DEFENCE WHITE PAPER

A Secure, Sovereign and Prosperous Malaysia

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A secure, sovereign and prosperous Malaysia

First Published 2020
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Malaysia Nasional Library Cataloguing in Publication Data

Ministry of Defence
Defence White Paper
ISBN 978-967-16437-6-1
1. Defence 2. White Paper I. Title

Printed by
ETM Prima Sdn. Bhd.
No. 133 & 135, Jalan SBC1
Taman Sri Batu Caves,
68100, Batu Caves, Selangor

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FOREWORD BY THE PRIME MINISTER

السلام عليكم ورحمة الله وبركاته

I am pleased to introduce Malaysia's first Defence White Paper (DWP). The purpose and objectives of the DWP are aimed to embody the Government of Malaysia's aspiration in strengthening our national defence and formulating directions, as well as strategic priorities for the nation's security.

As a statement of both intent and capability, this historical document takes into account the presence and position of the defence sector, within the whole-of-government frameworks to ensure that the DWP continues to be in harmony with the agenda and aspiration of the Government.

The DWP is a manifestation of a higher level of transparency in the government's administration, its commitment to the principles of democracy and the importance of the whole-of-nation approach. The development process illustrated an unprecedented collaboration effort involving multiple stakeholders cutting across government agencies, academics and think tanks, defence industry players, private sectors and non-governmental organisations.

The Government views defence and security as all-encompassing. It 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 DWP concept will ultimately form an integrated commitment for the society to equally assume responsibility to defend the nation.

Malaysia has notably profiled its presence in the regional and global arena of defence and security through active participation under the auspices of the United Nations since 1960, and as one of the founding states of ASEAN in 1967. The DWP will function as yet another element which will enhance Malaysia's geopolitical profile, within today's global security and defence landscape.

This White Paper recognises the consequential role of economic sustainability in providing vital support towards an integrated defence industry sector. It also presents a new approach to the nation's defence science, technology and industry sphere by acting as a catalyst for the nation's defence ecosystem and economic growth.

I acknowledge the strategic significance of the DWP as a blueprint in the formulation of a national policy on defence and security, as well as the role of the Ministry of Defence as a transformative organisation. I am confident that each detail outlined in this White paper will be materialised through the Government's concerted efforts to embrace the national aspirations in pursuing the vision of Malaysia as a secure, sovereign and prosperous nation.

YAB TUN MAHATHIR MOHAMED
Prime Minister, Malaysia

FOREWORD BY THE MINISTER OF DEFENCE

ا لسلام عليكم ورحمة الله وبركاته

Alhamdulillah, the greatest gratitude to Allah as due to His benevolence, the Defence White Paper (DWP) has now been issued.

Malaysia, located at the centre of Southeast Asia, is a maritime country, flanked by the South China Sea and Pacific Ocean on one side and the Straits of Malacca and Indian Ocean on the other.

Malaysia is also a nation with continental roots connected to mainland Southeast Asia and Eurasia by land. This unique location allows Malaysia to assume a crucial role of connecting both the Asia-Pacific and Indian Ocean regions for shared prosperity.

During these times of uncertainty, it is imperative that we take serious efforts to protect our national interests and defend our sovereignty as well as territorial integrity.

Cognisant of this reality, the Ministry of Defence (MINDEF) has produced the DWP with the vision of "Malaysia is a secure, sovereign and prosperous nation."

The DWP details Malaysia's plan to develop our Armed Forces into a force of the future comprising of five main characteristics which are jointness, interoperability, technology-based, able to operate simultaneously in two theatres and mission-orientated.

This defensive-postured force of the future will be integrated, agile and focused, as well as able to respond to all threats that Malaysia may have to face. This initiative will be further enhanced through robust participation of the Government together with the *rakyat* in ensuring the nation's security, sovereignty and prosperity.

As a neutral and peace-loving nation that seeks to befriend all nations, Malaysia is committed to enhancing credible partnerships through inclusive international diplomatic initiatives. Through defence diplomacy, Malaysia and other countries that share the same aspirations can collaborate and combine our collective strengths and resources to achieve national security as well as regional and global stability.

The Government is committed to reforming the defence sector and ensuring stable and sustainable funding so that our defence capabilities, planning and procurement are executed efficiently.

God willing, all the plans outlined in the DWP can be successfully implemented with integrity, transparency and good governance.

Finally, I would like to record my sincere appreciation to everyone involved in the drafting and successful issuance of this DWP.

YB TUAN HAJI MOHAMAD BIN SABU
Minister of Defence, Malaysia

RESCUE

EXECUTIVE SUMMARY

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 underscores three key messages: (1) do not take the national security for granted; (2) the Whole-of-Government and Whole-of-Society approaches are central to national defence; and (3) 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: (1) Vision; (2) Strategy; and (3) 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.

Chapter 1 introduces the DWP by answering the questions: What is a Defence White Paper? Why is the Government issuing the DWP? and How will the DWP set forth the direction to pursue the national defence vision. The DWP serves three purposes: (1) engaging the *rakyat* and stakeholders; (2) evaluating the ever-changing security environment; and (3) exploring approaches to enhance Malaysia's defence capability and preparedness. Malaysia's geographical location in the middle of Southeast Asia with the Pacific Ocean and South China Sea on one side, and the Indian Ocean and Straits of Malacca on the other side, positions Malaysia as a maritime nation with continental roots, the bridging linchpin between the two ocean regions.

Chapter 2 analyses the increasingly complex security environment at the global and regional levels. This uncertainty has presented both challenges and opportunities to the nation, the region and the international community. Malaysia is not beset by military conflict with other countries. However, the nation still faces three main security challenges, namely: (1) uncertain big power relations; (2) complex Southeast Asian neighbourhood; and (3) increasing non-traditional security threats.

Chapter 3 discusses the National Defence Strategy based on the National Defence Framework, divided into three parts: (1) National Defence Vision; (2) National Defence Interests; and (3) National Defence Objectives. The National Defence Vision envisages Malaysia as a secure, sovereign and prosperous nation. This, in turn, defines Malaysia's defence interests: (1) security; (2) sovereignty; and (3) prosperity. This Framework identifies five National Defence Objectives. This chapter then introduces three Concentric Areas of Interests consisting of (1) Core Area; (2) Extended

Area; and (3) Forward Area that contains national interests that have to be protected at all times. Subsequently, this chapter outlines the three pillars of the National Defence Strategy: (1) Concentric Deterrence; (2) Comprehensive Defence; and (3) Credible Partnerships.

Chapter 4 explains the Government's plan to develop the Future Force to pursue the strategy of Concentric Deterrence. The Future Force 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: (1) Jointness; (2) Interoperability; (3) Technology-Based; (4) Able to Operate Simultaneously in Two Theatres; and (5) Mission-Orientated. It identifies ten capability requirements to transform the MAF into an integrated, agile and focused force, and to effectively perform the tasks of Detect, Deter and Deny along the Concentric Areas.

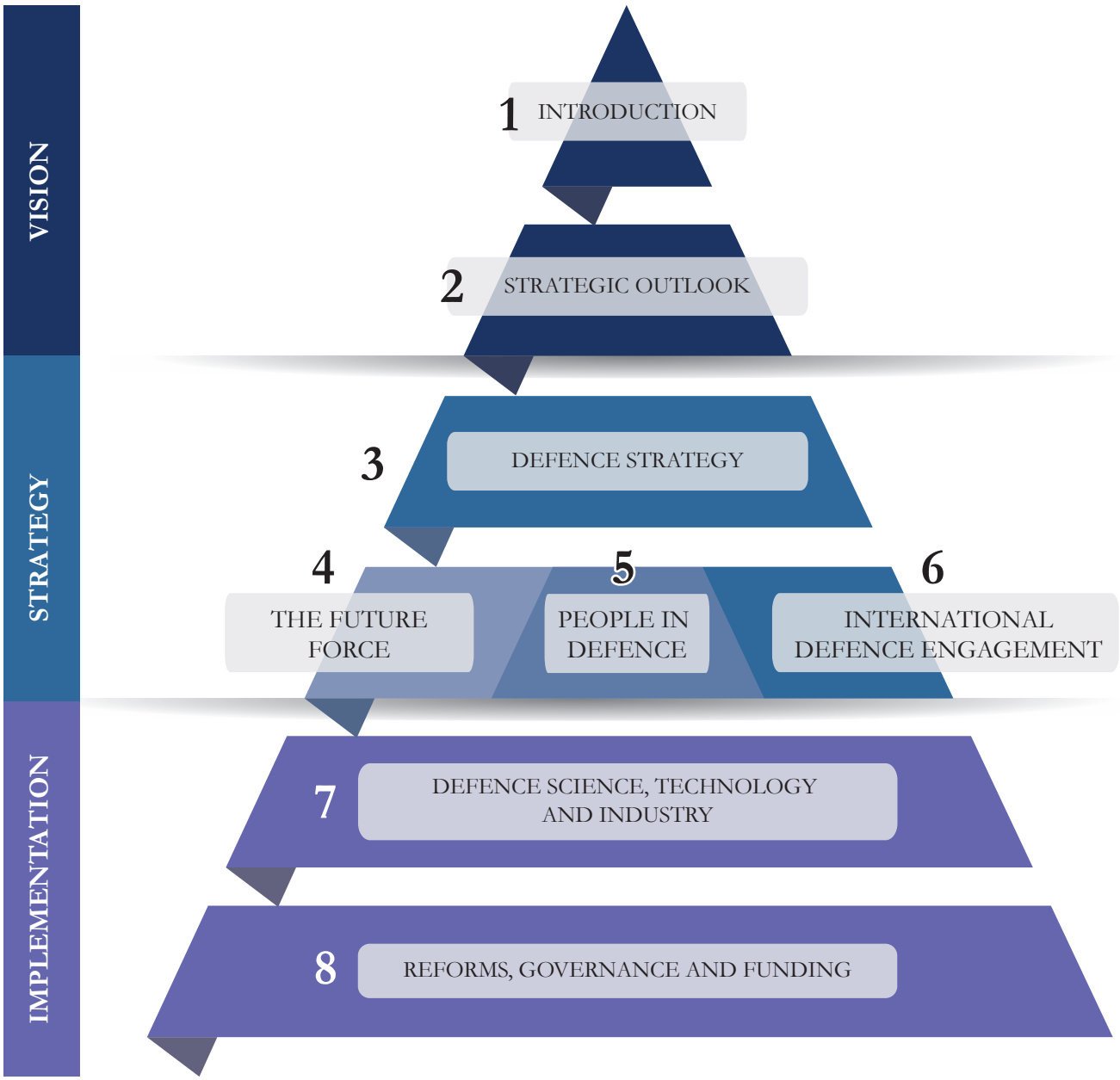
Chapter 5 highlights the roles of of both the defence workforce and the *rakyat* in implementing the strategy of Comprehensive Defence. The defence workforce consists of the Regular Forces, Volunteer Forces, MAF Veterans and civil servants working in the defence and security sector. This chapter lists out the fundamentals that require attention and actions for each category of the defence workforce. It also discusses the participation of and by the *rakyat* in defending the country, in line with the concept of *Pertahanan Menyeluruh* (HANRUH). Instilling patriotism and security culture among the people is emphasised to ensure their active participation in the national defence ecosystem.

Chapter 6 focuses on international defence relations in pursuing the strategy of Credible Partnerships. It 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: (1) Shaping Malaysia's defence relations with other countries; (2) Managing shared security challenges; (3) Fostering regional stability in accordance with international laws, conventions, rules and norms; (4) Enhancing the MAF's capabilities and defence readiness; and (5) Promoting Malaysia's position and interests in the international arena. This chapter also sets forth the directions for Malaysia's future defence engagements.

Chapter 7 discusses the role of defence science, technology and industry as a catalyst for enhancing the nation's defence ecosystem and economic growth. It identifies three core initiatives: (1) Stimulating research and development; (2) Encouraging economic spillover contributions to the nation; and (3) Fulfilling the nation's defence needs. This chapter puts forward the framework for the National Defence Industry Policy (NDIP) that sets the direction based on five key thrusts: (1) Human Capital Development; (2) Technology Development; (3) Industrial Development; (4) Towards Self-reliance; and (5) Penetrating the Global Market.

Chapter 8 identifies three building blocks for the implementation of the DWP: (1) Pursuing defence transformation; (2) Institutionalising good governance; and (3) Securing stable defence funding. A National Defence Investment Plan (*Pelan Pelaburan Pertahanan Negara*, 3PN) will be developed to register the requirements and steps to be taken to implement defence transformation. To oversee the implementation of the DWP and ensure good governance, the Government will establish: (1) Defence Investment Committee chaired by the Prime Minister; (2) Policy Committee chaired by the Minister of Defence; and (3) Defence Transformation Committee co-chaired by the Secretary General of MINDEF and Chief of Defence Forces. The expected outcome includes structured defence fundings for the development of the Future Force and expansion of the local defence industry, all of which aims to maximise legitimacy, acceptability and reliability.

DEFENCE WHITE PAPER STRUCTURE



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SECTION 1
VISION

CHAPTER 1

INTRODUCTION

1. 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.

2. 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.

3. The MAF, with the *Yang di-Pertuan Agong* (the King) 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.

NINTH SCHEDULE [Articles 74, 77] FEDERAL CONSTITUTION
Legislative Lists
List 1 - Federal List
"2. Defence of the Federation or any part thereof, including -"

(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, fire-arms, ammunition and explosives;	(g) national service; and	(h) civil defence.

4. 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.

5. This introductory chapter provides an overview of what a DWP is, why the Government is issuing the country's first DWP and how the direction set forth in the DWP will strengthen the nation's defence and security. It presents a vision to advance Malaysia's current interests and future aspirations as **a maritime nation with continental roots**, exploring the nation's unique role as **a bridging linchpin** between the Asia-Pacific and Indian Ocean regions.

What is a Defence White Paper (DWP)?

6. A Defence White Paper 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.

7. As a public document, this DWP conveys a key message to all Malaysians that security should not be taken for granted. While the Government is determined to pursue Malaysia's right to defend its national sovereignty and other interests, this pursuit is constantly subject to the multifaceted risks, threats and uncertainties stemming from the ever-evolving security environment. For these realities, MINDEF and the MAF 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.

Why Malaysia's First DWP?

8. 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.

9. **Engaging the public and relevant stakeholders**. National defence is a process requiring the active participation of and by the people. The Government is committed to engaging the public on defence and other related matters. This DWP offers an opportunity to reach out and inform the *rakyat,* comprising of individual citizens, groups, as well as all stakeholders in and out of the public sector, about the Government's present priorities and future plans for bolstering Malaysia's defence.

10. For this purpose, the DWP describes the sources of security risks, the Government's plan to develop a more integrated, agile and focused force, as well as the roles and responsibilities of all Malaysians in national defence. It also emphasises the Government's commitment to a more regular cycle of defence policy updates.

11. Each of these efforts is a manifestation of democratic values and practices of good governance through integrity, transparency and accountability. By enhancing the peoples' understanding of the roles of the defence force and why these roles are important to them, the DWP helps to build public support for the MAF, and assists them in understanding the need for sustainable defence funding.

12. This is important not only for democratic procedural reasons, but also because it helps to consolidate the societal base of national security. The MAF needs the support of the *rakyat* to win any armed conflict either internal or external as proven during the First and Second Emergency (1948-1960 and 1968-1989 respectively) and the *Konfrontasi* (1963-1966).

13. Engaging the *rakyat* and all stakeholders is a component of Total Defence or *Pertahanan Menyeluruh* (HANRUH), where everybody plays a role in defending the nation. Introduced in 1986, HANRUH is an approach that emphasises the involvement of every level of society, government agencies, private sector, non-governmental organizations and the people in national defence and security. Educating the *rakyat* about the emerging security issues is an essential move to involve them to do their part to defend Malaysia.

14. Engaging the *rakyat* in defence and security issues provides a better understanding of the responsibilities of the Minister of Defence, Secretary General (Sec-Gen) of MINDEF and the Chief of Defence Force (CDF), as well as the roles and contributions of the MAF.

15. The Minister of Defence advises the Prime Minister, the Cabinet and the Parliament on defence matters and provides strategic guidance to ensure successful and effective implementation of MINDEF's policies. The Sec-Gen serves as the Chief Executive of the Ministry, Controlling Officer and the Ministry's Chief of Public Accounts as well as the main advisor to the Minister. The Sec-Gen is the primary lead in formulating the Ministry's policies and development plans to achieve MINDEF's objectives and policy goals. On the other hand, the CDF is the Minister's most senior advisor on military affairs under the ambit of defence. The CDF, together with the three Service Chiefs advise the Armed Forces Council which is responsible for the MAF's command, disciplinary actions, administration and related matters, except on the operational use of the armed forces. The CDF is responsible for ensuring the implementation of the decisions by the Council.

16. **The primary role of the MAF** is to maintain peace and be prepared for any armed conflict, in order to effectively defend Malaysia's sovereignty, territorial integrity and other national interests against external threats. The Latin proverb "*Si vis pacem, para bellum*" means "If you want peace, prepare for war". Thus, defence preparedness is the best guarantee for peace. As a peace-loving and compassionate nation, Malaysia places greater emphasis on diplomacy in dealing with other countries. MINDEF and the MAF have actively conducted defence diplomacy and other international engagement activities with regional and global partners. The MAF has participated in a number of the United Nations (UN) Peacekeeping Operations (PKOs) around the world and has also assisted civil authorities in addressing security challenges whilst supporting nation building.

17. The National Defence Policy (NDP) is a classified document produced by the Government prior to the DWP in 1971, 1979 and 1981. In 1986, a comprehensive NDP was produced and had undergone revisions in 1993 and 2006. In 2010, an open version of the NDP was published in line with the spirit of HANRUH.

18. This DWP builds upon the engagement efforts with key stakeholders. The main reference is the National Security Policy (NSP) by the National Security Council (NSC) published in 2017. The NSP serves as an overarching capstone document for all subsequent security-related agencies and policies, including this DWP, alongside the parallel documents, such as the Foreign Policy Framework of the New Malaysia: Change in Continuity produced by the Ministry of Foreign Affairs, and the Security and Public Order Policy (*Dasar Keselamatan dan Ketenteraman Awam*, DKKA) produced by the Ministry of Home Affairs in 2019. These key documents represent the Government's emphasis on inter-agency coordination among the constituent components of Malaysia's security cluster.

19. **Evaluating the ever-changing strategic environment**. The current and ongoing changes at the global and regional levels call for a new round of strategic reassessment. Chapter 2: Strategic Outlook performs this task.

20. A continuous assessment of external conditions is crucial, as change is a constant reality in the international security ecosystem. Geographical circumstances, complex neighbourhood and relative military capabilities all have direct and indirect bearings on Malaysia's national interests.

21. **Geography is destiny**. As a relatively small nation with two territories: Peninsular Malaysia, and Sabah and Sarawak, between the vast Pacific and Indian Oceans, Malaysia's strategic location and natural resources have been both a blessing and a challenge.

22. Indeed, Malaysia's history is, in many ways, a history of big power politics. It is a history of how the big powers of the day impacted the fate and fortune of the country. While bringing about opportunities for commercial and civilisational development, geography also drew unsolicited attention and exploitation from powerful actors for domination in the Malay Archipelago.

23. This recurring theme is well illustrated by the country's historical timeline: the rise and fall of the Malacca Sultanate, the successive colonial rule by the Portuguese (1511-1641), the Dutch (1641-1795, 1818-1825) and then the British (1795-1818, 1826-1957), the changing shape of colonial Malaya after the 1824 Anglo-Dutch Treaty, the Japanese occupation (December 1941-August 1945), the birth of the Federation of Malaya as a sovereign state (31 August 1957), followed by the creation of a larger federation when Malaya (*Tanah Melayu*) merged with other former British colonies of Singapore, Sabah and Sarawak formed an independent Malaysia (16 September 1963) at the height of the Cold War.

24. While different big powers have come and gone, the geopolitical challenges of the country remain. Although the present-day Malaysia is not directly threatened by any militarily stronger powers the same way as its predecessor polities experienced during the age of European colonisation and World War II, its interests have continued to be affected by the actions and interactions of the big powers of the contemporary era.

25. As a country with two separate territories, Malaysia currently faces not only the challenges of big power politics, but also a range of non-traditional security threats, as elaborated in Chapter 2: Strategic Outlook.

26. Due to the nation's relative limitations in size and capacity, the Government has recognised the need to be proactive and pragmatic in coping with strategic risks. Continuous assessment of the security environment is a central part of this process.

27. The Government's assessment on the security environment had at times resulted in adjustments or changes in its strategic planning. A reassessment in the 1980s had led to the transformation of the MAF from a counter-insurgency force to a more conventional one. It also contributed to a shift from a threat-based to a capability-based defence policy. A more recent evaluation has further recalibrated the policy into an **interest-based** approach. This is elaborated in Chapter 3: Defence Strategy and Chapter 4: Future Force.

28. The reassessment of changing realities at the international level has occasionally resulted in Malaysia changing the forms of its **defence engagement**. Malaysia used to anchor on a military alliance, the Anglo-Malayan/Malaysian Defence Agreement (AMDA) with the United Kingdom. The alliance-centric approach was later replaced by a more balanced external posture, when AMDA was succeeded by the Five Power Defence Arrangements (FPDA) in 1971. It was around the same time that Malaysia started to embrace non-alignment and the Association of Southeast Asian Nation (ASEAN) regionalism in its external outlook. The Zone of Peace, Freedom and Neutrality (ZOPFAN) declaration was signed by Foreign Ministers of the ASEAN member states in 1971 in Kuala Lumpur. The creation of various ASEAN-led mechanisms since the 1990s has deepened the role of ASEAN as the cornerstone of Malaysia's foreign policy.

29. Parallel to these changing external postures is the changing foundations of Malaysia's **internal resilience**. "Resilience" means a nation's overall capacity to withstand challenges through inter-agency coordination, as well as national capability and cohesion across the society to tackle national problems. It encompasses national unity, government coherence, development and societal participation in security preparedness. From a Malaysian perspective, defence and development always go hand-in-hand, as stressed by KESBAN (*Keselamatan dan Pembangunan*, or "Security and Development"), a concept adopted during the Second Emergency.

30. The whole-of-government and the whole-of-society approaches are the key pathways to enhance Malaysia's national resilience. The Government's approach to resilience is highlighted in Chapter 5: People in Defence. Efforts to build internal resilience go in tandem with the endeavour to forge external partnerships, the focus of Chapter 6: International Defence Engagement. Together, they form the foundation of Malaysia's pursuit of security.

31. **Enhancing Malaysia's defence capability and readiness**. The third and the most important purpose of the DWP is to identify ways and means to enhance the country's defence capability and military preparedness. This task is performed by Chapters 3 to 8, on the basis of the vision and strategic outlook analysis presented in Chapters 1 and 2.

32. Chapter 3: Defence Strategy translates the vision into directions by describing the three pillars of Malaysia's defence strategy as a roadmap to enhancing Malaysia's defence readiness. These pillars are: Concentric Deterrence, Comprehensive Defence and Credible Partnerships. Each of the pillars is elaborated in Chapters 4, 5 and 6, respectively.

33. Chapter 7: Defence Science, Technology and Industry and Chapter 8: Transformation, Governance and Funding concentrate on the implementation of the DWP. Both chapters explain how the Government plans to operationalise the three pillars into enhanced national defence by consolidating the defence capability development plan, pursuing defence transformations, reinvigorating Malaysia's defence industry as an economic catalyst and securing a stable defence funding. All of these are aimed at transforming the MAF into an integrated, agile and focused force.

34. It is important to understand the development of the MAF and related agencies as the nation's security custodian. When Malaya attained independence from the British on 31 August 1957, the then Malayan Armed Forces consisted of an Army and a Navy that were 24 and 23 years old respectively. The Malayan Army, which included the Malay Regiment, the Federation Regiment and the Federation Armoured Car

Squadron, was developed and equipped to carry out counter-insurgency operations against the Malayan Communist Party (MCP). The Royal Malayan Navy was then still a rudimentary naval force. The Royal Federation Air Force was created on 2 June 1958, after independence.

35. Following the formation of the Federation of Malaysia on 16 September 1963 when Malaya merged with Sabah, Sarawak and Singapore (Singapore separated from the Federation in August 1965), the Malayan Armed Forces became the Malaysian Armed Forces. Given the nature of threats posed by the insurgency and *Konfrontasi*, the development of the MAF in the earliest decades was focused largely on land-based operations.

36. The MAF's capability development efforts are well articulated in several key documents, primarily the Malaysian Armed Forces (MAF)'s Capability Development Plan known as the Fourth Dimension Malaysian Armed Forces, 4D MAF.

37. Over the subsequent decades, each of the three Services of the MAF has grown in size and functions. Each has continuously sought to enhance its defence capacity through effective use of land, sea and air power. Efforts to develop a Joint Forces Command (JFC) started when the Malaysian Armed Forces Headquarters (MAF HQ) was established in 1992. The Joint Forces Headquarters (JFHQ) was eventually launched in 2004, thereby institutionalising the jointness concept where the three Services jointly perform functions in terms of governance and operational control. The JFHQ is entrusted with all the joint exercises, joint and combined operations as well as multinational operations.

38. At the Service level, there is a series of documents aimed at transforming the respective Services and enhancing their defence capability, in ways that align their resources with the country's strategic interests. These documents are: (1) the Army for the Next Generation (Army 4nextG) Strategic Development Plan that envisages thrusts to enhance the Army's capability towards 2050; (2) the RMN #15to5 Transformation Programme, serving as a blueprint to turn the Navy into "a balanced, credible and versatile armada" by 2050; and (3) the RMAF Capability Development Plan 2055 (CAP55) detailing its modernisation plan up to 2055.

39. Developing upon existing Government documents, this DWP presents a transformative strategy aimed at enhancing Malaysia's overall defence capability in a coherent way. This long-term blueprint seeks to translate the elements of national power into national strengths, which are robust enough to deter potential threats (along the concentric areas of the core, extended and forward areas), comprehensive enough to continuously build resilience at home, as well as credible enough to attract and expand circles of partnerships abroad.

How Does the DWP Serve the National Vision?

40. The DWP serves Malaysia's national vision in several ways. For the immediate and medium terms, it enables the Government to pursue three desired outcomes, namely: **legitimacy, acceptability** and **reliability**. For the longer term, the DWP strengthens Malaysia's position as a maritime nation with continental roots, and maximises its potentials as a bridging linchpin between the Asia-Pacific and Indian Ocean regions.

41. **Legitimacy** is about government authority, a central element in internal resilience. The DWP, having been deliberated and prepared after extensive consultation across civil-military lines with considerable input from academics, think-tanks, industry representatives, civil society organisations, all components of the government and private sector, reflects a broad spectrum of viewpoints about Malaysian defence including the required functions of the armed forces. Inclusively engaging the public and a wide range of stakeholders in the policy-making process is a fundamental exercise in democracy. It confers a great procedural legitimacy on the DWP and related policies.

42. **Acceptability**, the second desired outcome, is about policy agreeability among governmental agencies, in line with the whole-of-government approach. This DWP seeks to increase the acceptability of its vision across all government agencies, chiefly by forging a shared outlook on external threats and opportunities, and the need to view each other as indispensable partners. The higher the acceptability, the higher the governance cohesion and the higher the internal resilience. Reaching consensus and continuous maximisation of inter-agency coordination are desired outcomes of this DWP.

43. Another desired outcome of the DWP is **reliability**. It is about enhancing military readiness and optimal operational ability of the MAF in tackling security challenges effectively. The DWP provides the directions for the MAF to be transformed into an integrated, agile and focused force. A reliable defence force is expected to effectively protect national interests, **avoiding conflict when we can, and winning the war when we must**.

44. These desired outcomes reflect the prime audience of the DWP. Legitimacy is for the hearts of Malaysian people, acceptability for the relevant agencies and the reliability of the MAF for external partners.

45. All the three outcomes are vital. They lay the foundation for Malaysia to turn the nation's democratic dividends into a transformative, inclusive vision of serving a bridging linchpin role between the Asia-Pacific and Indian Ocean regions. The vision leverages on Malaysia's geography, diversity and democracy for punching above its weight at the international level.

46. This vision is supported by Malaysia's long-time diplomatic activism, defence approach and developmental aspirations. It is also anchored on the Government's commitment to contribute to ASEAN centrality, regional stability and global development, including realising the UN Sustainable Development Goals (SDGs) and aligning them with regional agenda such as the ASEAN Community Vision 2025 and ASEAN Outlook on the Indo- Pacific.

47. Malaysia's vision as the bridging linchpin between the Asia-Pacific and Indian Ocean regions connects the nation's past, present and future, as follows:

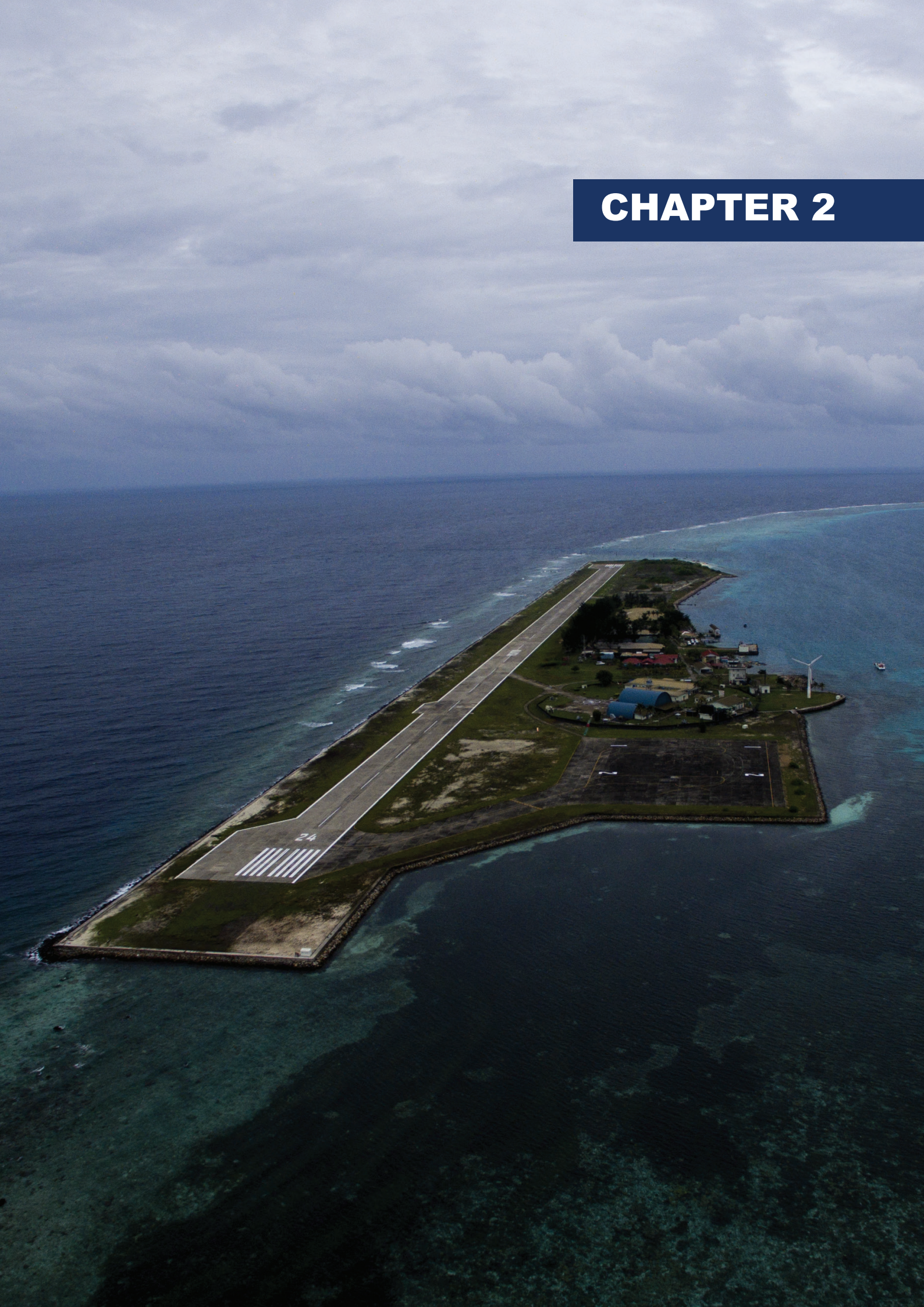
    i. **Past**. The Malacca Sultanate, the Malay dynasty that ruled the Malacca entrepôt and commanded the major sea route between India and China, was a preeminent trading centre in Southeast Asia during the 15th century. It was the emporium of the East. Leveraging on its geographical-halfway along the main international shipping route, Malacca established itself as a prosperous trading port by attracting merchants from Arabia, Africa, Persia, Europe, India and China. It was a centre of civilisational exchange and religious learning, spreading Islam to other communities in the Malay Archipelago. Its geographical location, however, attracted major powers to Malacca, making it the first destination for colonisation by Western powers in Southeast Asia when the Portuguese invaded the Sultanate in 1511.

ii. **Present**. Since attaining independence in August 1957, the present-day Malaysia has actively forged cooperation with countries in different parts of the Asia-Pacific and Indian Ocean regions. Malaysia's active initiatives began with Southeast Asian regionalism. Since the 1990s, it has grown deeper within, and gradually extended between the two regions. Over the decades, Malaysian activism has developed into multiple layers of diplomatic, developmental and defence cooperative platforms between and across the two ocean regions. These include ASEAN-led cooperation namely East Asian integration, ASEAN-Plus Three (APT) and other parallel dialogue processes, South-South Cooperation, the Singapore-Kunming Rail Link (SKRL), the ASEAN-Mekong Basin Development Cooperation (AMBDC), the Malacca Straits Patrol (MSP), the Trilateral Cooperative Arrangement (TCA) in the Sulu Sea and Sulawesi Sea, the Malaysia Field Hospital (MFH) in Cox's Bazar, Bangladesh, the multi-level defence partnerships with countries across the Pacific and the Indian Oceans, as well as our longstanding contributions to UN Peacekeeping Operations in various parts of the world. These platforms are indispensable instruments for pursuing Malaysia's core interests and international standing.

iii. **Future**. In light of the fast-changing international environment, it is timely for Malaysia to envision a new direction, turning the existing platforms into a more coherent Malaysian middlepowership, while cultivating new possibilities. The bridging linchpin vision is a crucial step to move into this direction, to better position Malaysia at a time when the big power dynamics in and across the two regions are creating greater uncertainties for Malaysia.

48. The vision may serve to enhance both internal resilience and external partnerships. Internally, as a developing, multi-ethnic country with Muslim majority, Malaysia embraces the values of inclusivity, consultative dialogue and progressiveness, in tandem with the concepts of '*Rahmatan lil 'alamin*' (mercy to all) and '*Maqasid Syari'ah*' (higher objectives of the syariah). The diversity of culture can be an asset and strength for the nation to be a bridging linchpin between the Asia-Pacific and Indian Ocean regions. Malaysia is known to be courageous and quick-witted like the *Sang Kancil* (mousedeer). As narrated in *Sejarah Melayu* (the Malay Annals), the mousedeer spirit is exemplary for its smart and adroit manoeuvres to survive. The bridging linchpin vision, by underscoring Malaysia's non-aligned and inter-regional potentials, increases our contributions as a credible partner in the eyes of the international community.

CHAPTER 2



STRATEGIC OUTLOOK

1. Malaysia's present and future interests are tied to an uncertain and ever-changing security environment. This chapter first describes Malaysia's strategic outlook for the next ten years. It then lays out the Government's long-term strategy, charting the direction to protect the national interests, particularly to defend the sovereignty and territorial integrity, in line with the shifting regional and global security environment.

2. As a result of the uncertainties at the regional and global levels, the international strategic landscape is becoming more complex and unpredictable in the coming years. Although Malaysia is not beset by military threats or conflicts at the present moment, the nation still faces three main security challenges. They are: (1) uncertain big power relations; (2) complex Southeast Asian neighbourhood; and (3) increasing non-traditional security threats.

A Changing Security Environment

3. The increasingly volatile external environment has caused a wide range of uncertainties, posing growing risks towards Malaysia's national interests. This development has the potential to undermine regional stability and global peace in the long run.

4. Globally, there has been a shift in economic and military power. This shift is highlighted by intensifying power competition and potential polarisation, increasing xenophobia, more prevalent non-state actors, more lethal trans-boundary threats, inevitable globalisation processes, uneven access to technology and fragile ecological systems.

5. Regionally, the intensifying power competition is concentrated more in Southeast Asia. This rivalry is not only heightening the longstanding tension in the region but also has extended to other sectors from trade and technology, to resource management and functional exchanges to infrastructure and connectivity development.

6. While this big power competition and their attempts to increase influence may present opportunities for Malaysia and other regional countries, at the same time, it may complicate regional cooperation. The attempts may cast shadows over Southeast Asia's stability and prosperity, potentially challenging ASEAN centrality. These developments have led to a more complicated, unpredictable outlook with the potential to disrupt the regional security environment. Malaysia may face challenges on a more serious scale and scope never experienced before.

7. Three challenges that will shape Malaysia's strategic outlook for the next ten years are identified as follows:

   i. **Uncertain big power relations**. This refers to the US-China interactions and their relations with other powers. These two big power relations are the most important bilateral relations in the contemporary world and also the most important external factor for Malaysia. The bilateral ties have always been marked by a mix of cooperation and competition, with implications for regional stability, security and prosperity. Their interactions affect other countries' policies and actions.

   ii. **Southeast Asian neighbourhood**. While big power politics affect Malaysia as consequences of power, the Southeast Asian neighbourhood impacts Malaysia because of its **proximity**. Due to geographical proximity, Malaysia's national security and interests are affected by its immediate neighbours' actions, policies and spillovers of their internal developments as well as bilateral relations among the

ASEAN member states. There is also a greater regional interdependence due to proximity. Hence, the Government is giving emphasis to shared prosperity, shared security and shared identity at the regional level.

iii. **Non-traditional security threats**. These threats, primarily those that compromise human security and the environment, are escalating. These threats come in all forms such as extremism and terrorism, kidnapping for ransom, sea robbery and piracy as well as cyber threats. Examples include the Lahad Datu incursion in 2013, the repeated Abu Sayyaf Group armed abductions in the eastern waters of Sabah, the hijacking of MT Orkim Harmony off eastern Tanjung Sedili, Kota Tinggi in 2015 and cyber attacks in Singapore in 2018. Natural disasters are another form of non-traditional security threat in Southeast Asia. These non-traditional threats are **unpredictable** and may occur **anywhere**, **anytime** and **to anyone**. These threats are transboundary in nature and cannot be addressed single-handedly without the cooperation of other countries.

8. Developments in recent years suggest that the three factors will become more complex and will cost the nation dearly if not handled appropriately.

The Uncertain Big Power Relations

9. Big power relations are becoming more unpredictable. Despite their continuing cooperation and dialogue, the United States of America (US) and China have entered into a new phase where bilateral relations are marked more by rivalry than accommodation. The National Security Strategy and National Defense Strategy documents, published by the US in December 2017 and January 2018 respectively, describe China as a "strategic competitor" and a "revisionist power". Both sides are embroiled in an increasingly bitter trade war, accompanied by technology decoupling, maritime tensions and other points of friction. China's occupation and militarisation as well as related activities in the South China Sea, along with the US Freedom of Navigation Operations (FONOPs) and other powers' similar actions, have turned the overlapping sovereign claims issue into a big-power game. Incursions by foreign government vessels off the coast of Sabah and Sarawak are clear challenges to Malaysia's sovereign rights in the Exclusive Economic Zone (EEZ) in the South China Sea as provided by international law. Tensions have sparked in the South China Sea with the arrival of warships from outside the region. The growing rivalry and action-reaction between the powerful nations have raised the risk of regional polarisation.

10. At this point of time, when multilateralism appears to be in question and old alliances in doubt, protectionism and transactional politics are on the march. As unipolarity fades and chaos surrounding Brexit continue, the West's influence will continue to decline. These developments have raised questions on global leadership, casting doubts on the international community's capability to reach consensus and take collective actions on a range of transnational and regional issues. Meanwhile, the Russia-West standoff intensifies as the conflicts in Afghanistan, Syria, Yemen and elsewhere in West Asia and Africa regions continue. US-Iran tension is also escalating. The growing convergence of Russian, Iranian and Turkish interests is changing the Eurasian geopolitical landscape. Other geopolitical developments include the expansion of the Shanghai Cooperation Organisation (SCO) in 2018 (India and Pakistan joining the regional group that consists of Russia, China, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan), which is reshaping the security and economic connectivity between and across the Central and South Asian regions. Despite the ongoing post-Cold War geopolitical reconfigurations in Eurasia and West Asia, South Asia remains beset with conflicts. Tensions between India and Pakistan have worsened, especially after the two nuclear-armed neighbours exchanged cross-border fire in the disputed Kashmir in late 2019.

11. China continues to implement its Belt and Road Initiative (BRI), which aims at reviving the Silk Road by constructing a vast network of infrastructure, transportation and trade links across Asia, Europe and Africa. The country's economic and diplomatic activism has been pursued side-by-side with its military modernisation, institutional initiatives (e.g. the Asian Infrastructure Investment Bank [AIIB], the Mekong-Lancang Cooperation [MLC], Xiangshan Forum) and perceived aggressive actions over the South China Sea. Regional countries have reacted differently to these developments. Some are amenable to China's emerging role in regional architecture and global order, whilst others are uneasy about it.

12. Parallel to these developments is the revival of the Quadrilateral Security Dialogue (the Quad) by Australia, India, Japan and the US in 2017. By 2018, each of the Quad countries had announced its own version of the "Indo-Pacific" strategies respectively, expressing its security roles and connectivity cooperation scheme. The Quad countries emphasise the importance of rules-based order, underscoring the freedom of navigation and openness of sea lanes, while promoting sustainable infrastructure development practices.

13. Amidst growing power competition between the contending interests, infrastructure connectivity cooperation joins maritime security as chessboards of Asian geopolitics.

14. On the maritime front, the US has stepped up its FONOPs in various parts of the disputed waters of the South China Sea. Australia, France, Germany, Japan and the United Kingdom have registered their respective concerns over the issue, whether through their own initiatives or through joint statements. India and other countries have similarly called for safeguarding the freedom of navigation.

15. On the connectivity front, Japan has been active in implementing the Partnership for Quality Infrastructure since 2015. This initiative started concurrently with the establishment of the China-backed AIIB. It was followed by the announcements of bilateral, trilateral and coalition partnerships between and among the Quad members on connectivity cooperation. The US released its Indo-Pacific Economic Vision in July 2018 while the European Commission presented the EU-Asia Connectivity Strategy in September 2018.

16. All these developments have both direct and indirect impacts on East Asia, including Southeast Asia, presenting opportunities as well as challenges. East Asia is the region where most of Malaysia's national interests are concentrated. Within the region, the outlook is mixed. Economically, East Asia remains the most vibrant and integrated region. Security wise, however, it is a region with multiple potential flashpoints. While there have been some attempts at resumptions of diplomacy in East Asia between the two Koreas, between the US and North Korea, between China and Japan, the security of the region remains uncertain. The situation in the Korean Peninsula is still tense. The Taiwan Strait is still considered a potential conflict zone. Elsewhere, in Southeast Asia and other parts of the region, territorial disputes and overlapping claims between and among states have remained unresolved.

17. Malaysia maintains friendly relations with all countries and seeks peaceful resolution of disputes based on international law. The South China Sea should be a platform for cooperation and connectivity, not an area of confrontation or conflict area, which is in line with the spirit of Zone of Peace, Freedom and Neutrality (ZOPFAN). This cooperation is crucial to ensure freedom of navigation and overflight as provided by international law, including the 1982 United Nations Convention on the Law of the Sea (UNCLOS). Malaysia insists on the use of diplomacy and international law to manage disputes.

18. ASEAN and ASEAN-led mechanisms continue to serve as indispensable platforms for mitigating all of these challenges. ASEAN unity and centrality are a foundation for managing power dynamics and regional uncertainties. In June 2019, ASEAN issued the "ASEAN Outlook on the Indo-Pacific". This document reiterates ASEAN's inclusivity principle, while stressing ASEAN's central role in leading closer cooperation, shaping the regional architecture and ensuring peace, stability and prosperity for the peoples in Southeast Asia as well as in the wider Asia-Pacific and Indian Ocean regions. Overall, this document interprets ASEAN's commitment to be an honest broker in creating a safe, peaceful and prosperous environment.

The Complex Southeast Asian Neighbourhood

19. Malaysia's security is directly tied to the stability of Southeast Asia. While ASEAN, as one community, has been successful in managing many regional problems, the fact is that relations between and among ASEAN member states are more dynamic and complex.

20. Malaysia is the only country that shares borders with the vast majority of Southeast Asian countries, either land or maritime. Due to the nation's geographical centrality in Southeast Asia and colonial legacies in the region, Malaysia has yet to resolve land demarcation and maritime delimitations issues with some of its neighbours.

21. In addition to territorial and sovereignty disputes, there are other bilateral issues affecting Malaysia's interests in the neighbourhood. These include: (1) conflicting interests extended from territorial disputes (e.g. illegal fishing in Malaysian waters); (2) contentious spillover from internal conflicts of neighbouring countries; and (3) refugee crises sparked by regional states' domestic issues.

22. Bilateral disputes aside, there are also shared problems that bind Malaysia and other regional countries together. These problems: (1) affect nearly every country in the area or neighbourhood; (2) could not be handled effectively by any country alone; and (3) necessitate cooperation and collective action among the affected countries. Such problems encompass both traditional and non-traditional security challenges, including extremism, sea robbery, piracy and cross-boundary environmental issues such as haze problems resulting from forest fires in neighbouring countries.

23. Geographical location confers both advantages and disadvantages. While proximity is the source of bilateral issues, it also has put Malaysia and our immediate neighbours in a state of interdependence in security, economy and social spheres. A case in point is maritime security challenges. Strategically located astride the Straits of Malacca and Singapore, Malaysia is at the crossroads of key trade flows between the East and West. More than 30 percent of global seaborne trade passes through the Straits of Malacca and Singapore which makes it imperative for the littoral states, i.e. Indonesia, Malaysia and Singapore, to maintain and strengthen cooperation between them. None of these three littoral states is singly able to ensure the security of the strategic waterways.

24. Currently, Malaysia together with Indonesia, Singapore and Thailand are coordinating maritime patrol programmes, under the Malacca Straits Patrol (MSP), to combat sea robberies and other forms of maritime security issues. Additionally, the four countries also work with the London-based International Maritime Organisation (IMO), a United Nations specialised agency, to ensure the safety of navigation and to mitigate pollution risk from ships plying the Straits of Malacca. A similar initiative was implemented to increase the level of maritime security in the Sulu and Sulawesi Seas through the Trilateral Cooperative Arrangement (TCA) between Malaysia, Indonesia and the Philippines signed in 2016. These collaborations

illustrate the efforts of regional countries in pursuing the main objective of regional peace, security and stability. All these collaborations as well as other defence cooperation mechanisms will be elaborated in Chapter 6: International Defence Engagement.

25. The Government is committed to pursue a multi-pronged approach to effectively defend the nation's security and interests in the Southeast Asian region. This does not only consist of ASEAN and ASEAN-led mechanisms, but also other approaches that have proven to be effective in managing regional issues. They include: bilateral diplomacy, international law and a web of partnerships involving countries within and beyond Southeast Asia. An example of such partnerships is the Five Power Defence Arrangements (FPDA), which consists of Australia, Malaysia, New Zealand, Singapore and the United Kingdom that will be discussed in Chapter 6.

26. ASEAN will continue to be the cornerstone of Malaysia's foreign policy. It is an indispensable platform for Malaysia and member states to tackle shared, region-wide issues including promoting intra-ASEAN confidence-building measures, forging cooperation with big powers, facilitating Asian trade and investment as well as tackling economic challenges, environmental problems, contagious diseases and other non-traditional security issues.

The Non-Traditional Security Threats

27. Non-Traditional Security (NTS) issues involve non-state actors and trans-border crime with an asymmetric character, which have direct as well as indirect impacts to social, political, economic and environmental sectors. Terrorism is among the main NTS threats to this country, this region and the wider world. Apart from terrorism, threats such as extremism, hijacking and cyber attack might disrupt internal stability, cause loss of life as well as paralyse Critical National Information Infrastructures (CNII). Other threats such as sea robbery, kidnapping and illegal fishing might disrupt Sea Lines of Communication (SLOC) and affect the safety of navigation, thus resulting in losses to the nation.

28. Among the factors attributed to these threats are the porous land border between states, globalisation, communication and transportation facilities and other emerging trends in various parts of the world. These trends include self-radicalisation through social media, rapid diffusion of Internet of Things (IoT), extreme ideologies, identity politics and so forth.

29. The enduring NTS threats that continuously affect Malaysia's interests are terrorism and extremism, cyber threats, maritime security threats, proliferation of Weapons of Mass Destruction (WMD) and Chemical, Biological, Radiological, Nuclear and Explosives (CBRNe) threats and natural disasters.

30. **Terrorism and Extremism**. The threats of terrorism and extremism to Malaysia's security are growing. From February 2013 to September 2019, the authorities arrested 511 individuals with suspected links to terrorism. Out of this, 336 were locals whilst 175 were foreigners. All of them were linked to Abu Sayyaf groups and were suspected of plotting attacks targeting places of worship, as well as channelling funds to Malaysian Daesh members in Syria and the Jemaah Anshorut Daulah (JAD) group in Indonesia. This reflects the transboundary nature of the threat.

31. The magnitude and forms of terrorist threats to Malaysia are tied to developments in neighbouring countries as well as West Asia and other regions. Returning fighters have come to Southeast Asia to exploit opportunities to forge ties with local terrorist networks. Hundreds of Southeast Asian militants, including those from Malaysia, who fought in Syria, Iraq and Afghanistan have returned to this region, raising the Government's concern.

32. Terrorist activities such as spreading radical ideology, recruiting, suicide attacks and kidnappings have caused chaos, instilled fear and threatened public safety in various parts of the region. Most attacks have been targeted at governments, Western interests, places of worship and entertainment outlets. In June 2016, a bar in Puchong was attacked with a grenade, injuring eight people. Subsequently in 2017, Philippines-based militants attempted to emulate Daesh's modus operandi by trying to establish an affiliated province in Marawi. This led to an urban warfare with the government forces attempting to retake the place. In July 2018, a suicide car bomb attack in Basilan, Philippines, killed 11. The perpetrator is believed to be a Daesh member from Morocco, based in the southern Philippines. Such incidents could happen in other parts of this region.

33. Terror incidents in Malaysia and neighbouring countries have proved that the return of experienced terrorists after the defeat of Daesh in Syria and Iraq, poses increased risks to Southeast Asia. To stay relevant after its downfall, Daesh has reiterated the need to continue the war in its supporters' home countries. The international terrorist organisation has been manipulating social media to propagate and spread its narratives to followers. The death of Daesh's leader, Abu Bakr al-Baghdadi in October 2019 has raised concerns of possible acts of revenge by his followers.

34. Extremist threats throughout the world are often linked to online self-radicalisation. Amateurs or lone wolf attackers can easily get information through internet sources which could influence them to become terrorists.

35. Transnational threats require transnational solutions. The threats of terrorism and extremism in Southeast Asia can be mitigated through efficient information gathering and close cooperation among ASEAN member states. Cognisant of the need to improve the mechanisms of intelligence sharing on militant activities in the region, ASEAN has launched the ASEAN Our Eyes Initiative (OEI), a strategic-level information sharing platform in order to increase cooperation among ASEAN member states to counter extremism.

36. Malaysia will continue to actively combat all forms of terrorism and extremism at the international levels. As part of a holistic anti-terror campaign, the Government has established the Southeast Asia Regional Centre for Counter-Terrorism (SEARCCT); the prominent institution places Malaysia in the leading position to tackle region-wide security issues.

37. **Cyber Threats**. Cyber space is the new domain for national security and geopolitics. State and non-state actors use a variety of methods to undermine the security of a nation without firing a shot. Cyber threats are likely to grow in Malaysia, in line with this global trend. CNII including banking systems, power supplies, seaports and airports, as well as health services are vulnerable to hacking and other forms of cyber crimes. There has been a significant rise in the number of cyber attacks worldwide, especially since 2006. Major attacks on critical infrastructure have already occurred in Germany, Iran, Ukraine and elsewhere. In 2015, cyber attacks on a power grid in Ukraine switched off 30 substations, leaving about 230,000 people without electricity. The cyber attacks took place during an ongoing conflict in the country at that time and were attributed to a state actor hacker group. These attacks indicate how cyber space has become another militarised domain.

38. Furthermore, 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. The country's cyber governance, led by the National Cyber Security Agency (NACSA), is in need of more investment, coordination, enforcement and an active response strategy across the board at the national, state, corporate and community levels. The MAF through the Cyber Defence Operation Centre (CDOC) is a strategic partner of NACSA's National Cyber Coordination and Command Centre (NC4), and plays a vital role in the protection of CNII including response, communication and coordination in the event of a cyber crisis. CDOC monitors the cyber defence situational awareness while NC4 monitors the national cyber situational awareness encompassing the public and private sectors in Malaysia.

39. Critical infrastructure in most countries including Malaysia were developed using analogue technology and were much less susceptible to cyber attacks. However, this has changed and most CNIIs are now fully digital and internet dependent, putting them at risk of cyber attacks. In recognition of this, Malaysia has identified 10 CNII sectors to be protected and preserved at all times.[1]

40. Facing uncertainties in the rapidly evolving digital era, the Government is determined to take effective measures to protect the country's CNII from cyber attacks. 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 right technology.

[1] The 10 CNII refers to the defence and security sectors, banking and finance, information and communication, energy, transportation, help service, government, emergency service, food and agriculture.

41. The MAF has recognised cyber electromagnetic as a new operational domain. This domain provides critical capabilities that enables the MAF to conduct operations safely across all other domains.

42. The usage of Unmanned Systems such as drones as destructive weapons has become a more widespread practice. 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.

43. 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 CNII. EW is a promising countermeasure element in combating drones of all sizes and mission profiles. Defence can be carried out through EW to disrupt the navigational system, communication, fuses and weapon trigger functions, and may potentially take over the control of the drones.

44. 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. Therefore, the current MAF doctrine dictates CEMA in supporting other military operations that will face these new threats.

45. Since cyber security threats are transnational in nature, overcoming the threats necessitates regional and global level cooperation. Therefore, it is necessary for ASEAN member states to implement practical confidence-building measures and adopt a set of common, voluntary and non-binding norms of responsible state behaviour in cyber space. The measures taken are also to enhance member states' trust and confidence in the use of cyber space to its full potential to bring about greater regional economic prosperity and integration.

46. **Maritime Security Threats**. Sea robbery and piracy have long been threats to ships and seafarers sailing through Malaysian waters. These threats have led to the formation of multilateral initiatives such as the MSP and TCA that aims to eradicate sea robbery and piracy effectively. The Government has also established the Malaysian Maritime Enforcement Agency (MMEA), to overcome increasing maritime security threats. Non-traditional threats, like kidnap for ransom, smuggling, human trafficking and other illegal activities in the maritime domain have brought about more challenges to Malaysia. For example, the Kidnap for Ransom Group (KFRG) and Abu Sayyaf Group (ASG) actively abduct hostages from the eastern coast of Sabah to extort ransoms for their release. Thus, closer cooperation between Malaysia and neighbouring countries, international maritime organisations as well as the private sectors is important to overcome all these threats.

47. Rampant illegal fishing activity is another maritime security threat to the nation. This issue has impacted the national economy and complicated efforts to ensure a sustainable fisheries industry in the MMZ. Every year, Malaysia loses up to RM6 billion due to illegal fishing activities. Approximately 980 thousand tonnes of the country's sea-based produce is lost annually. It adversely affects biodiversity, associated and dependent species and the wider ecosystem. Encroachment by foreign fishing vessels undermines Malaysia's economy, security and sovereignty. The Government is currently tackling this issue through collaboration between maritime enforcement agencies involving integrated operations such as Op Naga conducted in the east coast of Peninsular Malaysia.

48. **Proliferation of WMD and CBRNe Threats**. The proliferation of WMD still constitutes a serious concern for the nation and the world. Additionally, the loosening of control elements in the movement of dual-use components have contributed to the proliferation of WMD. In relation to this, there are concerns on the use of CBRNe weapons by terrorists in this country. Easily accessible bio-technology and low production costs make it easier for terrorist groups to build biological weapons. This matter is being viewed seriously by the Government where MINDEF is the lead agency for the implementation of the Biological and Toxin Weapons Convention (BTWC). The Government is currently upgrading capabilities and coordination for responding to the possible CBRNe threats and disasters.

49. **Natural Disasters and Environmental Hazards**. Malaysia faces a range of environmental security issues. The nation is exposed to natural and environmental hazards such as floods, cyclonic storms, landslides, haze, droughts, tsunamis, hazardous and toxic waste problems, as well as air and water pollution. Climate-related natural disasters and other extreme weather incidents are on the rise, threatening the security and health of the *rakyat* as well as national development. From 1998 to 2018, Malaysia experienced 51 natural disasters, with over 3 million people affected and 281 people deaths. Out of these, floods affected over 770 thousand people, killed 148 people and caused approximately RM5.82 billion in damages. The 2015 flood is the worst in Malaysia's environmental history, superseding the 1967 flood. 2016 was the hottest year ever recorded in Malaysia. The recurring haze-smoke problems caused by forest fires in the neighbouring country have harmful effects on the health of the *rakyat* and disrupt the economy. Exceedingly high Air Pollutant Index (API) in the past forced the Government to declare climate emergencies three times in different parts of the country (September 1997, August 2005 and June 2013).

50. The Government is committed to fighting global warming. It continues to prioritise the goal of cutting carbon emissions in compliance with the 2016 Paris Climate Agreement. The Government will introduce a Climate Change Act, which will institutionalise a national climate change mitigation and adaptation plan.

Long-Term National Strategy

51. To protect Malaysia's interests in the face of the emerging challenges and new opportunities as described above, the Government is determined to pursue a proactive, long-term strategy.

52. Defence elements are the central components of this national strategy. The defence strategy supports the national strategy through shared prosperity, shared security and shared identity at national and regional levels. The process will create a balanced strategic ecosystem, cultivating space for wider external partnerships and wider policy options to maximise Malaysia's potential as a bridging linchpin between the Asia-Pacific and Indian Ocean regions.

53. This long-term strategy leverages on Malaysia's geography, national character and regional profile as a proactive nation in shaping regional affairs. Malaysia, together with fellow ASEAN member states and other partners, have actively implemented various initiatives on defence, developmental and diplomatic spheres throughout the decades (see Table 2.1). These initiatives have shaped the course of regional affairs by connecting countries, forging cooperations and creating institutionalised partnerships along different parts of the two ocean regions. These are the advantages upon which Malaysia is determined to build upon, and to protect its national interests while contributing to ASEAN centrality, regional stability and global prosperity in an uncertain security environment.

Table 2.1: Malaysia's Defence, Development and Diplomatic Initiatives.

SPHERES	MALAYSIA'S KEY INITIATIVES AND INVOLVEMENTS
Defence	- ASEAN Defence Ministers' Meeting (ADMM) & ADMM-Plus - ASEAN Militaries Ready Group (AMRG) on HADR - Malacca Straits Patrol (MSP) - Trilateral Cooperative Arrangement (TCA) - International Monitoring Team (IMT) in Mindanao - Malaysia Field Hospital in Cox's Bazar, Bangladesh - Malaysian Defence Cooperation Programme (MDCP)
Development	- Singapore-Kunming Rail Link (SKRL) & ASEAN Mekong Basin Development Cooperation (AMBDC) - South-South Cooperation - Malaysian Technical Cooperation Programme (MTCP)
Diplomacy	- ASA, ASEAN and ASEAN Community - Neutralisation of Southeast Asia / ZOPFAN - Promoting several international norms such as "common but differentiated responsibility" and "common and shared heritage of mankind" - ASEAN Plus Three (APT) & East Asia Summit (EAS)

54. Malaysia is situated at the heart of the dynamic Asian region. It is a **maritime nation with continental roots** that is connected to mainland Southeast Asia and Eurasia by land, and the South China Sea and the Pacific Ocean on one side, with the Malacca Straits and the Indian Ocean on the other.

55. As a country surrounded by the sea and depending on it for its national well-being, Malaysia is a **maritime nation** by all definitions. All maritime nations, big or small, are characterised by three attributes, i.e. resources, risks and resolve. Malaysia has all the three elements:

i. **Resources and Interests**. The maritime domains are one of the sources of Malaysia's prosperity. The seas, seabed, subsoil, waterways, airspace and continental shelf are crucial to trade and commerce, marine fisheries and fishery resources, means of transportation, people-to-people connectivity and other modes of the nation's wealth creation;

ii. **Risks and Challenges**. The maritime areas, at the same time, are also a source of external threats that challenge Malaysia's sovereignty and sovereign rights over the MMZ, strategic waterways, airspace and critical lines of communication. These cover territorial disputes and overlapping claims, big power actions and interactions, sea robbery and piracy, as well as other sea-based non-traditional security issues; and

iii. **Resolve and Actions**. The maritime domain is an area where Malaysia is able to demonstrates its resolve to protect national interests as well as to influence and contribute to the region. To protect our resources and mitigate risks from the sea as outlined above, the maritime domain is an indispensable avenue around which Malaysia can transform our national resolve into an array of regional cooperative mechanisms. By advancing a series of initiatives with ASEAN member states, Malaysia has succeeded in turning ideas into concrete cooperative arrangements in defence, development and diplomatic spheres. Some of these mechanisms and related partnerships are discussed in more detail in Chapter 6.

56. **Continental Roots**. Emphasising the maritime domain is not to neglect Malaysia's continental stakes. Indeed, while land-based resources, consisting of critical resources and assets may bring risks, they are also a source of solution. The external threats and challenges stem from continental and maritime as well as airspace origins, historically, presently and into the future. The resolve to promote regional integration and to pursue national interests is therefore being expressed through and along our continental roots, northward to mainland Southeast Asia, as well as with potential link to different parts of Eurasia. Amongst others, Malaysia's notable efforts were the SKRL and AMBDC in 1995 and the Malaysia-Vietnam Joint Submission on the Extended Continental Shelf in 2009.

57. More infrastructure and transport connectivity projects are expected to take place in the decades to come, necessitating more integrated efforts to protect Malaysia's interests. This requires the MAF and security agencies to be transformed in order to confront more complex challenges that require an increase in defence capability for joint missions and operations.

58. **Malaysia's Linchpin Role**. Malaysia has the capability to play three interrelated roles: **bridging, building** and **binding**. Each role adds value and options for countries around the two regions: Asia-Pacific and Indian Ocean. Each serves as a catalyst for creating greater developmental and strategic opportunities for Malaysia, increasing our internal resilience and external defence partnerships over the long run. Each leverages upon Malaysia's maritime and continental roots.

i. **Bridging**. Geo-strategically located in the middle of Southeast Asia, between the Indian and Pacific Oceans, and between the continental north and the maritime south, allows Malaysia to serve as a regional hub to bridge connectivity in the cultural, commercial and security spheres. This is where "shared prosperity" meets with "shared identity" and "shared security" in line with ASEAN's aspiration. This function is similar to the Malacca Sultanate's historical role, but in modern forms. Malaysia is able to forge connectivity and link cooperation on a wide array of activities such as handling non-traditional security threats, establishing it as a hub for maritime security around the Malacca Straits and the South China Sea, a hub for cross-regional trade and e-commerce logistics, a hub for cross-border transportation as well as for other physical connectivity.

ii. **Building**. The second role is inviting multiple partners from both the Pacific and Indian Ocean regions to build interests and stakes in Malaysia and Southeast Asia. Its strategic geographical location allows **Malaysia to serve as a regional hub** through building the cooperation and partnership of markets, resources and other ventures of shared interests such as the Disaster Emergency Logistics System for ASEAN (DELSA) and World Food Programme - United Nations Humanitarian Response Depot (WFP-UNHRD) in Subang as well as the International Maritime Bureau (IMB)'s office in Kuala Lumpur. Partnerships like these build shared interests, create job opportunities, mobilise resources, transfer technology, expand exports and create a niche for Malaysia's development and strategic profile. These shared interest development can avoid dependency or dominance by the big powers.

iii. **Binding**. The third role is coordinating engagements to initiate regularised cooperation (as opposed to ad hoc arrangements) that bind countries together. Malaysia has over the past decades succeeded in working with fellow ASEAN member states and other partners in establishing a number of institutionalised cooperative mechanisms. On the basis of these mechanisms, Malaysia could play a leading role in strengthening their linkages and exploring new institutions and cooperation for

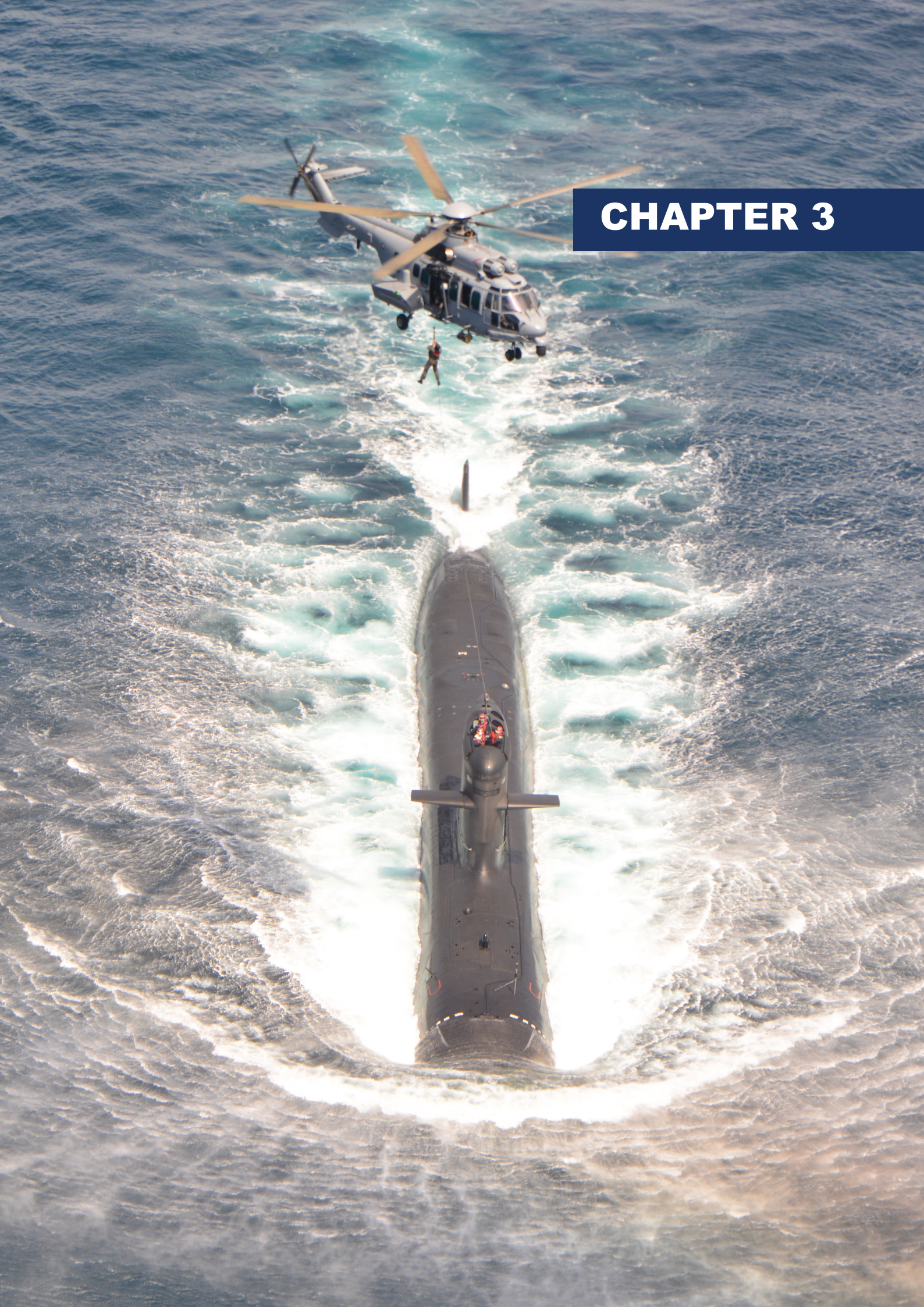
maximising shared prosperity, shared security and shared identity among countries along the Asia-Pacific and Indian Ocean regions. These partnerships, in turn, serve to enhance Malaysia's bridging and building cooperation capacity, and in turn, ASEAN centrality.

59. A reliable defence force is the key to protect Malaysia's interests over the land, maritime, air and cyber electromagnetic domains. Malaysia's maritime and continental roots necessitate the MAF and security agencies to jointly play important roles to effectively protect the nation's interests and defend its sovereignty as well as territorial integrity.

60. All of the above factors impact the force structure of the MAF. Based on geographical factors that include the two-theatre reality and current security landscape, the MAF needs to be transformed into an **integrated**, **agile** and **focused** force. A more integrated force is needed to effectively defend Malaysia's interests in handling traditional and non-traditional security threats. A more agile MAF will be able to respond better to various future operation scenarios. Finally, a more focused force can optimise resources towards achieving the objectives and goals of required operations. All of these are imperative, in order to more effectively protect Malaysia's interests as a maritime nation with continental roots, serving as a bridging linchpin between the Asia-Pacific and Indian Ocean regions.

Malaysia, a bridging linchpin...

SECTION 2
STRATEGY



CHAPTER 3

DEFENCE STRATEGY

1. To confront the increasing challenges posed by the uncertain security environment, the Government is determined to execute the national defence strategy with a renewed emphasis on enhancing its overall defence capability. This strategy is guided by a new National Defence Framework aimed at boosting Malaysia's defence preparedness while maximising its potentials as a maritime nation with continental roots, serving as a bridging linchpin between the Asia-Pacific and Indian Ocean regions.

2. Malaysia's defence strategy is centred on three pillars, namely **Concentric Deterrence, Comprehensive Defence** and **Credible Partnerships**. This chapter illuminates how the Government will implement this strategy in ways that serve Malaysia's National Defence Interests and Objectives.

3. 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 initiatives, widening partnerships and shaping regional affairs.

4. Fundamentally, Malaysia's defence strategy seeks to transform the MAF into an integrated, agile and focused force capable of protecting the national interests, particularly defending the nation's territorial integrity and sovereignty. Malaysia adopts a defensive posture, viewing force as the last resort in asserting the right to defend the nation, in line with the Charter of the United Nations. This DWP identifies ways and means of protecting national interests and deterring threats, whilst preserving shared regional peace, stability and prosperity.

5. **Geography is a vital link**. The Government takes into account Malaysia's geographical circumstances, situated at the heart of Southeast Asia's strategic waters surrounded by important Sea Lines of Communication (SLOC) together with big power realities and domestic needs, in pursuing a firm and prudent national defence strategy. The Government is determined to ensure that the MAF is able to operate in two theatres simultaneously, as Peninsular Malaysia and Sabah and Sarawak are separated by the South China Sea.

National Defence Framework

6. 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 3.1). The **National Defence Vision** depicts "Malaysia as a secure, sovereign and prosperous nation". This vision forms the basis for the **National Defence Interests**:

   i. **Security**. Defending the nation's land masses, MMZ, strategic waterways, airspace and critical lines of communication;

   ii. **Sovereignty**. Preserving independence and preventing external interference; and

   iii. **Prosperity**. Protecting economic prosperity, development and growth opportunities, including interests abroad.

7. **National Defence Objectives** are categorised as follows:

i. 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;

ii. Enhancing Malaysia's internal resilience through comprehensive defence by adopting the whole-of-government and whole-of-society approaches;

iii. 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;

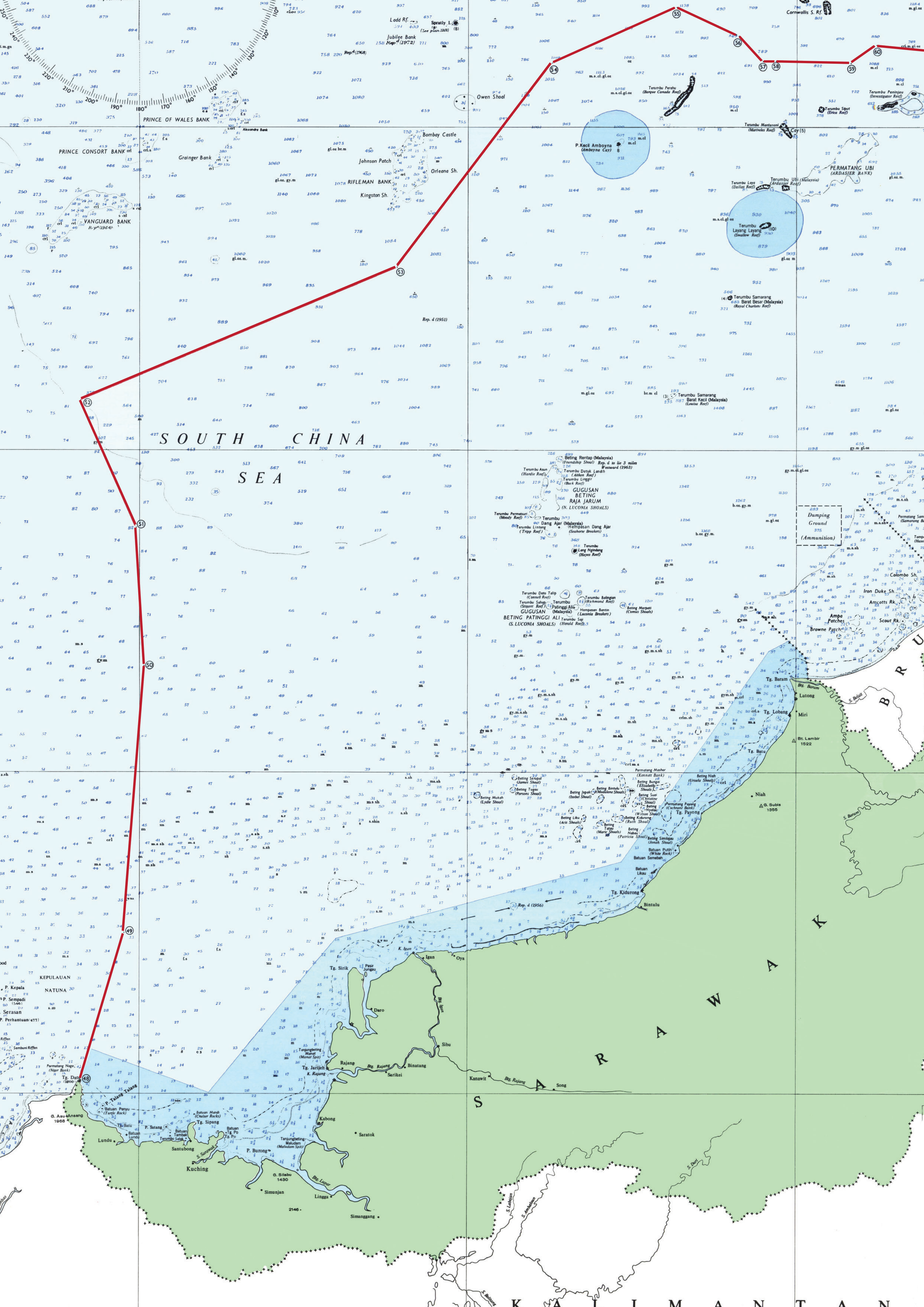
iv. Advancing Malaysia's defence industry as a catalyst through progressive niche-based self-reliance programmes in developing the nation's defence science, technology and industry; and

v. Ensuring good governance practices in strengthening the defence sector by consolidating transparency, accountability and excellence in pursuing organisational transformations.

Table 3.1: National Defence Framework.

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
[Chapter 4]	**[Chapter 5]**	**[Chapter 6]**	**[Chapter 7]**	**[Chapter 8]**

SEMENANJUNG
MALAYSIA
SELAT MELAKA
THAILAND
Thale Luang
Thale Sap
Songkhla
Haad Yai
Ko Kra
Laem Talum Phuk
Ko Losin
M. Cy.
Tg. Pattani
Laem Khao Phra
Hin Rakit
Narathiwat
Ko Tarutao
P. LANGKAWI
Kuah
Kangar
Alor Setar
K. Kedah
P. Bunting
S. Petani
S. Muda
Tg. Pucat Muka
George Town
PULAU PINANG
Butterworth
Tg. Gertak Sanggu
P. Kendi
S. Kerian
Bagan Serai
Port Weld
Kuala Kangsar
Ipoh
P. Talang
Lumut
P. Pangkor
Telok Anson
KEPULAUAN SEMBILAN
S. Perak
K. Bernam
Sabak
S. Bernam
S. Selangor
K. Selangor
Tg. Karang
Kuala Lumpur
Shahalam
Pelabuhan Kelang
Selat Lumut
Morib
Tg. Tongkah
Batu Laut
Seremban
Port Dickson
Tg. Tuan
Melaka
PULAU AIRAN
Muar
Tg. Ketapang
Batu Pahat
Tg. Segenting
Pontian Kechil
P. Kukup
Johor Bahru
Pasir Gudang
Kota Tinggi
S. Johor
SINGAPORE
SINGAPORE STRAIT
Tumpat
Kota Bharu
Bachok
P. Perhentian Kechil
P. Perhentian Besar
K. Besut
Kg. Raja
P. Redang
P. Lang Tengah
K. Trengganu
S. Trengganu
Marang
P. Kapas
Dungun
P. Tenggol
K. Paka
Chukai
Kuantan
S. Pahang
Pekan
Nenasi
Merchong
K. Rompin
Mersing
P. TIOMAN
P. Tulai
P. Aur
P. Pemanggil
P. Sibu
P. Tinggi
S. Endau
Tg. Penawar
Tg. Punggai
2762 Tok Bidan
2874 Bt. Kemahang
2170 Bt. Yong
2592 Bt. Kapal
531 Bt. Jintek
7174 G. Tahan
2041 Paloh
3462 G. Serudom
196 Bangkong
5814 G. Ulu Kali
4899 G. Nuang
3544 Bt. Payong
219 Bt. Jeram
1121 Bt. Gayong
2900 G. Rembau
4187 G. Ledang
3396 G. Besar
771 Tanah Abang
3313 G. Belumut
2147 G. Pulai
P. Jarak
P. Pandang
P. Salanama
P. Alang Besar
P. Senebui
P. Babi
P. MEDANG
P. RUPAT
P. BENGKALIS
P. PADANG
P. RANGSANG
P. TEBING TINGGI
S. Rokan
P. Karimun Kechil
P. Karimun Besar
P. BATAM
P. BINTAN
P. Bulan
P. Buru
P. Mapor
Pulo Obi
Cambodia Pt.



SOUTH CHINA SEA
SARAWAK
KALIMANTAN
PRINCE OF WALES BANK
PRINCE CONSORT BANK
VANGUARD BANK
Grainger Bank
Alexandra Bank
Johnson Patch
RIFLEMAN BANK
Kingston Sh.
Orleana Sh.
Bombay Castle
Ladd Rf.
Spratly I.
Jubilee Bank
Owen Shoal
Cornwallis S. Rf.
P. Kecil Amboyna (Amboyna Cay)
Terumbu Perahu (Barque Canada Reef)
Terumbu Montanani (Mariveles Reef)
PERMATANG UBI (ARDASIER BANK)
Terumbu Ubi (Malaysia) (Ardasier Reef)
Terumbu Laya (Dallas Reef)
Terumbu Layang Layang (Swallow Reef)
Terumbu Siput (Erica Reef)
Terumbu Peninjau (Investigator Reef)
Terumbu Samarang Barat Besar (Malaysia) (Royal Charlotte Reef)
Terumbu Samarang Barat Kecil (Malaysia) (Louisa Reef)
GUGUSAN BETING RAJA JARUM (N. LUCONIA SHOALS)
Beting Rentap (Malaysia) (Friendship Shoal)
GUGUSAN BETING PATINGGI ALI (S. LUCONIA SHOALS)
Dumping Ground (Ammunition)
Colombo Sh.
Iron Duke Sh.
Amcotts Rk.
Ampa Patches
Scout Rk.
Browne Patch
Tg. Baram
Lutong
Miri
Tg. Lobang
Bt. Lambir 1522
Tg. Batu
Niah
G. Subis 1355
Tg. Payong
Batuan Putih (White Rock)
Batuan Likau
Tg. Kidurong
Bintulu
K. Igan
Igan
Oya
Tg. Sirik
Pasir Jungau
Daro
Tanjungbeting Manet (Manet Spit)
Tg. Jerijeh
K. Rajang
Rajang
Btg. Rajang
Binatang
Sarikei
Sibu
Kanawit
Song
Kabong
Saratok
Tg. Datu
Batuan Penyu (Turtle Rock)
Batuan Mondi (Cruiser Rocks)
Tg. Sipang
Tg. Baru
P. Satang
Lundu
G. Asu-Ansang 1968
Santubong
Kuching
P. Burong
Tanjungbeting Maludam (Maludam Spit)
G. Silabu 1430
Btg. Lupar
Simunjan
Lingga
Simanggang
KEPULAUAN NATUNA
P. Kepala
P. Sempadi
Serasan
P. Perhantuan
Sambuni Riffen
Permatang Niger (Niger Bank)
Rep. 4 (1956)
Rep. 4 (1951)

S U L U   S E A
S A B A H
L A U T
S U L A W E S I
Kota Kinabalu
Sandakan
Tawau
Lahat Datu
Kudat
Beaufort
Weston
Brunei Bay
BANDAR SERI BEGAWAN
P. BANGGI
P. SEBATIK
P. NUNUKAN
P. MANDUL
P. TARAKAN
P. BANGKUDULIS
Telukan Marudu
Telukan Lahat Datu
Telukan Sibuko
Alice Channel
Sibutu Passage
SULU ARCHIPELAGO
TAWI TAWI
Increasing about 1' annually
Varn. 2°25' E. (1954)

8. **Concentric Areas**. Based on the geography and national strategic considerations, Malaysia's interests are divided into three layers as in Figure 3.1.

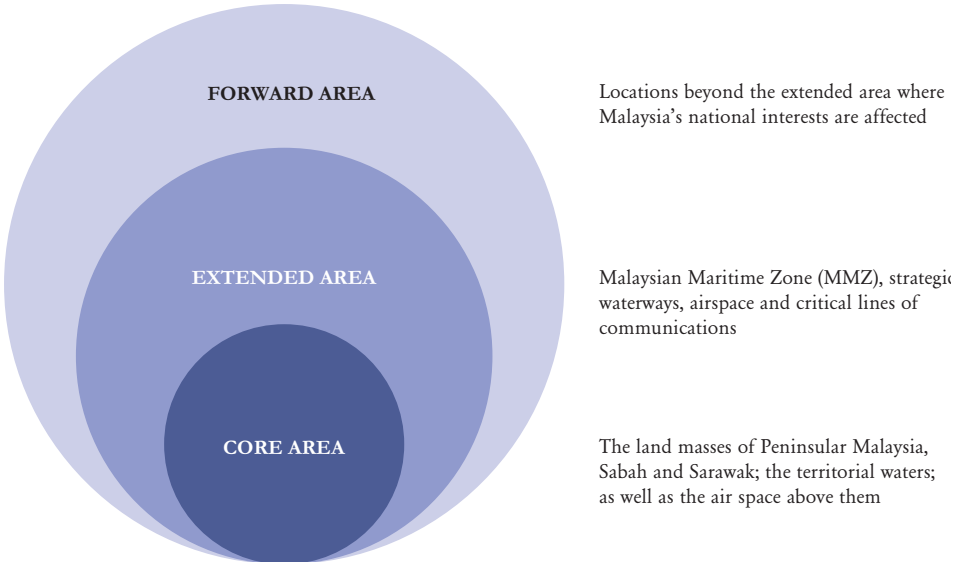


Figure 3.1: Concentric Areas.

9. Malaysia's areas of interests must be protected and defended at all costs, against any external threats. The **Core Area** houses the government administrative capital, socio-economic centres and main population zones. The **Extended Area** is rich in living and non-living resources especially hydrocarbons, as one of the main sources of Malaysia's revenue. The **Forward Area** covers locations beyond the extended area, with national interests that include regional stability and efforts towards global peace.

Fundamental Principles of Defence

10. Malaysia's defence strategy is developed based on the following principles:

i. **Interest-based**. Developing plans according to the national interests along the concentric areas;

ii. **Activist neutrality**. Adhering to the principles of non-alignment and actively promoting cooperation by emphasising inclusivity and shared prosperity, alongside shared security and shared identity;

iii. **Aspired self-reliance**. Reducing dependency by strengthening the local defence industry through the advancement of defence science and technology;

iv. **Innovation and integration**. Enhancing Research and Development (R&D) in defence science and technology by emphasising defence capability development through jointness across all sectors; and

v. **Good governance**. Institutionalising good governance in national defence management.

Pillars of National Defence Strategy

11. 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 Figure 3.2).

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

Figure 3.2: Three Pillars of Malaysia's Defence Strategy.

12. **Concentric Deterrence**, the principal pillar, involves primarily the role of the MAF in protecting national interests, particularly defending the sovereignty and territorial integrity by dissuading all forms of external intrusion and conflicts. National defence is pursued along the concentric areas that cover land, maritime, air and cyber electromagnetic domains. The operationalisation of this pillar is further discussed in Chapter 4: Future Force.

13. **Comprehensive Defence** involves the synergistic application of both whole-of-government and the whole-of-society approaches to defend the nation in line with the concept of HANRUH. The process encompasses a continuous effort to build internal cohesion, enhancing defence preparedness, improving inter-agency coordination, strengthening nation-building, as well as boosting economic capacity and other aspects of national resilience in a thorough and sustainable manner. The nation's defence is also enhanced through KESBAN that emphasises on pursuing security and development simultaneously. The operationalisation of this pillar is elaborated in Chapter 5: People in Defence.

14. **Credible Partnerships** refers to bilateral or multilateral defence cooperation with external partners. These partnerships are credible from two angles. First, Malaysia's credibility as a dependable partner is the foundation of our defence engagements with countries in the region and the wider world. Second, these engagements benefit Malaysia and our partners in terms of defence readiness, security needs and regional stability. The operationalisation of this pillar is illuminated in Chapter 6: International Defence Engagement.

15. The Government is committed to implement all three pillars to achieve the National Defence Vision. The three pillars mirror the cohesion and combination of efforts by the government and the society in keeping Malaysia as a secure, sovereign and prosperous nation.

CHAPTER 4

THE FUTURE FORCE

1. Developing the Future Force is important in order to implement **Concentric Deterrence**, the 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. Hence, the roles of the MAF can be summarised as follows:

    i. **Primary Role**. 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; and

    ii. **Secondary Role**. 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).

2. The force structure and force posture need to be reshaped to better address the uncertain security environment. While the MAF force size remains at the current force level throughout this DWP period, repurposing and re-prioritisation will be carried out to meet future requirements. More emphasis will be given towards enhancing joint capabilities in preparing for any contingency; from armed intervention to natural disasters; and realising the need to conduct two-theatre operations simultaneously between Peninsular Malaysia, Sabah and Sarawak.

3. This, in addition to national awareness of the uncertain security environment, coordination between the MAF and other security agencies and external partnerships are components of the national defence ecosystem.

4. This chapter will address and explain the force structure that will provide the "deterrence" to dissuade both state and non-state actors from threatening national interests that could result in harm to Malaysia's sovereignty and territorial integrity. The chapter will also discuss the capability requirements and the MAF's structure to **detect**, **deter** and **deny** the traditional and non-traditional security threats across the **core**, **extended** and **forward areas**. Finally, this chapter identifies the catalyst in developing the capability for the Future Force.

Force Structure

5. The Government shall develop the MAF into an integrated, agile and focused force, capable of responding to traditional and non-traditional threats during peace or conflict, with a high level of readiness to perform its operations amid the unpredictable security environment. 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. The concepts of this force are summarised as follows:

    i. **Integrated**. Jointness and close cooperation across the Services in all stages of the military process, from research and planning to procurements, training and operations;

    ii. **Agile**. Ability to adapt and respond quickly to a variety of threats or critical situations while nimble enough to react to contingencies; and

iii. **Focused**. Prioritising force capability development plan in accordance with the interest-based principle.

6. The Future Force 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.

i. **Jointness**. Current and future operations of the MAF will continue to be conducted in the joint context, under command and control of the Joint Force Headquarters (JFHQ). The concept of joint operations represents troops and assets integration of all three Services, assigned to the JFHQ. Future conflicts are hybrid and multidimensional that require an orchestration of a joint force in all stages of the military processes to win such conflicts. It will also encompass all states of military procees, from research through procurement and into the implementation of operations; regardless of activities in single or multiple domains. This joint concept is vital to achieve maximum synergy of the MAF;

ii. **Interoperability**. Commonality of doctrines, procedures, systems and equipment is very important to achieve interoperability between the three Services of the MAF and also between the agencies that would increase efficiency during joint or combined operations and minimise operation cost. Selection of assets and equipment should consider the needs of the MAF and security agencies with priorities given to products or services from the local defence industry. Interoperability can also be extended to ASEAN member states and strategically important nations to achieve economies of scale and high levels of readiness for the Future Force. Hence, it facilitates expertise development and confidence building with foreign militaries particularly during trainings, exercises and operations;

iii. **Technology-Based**. The Future Force will incorporate the latest technologies in the force structure and posture to fulfil the requirements of current and future operations. All planning should embrace the IR4.0, IoT and AI to increase efficiency, reduce workload and achieve sustainable operation costs in the long run. In order to transform the current force structure and posture that rely heavily on manpower, the MAF will review existing doctrines and incorporate more automated and autonomous technologies;

iv. **Able to Operate Simultaneously in Two Theatres**. Malaysia's geographical factor poses a big challenge for the MAF to defend the two theatres simultaneously. Considering the recent developments surrounding the South China Sea and learning from the Lahad Datu intrusion in 2013, Sabah and Sarawak now face greater risk and are in need of stronger defence. The ability to deploy integrated forces between the two theatres is vital to defend Malaysia's sovereignty and territorial integrity. Therefore, mobility and reach are the keys for the success of the Future Force's rapid and uninterrupted deployment between the two theatres as and 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; and

v. **Mission-Orientated**. Malaysia's maritime territory covers four important waterways namely, the Straits of Malacca, South China Sea, Sulu Sea and Sulawesi Sea. The strategic sea and air lines of communications, together with maritime areas that are rich in hydrocarbons and sea-based produce must be protected and defended. The Government needs to ensure that these lines of communication are safe and secure for national assets to ply uninterruptedly between both theatres. The MAF must have the capability to deploy forces beyond the landmass and adequate air and maritime capabilities to increase Maritime Domain Awareness (MDA) in those areas.

7. The MAF will continue to assist the civil authorities to ensure peace and security as and when required by the Government.

Capability Requirements

8. 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 as follows:

i. Strengthening the MAF's defence intelligence;

ii. Developing Cyber Electromagnetic Activities (CEMA) capability;

iii. Enhancing Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) capability;

iv. Building Network Centric Operation (NCO);

v. Building Satellite Communication (SATCOM) for enhanced Joint Command and Control capability;

vi. Sustaining and enhancing the MAF Special Forces capability and operational tempo;

vii. Maritime Domain – Enhancing Maritime Strike and Maritime Sustainment capability;

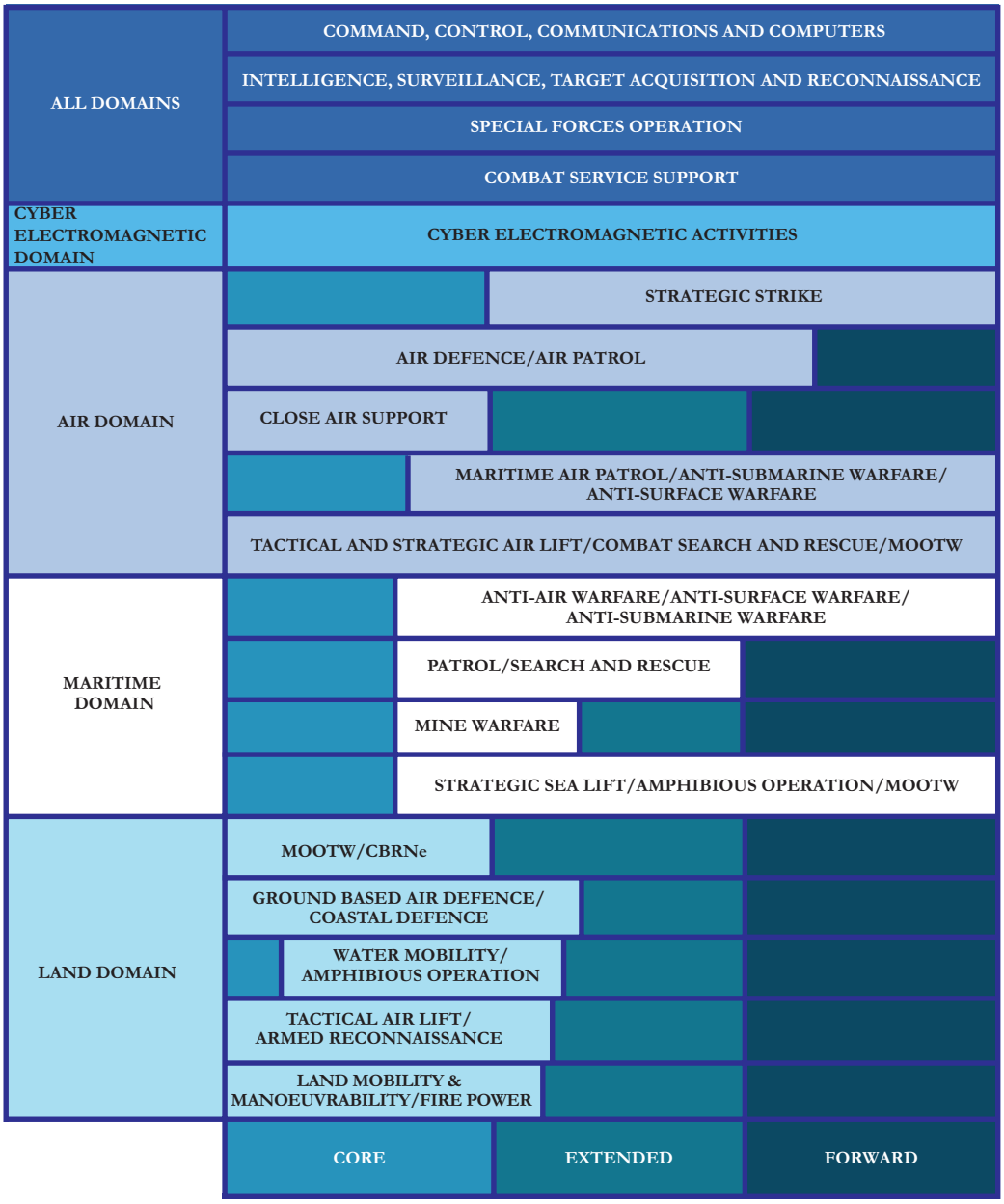
viii. Air Domain – Enhancing Air Defence and Air Strike capability;

ix. Land Domain – Enhancing firepower, mobility, communications, logistic capability; and

x. Developing amphibious capability.

9. Summary of the Future Force capability requirements is illustrated in Table 4.1. These capability requirements will ensure the MAF's high level preparedness to carry out of operations effectively in the designated areas.

Table 4.1: Capability Requirements for the Future Force.



10. The Government understands the need to address capability gaps to prevent further deterioration of the readiness level. This includes replacing obsolete and ageing assets, and maintaining current operational assets. However, considering the current economic challenges faced by the nation, the long-term proposed plan to acquire and sustain the required capability for the next ten years has to be realistic and reviewed periodically.

11. The Government shall provide complete infrastructure support such as camps, bases, military housing (*Rumah Keluarga Angkatan Tentera, RKAT*) and other facilities necessary to maintain current and future operations. This would include the redeployment of troops to Sabah and

Sarawak, which requires new camps, bases and RKATs. Infrastructure support will be one of the key elements to ensure force readiness and the success of the two-theatre operations.

12. In developing the required capability, the MAF will adopt modern technologies such as AI, drones and other state-of-the-art surveillance tools to reduce dependence on the workforce in conducting related operations.

Force Posture

13. Malaysia renounces the use of force as a means of settling disputes or conflicts as it advocates peaceful settlements of those disputes. The Government manifests this by adopting a defensive posture of which Concentric Deterrence is an integral part of the national defence strategy. In line with the Interest-Based principle, the MAF will systematically protect the national interests according to the core, extended and forward areas.

Core Area

14. The MAF is tasked to defend national sovereignty and territorial integrity, covering the landmasses, territorial waters and the airspace above them. These areas encompass land and maritime boundaries with neighbouring countries with dense tropical forests and mountain ranges, and expansive coastlines. External threats such as militant groups could infiltrate and set up "safe havens" in the Malaysian jungles to conduct insurgency operations. The Lahad Datu intrusion in 2013 was a bitter experience, an important lesson for Malaysia to continue developing jungle warfare capabilities for Counter-Insurgency (COIN) operations as these are still relevant in this modern day.

15. The landmasses in the core area is also going through urbanisation with the emergence of large cities as a result of rapid economic development. This situation poses a new challenge for the MAF, especially in its ability to operate effectively in urban areas. The result of disorganised Operations in Built-Up Areas (OBUA) can be devastating as witnessed in Mosul and in Marawi in 2017. Therefore, the Future Force needs to be able to conduct OBUA and Close-Quarter Battle (CQB) more effectively to fulfil current and future operational requirements.

16. As Malaysia is a maritime nation with land territories divided by the South China Sea and with more than 800 islands along its coastline, the MAF will establish an Amphibious Force to protect national interests in the core area and beyond. The Amphibious Force needs to be equipped with new **Multi Role Support Ship (MRSS)** as the current logistic support vessels are not designed for amphibious operations.[1] The MRSS is also essential in conducting two-theatre operations and MOOTW when needed.

17. Throughout this DWP implementation period, priority is given towards enhancing detection capabilities with sophisticated ISTAR systems supported by a faster decision making and communication loop, via NCO initiatives. During the first term of the DWP, the MAF will enhance its detection capabilities. For this purpose, the Future Force requires additional 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.

[1] The current KD Sri Indera Sakti (1503) and KD Mahawangsa (1504) were delivered in 1980 and 1983 respectively and are well beyond their service life.

18. The MAF needs to enhance its indirect fire capability for rapid deployment and to project firepower beyond land to deter threats from reaching the core area. The Future Force requires **155mm Self-Propelled Howitzer (SPH)** as the primary indirect fire support which can also be used for coastal defence. The MAF also needs to replace their ageing **105mm Light Howitzer** with newer guns that have longer range and better precision. The MAF will maintain the existing Multiple Launch Rocket System (MLRS) for long-range indirect fire support.

19. The use of modern fighters and Stand-Off Weapons (SOW) means that the MAF needs to have a more advanced air defence capability to secure the core area and the airspace above it. The Future Force would require a new **Medium Range Air Defence (MERAD)** system that could defeat medium range aerial threats. The MAF will maintain the current Very Short Range Air Defence (VSHORAD) systems for force protection. With the addition of MERAD, the MAF will gain an integrated layered air defence system as prescribed in the National Air Defence Strategy (NADS).

20. Mobility and firepower are important for manoeuvring and fighting in modern warfare. The MAF 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 Future Force would also require **Tactical Transport Helicopters** for quick deployment and assault boats for riverine and coastal operations. Meanwhile, the MAF 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.

21. For protection of airspace and to support land, maritime and amphibious operations in the core area, the Future Force requires **Light Combat Aircrafts (LCAs)** for Close Air Support (CAS), Battlefield Air Interdiction (BAI) and intervention operations to support Multi Role Combat Aircraft (MRCA). The LCAs will also perform dual roles as Fighter Lead-In Trainer (FLIT) which are currently tasked to the BAE Hawk 108/208 and Aermacchi MB-339. These new aircrafts will be cost-effective assets and can be utilised for a wide range of missions, operations and exercises. The MAF urgently requires the LCAs to enhance its pilot training programme and to ensure sufficient and capable aircrafts for current and future operations.

22. For maritime operations within the core area, the MAF will deploy **Littoral Mission Ships (LMS)** that could conduct a wide variety of missions including SAR and HADR, counter-terrorism and anti-piracy, intelligence gathering and reconnaissance, hydrography and mine countermeasures. The LMS is modular by design and can be fitted with additional weapons and systems to meet future operational requirements. Due to urgent operational needs, the MAF will acquire additional LMS within this DWP period. The Future Force also requires new **Fast Interceptor Crafts (FICs)** and **Special Force Boats (SFBs)** which are suited for operations in littoral environments. The MAF also plans to acquire **Autonomous Underwater Vehicles (AUVs)** and **Mine Disposal Vehicles (MDVs)** to support maritime operations in the core area.

Extended Area

23. Malaysia's MMZ is very vast, covering the EEZ, continental shelf and the airspace above them. Air and maritime capabilities are needed to enhance the MDA for better operating picture within the extended area. The MAF needs to achieve Sea Control on the surface and sub-surface through Sea Denial and Sea Assertion. Therefore, the MAF relies on two classes of warships which are the Littoral Combat Ships (LCSs) and the New Generation Patrol Vessels (NGPVs)

that are able to operate in these areas with the required range, endurance and capabilities. The new LCS will be complemented by helicopters and enhanced Anti-Air Warfare (AAW), Anti-Surface Warfare (ASuW) and Anti-Submarine Warfare (ASW) capabilities to support its missions. Meanwhile, the current NGPV can be retrofitted with additional weapon systems if required. The new LCS will replace the older classes of frigates and corvettes in stages.

24. The MDA will be further enhanced with **Maritime Patrol Aircrafts (MPAs)** and **Medium Altitude Long Endurance Unmanned Aerial System (MALE UAS)** to conduct maritime patrol from air. The MAF requires new **Maritime Mission Helicopters** to augment the capabilities of newer warships that will be operational before the end of the DWP period. All the sensors and communication systems from the warships, MPA, MALE UAV and helicopters will be linked with the MAF's NCO Centre for a greater MDA in the extended area. Additional air defence radars will achieve complete 24/7 radar coverage as well as control and policing over the airspace.

25. The Government acknowledges that it is a challenging task for the MAF to solely protect and defend the extended area. Thus, cooperation with other security agencies such as the MMEA and enforcement authorities such as the Department of Fisheries (DOF) could expand the coverage to secure the MMZ. The MAF is also tasked to support the enforcement roles of other security agencies.

Forward Area

26. To protect and defend Malaysia's national interests abroad and to fulfil global responsibilities as well as to conduct operations in the forward area, the MAF relies on its air power (MRCA, aerial tankers, strategic airlift), submarine force and Special Forces. To effectively defend the forward area, the MRCAs are capable of conducting strategic attacks and Offensive Counter Air (OCA) operations against air, maritime and land targets. Currently, the MAF depends on its F/A-18D and SU-30MKM aircrafts for these missions and replacements will be made once these aircrafts reach the end-of-life by the 14th and 15th Malaysia Plans respectively.[2] MRCAs are part of an important element to achieve control of the air that consists of radar (sensor) and fighter aircraft (shooter).

27. For long-range naval strike and deterrence in the forward area, the MAF currently operates two "Perdana Menteri" (Prime Minister) class submarines which are capable of conducting stealthy manoeuvres at long range with anti-surface and anti-submarine capabilities.[3] These two submarines were commissioned in 2009 and 2010 respectively and provide the MAF with superior capability in monitoring the movement of foreign warships and submarines into Malaysian waters.

28. The MAF also places a high priority on the capabilities of the Special Forces in conducting special operations in the forward area. The Special Forces gives the Government certain advantages in protecting national interests in the forward area. Priority will be given to the MAF Special Forces in acquiring new specialised weapons and equipment to conduct their operations. Additionally, training and capacity development will be continued with friendly countries' and defence partners' Special Forces.

[2]RMAF intends to complete the No.18 Squadron to 18 Hornet aircrafts during the 12th Malaysia Plan. The F/A-18D and SU-30MKM is the most potent combination in the region that gives advantages to Malaysia over other countries.

[3]KD Tunku Abdul Rahman and KD Tun Razak were built by DCNS and Navantia based on the Scorpene SSK. Beside Malaysia, Chile and India operate the same submarine with each having 2 and 6 respectively. Brazil recently ordered 4 Scorpene SSK with the first submarine expected to be delivered in 2020.

29. The MAF continuously supports the United Nations Peacekeeping Operations (UNPKOs) worldwide and other international bodies' monitoring operations. The MAF has participated in numerous PKOs, military staff and observer missions since 1960, including the current deployment of a battalion with the United Nations Interim Force in Lebanon (UNIFIL). The MAF will continue to support Malaysia's foreign policy commitments towards world peace and collective security.

30. The MAF's forward area operation capability has proven to be effective and successful in protecting Malaysians and national interests abroad. The MAF Special Forces operatives were among the first Malaysian security personnel on the ground in the Donetsk Oblast to negotiate for the safe return of the MH17 "black box" and recovery of the bodies of its crew and passengers in 2015. During *Op Piramid* in 2011, RMAF aircrafts brought home 3,482 Malaysians stranded during the conflict in Egypt. The MAF was also involved in anti-piracy operations in the Gulf of Aden, Arabian Sea and the Indian Ocean during *Op Fajar*. RMN vessels and MAF Special Forces operatives were deployed to escort both Malaysian and foreign nations' merchant ships along these high-risk waters and successfully rescued MT Bunga Laurel and its crew from Somali pirates without any casualty in 2011.

Defence Intelligence

31. Credible and actionable intelligence consisting of all spectrums of threats is essential to safeguard our national interests at home and abroad. Information gathering and analysis, security and counter-intelligence as well as special intelligence operations need to be conducted across the concentric areas. Intelligence can also be gathered through cooperation with intelligence agencies at national, regional and international levels.

32. More sophisticated assets and equipment are required to improve intelligence gathering at tactical, operational and strategic levels. The assets are to detect foreign subversive action and intervention before it reaches Malaysian waters. Among the assets required include the Geographic Information System (GIS), satellite monitoring system and the expansion of the Integrated Intelligence Centre (IIC).

Network-Centric Operations (NCO)

33. The networking of command and control systems are important to ensure smooth implementation of joint command and coordination of military units from different Services and in conducting multi-domain operations. Continuous and seamless operational integration from tactical to strategic level would require new communication equipment and systems, as well as enhancement of secure SATCOM to operate at the most optimal decision making, command, control and communications loop. This will enable faster decision-making processes resulting in quicker operational tempo.

34. The MAF needs to enhance the NCO Centre capabilities through the procurement of necessary equipment and infrastructure including remote sensing required for Command, Control, Communications, Computer, Intelligence, Surveillance, Reconnaissance and Targeting (C4ISRT). This NCO Centre will also conduct optimal Joint Operations combining land, air, maritime and cyber electromagnetic domains to achieve maximum situational awareness, as well as rapid and precise decision making in order to overcome and defeat threats in all domains.

35. Command and control network systems are important to ensure seamless joint command and coordination of military units from various Services in numerous theatres of operation. The NCO is a system that utilises networking sensors in order to achieve shared awareness in the field and command centre. Currently, the NCO capability has been developed based on an experimental joint operation environment which enables the MAF to operate in a joint and integrated manner, with real time information sharing for quick decision making and decisive actions to achieve maximum impact.

36. C4ISRT significantly contributes towards information superiority in order to achieve mission effectiveness. This element aims to obtain competitive advantage over an opponent in the operation area. The Government is committed to enhance the NCO capabilities required within the DWP period.

Cyber Electromagnetic Activities (CEMA)

37. The MAF, in close cooperation with NACSA and other relevant agencies, play a vital role to support the protection of the CNII from constant cyber and electronic attacks. MAF operations rely on internet connectivity and secure cyber communications to ensure freedom of action in its daily operations. NCO also requires immense utilisation of cyber infrastructure for data

links. These are vulnerable nodes that are exposed to deceptions, exploitation, or cyber-attacks. Clearly the cyber domain is a new area of sovereignty to be secured and protected at all times.

38. Hence, the MAF is planning to establish a Cyber Electromagnetic Command (CEC) to strengthen and coordinate CEMA. The responsibilities of the planned CEC will cover the following operations:

i. **Enhance Cyber Operations**. Conduct cyber defence operations, cyber exploitation operation, cyber attack operation and develop cyber expertise, in line with the active defence concept as stipulated in MCSS;

ii. **Enhance Electronic Warfare (EW) Capabilities**. Conduct electronic protection, EW support and electronic attacks;

iii. **Enhance Spectrum Management**. Plan, coordinate and manage the use of the Electromagnetic Spectrum through operational procedures, engineering and administration to de-conflict all systems.

39. Under the CEC, the MAF will establish the Electronic Warfare Support Centre (EWSC), Electronic and Cyber Warfare Centre (ECWC), and Information Fusion Centre for Cyber Electromagnetic Activities (IFC-CEMA) as per Figure 4.2.

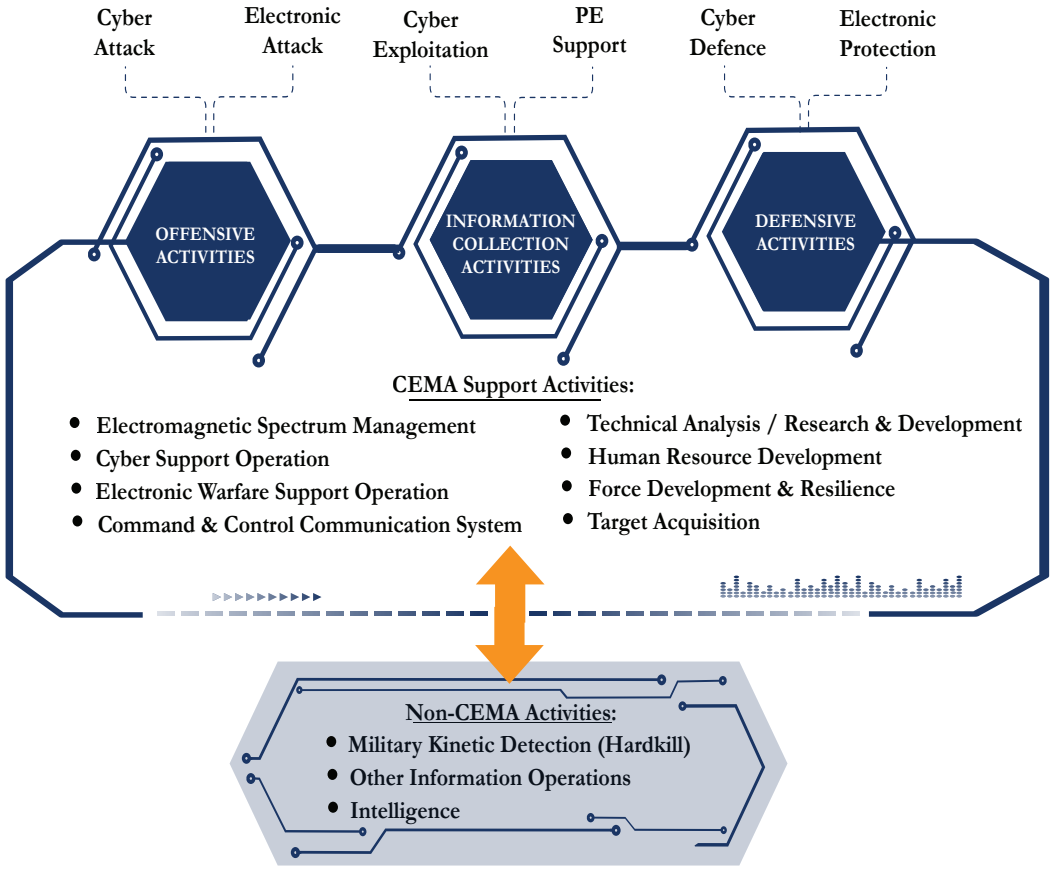


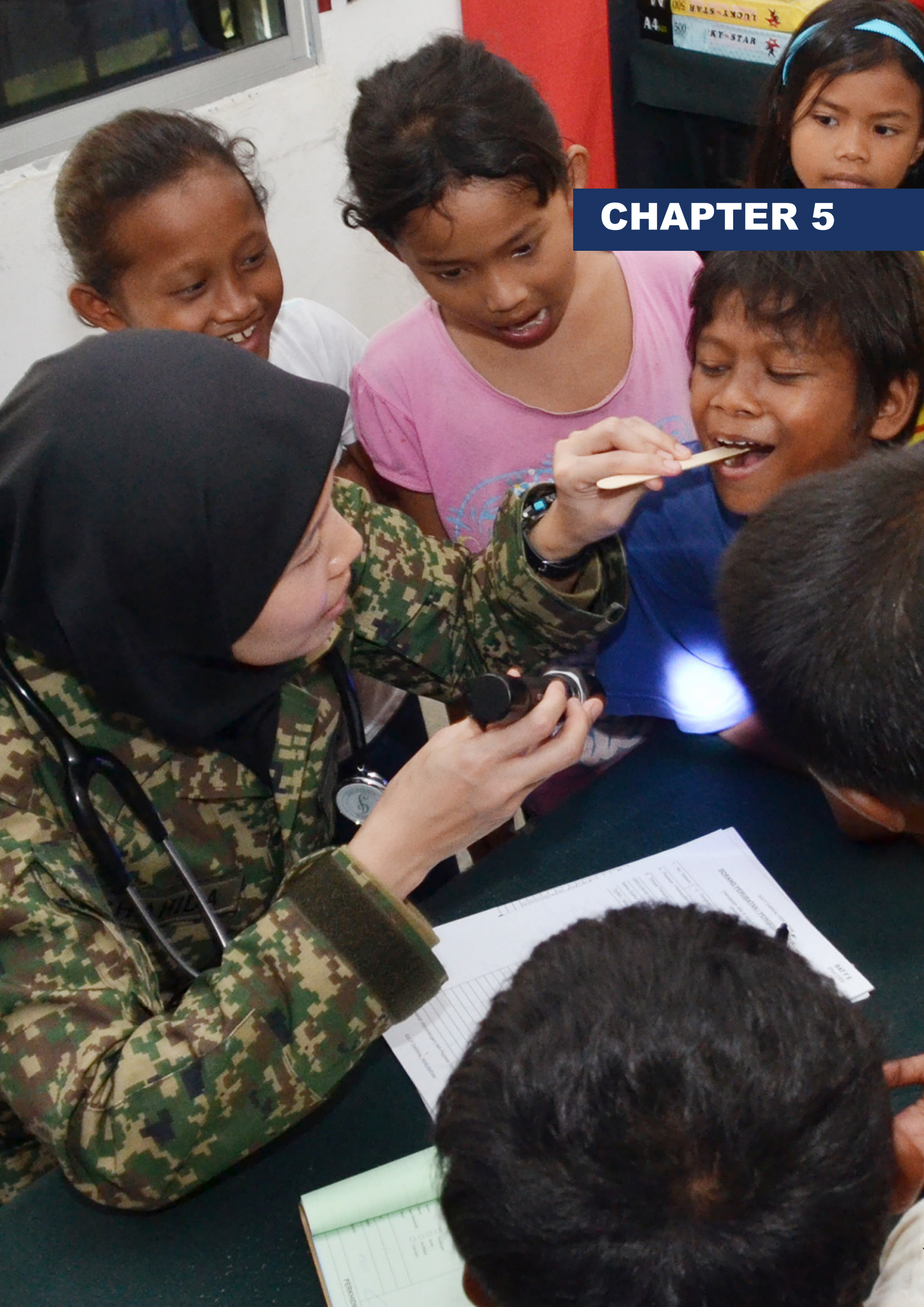
Figure 4.1: Operationalisation of MAF Cyber Electromagnetic Activity.

Catalyst for Developing the Future Force

40. The capabilities and assets described in the DWP for the Future Force are the MAF's requirements to realise the National Defence Vision. **The DWP states the realistic requirements needed by the MAF to project Concentric Deterrence based on real capabilities**. The Government will strengthen the force structure and posture to enable the MAF to protect Malaysia's national interests, particularly to defend its sovereignty and territorial integrity.

41. The MAF will continue to build on credible partnerships to bolster its national defence capabilities. Concurrently, the MAF will reassess its secondary roles which involve its highly valuable and critical assets and equipment in assisting the civil authorities, and its role in nation building.

42. The defence capability plans described in this chapter will catalyse the restructuring and provide the MAF capabilities to develop its Future Force. The development of defence capabilities identified here, will enable the MAF to achieve the set objectives based on national interests, whereas a stable budget will ensure the successful implementation of this plan.



CHAPTER 5

PEOPLE IN DEFENCE

1. National defence is for the *rakyat*, through the participation of the *rakyat*, in accordance with the emphasis on shared responsibility for security. This chapter addresses the role of the *rakyat* in Malaysia's defence: both the people in the defence workforce and the *rakyat*, as a whole. It also describes in what ways both groups play their roles as the core elements of **Comprehensive Defence**, the second pillar of the national defence strategy.

2. The Malaysian defence workforce is renowned for its high-level professionalism, adaptability and integrity. The workforce plays a major role in defending national sovereignty and protecting national interests. The workforce also contributes towards nation-building and supports the civil authorities to ensure national security.

3. 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.

4. Integration within the defence workforce and its collaboration with the *rakyat* are keys to ensuring Malaysia's defence is comprehensive, persistent and sustainable. To ensure defence preparedness, the workforce needs to work closely together to enhance its overall strength by developing innovative measures to cope with risks and uncertainties. The *rakyat* needs to maintain security awareness at the highest level, in addition to participating in defence and security initiatives. These will ensure the whole-of-nation resilience is attainable.

5. This chapter emphasises Comprehensive Defence as one of the core approaches in the DWP. The Government is committed to focus on each aspect of this whole-of-nation approach. The nation's defence is not only the responsibility of the MAF, but also government agencies, private sectors and the society as a whole.

Regular Forces

6. 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.

7. 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.

8. 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*.

9. 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.

Recruitment

10. The Government will priotise the recruitment of highly qualified individuals who are competent, particularly in the fields of science, technology, engineering, management and other relevant skills to ensure it has a sustainable and highly compatible Regular Forces in delivering the National Defence Objectives set out in this DWP.

11. The Government is assessing the increased use of Information and Communication Technology (ICT) and its application in implementing current and future military operations. As such, emphasis will be given to recruit Regular Forces personnel based on the nine pillars of the IR4.0.

12. To accentuate a diverse MAF, the Government will work towards making the MAF a preferred career of choice that attracts participation from people of various backgrounds. At present, efforts are being carried out by the Government to achieve 10 percent of women in the MAF in the near future to realise Malaysia's commitment towards United Nations Security Council's Resolution 1325 on Women, Peace and Security. To encourage female participation in the workforce, the Government will continue to provide necessary support to women in the MAF. These include ensuring equal career progression opportunities, provision of nursing facilities and subsidised childcare services.

Career Development

13. As part of career development and progression, the Government acknowledges the importance of education. The development of a highly professional military workforce is accomplished through the combination of training, education and self-development programmes. Priority will be given to the enhancement of technical and managerial expertise.

14. At present, there are changes to the MAF personnel development efforts due to the increasing complexity of operational scenarios and technological advancements which require higher technical, analytical and leadership capabilities, in line with the development of smart soldiers and national agenda towards a "knowledge-based society".

15. The combination of these factors has led to the need for different levels of knowledge and skills compared to previous requirements. Realising this, the MAF will continue to embrace the concept of Knowledge Force (K-Force) that emphasises acquiring high-quality knowledge and cultivating a learning culture in the workforce. The Government will establish an expert pool (such as in cyber security) within the defence sector consisting of academics and professionals.

16. To cultivate professionalism among the MAF's personnel, the Government will continue to engage and collaborate with prestigious universities and defence colleges around the world. Competent military personnel will be 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. The MAF continuously encourages its personnel to pursue their studies at higher levels.

17. Based on the challenges of the uncertain security environment, the MAF's dependence on systems and technology is ever increasing. The Government will continue to provide high quality training and education for the MAF personnel at all levels for the repurposing of individuals and organisations.

18. The Government will continue to strengthen its military training and education institutions through partnerships with accredited academic institutions to provide the best education in relevant fields. This is to ensure the MAF personnel are equipped with knowledge and skills needed in executing their tasks and responsibilities.

19. The National Centre for Defence Studies (*Pusat Pengajian Pertahanan Nasional*, PUSPAHANAS) which incorporates the Malaysian Armed Forces Staff College (MAFSC), Malaysian Armed Forces Defence College (MAFDC), as well as the National Resilience College (NRC) offers a variety of programmes in strategic and defence studies. The objective of PUSPAHANAS is to be a dynamic centre for research and education in strategic and military affairs through leadership development programmes to upgrade the professionalism of the MAF, as well as other relevant security and defence stakeholders.

20. The Government will develop a comprehensive transformation plan for the workforce to realise the MAF's aspiration to become a more knowledgeable and professional force to meet future challenges. This plan will improve the MAF's human resource management aimed at repurposing the existing force.

21. In view of this overall context, the opportunity for promotion would also be an incentive for career progression. Therefore, all personnel would be eligible for promotion in accordance with the due processes. Appropriate recognition will also be given to MAF personnel who demonstrates excellent performance.

Retention of MAF Personnel

22. The Government is committed to promoting the military as a career of choice with the aim to attract new talents and retain the existing highly skilled and talented personnel. In this regard, a career in the MAF must be sufficiently attractive to motivate and retain its personnel to serve for a longer period of time.

23. Retaining high quality and experienced military personnel is a major challenge to the Government as there is a high demand for people with technical, analytical and managerial skills in all employment sectors.

24. Considering all factors, a competitive salary structure is essential to retain the military personnel as it not only rewards their professionalism and experiences, but also recognises the complexity of the job. Apart from that, other privileges enjoyed by the MAF personnel include, but are not limited to:

    i. Allowances, benefits and special incentives;

    ii. Medical/healthcare benefits (access to both public and military health systems); and

    iii. Housing facilities (provision of military quarters, as well as various housing programmes to fulfil the housing needs of MAF personnel).

Volunteer Forces

25. The Volunteer Forces consist of the Malaysian Territorial Army (*Rejimen Askar Wataniah*, AW), Royal Malaysian Naval Volunteer Reserve (*Pasukan Simpanan Sukarela Tentera Laut Diraja Malaysia*, PSSTLDM) and Royal Malaysian Air Force Volunteer Reserve (*Pasukan Simpanan Sukarela Tentera Udara Diraja Malaysia*, PSSTUDM) are made up of civilians.

26. The importance of the Volunteer Forces as outlined in the national defence policy, is that they would constitute a highly trained and motivated force that could be deployed during crisis and conflict. Thus, the Government will improve their operational capability and capacity to augment the Regular Forces.

27. The Volunteer Forces provide an essential link between the *rakyat* and military in reducing the value gaps between both sides. Through the presence of the Volunteer Forces in the community, the noble values of the MAF are shared with the *rakyat*, hence promoting better civil-military relations.

28. The Government 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.

29. 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):

    i. Ready to be mobilised and assume responsibility or as replacement to the Regular Forces when required;

    ii. 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; and

    iii. Implement and provide immediate support in various areas such as reconnaissance, access control and anti-colonial activities.

30. The Volunteer Forces is a conducive platform to inculcate patriotism among the youths. Thus, the Government 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.

31. 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 place more emphasis on the quality of the programme as well as increase the number of commissioned ROTU officers serving the Volunteer Forces.

32. 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.[1]

33. The Volunteer Forces currently has expertise in signals and engineering, covering telecommunications, ports, water supply, electrical power and railway services. The Government 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.

34. The Government will continue to enhance the roles of the Volunteer Forces and RFR to meet current requirements. The Volunteer Forces and RFR are no longer considered as assets to be solely mobilised during conflicts, instead they are viewed as complementary and integral parts of the MAF.

The MAF Veterans

35. Veterans are brave and resilient individuals who have served in the MAF, risking their lives to protect and defend national security and sovereignty. Therefore, to honour the veterans for their courage and selfless sacrifices for the nation, the Government will continue to support their wellbeing.

36. The main focus of the Government is to improve the veterans' socio-economic well-being and assist them in getting their next career opportunities . The Government will provide consultation services and transition training to increase the marketability of veterans. The Government will also continue current collaborations and explore wider career opportunities for veterans.

37. The Government is aware of the importance of providing healthcare and social-related needs to the veterans. The provision of healthcare including financial support for haemodialysis treatment as well as medical treatment, medical equipment and other necessities will remain a top priority.

38. To ensure that the veterans' social needs and well-being are taken care of, the Government will continue its efforts to provide assistance related to the cost of living, schooling, tertiary education and emergencies. The Government will improve the service delivery system for veterans through collaborations with relevant parties.

39. At the same time, veterans can continue to play a role in contributing to the society and the nation by joining the Volunteer Forces after the completion of the RFR period or by sharing

[1] Section 201B and 201C of the Armed Forces Act 1972 (Act 77) which refers to an employer's responsibility.

their knowledge and expertise with the public and private sectors. The veterans can also play an important role in bridging the MAF and society, thus providing a better understanding of the military and national defence.

Civil Servants in Defence

40. Competent civil servants are the core of MINDEF. The civil servants have a wide range of responsibilities and significant roles in ensuring that the MAF could carry out its tasks in defending the nation. Civil servants of various levels are responsible for developing the national defence policy and other related defence development plans to achieve the Ministry's objectives. For this purpose, MINDEF's strategic plan is designed every five years as a base to implement the policies that have been developed.

41. To ensure the effective management of national defence, it is vital for capable and experienced civil servants to be placed in the defence and security cluster. Generally, civil servants can be placed in any ministry. However, the defence and security sector is unique. It needs to retain civil servants specifically from the Administrative and Diplomatic Service who have specialised knowledge and skills on the issue-areas that have been cultivated over a period of time. Therefore, the Government is determined to create a defence and security cluster to sustain institutional memory and ensure policy coherence.

42. In order to develop expertise within the defence and security cluster as well as to integrate the civil service with the MAF, the Government will provide training and courses in the field of strategic as well as defence and security studies, in addition to developing and establishing Subject Matter Experts through a comprehensive succession plan in the defence and security sector.

43. The Government will also give priority towards developing skilled civil servants in the fields of defence science, technology and industry to conduct R&D in defence related areas.

44. Civil servants are also exposed to challenging environments, high-intensity tasks and pressures while carrying out their duties and responsibilities. As such, the Government will continue to provide a conducive work ecosystem and ensure their well-being is taken care of. High-performing civilian defence personnel will be conferred appropriate recognitions and awards.

Participation of and by the *Rakyat*

45. This DWP emphasises defence as a shared responsibility; a comprehensive collective action that involves not only the whole-of-government but also the whole-of-society across the nation. **Collaboration between the *rakyat* and the defence workforce** reflects the whole-of-nation approach towards strengthening national defence.

46. Continuous participation of and by the *rakyat* in activities that raise the public's awareness on the importance of security and defence matters as well as grassroots programmes organised by civil society organisations, social groups and individuals, in addition to cooperation with defence and security agencies, will contribute directly to national defence.

47. Comprehensive Defence serves to support the implementation of the HANRUH concept or Total Defence, in terms of Security Readiness. Other aspects of HANRUH include Social Cohesion, Civil Preparedness, Economic Resilience, and Psychological Resilience.

This longstanding concept stresses that the responsibility of defending the country is not shouldered solely by the MAF and other security forces, but also by all segments of society from organisations to individuals.

48. Cyber resilience is a new element that needs to be emphasised in the implementation of HANRUH. While digital development provides new opportunities for Malaysia, it has also led to security threats through the cyber electromagnetic domain. In this regard, it is imperative to mitigate such security risks by developing cyber resilience efforts across the society.

49. Security readiness refers to the act and preparation to protect the country, citizens and national resources being spearheaded by MINDEF and the MAF. The MAF is also responsible to assist local authorities in enforcing the law, providing assistance during natural disasters and ensuring public order when required that will indirectly contribute to the nation building process.

50. The participation of and by the *rakyat* is important to achieve Comprehensive Defence. To achieve this, the consolidation of resources and efforts can be implemented among:

i. **Civil authorities**. Ensuring sufficient and effective infrastructure including transportation, logistics, communications and emergency supplies of critical items for the survival of the *rakyat*;

ii. **Private sectors**. Providing support in terms of services, products and expertise, as well as encouraging their employees to join the Volunteer Forces; and

iii. **Non-governmental organisations**. Support the nation by organising awareness campaigns and actively participating in exercises on emergency preparedness.

51. Comprehensive Defence, based on the shared identity concept, upholds the commitment of the DWP to achieve the following objectives:

i. Achieving sustainable internal resilience through the whole-of-nation approach;

ii. Improving inter-agency coordination through the whole-of-government approach; and

iii. Strengthening national unity through the whole-of-society approach.

52. The Government encourages all parties to be actively involved in raising security awareness and patriotism as well as fostering support for national defence through campaigns, promotions and advocacy at all levels of society.

53. The Government is determined to instil a security culture amongst the *rakyat* through Comprehensive Defence to enhance the nation's security readiness. The rise and fall of a nation is fully dependent on the unity, resilience and robustness of the *rakyat* in facing current and future threats. Hence, the cultivation of a security culture is important to ensure the preservation of national sovereignty.

54. *Hari Pahlawan* (Warrior's Day) is celebrated to commemorate the noble sacrifices made by our national heroes who gave their lives in defending our beloved nation. Thus, appropriate recognition shall be given to them for their heroic actions. The *rakyat* is encouraged to empathise and contribute individually, collectively or as an organisation towards the annual *Hari Pahlawan* celebration.

CHAPTER 6

Emergency Operation Center
Incidence Commander
Planning
Operation
Support
-Engineer
-Medical
1.Mass Cas
2.Aero Med
3.Chemical
4.Camp
-Food/water
Required = Domestic + Ext.
CHINA
CAMBODIA
VIET NAM
IFRC
ACMM
AMRG MilRep
ASEAN SECRETARIAT
Touchscreen
Bleu

INTERNATIONAL DEFENCE ENGAGEMENT

1. 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.

2. 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.

3. This DWP adds a new level of activism and purpose to this traditional role by consolidating the existing partnerships while cultivating new ones. It sets forth a direction that continuously enhances the credibility of the nation's defence partnerships. This direction will boost defence cooperation transformation towards a more beneficial goal and maximise the nation's potential as a bridging linchpin between the Asia-Pacific and Indian Ocean regions. This, in turn, will further support other pillars of national defence strategy, namely Concentric Deterrence and Comprehensive Defence.

4. This chapter emphasises the National Defence Objective in achieving credible partnerships with other countries. It then elaborates on Malaysia's defence engagement at the bilateral and multilateral levels. It also addresses how the nation's multi-layered defence engagement that includes training, exercises, operations and other defence initiatives enhances the MAF's defence preparedness and regional security.

Goals of Credible Partnerships

5. 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.

6. The Government's goals in promoting a new level of Credible Partnerships are as follows:

   i. Shaping Malaysia's defence relations with other countries;

   ii. Managing shared security challenges;

   iii. Fostering regional stability in accordance with international laws, conventions, rules and norms;

   iv. Enhancing the MAF's capabilities and defence preparedness; and

   v. Advancing Malaysia's position and interests in the international arena.

Scope and Levels of Defence Engagement

7. To achieve the goals of Credible Partnerships, the Government will continue to work with other countries to forge and strengthen defence ties at the strategic, operational and tactical levels. This will be carried out through scheduled meetings and other existing mechanisms bilaterally and multilaterally, including the conduct of training, exercises and military operations.

8. The Government will further deepen and widen these multi-layered engagements. Bilateralism and multilateralism will always go hand in hand. In this regard, bilateral defence cooperation will be continuously expanded and explored in ways that complement effective multilateral mechanisms, serving Malaysia's national interests. ASEAN and ASEAN-led mechanisms provide an essential platform for Malaysia to work closely with our neighbours and other international partners to address shared security challenges while pursuing common goals.

Bilateral Defence Engagement

9. The Government is committed to strengthening bilateral defence partnerships with countries in the Southeast Asian neighbourhood, the broader Asian region and the wider world.

10. Each bilateral partnership provides further opportunities for enhancing Malaysia's force preparedness, improving security resilience and expanding strategic space. The bilateral engagements cover a wide range of activities including institutionalised high-level committees on defence cooperation, sharing and exchanging information, defence and security discourse, border cooperation, exercises and joint operations, training and capacity building programmes, defence industry cooperation, procurement and transfer of military assets, as well as exchanges of visits.

Southeast Asia

11. The Southeast Asian region has always been the main factor influencing Malaysia's foreign policy. The Government will continue to develop strong, stable and comprehensive defence and security relations with all neighbouring countries in Southeast Asia.

12. Malaysia's bilateral ties with Southeast Asian countries have progressed and strengthened through two phases. The first phase was during the early decades of its independence when the world was still divided along the Cold War ideological lines. During this era, Malaysia's bilateral security cooperation in the region was concentrated on the immediate neighbours, the fellow founding member states of ASEAN, namely Indonesia, the Philippines, Singapore and Thailand. The second phase started after the 1990s when Malaysia gradually developed bilateral defence engagements with Brunei Darussalam, Cambodia, Lao PDR, Myanmar and Vietnam.

13. The Government is committed to elevating Malaysia's bilateral defence cooperation with all Southeast Asian countries in the future. These bilateral collaborations are significant to Malaysia's defence and security interests as they provide essential channels to jointly combat shared security threats, particularly terrorism as well as other transboundary challenges.

14. Malaysia's close defence relationship with Brunei, formalised in 1992, is built on the shared history, common roots and culture as well as geographical proximity. Guided by the Joint Defence Working Committee (JDWC), the defence relationship has continued to develop at the strategic, operational and tactical levels through defence and security discourses, joint operations, exercises, training and exchanges of military personnel. Members of the Royal Brunei Armed Forces (RBAF) have been embedded in the Malaysian Contingent to the UNIFIL since 2008. Brunei has also joined the Malaysian-led International Monitoring Team (IMT) in Mindanao since 2004, to monitor the implementation of the agreement between the Government of the Philippines and the Moro Islamic Liberation Front (MILF), and to provide assistance in the socio-economic development of Mindanao.

15. Malaysia's defence ties with Indonesia, in which both countries share common history, cultural roots, land and maritime borders, is long-standing and strong. Bilateral defence relations can be traced back to 1972 when the countries initiated the General Border Committee (GBC) to govern the implementation of activities along the common borders. The defence cooperation has broadened through frequent exchanges of visits and military personnel, combined exercises and operations, joint military training and participation in defence exhibitions. 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. The Government aspires to further strengthen the existing relationship through a more comprehensive defence cooperation instrument that covers various aspects, including the defence industry.

16. Defence relations with the Philippines was formalised by the signing of the Memorandum of Understanding (MoU) on Defence Cooperation in 1994, which established the Combined Committee on Defence Cooperation (CCDC) that oversees the defence cooperation ranging from military training and exercises, courses, exchanges of visits and military personnel, and defence industry cooperation. The two countries have also enhanced cooperation in maritime security, border control and non-traditional security areas, especially through sharing and exchanges of intelligence to address the piracy and militant threats in the east coast of Sabah and the southern Philippines. The establishment of the Trilateral Intelligence Exchange (INTELEX) among Indonesia, Malaysia and the Phillipines in 2017 has also provided a platform for more active information sharing and exchange among the three countries.

17. As neighbours who share the same historical roots, Malaysia and Singapore have maintained professional and cordial defence relations. Bilateral defence engagement revolves around combined training and exercises, exchanges of visits and military personnel, strategic discourse and participation in defence exhibitions. Defence relationship between both countries is mainly undertaken under the ambit of FPDA, ADMM and ADMM-Plus.

18. Based on shared interests in promoting stable borders and common regional interests, Malaysia and Thailand have enjoyed a relationship that is based on confidence and trust between the two countries. The defence relations with Thailand can be traced back to the establishment of the GBC in 1965. The GBC is an annual platform where both sides confer on measures to maintain security along their common border. In addition to military training, exercises and operations, exchanges of visits and military personnel, the bilateral defence partnership is also featured by the conduct of Coordinated Maritime Patrol (CMP) and Joint Border Patrol (JBP) operations. The patrol operations aim to combat transnational crimes, such as smuggling activities and human trafficking.

19. Despite the relatively late starting point compared to other ASEAN countries, Malaysia's defence engagements with Cambodia, Lao PDR, Myanmar and Vietnam have progressed steadily since the 1990s. Malaysia will continue to offer training and courses to military personnel from these countries in the future.

20. Malaysia-Cambodia defence cooperation began with the signing of a Letter of Intent on Defence Cooperation in 2015, which spells out, among others, the enhancement of defence cooperation through more active military training and exchanges of personnel. Malaysia has also signed an MoU with Lao PDR in March 2019 to further improve the existing bilateral defence ties. Malaysia and Myanmar have embarked on collaboration through military training and exchanges of visits. Malaysia is also exploring to enhance its defence cooperation with Timor-Leste.

21. A strong and comprehensive relationship with Vietnam is important to Malaysia. The Government will continue to develop defence cooperation with Vietnam, based on the MoU on Defence Cooperation that was formalised in 2008. Both countries have demonstrated a commitment to forge a stronger partnership and elevate it to a strategic level by establishing the High-Level Committee (HLC) on Defence Cooperation. Among the major areas of cooperation identified are strategic affairs, military cooperation, maritime security, defence industry and non-traditional security.

The Asian Region

22. Malaysia is also committed to enhance bilateral defence relations with countries in other parts of the Asian region, including East Asia, South Asia and West Asia.

23. Malaysia's relations with China have been shaped by long historical links, tracing back to the Malacca Sultanate and the Ming Dynasty in the 15th century. Malaysia was the first ASEAN member to establish diplomatic relations with China in 1974. Malaysia played an instrumental role in engaging and bringing China into the ASEAN-led dialogue process in the post-Cold War era. The MoU on defence cooperation was signed in 2005 and subsequently renewed in 2016, which translated into increased activities between both countries including military training and exercises. Both countries also signed the Framework of Cooperation between the Ministry of Defence Malaysia and the State Administration of Science, Technology and Industry for National Defence of the People's Republic of China (SASTIND) on Joint Development and Construction of Littoral Mission Ships for the Royal Malaysian Navy in the same year. The upgrading of the bilateral defence relations ties is in line with the introduction of the Comprehensive Strategic Partnership (CSP) initiative in October 2013 between Malaysia and China. Malaysia and China have established a forum to share and exchange information on various security topics. Both countries will continue to promote constructive defence cooperation through productive confidence-building measures and elevation of the current defence cooperation to the strategic level.

24. Malaysia's relation with Japan is strong and mutually beneficial. Malaysia welcomes Japan's active and constructive role in regional affairs which includes defence. The first bilateral discussion on defence cooperation was held in 1999. Malaysia-Japan defence engagement is realised through continuous exchanges of visits, training as well as sharing and exchanges of information. In September 2018, Malaysia and Japan signed the MoU on Defence Cooperation, which encompasses defence equipment and technologies, exchanges of personnel, joint maritime security and disaster relief operations. Both sides also inked the Agreement between the Government of Malaysia and the Government of Japan Concerning the Transfer of Defence Equipment and Technology in the same year. Japan and Malaysia have forged close cooperation on a wide array of security aspects, ranging from HADR, counter-terrorism to PKOs. Based on this strong foundation, the Government will continue to enhance bilateral defence cooperation by exploring potential collaboration in capacity building in defence science and technology, including education, research and development, as well as the transfer of defence equipment and technology.

25. Malaysia's defence cooperation with the Republic of Korea takes the forms of procurements, training, exchanges of visits as well as sharing and exchanges of information. Malaysia foresees prospects with the Republic of Korea in defence capability building in the future. Therefore, the two sides have also agreed to bolster cooperation in the field of defence industry formally through defence cooperation instruments.

26. Malaysia enjoys friendly defence ties with Bangladesh. Bilateral defence ties have been strengthened following the operationalisation of Malaysia's Field Hospital that has provided humanitarian assistance to the Rohingya refugees in Cox's Bazar since 2017.

27. Malaysia's close defence relations with India, formalised in 1993 is defined through the Malaysia-India Defence Cooperation Meeting (MIDCOM) that focuses on defence activities at all levels including defence science, technology and industry. This cooperation is important as both countries share similar defence assets that boosts interoperability between both forces. In 2018, Malaysia and India signed an MoU between the Government of Malaysia and the Government of India on United Nations Peacekeeping Cooperation to exchange information and experience in peacekeeping operations.

28. Malaysia's close defence ties with Pakistan were formally established in 1997 with the signing of MoU on Defence Cooperation. The MoU outlines a Joint Committee on Defence Cooperation (JCDC), which emphasises on bilateral military cooperation as well as cooperation in the field of defence science, technology and industry.

29. In West Asia, Malaysia has maintained strong bilateral defence relations with several countries, including Iran, Qatar, Saudi Arabia, Turkey and the United Arab Emirates (UAE). The Government is exploring the possibility of expanding defence cooperation with other countries in the region.

30. Malaysia's bilateral defence engagement with Saudi Arabia focuses on counter-terrorism and extremism, exchanges of personnel and capacity building in defence science, technology and industry. Both countries formalised their cooperation in 2016 through the MoU on Technical Defence Industry Cooperation and held the first Joint Committee Meeting on Defence Industry. The cooperation between Malaysia and the UAE started in 2013 through an MoU on Defence Cooperation, followed by the second MoU (revised) in 2014. The focus of cooperation includes military training that involves all three Services, Malaysian Peacekeeping Centre (MPC) and the MAF's Department of Health Services. Malaysia has been interacting with Iran since 1993 to look into potential areas of cooperation in defence science and technology. Malaysia and Qatar signed a Letter of Intent in 2017 to explore potential defence cooperation in the field of military-to-military activities as well as defence science, technology and industry.

31. Malaysia has elevated its defence relations with Turkey to the strategic level and is committed to augmenting defence relations, especially on defence science, technology and industry. Since Turkey is one of Malaysia's main partners in the development of defence capabilities, both countries will continue to explore ways of widening defence cooperation between the industry players in all domains. To achieve this goal, Malaysia and Turkey will provide a conducive environment to encourage collaboration between both countries' defence industry players.

The Wider World

32. Beyond Asia, Malaysia has a strong foundation of long-standing defence partnerships with several extra-regional countries, including Australia, France, New Zealand, Russia, the United Kingdom (UK) and the US. These countries have been Malaysia's defence partners since independence until now. Malaysia is committed to strengthening the existing engagements and welcoming new ones to support its national interests.

33. Bilateral defence ties between Malaysia and Australia are robust and long-standing. It started with the stationing of Australian troops in Malaya and Borneo that were involved in battles during World War II. The Australian Armed Forces helped to fight against the communist terrorists throughout the Malayan Emergency and aided Malaysia during the *Konfrontasi*. The defence partnership between Malaysia and Australia has continued to develop under the auspices of the FPDA that started in 1971. At present day, the defence relationship has developed further since the signing of the Malaysia-Australia Joint Defence Programme (MAJDP) in 1992.

34. In 2017, the MAJDP Policy Talks was elevated to the HLC that convenes annually to discuss strategic issues. This partnership is strengthened by a wide array of programmes and activities that range from military exercises, exchanges of visits and military personnel, PKO training, sharing and exchanges of information as well as capacity building, particularly under the Defence Cooperation Scholarship Programme (DCSP). This robust relationship was also evident in the strong commitment of Australia in the joint search operation for the missing flight MH370 in 2014 in the southern Indian Ocean. Australia will continue to be an important defence partner for Malaysia.

35. Malaysia and France have maintained a robust defence partnership since 1993, through an MoU that covers military activities as well as defence, science, technology and industry. Consequently, the Defence Joint High Strategic Committee (DJHSC) was established as the main avenue for bilateral defence and strategic dialogue to formulate, manage and monitor the implementation of the bilateral cooperation. France, one of the major suppliers of Malaysia's defence assets and technology, has contributed significantly to the offset programmes particularly in capacity building and the transfer of technology. Both countries have also widened defence cooperation on cyber security, counter-terrorism and PKOs. Malaysia will also continue to forge defence relationships with other European nations such as Germany, Italy, Norway, Sweden and other countries of interest.

36. Defence cooperation with New Zealand began in 1971 through the FPDA. The relationship between both countries was further strengthened through a bilateral arrangement in 1996. The Malaysia-New Zealand Senior Executives' Meeting (MNZSEM) is the highest level of meeting overseeing the bilateral defence cooperation that includes military training and exercises, exchanges of personnel as well as the sharing and exchanges of information. New Zealand also played an important role in the fight against the communist terrorists throughout the Malayan Emergency and aided Malaysia during the *Konfrontasi*.

37. Malaysia shares strong defence cooperation with Russia, an important partner in defence capability building and defence industry. Based on the strong foundation of the 1999 MoU on Defence Cooperation, Defence Industry and Technology, the Government commenced bilateral defence cooperation through the establishment of a Joint Intergovernmental Commission on Cooperation (JICC) as a platform to discuss cooperation, especially in the field of defence industry. In addition, both sides are committed to further explore new fields such as cyber security, counter-terrorism, aerospace and capacity building, besides sharing and exchanges of information.

38. The UK played a very important role in shaping Malaysia's defence system. The UK was involved in defending Malaysia during World War II, Malayan Emergency and also *Konfrontasi*. In 1998, both countries signed an MoU on defence cooperation for promoting military activities at all levels, capability and capacity building as well as defence science, technology and industry. Both countries demonstrated a commitment to a stronger partnership by establishing the HLC on Defence Cooperation in 2017 and to widen cooperation, especially in the field of cyber security.

39. Malaysia's defence partnership with the US is long-standing and comprehensive. The US has been one of Malaysia's key partners in the economic and defence sectors. Bilateral defence ties were institutionalised in 1984 through the establishment of the Bilateral Training and Consultative Group (BITACG) to coordinate military activities between the two countries which include training, courses and military exercises. The two countries have also established a strategic consultation forum, the Malaysia-US Strategic Talks (MUSST). Among the areas of cooperation are in counter-terrorism, maritime security, HADR, cyber security, sharing and exchanges of information, defence capability building and defence industry. Currently, the defence relationship is empowered through the Building Partner Capacity Program (BPC) which involves the MAF and other security agencies. Malaysia is committed to strengthening defence cooperation with the US in the future.

40. Malaysia has also developed bilateral defence engagements with a number of Pacific countries, including Fiji and Papua New Guinea. The Republic of Fiji Armed Forces had served in Malaya under the British during the First Emergency. Malaysia will give priority to the development of capacity and defence industry as a basis to mould defence cooperation with other countries in the future.

Multilateral Defence Engagements

41. The Government is committed to multilateralism at both regional and global levels. Malaysia will continue to give full commitment to multilateral institutions that provide an indispensable platform to mitigate power inequality among sovereign states, institutionalise norms, as well as protect national interests and uphold Malaysia's position internationally.

ASEAN and ASEAN-led Mechanisms

42. A strong and united ASEAN is at the core of Malaysia's security and defence resilience. This solidarity is the foundation for ASEAN centrality and the key for Southeast Asia to play a central role in regional affairs.

43. The Government will continue to embrace ASEAN and all ASEAN-led mechanisms as the critical platforms to pursue security and other interests, including ensuring regional peace, security and stability. These ASEAN-led mechanisms are the ASEAN Regional Forum (ARF), ASEAN Plus Three (APT), East Asia Summit (EAS), ASEAN Defence Ministers' Meeting (ADMM) and ADMM-Plus.

44. At the ASEAN level, Malaysia together with nine other Southeast Asian neighbours have over the decades actively initiated, developed and leveraged on a web of institutionalised cooperative mechanisms to achieve common interests and manage shared challenges among them. These mechanisms serve a number of functions: forging dialogue and confidence building measures, pursuing collective actions, enhancing capacity building, deepening group cohesion and managing NTS challenges.

45. An example in point is the sharing and exchange of high-level information with all Southeast Asian armed forces through the Intelligence Exchange (INTELEX) Seminar and Analyst-to-Analyst Exchange (ATAX).

46. Decades of gradual but progressive institutionalised cooperation through ASEAN and ASEAN-led mechanisms have promoted regular dialogues, strengthened collective diplomatic actions, contributed to regional interdependence and to an extent, deepened geopolitical affinity among ASEAN Member States (AMS). These relationships mark the efforts to strengthen the solidarity among regional countries, as well as fostering the development of an ASEAN community. Although ASEAN possesses limited capabilities to solve issues faced by its members, nonetheless many important issues, such as the trans-boundary challenges have been resolved successfully through the ASEAN platform.

47. The ADMM, inaugurated in Kuala Lumpur in May 2006, is the highest defence consultative and cooperative mechanism in ASEAN. It promotes mutual trust and confidence through a greater understanding of defence and security challenges, as well as enhancement of transparency and openness. Additionally, the ADMM Retreat provides an opportunity and space for ASEAN Defence Ministers to further strengthen and deepen ASEAN Member States' relations and defence cooperation in a cordial manner. On the other hand, the ASEAN Chiefs of Defence Forces Meeting (ACDFM) and its related meetings are the mechanisms among the militaries of ASEAN Member States to discuss issues of common concern. Among the ASEAN-wide defence cooperation are the ASEAN Militaries Ready Group on HADR (AMRG on HADR), ASEAN Defence Industry Collaboration (ADIC), ASEAN Direct Communications Infrastructure (ADI) and ASEAN Peacekeeping Centres Network (APCN) that allow ASEAN Member States to more effectively tackle common threats, in pursuit of regional peace, stability and prosperity.

48. The AMRG on HADR is a Malaysia-led initiative that aims to prepare ASEAN military teams for deployment to areas of crises in a quick and coordinated manner. ASEAN fully supports the attachment of military officials at the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre) to coordinate the flow of information and the AMRG on HADR team on site. The operationalisation of AMRG on HADR is realised through a Standard Operating Procedure (SOP) jointly developed by ASEAN Member States, its Dialogue Partners and international organisations.

49. The ADMM-Plus, inaugurated in Hanoi in October 2010, is a platform for ASEAN and its eight Dialogue Partners (Australia, China, India, Japan, New Zealand, Republic of Korea, Russia and the US) to strengthen security and defence cooperation. Experts' Working Groups (EWGs) have been established to facilitate areas of practical cooperation which are maritime security, counter-terrorism, HADR, PKOs, military medicine, humanitarian mine action and cyber security.

50. Beyond the ADMM and ADMM-Plus, the Government is also committed to further enhance Malaysia's active participation in other ASEAN-led mechanisms including the ARF processes, such as the ARF Defence Officials' Dialogue (ARF DOD) and the ARF Security Policy Conference (ASPC).

Sub-regional Cooperation

51. Malaysia will continue to play a pivotal role in several security cooperative arrangements that are undertaken at the sub-regional level, including the MSP and the TCA.

52. The MSP initiative is a mechanism started by Indonesia, Malaysia and Singapore in 2004 and joined by Thailand in 2006, to counter sea robbery and piracy. The MSP comprises of several joint operations, namely the Intelligence Exchange Group (IEG), the Malacca Straits Sea Patrol (MSSP), as well as the Eyes in the Sky (EiS). The IEG serves to support the sea and air patrols

through intelligence and information sharing between the participating countries. The MSSP entails coordinated maritime patrols and information sharing between ships and their respective maritime operation centres. The EiS involves the conduct of joint maritime air patrol with Combined Mission Patrol Team (CMPT) over the straits to reinforce maritime patrols through air surveillance. The collaboration among the littoral states has been a success, as evidenced by the decline of piracy and armed robbery incidents in the Malacca Straits since the initiative was implemented.

53. Malaysia remains committed to developing the capabilities and functions of the TCA, an initiative to address the common maritime security threats, specifically Kidnap-for-Ransom (KFR), sea robbery and terrorism incidents in the Sulu and Sulawesi Seas. Under the 2016 Framework on TCA, the three littoral countries, Indonesia, Malaysia and the Philippines agreed to establish collaboration on Maritime Command Centres (MCC), Trilateral Maritime Patrol (TMP), Trilateral Air Patrol (TAP) and Intelligence Working Group (IWG). Through the TCA, the three countries have established a transit corridor for ships and allowed the conduct of hot pursuit beyond maritime borders. Malaysia has also placed two forward sea bases, Kapal Auxiliary Tun Azizan and Pangkalan Laut Tun Sharifah Rodziah to strengthen the maritime defence in the area.

Five Power Defence Arrangements (FPDA)

54. Malaysia remains committed to the FPDA. The consultative mechanism, established in 1971 which involves Australia, Malaysia, New Zealand, Singapore and the UK, has contributed significantly to national defence. In addition to improving the knowledge, skills and professionalism of the military personnel, the FPDA has also enhanced the MAF's defence capability and preparedness. The FPDA was founded to prepare for conventional warfare through developing doctrine as well as conducting scheduled military training and exercises to increase interoperability among member nations. Currently, the FPDA is exploring ways to enhance cooperation in the non-traditional sphere such as maritime security, counter terrorism, HADR and also cyber security to remain relevant in line with the FPDA's three main principles.[1] The Headquarters Integrated Area Defence System (HQIADS), in Butterworth, is the permanent operational element of FPDA. Efforts to build confidence building measures for the FPDA are currently being intensified through the observers' programme.

Contributions and Engagement at the International Level

55. Malaysia reaffirms its long-standing commitment to further enhance its global involvements and contributions towards international peace. Malaysia's active contributions to international PKOs and its participation at the United Nations Security Council (UNSC) as a Non-Permanent Member are well recognised. Malaysia has participated in numerous PKOs since 1960 until today, including a battalion at UNIFIL in Lebanon, as well as Staff and Observers in a few countries in Africa.

56. Malaysia will continue its efforts to enhance the capacity of the MAF peacekeeping troops, including improving the interoperability of peacekeepers among nations. Malaysia welcomes contributions and opportunities for wider partnerships to further strengthen the role of the MPC, the first of its kind, a multi-dimensional PKO training centre in the region.

[1]FPDA's three main principles are: (1) as a defensive arrangement, the FPDA should maintain a non-threatening posture to avoid rousing sensitivities; (2) the FPDA should proceed at a pace comfortable to all its members with due cognisance to multilateral, bilateral and national sensitivities; and (3) the FPDA should continually develop and evolve to remain relevant.

57. Malaysia reaffirms its commitment to participate in missions led by international organisations, such as the IMT in Mindanao, The Philippines since 2004. Malaysia has also collaborated with international organisations, especially on HADR missions. Since 2010, Malaysia has partnered with the WFP in hosting the UNHRD at Subang Airbase. The depot, the first of such hubs by WFP in Southeast Asia to deliver humanitarian relief items within 48 hours of a crisis, provides storage, logistics support and services to the UN as well as other international humanitarian agencies in the Asian region. This depot is also home to the DELSA, a mechanism to deliver humanitarian assistance systematically under the coordination of the AHA Centre.

58. Malaysia is currently working with the International Federation of Red Cross and Red Crescent Societies (IFRC) in the area of HADR. Besides that, Malaysia is also collaborating with the International Committee of the Red Cross (ICRC) to strengthen the application of International Humanitarian Law (IHL).

59. Malaysia's first delivery of aid for the Rohingya refugees in Bangladesh was sent in September 2017, using the RMAF's A400M aircraft. Malaysia is also operating the MFH in Cox's Bazar on the basis of humanity and the Responsibility to Protect (R2P). A team of 56 medical personnel provides medical services, dental care, maternity, plastic surgery, intensive care, counselling and trauma consultation at the MFH. Since March 2018, the MFH has treated approximately 83,000 cases and operated on 2,300 patients within 18 months of its operation. Through the operationalisation of the MFH, Malaysia has received offers and assistance, among others, from Brunei Darussalam, Saudi Arabia and the UAE.

60. Malaysia remains concerned about humanitarian issues and deeply appreciates the support of other nations especially within the ASEAN community concerning HADR.

61. Malaysia will continue to play a leading role in promoting more credible partnerships among Muslim countries such as Indonesia, Pakistan, Qatar and Turkey, by focusing on defence science, technology and industry.

Future Direction of Defence Engagement

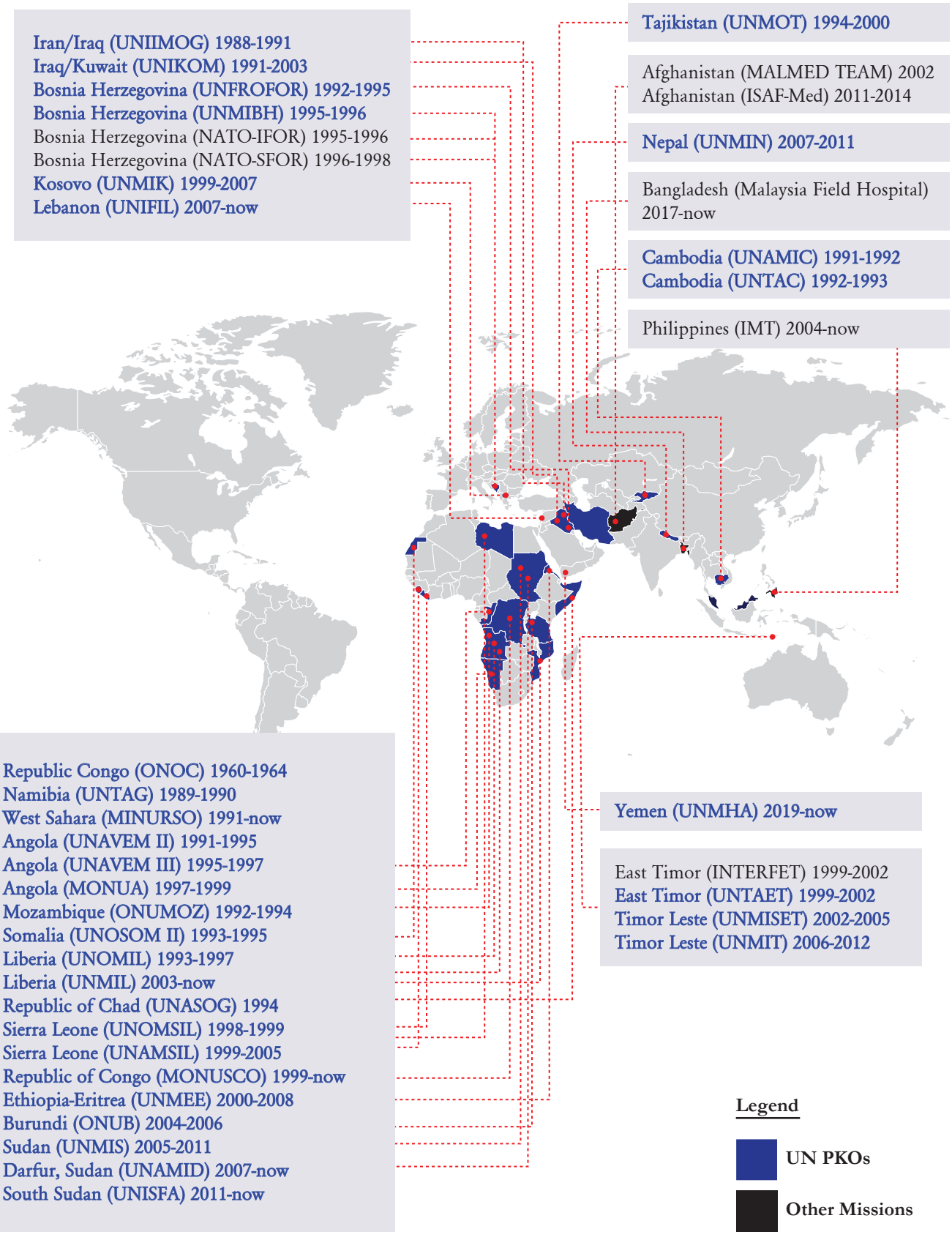
62. The international defence engagements discussed above constitute layers of Credible Partnerships that complement other national defence efforts while augmenting Malaysia's defence capability development. Malaysia will also emphasise on the development of defence capacity as well as defence science, technology and industry while embarking on more defence cooperation with other nations in the future.

63. In the context of the Southeast Asian region, Malaysia will continue to prioritise defence cooperation with regional nations while being more proactive in advancing Malaysia's leadership role in regional security and defence issues. Malaysia will also explore defence cooperation with extra-regional states while simultaneously elevating existing defence cooperation to a more enhanced strategic partnerships in accordance to the Activist Neutrality principle.

64. Malaysia will continue to position itself as an exemplary multi-ethnic country with Muslim majority that is inclusive, developed and progressive by developing stronger defence cooperation with other countries through collaboration in the areas of common interest while upholding the concepts of *Rahmatan lil 'alamin* (Mercy to all) and *Maqasid Syari'ah* (objectives of the *syariah*).

65. 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.

PARTICIPATION OF MAF IN UN PEACEKEEPING OPERATIONS AND OTHER INTERNATIONAL ORGANISATIONS' MISSIONS



SECTION 3
IMPLEMENTATION

CHAPTER 7

DEFENCE SCIENCE, TECHNOLOGY AND INDUSTRY

1. Defence science, technology and industry form a strategic component of Malaysia's defence ecosystem to support the three pillars of the national defence strategy. The origins of the Malaysian defence science, technology and industry establishment can be traced back to the early 1970s. Since then, several Malaysian defence companies have developed capabilities that have made them competitive players in Maintenance, Repair and Overhaul (MRO). This also includes the manufacturing and catering to the supply-chain requirements of Original Equipment Manufacturers (OEMs).

2. Despite steady advances in Malaysia's defence industry, the Government believes that there is still significant room for growth and improvement. The Government's long-term vision in this context is for local players to develop the capacity to design, test, develop and market state-of-the-art weapons and technologies, both for domestic and export markets in line with the Aspired Self-Reliance principle. The Government will continue to support the productivity, profitability and sustainability of the defence science, technology and industry establishment.

3. A well-developed defence science, technology and industry will contribute towards economic growth by minimising dependency on foreign defence assets, expanding and commercialising products for civilian usage, driving research and innovation as well as generating job opportunities for the *rakyat*, especially among the graduates in the related fields.

4. The DWP presents a new approach towards Malaysia's defence science, technology and industry policy by presenting it as a catalyst for Malaysia's defence ecosystem and economic growth. This approach is the main key towards stimulating the nation's R&D foundation, synergising industrial and inter-agency resilience, as well as strengthening its overall defence capabilities.

5. The Government will strengthen existing initiatives by formulating a National Defence Industry Policy (NDIP) that will serve as a guideline for the development of this sector. This policy encompasses strategies for enhancing research in defence science and technology, capacity building and funding to boost the growth of the local defence industry.

6. The role and participation of the main defence science, technology and industry players will be highlighted in the five key thrusts of the NDIP. The five key thrusts form a policy framework aimed at cultivating long-term favourable conditions to unleash the defence industry's full potential.

7. The NDIP will also provide the requisite impetus and coherent policy guidelines for enhancing the capacity of local defence science, technology and industry. In addition, the NDIP will contribute towards economic growth in the long run.

8. The Government will invest in developing the nation's defence science, technology and industry along the following approaches:

    i. **Stimulating research and development**. Developing focused capabilities in defence science, technology and industry based on R&D across critical technology sectors;

    ii. **Encouraging economic spillover contributions to the nation**. Benefits from defence science, technology and industry are anticipated to spillover to other economic sectors, thereby serving as one of the drivers for the nation's economic growth; and

iii. **Fulfilling the nation's defence needs**. The defence science, technology and industry establishment equips and sustain some of the defence needs, creating a resilient and long term cycle of self-reliance. This role is vital in supporting Malaysia's pursuit of self-reliance on selected niche areas. A vibrant local defence industry is essential for the realisation of sustainable self-reliance in producing critical assets and defence equipment.

Key Contributors of Defence Science, Technology and Industry

9. The primary drivers in this sector are MINDEF, primarily the Science and Technology Research Institute for Defence (STRIDE) and the Defence Industry Division (DID), the MAF, as well as other related ministries and agencies.

10. The industry players in this sector are the well-established local companies, including multinational companies related to defence science, technology and industry, small and medium enterprises (SMEs) and small start-ups that are linked together under the Malaysian Industry Council for Defence, Enforcement and Security (MIDES).

11. Malaysia's defence science, technology and industry are also supported by a research community with the expertise to design, develop and test assets and equipment for defence and security. The community consists of various public and private universities such as the National Defence University of Malaysia (*Universiti Pertahanan Nasional Malaysia*, UPNM), research institutes and centres, as well as private inventors creating platforms for self-reliance.

The Government's Support for Defence Science, Technology and Industry

12. The ability of the MAF to pursue the National Defence Framework requires the full support of Malaysia's defence industry in order to equip and sustain its capabilities during peacetime or conflict. The local defence industry must also support other security and enforcement agencies involved in national defence.

13. Emphasis will be given to self-reliance on selected niche areas including provision of critical assets, equipment and services such as basic combat equipment for the smart soldier of the Future Force (small arms, ammunition, electronic communication systems, bulletproof vests, webbings, ballistic helmets, combat dress and rations) and MRO of main assets and equipment for the MAF, as well as other related agencies.

14. The Government acknowledges the challenges faced by industry players in performing R&D. Hence, there will be initiatives from the Government to support R&D and innovation costs for potential industry players. This includes the Government's initiatives to assist in promoting their products to the local and international market. Ultimately, these initiatives are aimed towards achieving self-reliance in the long run.

15. The defence industry needs to evolve to remain competitive and not solely depend on government procurement contracts. Therefore, new initiatives will be implemented to drive the industry to be a sustainable economic sector through targeted investments in the nation's defence and security sectors. A dynamic and competitive local defence industry will be a catalyst for economic growth.

16. Given the significant costs associated with defence procurement, awarding procurement contracts to the local defence industry will stimulate the domestic economy while minimising the outflow of the Ringgit. The defence industry will also be encouraged to take advantage of other opportunities available in export markets, for example, developing local capability for aircraft MRO to become an aerospace hub in Southeast Asia. It is worth noting that ASEAN Member States collectively spend approximately USD30 billion annually on their defence requirements. A well-developed Malaysian defence science, technology and industry will provide opportunities for Malaysia to tap into the ASEAN market.

Framework for the National Defence Industry Policy (NDIP)

17. The NDIP presents the way forward via the following five key thrusts:

i. **Thrust 1: Human Capital Development**. Promoting various initiatives to produce experts with the right skills and knowledge in line with the needs of the defence industry;

ii. **Thrust 2: Technology Development**. Providing funding for scientific research, application and innovation, acquiring critical technologies to strengthen local R&D capabilities and transfer of technology from foreign strategic partners;

iii. **Thrust 3: Industrial Development**. Implementing new defence asset procurement policies based on cost-benefit analysis and economic indicators; revitalising specific defence sectoral classification guidelines; reviewing tailored incentives to support local companies to improve industrial competitiveness and developing national strategic projects;

iv. **Thrust 4: Towards Self-Reliance**. Prioritising the products developed and manufactured by capable local companies, re-energising Industrial Collaboration Programme (ICP) with OEM as well as benefiting from the know-hows on niche products and markets; and

v. **Thrust 5: Penetrating the Global Market**. Encouraging local companies to promote their products and eventually penetrate international markets through collaboration with other Government agencies and the private sector, as well as participation in international defence exhibitions.

18. The Government's five thrusts will be operationalised through five initiatives as follows:

i. **Initiative 1**: Enhancing the economic strategic framework for defence science, technology and industry, focusing on niche sectors;

ii. **Initiative 2**: Restructuring organisations related to the defence industry;

iii. **Initiative 3**: Establishing a Defence and Security Investment Committee;

iv. **Initiative 4**: Stimulating R&D and innovation through sustainable funding; and

v. **Initiative 5**: Strengthening talent development programmes.

19. **Enhancing the Economic Strategic Framework for Defence Science, Technology and Industry Players and Focusing on Niche Sectors**. Malaysia has several established local defence science, technology and industry players that produce common user items (basic soldiering equipment), maritime, automotive, aerospace, ICT and weaponry. These clusters will be strengthened in order for the industry players to be more capable and emerge as renowned suppliers of equipment and services for domestic as well as international markets.

20. Malaysia's key defence industry players are encouraged to embrace the latest IR 4.0 technologies such as AI, in their products and manufacturing systems to maximise automation, precision in manufacturing and cost-savings. This is in line with the requirement of new assets and equipment for the MAF, such as unmanned systems and smart weapons.

21. The key defence industry players are also encouraged to develop multi-user products spanning the needs of the military, other government agencies and the commercial sectors. Examples of multi-user products are vehicles, ships and boats, computer hardware and software, electronic equipment and communication systems.

22. The Government's aspiration is for the MAF and security agencies to coordinate assets and equipment procurements to achieve a certain level of commonality among the MAF and security agencies. Examples of such common assets are patrol boats / ships, small arms and ammunitions, helicopters, trucks, communication equipment and computerised systems.

23. Efforts towards ensuring the commonality of assets and equipment between the MAF and security agencies will enable integrated exercises and operations to be carried out more efficiently, in which operational and maintenance costs are minimised due to the commonalities of components and spare parts. This will assist the local defence industry to achieve economies of scale resulting in lower production and procurement cost.

24. The bulk of the MAF's basic necessities such as food, medicine, uniforms, rations, office furniture, barracks and other timber products are manufactured by numerous local SMEs. SMEs are also capable of contributing to the design and building of indigenous cyber technology, as well as technology design and building that includes, related software and hardware as well as related infrastructure. Through the DWP, the Government will continue to support the production and development of local technologies by SMEs to meet defence and security requirements.

25. The Government also recognises that local SMEs have provided crucial support to the primary local defence players as part of the supply chain in providing small parts, systems and logistical support. Hence, SMEs function as important elements in the defence industry ecosystem.

26. Although the local defence industry players support national defence by supplying some of its key assets, equipment and services, Malaysia will still have to procure certain assets, equipment and services from foreign companies. This is because the local defence industry has limited

technological capabilities. Therefore, the transfer of technology and knowledge encompassing the know-hows and the know-whys will be emphasised to enable industry players to master such technologies in the future.

27. The transfer of technology and knowledge can be materialised through industrial collaboration programmes (offset) when the Government procures equipment from foreign countries. Defence procurements include various value-added elements, particularly the transfer of technology, skills and knowledge that benefit users and local industry players. These offset programmes can also help SMEs to acquire funding for training and education to develop human capital.

28. **Restructuring Defence Industry-related Organisations**. The Government will take a proactive approach to restructure and if necessary, to create new posts or to establish a new organisation in order to achieve good governance for the defence industry. This includes empowering the existing divisions and agencies in planning and implementing transparent, as well as effective work procedures. Among the suggestions being closely considered is the establishment of the National Defence Science and Technology Advisory Council.

29. The Government will emphasise on the empowerment of defence industry players so as to make them more independent, innovative and competitive. Industry players will assist the government in providing inputs related to the defence and security industry so that continuous improvements can be made to develop the defence industry as an economic catalyst.

30. **Establishing a Defence Investment Committee**. The Government is committed to empowering the development of defence science, technology and industry by establishing a high level committee chaired by the Prime Minister, with members from related ministries and agencies. This committee will set policies and make decisions related to procurement of assets, particularly for high value strategic assets that necessitates a collective decision, taking into account the requirements of the MAF and security agencies. Decisions made at this highest level platform will increase assets and equipment commonalities between the MAF and security agencies to achieve economies of scale for the defence industry, as well as return on investment for the country. Commonalities between the MAF and security agencies will indirectly increase the market size and assets maintenance capabilities of local industry players.

31. The establishment of this committee reflects the commitment of the Government to enhance the development of defence science, technology and industry. Investment by stakeholders in the defence and security industry is vital to support the implementation of NDIP to achieve self-reliance in selected niche areas and to enhance the defence and security industry as an economic catalyst.

32. **Stimulating R&D and Innovation through Sustainable Funding**. The Government is cognisant of key defence industry players requiring support to conduct their R&D and innovation activities in order to produce defence assets and equipment to fulfil the nation's defence requirements, in line with the Innovation and Integration principle, as well as to enhance product marketability locally and internationally.

33. R&D and innovation in defence science and technology is costly. Therefore, the Government will allocate funds for R&D specifically for the development of defence and security assets and equipment. The Government will allocate 10% -15% of the total nominal offset value of the ICP for that purpose.

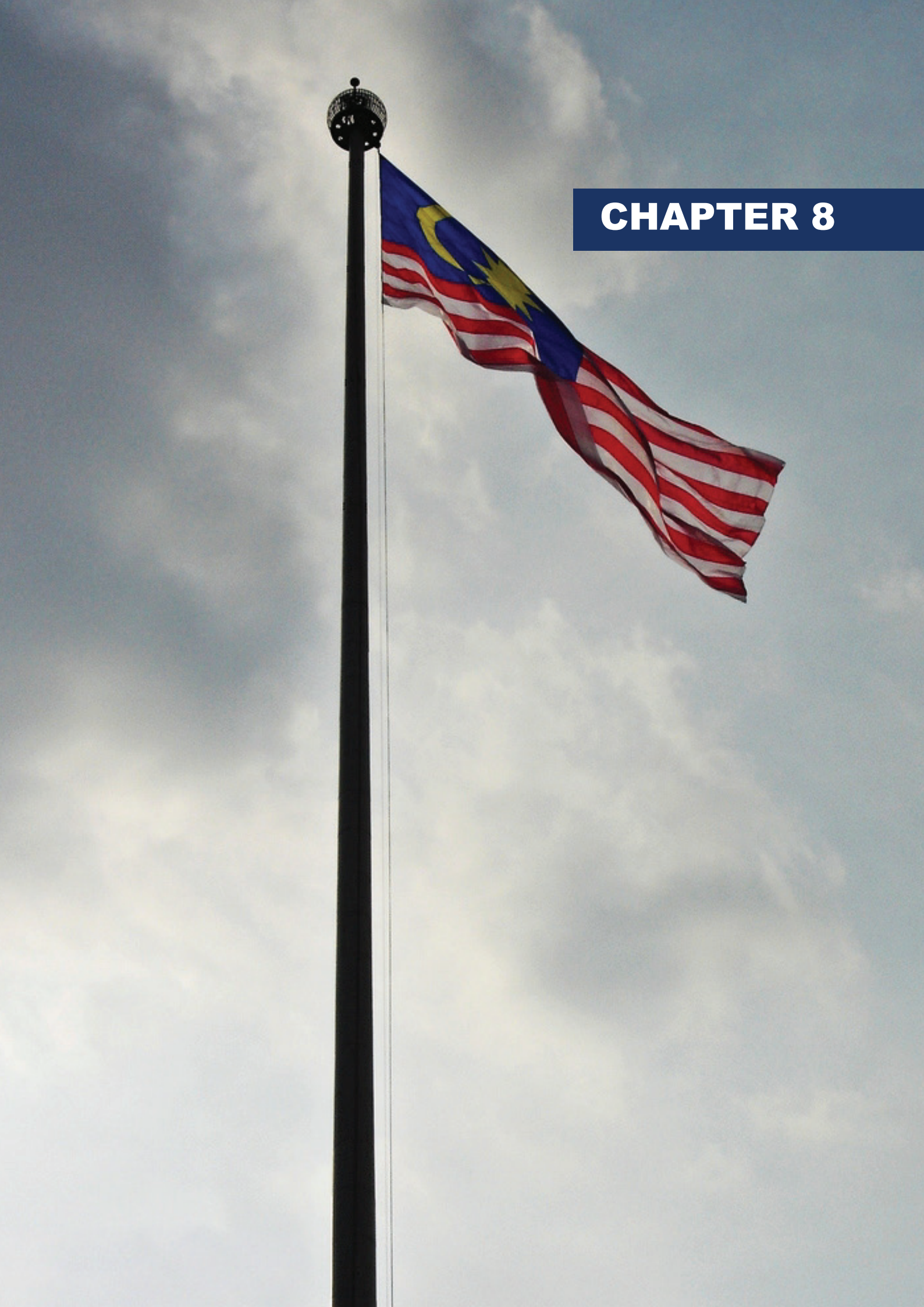
34. STRIDE, as a department under MINDEF responsible for all defence R&D activities, will coordinate all R&D activities in AI, unmanned systems, smart weapons and ammunition, radars and sensors, ISTAR, CBRNe, vehicle systems for land, sea and air, as well as defence space technology.

35. STRIDE will continue to provide technical support and advisory services to the MAF, government agencies and the local defence industry. STRIDE will also be the technical agency for defence product certification, playing a crucial role in ensuring the MAF and security agencies acquire high quality assets. Additional roles for STRIDE include aircraft black box analysis and being the technical agency for the Chemical Weapons Convention (CWC) Act 2005 and the Strategic Trade Act 2010. STRIDE is also the lead technical agency for the Biological and Toxin Weapons Convention (BTWC).

36. **Strengthening Talent Development Programmes**. The Government acknowledges that Malaysia's defence science, technology and industry requires concerted efforts to harness its potential to achieve self-reliance. One of the key aspects is developing human capital competent in conducting R&D, as well as designing and inventing technologically advanced products of international standards.

37. In order to empower defence science and technology, the Government acknowledges the importance of education in producing scientists, technologists and engineers to fulfil the needs of the nation's future defence. This requires a long-term planning with concerted efforts by the Government to prioritise defence science and technology fields.

38. The Government is highly committed to and strongly supports the development of the local defence science, technology and industry to achieve a high level of self-reliance and be a catalyst to the nation's economy.



CHAPTER 8

TRANSFORMATIONS, GOVERNANCE AND FUNDING

1. This inaugural DWP has provided an assessment of Malaysia's strategic outlook and articulated the National Defence Framework. It has also outlined the fundamentals of the nation's three-pillar defence strategy, mapping the pathways towards realising Concentric Deterrence, Comprehensive Defence and Credible Partnerships in the pursuit of national security, sovereignty and prosperity.

2. This concluding chapter puts forward the **three building blocks** for the implementation of the DWP plan. First, **pursuing defence transformations** for restructuring and institutionalising a more productive working relationship between and within the civil service and the MAF. Second, **institutionalising good governance** that ensures defence transformations are executed in phases, in a transparent and accountable manner. Third, **securing stable defence funding** so that the MAF is fully equipped with assets that meet current and future challenges. They are the essential enablers for the MAF to acquire the capabilities needed to protect Malaysia's national interests, particularly to defend the nation's sovereignty and territorial integrity.

3. The three building blocks are aimed at addressing the **capability**, **coordination** and **resource** gaps. The capability gap refers to the differences between the planned and current force structure of the MAF. The coordination gap refers to the challenges in configuring cohesiveness and efficiency involving the civil servants, the MAF and other security agencies, in the process of planning and executing defence and security-related policies. The coordination gap can be addressed through transformation of the MAF to enhance jointness between its Services and related security agencies. As for the resource gap, it refers to the financial constraints of renewing and enhancing the MAF's preparedness.

4. The effective and concurrent implementation of the three building blocks is the key towards ensuring a balanced, sustainable and productive defence ecosystem for Malaysia in the long run, in accordance with the Good Governance principle. They serve to maximise legitimacy, acceptability and reliability of the DWP. The implementation of the DWP will be carried out from 2020 until 2030, with biennial updates on its progress and a mid-term review.

Defence Transformations

5. The implementation of defence transformations will be undertaken by 2021 through a Defence Investment National Plan (*Pelan Pelaburan Pertahanan Negara*, 3PN), being the masterplan consisting of a vision and action plans from three components as follows:

   i. Defence capability transformation;

   ii. Defence capacity transformation; and

   iii. Defence industry transformation.

Defence Capability Transformation

6. The Future Force described in Chapter 4 highlighted five main characteristics, namely jointness, interoperability, technology-based, able to operate simultaneously in two theatres and

mission-orientated. These characteristics are essential towards enabling the MAF to support the National Defence Strategy.

7. To realise these characteristics, the Government will review the current **4DMAF Strategic Development Plan** and other relevant documents to be aligned to the DWP. Subsequently, the review will include streamlining the Services' capability development plans, namely the Army 4nextG, #15to5 and CAP55.

8. This capability transformation is not only limited to enhancing interoperability among the MAF but also across all security agencies. The key objective for this transformation is to further improve coordination, procurement and information sharing between the military and other relevant agencies. The outcome will be registered in the 3PN.

Defence Capacity Transformation

9. To support the aims laid out in Chapter 4, 5 and 7 in minimising capacity gaps, the Government is committed to review existing policies in relation to human resource and establishing a **Defence Capacity Blueprint (*Rangka Tindakan Kapasiti Pertahanan*, RTKP)**. The focus is on enhancing the effectiveness of the defence workforce, which includes personnel in the Regular and Volunteer Forces as well as those in civilian roles in the defence and security establishments.

10. To maximise synergy between all three Services of the MAF through the transformation process, a Joint Force Command (JFC) will be established to further strengthen jointness. The development of professional soldiers will be implemented through a combination of training, education and self-development programmes. Priority will be given to enhancing science, technical expertise and management towards creating smart soldiers.

11. In appreciation of the veterans' invaluable contributions and sacrifices, the Government will also continue to review the benefits and facilities for the MAF veterans to ensure their wellbeing. The Government through this plan will explore new initiatives to further increase veterans' competitiveness in the job market by utilising their experience and skillsets gained during their services in the military. This would include employment opportunities in the public and private sectors.

12. 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 lasting institutional memory and policy coherence in the defence and security cluster.

13. The Government will identify efforts to encourage the *rakyat,* particularly the youth to participate in national defence through existing mechanisms such as the Volunteer Forces. The RTKP will also envisage new initiatives to inculcate patriotism among all Malaysians as it forms the foundation in achieving Comprehensive Defence.

14. 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 Industry Transformation

15. Chapter 7 expressed the Government's intention to formulate a new approach in the field of defence science, technology and industry. For that, the Government is committed to strengthening existing initiatives by formulating a Defence National Industry Policy (*Dasar Industri Pertahanan Negara*, DIPN) that serves as the policy framework and guidance for this sector's development. It will additionally encompass strategies for enhancing defence technology and science research, funding and education while cultivating long-term favourable conditions to unleash Malaysia's full potential in this field.

16. To drive the national defence industry, the Government will restructure the organisational framework to oversee the implementation of DIPN and to ensure good governance. The restructuring among others, is aimed at empowering the existing divisions and agencies to plan and implement transparent and effective work procedures.

17. The capability, capacity and defence industry transformations, as well as defence partnerships discussed in Chapter 6 need to be mutually supporting and strengthening. Hence, the 3PN is developed to ensure the successful implementation of defence transformations.

18. Subsequently, the Government will execute phased **defence transformations** as specified in the following timeline:

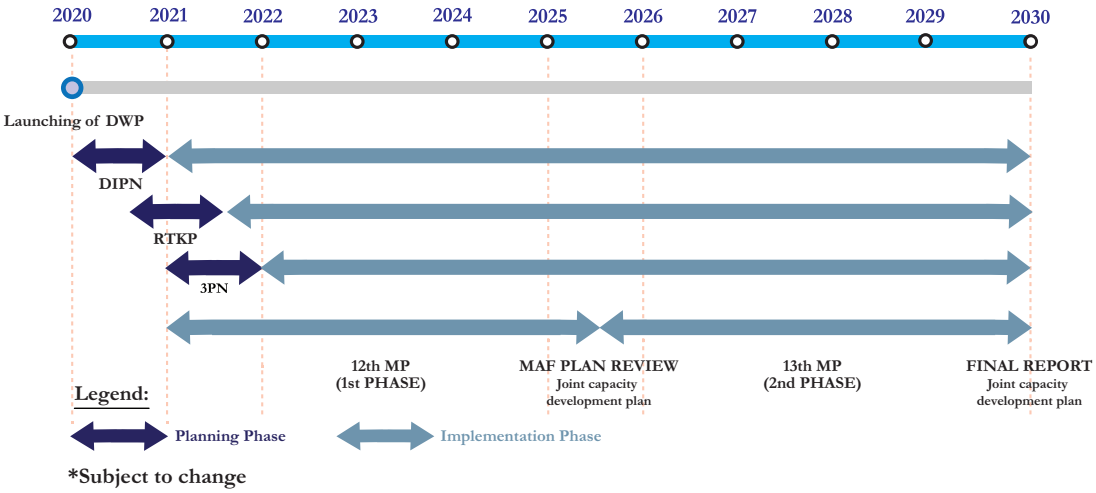


Figure 8.1: Defence Transformation Timeline.

Good Governance

19. The Government pays serious attention to the issues of good governance encompassing transparency, integrity and accountability. A holistic monitoring mechanism to oversee the defence transformation process is essential, not only to secure support from the *rakyat* but also to ensure that there will be proper supervision of the transformation and implementation processes.

20. To ensure the success of the DWP, a **Defence Transformation Committee** will be established to supervise the defence transformation processes consisting of **defence capability**, **defence capacity** and **defence industry**. The Committee will also seek to facilitate effective inter-agency cooperation between MINDEF and relevant agencies to ensure transformations are implemented in a whole-of-government approach.

21. The Government supports the active role of the Parliamentary Special Select Committee on Defence and Home Affairs in exercising oversight towards issues related to defence and security. Likewise, a Defence Investment Committee chaired by the Honourable Prime Minister with representatives from relevant government stakeholders will ensure decisions on defence investments are made based on national interests.

22. The Government will continue institutionalising good governance through the conduct of checks and balances within the Malaysian security and defence sector in line with the principles of accountability and transparency, as well as ensuring that security providers are operating effectively in accordance with legal and policy frameworks. Overall, the continued process as well as regular disclosures on the implementation of the DWP and defence transformations will elevate public awareness of defence matters and garner stronger public support for national defence transformations.

23. The Government shall implement the DWP through a holistic oversight mechanism, as follows:

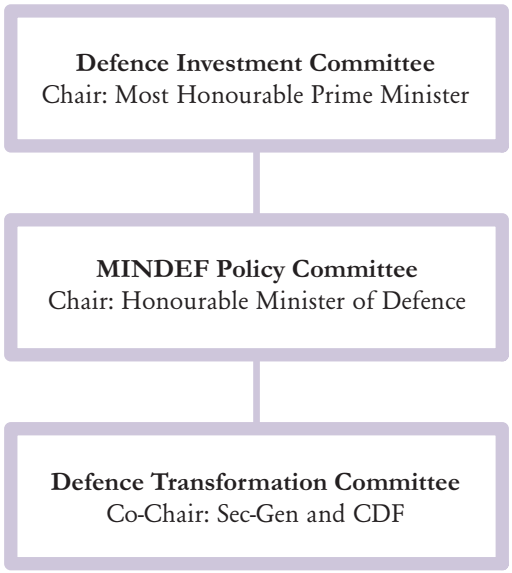


Figure 8.2: Structure of Defence Transformation Monitoring Committee.

Funding

24. Securing a stable defence funding is essential to bridge the resource gap and enhance the MAF's overall preparedness. In this context, the Government is cognisant of the fact that there are competing demands on the national budget. Trimming the national debt remains a priority for the Government. Despite these obstacles and challenges, the need for continuous investment is important in ensuring long-term sustainable capability development for the MAF.

25. The Government intends to achieve the following desired characteristics of defence funding:

i. **Long-term and stable**. Defence spending is inherently long-term. The acquisition of defence assets and equipment is capital intensive and takes many years. As such, the process would extend beyond a single Malaysia Plan. In this context, stable yearly funding will ensure a more efficient defence management.

ii. **Affordable and sustainable spending**. In return for long-term and stable defence funding, the Government will continuously ensure that affordable and sustainable defence spending is in a transparent and accountable manner. Central agencies and the Parliamentary Special Select Committee on Defence and Home Affairs play an important role in ensuring funding and spending are in accordance with the plans set out in this DWP.

26. Stable funding for the defence and security sector will facilitate a long-term, comprehensive capability development. Standardisation will enhance the Government procurement process as well as increase interoperability and commonality between the MAF and security agencies. This will also strengthen the local defence industry as an economic catalyst. A more cost-effective and return on investment will ultimately inspire greater confidence among the *rakyat* towards the Government.

27. The Government is determined to provide a long-term and stable stream of defence funding based on the nation's financial capability to ensure seamless execution and implementation of the DWP.

28. The Government will continue to adopt proactive measures towards achieving good governance in national spending and procurement. In this context, the Ministry of Finance has initiated a review of the process of acquisition, implementation and monitoring of physical and non-physical projects, including those at MINDEF. Following the adoption of Zero-Based Budgeting mechanism, all expenditure items are subjected to be reviewed and scrutinised constantly.

Summary

29. To maximise legitimacy, acceptability and reliability of the DWP, all plans will be documented for implementation and monitoring. By evaluating the impacts of the changing security environment, the DWP has set the direction for defence transformations to take place over the next 10 years to realise the Future Force and its interoperability with other security agencies alongside enhancing collaboration with the *rakyat*. One of the most valuable outcomes of the DWP is 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**.

ABBREVIATIONS

#15to5	Royal Malaysian Navy #15to5 Transformation Programme
3PN	Defence Investment National Plan (*Pelan Pelaburan Pertahanan Negara*)
4D MAF	Fourth Dimension Malaysian Armed Forces
ADMM	ASEAN Defence Ministers' Meeting
ADMM-Plus	ASEAN Defence Ministers' Meeting-Plus
AHA Centre	ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management
AI	Artificial Intelligence
AMRG on HADR	ASEAN Militaries Ready Group on Humanitarian Assistance and Disaster Relief
AMS	ASEAN Member States
APT	ASEAN Plus Three
ARF	ASEAN Regional Forum
Army 4nextG	Army for the Next Generation
ASEAN	Association of Southeast Asian Nations
AV	Armoured Vehicles
BTWC	Biological and Toxin Weapons Convention
C4ISRT	Command, Control, Communications, Computer, Intelligence, Surveillance, Reconnaissance and Targeting
CAP55	RMAF Capability Development Plan 2055
CBRNe	Chemical, Biological, Radiological, Nuclear and Explosives
CDF	Chief of Defence Force
CDOC	Cyber Defence Operation Centre
CEC	Cyber Electromagnetic Command
CEMA	Cyber Electromagnetic Activities
CIMIC	Civil-Military Cooperation
CNII	Critical National Information Infrastructure
COIN	Counter-Insurgency
DELSA	Disaster Emergency Logistics System for ASEAN
DWP	Defence White Paper
EAS	East Asia Summit
ECWC	Electronic and Cyber Warfare Centre
EEZ	Economic Exclusive Zone
EiS	Eyes in the Sky
EW	Electronic Warfare
HADR	Humanitarian Assistance and Disaster Relief
HANRUH	Total Defence (*Pertahanan Menyeluruh*)
HLC	High-Level Committee
ICP	Industrial Collaboration Programme
ICT	Information and Communication Technology
IMT	International Monitoring Team
INTELEX	Intelligence Exchange
IoT	Internet of Things
IR4.0	Fourth Industrial Revolution
ISTAR	Intelligence, Surveillance, Target Acquisition and Reconnaissance
JF HQ	Joint Force Headquarters
LCA	Light Combat Aircraft

LCS	Littoral Combat Ship
LMS	Littoral Mission Ships
MAF	Malaysian Armed Forces
MALE	Medium Altitude Long Endurance
MCSS	Malaysia Cyber Security Strategy
MDA	Maritime Domain Awareness
MFH	Malaysia Field Hospital
MINDEF	Ministry of Defence
MMEA	Malaysian Maritime Enforcement Agency
MoU	Memorandum of Understanding
MPA	Maritime Patrol Aircraft
MRCA	Multi Role Combat Aircraft
MRO	Maintenance, Repair and Overhaul
MRSS	Multi Role Support Ship
MSP	Malacca Straits Patrol
MSSP	Malacca Straits Sea Patrol
NACSA	National Cyber Security Agency
NCO	Network Centric Operation
NDIP	National Defence Industry Policy
NDP	National Defence Policy
NGPV	New Generation Patrol Vessels
NSP	National Security Policy
OBUA	Operations in Built-Up Areas
PKO	Peacekeeping Operations
R&D	Research and Development
RKAT	*Rumah Keluarga Angkatan Tentera*
RMAF	Royal Malaysian Air Force
RMN	Royal Malaysian Navy
RTKP	Strategic Defence Capacity Plan (*Rangka Tindakan Kapasiti Pertahanan*)
SAR	Search and Rescue
SATCOM	Satellite Communication
Sec-Gen	Secretary General
SKRL	Singapore-Kunming Rail Link
SLOC	Sea Lines of Communication
SME (PKS)	Small and Medium Enterprises (*Perusahaan Kecil dan Sederhana*)
STRIDE	Science and Technology Research Institute for Defence
TCA	Trilateral Cooperative Arrangement
UN	United Nations
UNHRD	United Nations Humanitarian Response Depot
UNIFIL	United Nations Interim Force in Lebanon
US	United States of America
WFP	World Food Programme
WMD	Weapons of Mass Destruction
ZOPFAN	Zone of Peace, Freedom and Neutrality

Ministry of Defence

ISBN 978-967-16437-6-1