGIES UNDERTAKEN BY THE MALAYSIAN GOVERNMENT IN THE EFFORTS OF MITIGATING COVID-19

Lt Kol Lokman Nor Hakim bin Hj Abdul Rahman, RSR



Artikel Ketiga Terbaik

COVID-19 – MALAYSIAN ARMY INVOLVEMENT AS CRISIS RESPONDER

Brig Jen Hasanudin bin Ab Ghani, RAC

PANDUAN UNTUK PENULIS

➤ Had panjang artikel adalah antara 4,000 ke 6,000 patah perkataan iaitu sekitar 8 hingga 11 muka surat. Penulisan hendaklah menggunakan *font* Arial bersaiz 12. Teks artikel hendaklah ditaip selang satu setengah baris yang menggunakan format kertas A4. Artikel boleh dimajukan secara bercetak dan secara *soft copy* ke Bahagian Pembangunan Doktrin, MK PLDTD (UP: Ketua Editor Sorotan Darat).

➤ Tatacara penulisan menggunakan kaedah APA standard atau mana-mana tatacara penulisan artikel akademik universiti awam tempatan. Artikel mestilah mempunyai beberapa tajuk kecil. Sistem rujukan seperti nota kaki dan bibliografi/rujukan diterima pakai dan disusun mengikut abjad. Contoh kaedah penulisannya seperti berikut:

- ❖ Flyod, K. (2009). *Interpersonal Communication: The Whole Story*. New York: McGraw-Hill
- ❖ Mohd Radzi & Jusang Bolong. (2015). Komunikasi Pemimpin. *Jurnal Komunikasi Malaysia* , 45 (3), 89-102
- ❖ Risya Zu. (12 Feb 2014). Etos Kepahlawanan Tentera Darat. *Utusan Malaysia* , ms 9
- ❖ Rozman Malakan, (2011). Pembentukan jati diri insan. [http:// www.open subscribe. com/ worldlibrary /teks /7.html](http://www.open.subscribe.com/worldlibrary/teks/7.html). Capaian pada 30 Mei 2016

➤ Manakala gambar rajah, jadual dan gambar hendaklah digunakan secara terhad dan diberi nombor sebagaimana dicatat dalam huraian teks.

➤ Keperluan:

- ❖ Setiap artikel mestilah dimajukan bersama sekeping gambar penulis bersaiz passport, *soft copy* gambar dan juga biodata ringkas penulis.
- ❖ Setiap artikel mestilah dimajukan bersama synopsis artikel tidak melebihi 100 patah perkataan yang mengandungi hujah/pendapat utama dalam artikel.

PERINGATAN: ARTIKEL MESTILAH HASIL PEMIKIRAN DAN IDEA YANG TULEN DARIPADA PENULIS DAN BUKAN HASIL PLAGIAT.



Bahagian Pembangunan Doktrin
Markas Pemerintahan Latihan dan Doktrin Tentera Darat
Kem Segenting
71050 Port Dickson
Negeri Sembilan

