CHAIRMAN'S REPORT
TRACK II NETWORK OF ASEAN DEFENCE AND SECURITY INSTITUTIONS (NADI) WORKSHOP
ON
EMERGING TECHNOLOGIES AND ITS IMPACTS TO DEFENCE AND SECURITY

29 – 30 September 2021
Via Video-Teleconference

Sultan Haji Hassanal Bolkiah Institute of Defence and Strategic Studies (SHHBIDSS), Brunei Darussalam

INTRODUCTION

1. The Track II Network of ASEAN Defence and Security Institutions (NADI) Workshop entitled Emerging Technologies and its Impacts to Defence and Security was organised by the Sultan Haji Hassanal Bolkiah Institute of Defence and Strategic Studies (SHHBIDSS), Ministry of Defence, Brunei Darussalam. It was held virtually at SHHBIDSS, Brunei Darussalam on Wednesday, 29 September 2021 to Thursday, 30 September 2021.

2. The representatives from Brunei Darussalam, Kingdom of Cambodia, Republic of Indonesia, Lao People's Democratic Republic, Malaysia, Republic of the Union of Myanmar, Republic of the Philippines, Republic of Singapore, Kingdom of Thailand and Socialist Republic of Viet Nam attended the workshop through virtual conference due to current COVID-19 pandemic restrictions. The full list of the participants is attached as **Appendix I**. The meeting was chaired by Mr Jolkipli bin Haji Hidop, Acting Director of SHHBIDSS.

Welcoming Remarks by the Chair of NADI, Mr Jolkipli bin Haji Hidop, Acting Director of SHHBIDSS, Ministry of Defence, Brunei Darussalam

3. In welcoming all NADI Head of Delegations and delegates to the NADI workshop, Mr Jolkipli stated the importance of technology and how technology has become a necessity as evident in the way the workshop was conducted. Mr Jolkipli was pleased to share that the use of Artificial Intelligence (AI) in Southeast Asia has been adopted by more than 80 percent of institutions and organisations across all sectors. AI is expected to be prominent in defence and security, creating a paradigm shift in the regional security architecture.

4. From the workshop, Mr Jolkipli hoped to achieve three-pronged outcomes; I) a joint research paper that can contribute to better understanding of emerging technologies; II) to better understand impacts of emerging technology in defence and security and III) present the findings to Track I in assisting them to make informed and justifiable decision.

ADOPTION OF AGENDA

5. The workshop adopted the agenda and the programme, which are attached as **Appendix II** and **Appendix III** respectively.

EXPLORING THE IMPACTS OF EMERGING TECHNOLOGIES IN THE DEFENCE AND SECURITY

Lao People's Democratic Republic

Presenter: Brigadier General Viengxay Somvichit, Director General of Military Science and History Department (MSHD), Ministry of National Defence

6. Brigadier General Viengxay Somvichit highlighted that emerging technologies bring the potential to not only economic development, medical science, industries, telecommunications but also military capacity building for defence and security. However, such technologies could become a tool for criminals to commit crimes.

7. He also stressed that the disparity in technological development and advancement among ASEAN Member States (AMS) is one challenge faced by ASEAN as a whole on its preparedness for rapid development in technologies. To overcome the challenges of emerging technologies, ASEAN defence and security sectors could strengthen their cooperation among ASEAN and ASEAN partners. Brigadier General Viengxay Somvichit concluded by providing some recommendations for resolving the constraints and gaps of modern military development within ASEAN. As such, ASEAN should strengthen its capacity and resilience, and engage in joint military technology exercises through existing ASEAN-led mechanisms. Additionally, NADI should consider creating an action plan in responding to emerging technologies, organise joint consultative meetings and increase cooperation within ASEAN think-tank institutions, researchers and defence academies in the region.

Malaysia

Presenter: Colonel Dr Nizlan bin Mohamed, Director of Contemporary Security, Malaysian Institute of Defence and Security (MiDAS), Ministry of Defence

8. Colonel Dr Nizlan bin Mohamed highlighted how the diversity of emerging technologies has increasingly enmeshed the fabric of daily work and lives, and consequently into the context of defence and security. The significance of endorsing the intersection between human capacity development, advanced technologies and environmental conditions is vital to develop regional peace, security and stability. Inevitably, the challenges of the cyber domain remain evident from internal and external cyber threats that seek comprehensive measures to be undertaken. Amid Industry 4.0, Malaysia's National Cyber Security Agency (NACSA) is proactive to enhance defence resilience and cyber security. This is achieved by accelerating investment, coordination and enforcement towards active response strategy across the board at the national, state, corporate and community levels.

9. Strategically, AMS adheres to these circumstances in which Malaysia proposes setting up a regional task force centre that capitalises operational, human capability enrichment and digital media space. Echoing the ASEAN Defence Ministers' Meeting (ADMM) platform, the indispensable form of the ASEAN Cyber Defence Network (ACDN) is relevant to fulfil the wider horizon of cyberspace exploration by leveraging AMS cyber defence capabilities and

expertise. Henceforth, to encapsulate ASEAN centrality beyond the Asia-Pacific region, the need to collaborate and synergise collective efforts and resources is crucial for sustainability deliberations.

Kingdom of Thailand

Presenter: Group Captain Choosak Kasatewit, Director of Regional Studies Division, Strategic Studies Center (SSC), National Defence Studies Institutes, Royal Thai Armed Forces

10. Group Captain Choosak Kasatewit stated how emerging technologies are becoming a key component for future wars. Emerging technologies such as AI, robots and autonomous weapons, space technology, hypersonic weapons, quantum technology, and nanotechnology, can have a disruptive impact on modern-day warfare. These impacts include bringing in new paradigms, challenges, and domains of warfighting – making operational concepts and doctrines redundant.

11. Emerging technologies potentially affect the nature of warfare in terms of balance of power, engagement, movement, protection, communication, sustainment, surveillance and intelligence, human resources, and military strategy and doctrine. Despite the opportunities, some of the challenges include issues of ethical, moral and legal considerations, and potential of a high-tech arms race amongst major powers.

12. In order to deal with the challenges, some of the recommendations put forward by Group Captain Choosak Kasatewit were:

a) The ADMM and ADMM-Plus should be a forum to discuss the development and use of emerging military technologies with ethical and constructive manners;
b) ASEAN should focus on emerging military technologies through: (I) boosting research, development and innovation; (II) invest in the development of science and technology capabilities; and (III) increase ASEAN technology and industrial competitiveness in defence and dual-use industry through ASEAN Defence Industry Collaboration (ADIC) to reduce dependencies in critical technologies from outside the region;
c) AMS should inform the public about real societal challenges of emerging military technologies and consider the potential of multilateral initiatives that could bring about peace, stability and prosperity in the region.

Kingdom of Cambodia

Presenter: Brigadier General Phorn Rithysak, Deputy Director of Department of Telecommunications, Ministry of National Defense

13. Emerging technologies such as AI, space technologies, quantum computing, hypersonic weapons, and unmanned vehicles are reshaping the future of military operations and the strategic landscape of global security. Given the enormity of risks involved by the weaponisation of these emerging technologies, strong efforts are required from country leaders, policymakers, as well as all relevant stakeholders around the world to undertake this matter seriously and

promptly.

14. Given their cosmic futuristic potentials, all stakeholders in the region must accelerate and intensify coordination and collaboration to ensure that these technologies are enhanced, rather than degraded. This is especially the case, particularly in policymaking and regulations to ensure that mechanisms for engagement are established amongst ASEAN nations and partner nations.

15. Under the defence and security framework, ADMM, ADMM-Plus and its bodies should consider enhancing practical cooperation in the area of technology, beyond the existing cooperation under ADMM-Plus EWG on cybersecurity. Disruptive technology entails challenges for national and regional security if ASEAN does not have a proper mechanism to manage or cooperate to create a common understanding about this issue. Given the wide technological gap amongst ASEAN countries, AMS as well as the Plus Countries need to further work together through open dialogue, collaboration and cooperation in tackling these common challenges together.

Republic of the Union of Myanmar

Presenter: Major General Myint Kyaw Tun, Deputy Chief of the Armed Forces Training (Strategic Studies), Office of the Chief of Armed Forces Training (OCAFT), Myanmar Armed Forces

16. Major General Myint Kyaw Tun in his presentation mentioned the need to better understand how past and emerging technologies have fundamentally changed the defence and security sector. He also mentioned that almost all emerging technologies are dual-use and significantly impacts the defence and security sector positively and negatively. Additionally, he highlighted that AI, quantum technology, autonomous systems, robotics, nanotechnology sensors, cyberwarfare technology, directed-energy weapons, space technologies, and additive manufacturing are some examples of emerging technologies that may have a great potential impact on the defence and security sector.

17. In addition, he also mentioned that emerging technologies can change the environment in which military forces operate, balance of power and create new forms of insecurity. He also stated that emerging technologies may play a critical role in the arms race that can deteriorate global peace and security. He further advised that ASEAN should be aware of great-power competition in Southeast Asia. In this regard, ASEAN should seek ways to maintain its own centrality and proactive role as the primary driving force in its relations and cooperation with external partners as great powers attempt to manipulate technologies in order to gain advantage in their rivalry. In conclusion, he stressed that ASEAN should not be a battlefield where the great powers exploit it as a laboratory for experimenting their new technologies.

Socialist Republic of Viet Nam

Presenter: Major Le Huu Hai, Researcher, Institute for Defence Strategy (IDS), Ministry of National Defence

18. Major Le Huu Hai underlined how the world is witnessing an unprecedented race between

countries in developing several key technologies. This is expected to pose a profound impact on every aspect of human life, including; robotics, AI and automation, advanced materials and manufacturing, mixed reality and synthetic environments, hypersonic technologies, and soldier enhancement systems. These emerging technologies are forecasted to further develop, become an important driving force in facilitating economic development and improve quality of life, but will also bring some challenges to people's daily lives.

19. In the defence and security landscape, emerging technologies not only bring opportunities but also present many challenges due to uncertainties. The development of emerging technologies is putting the world at risk of an arms race as well as bringing about concerns to the international order and balance of power. Widespread application of emerging technologies in all aspects of social life also poses many challenges to non-traditional security areas. Even though the trend of emerging technologies in the defence and security landscape is highly promising, they are still facing a number of ethical, legal and operational concerns. Without the collective effort of the whole community, no single country will be able to succeed in managing emerging technologies by itself. The international community needs to cooperate to ensure that emerging technologies are used responsibly; benefits are shared equitably while risks are appropriately managed.

EXAMINING UNMANNED SYSTEM AND CYBERSECURITY IN THE AGE OF AI

Brunei Darussalam

Presenter: Ms Siti Nurnabilah binti Haji Abdul Rahman, Research Officer, SHHBIDSS, Ministry of Defence, Brunei Darussalam

20. Ms Siti Nurnabilah began her presentation by examining the developments and progress of AI in the defence and military sector highlighting US, China and Russia as the three forerunners in actively pursuing military AI applications. Coupled with the embracement of the Fourth Industrial Revolution and high drive towards military modernisation in the ASEAN region, promises of AI provide a great opportunity to deliver substantial impacts in the defence and security sector in the region. The integration of AI in the defence and security domain, such as intelligence, surveillance, and reconnaissance (ISR), cybersecurity and logistics, could offer a means to tackle information overload, improve warfare capabilities, accelerate decision-making and further augment confidence in military capabilities. While acknowledging the potential benefits AI offers to the defence and security sector, concerns involving ethical, legal, costs as well as technical aspects of deploying AI in the military sector were also raised.

21. She further discussed the beneficial and detrimental impacts of AI in the defence and security realm, as follows:

a) AI as a supporting role for national efforts in combating not just traditional but also non-traditional security (NTS) issues in strengthening the country's defence and security;
b) AI possibilities in widening the vulnerabilities to new emerging threats such as malicious actors in cyber-attacks and the use of deepfake technologies – generating false information;
c) The integration of AI could engender security dilemmas as countries embark on their ambitious AI agenda as can be witnessed from the competition between major powers over

respective AI national efforts.

22. As a way forward, Ms Siti Nurnabilah proposed the following recommendations for consideration:

a) To utilise existing ASEAN-wide master plans and initiatives to further discuss and develop best practice guidance on AI governance and ethics, such as identifying gaps or risks in measures or regulations to cater for the development of AI-enabled systems;
b) ASEAN defence cooperation plays a key role to continuously engage between AMS and partners to align efforts and initiatives, as well as establish agreed norms and regulations in regards to the applications of military AI. At the same time, through this platform, further discussions on practical cooperation in the preparation of integration of military AI through joint exercises and simulations to enable sharing of information and best practices in the field of AI;
c) Multinational collaboration in military AI Research and Development to bridge the gap for researchers in developed and developing countries specifically in areas of military AI, giving opportunities to developing countries that have less capacity to obtain AI skills and contribute to global AI development;
d) The need for multilateral dialogue to establish international legal and ethical frameworks for AI.

Republic of Indonesia

Presenter: Brigadier General Jhonny Djamaris, S.IP, M.IP, Head of Center for Strategic Studies, Research and Development of Tentara Nasional Indonesia (CSSRD-TNI)

23. Brigadier General Jhonny Djamaris highlighted that in regards to AI development in ASEAN, it is necessary to acknowledge that the use of technology is inevitable as it provides solutions for human life. However, it is important to look at the aspects that are challenging for the defence sector of AMS. At the current stage, AMS defence sectors do not possess the same capacity to compete with major external countries that pose challenges to the region. Therefore, to ensure peace and order and enhance joint situational awareness, cooperative efforts are required to strengthen defences against threats that may arise from the development of AI.

24. Therefore, he recommends to strengthen cooperation in military AI:

a) By encouraging the establishment of common ethical norms. For instance, maintaining human supervision in the use of military AI;
b) To establish ADMM-Plus Experts' Working Group (EWG) on AI to formulate general norms governing ASEAN cooperation in anticipating AI developments, particularly in regulating ethics that may be applied in automated weapons for AMS, and Plus Countries involved in the Southeast Asian region;
c) To utilise the ADMM-Plus EWG on Cyber Security as a situational awareness centre for defence against AI-enabled cyber threats.

Republic of the Philippines

Presenter: Brigadier General Edgardo C Palma PA (MNSA), Chief, Office for Strategic Studies and Strategy Management (OSSSM), Armed Forces of the Philippines, Department of National Defense

25. Brigadier General Edgardo C Palma PA underlined how the steady march of technological innovation has resulted in the intensified use of drones or unmanned aerial vehicles (UAVs) in military and non-military contexts. In the Philippines, drones have been used to cater to compelling needs such as humanitarian assistance and disaster response (HADR), ISR against terrorists in an urban setting, as well as maritime security.

26. However, he asserted that the same technological progress brings about an array of ethical, legal, and political questions. Drones that are made to be armed and lethal, especially when governed by AI endowed with a great measure of autonomy, invite policy questions covering:

a) State's monopoly use of legitimate force;
b) Definition and operationalisation of "meaningful human control" and;
c) Access to such weapons by non-state actors, attribution, and accountability.

27. The ADMM is therefore encouraged to consider the use of algorithm audit, promote Arms Trade Treaty (ATT), promote existing ASEAN community-building initiatives, coordinate with the ASEAN Economic Community (AEC) and with ADMM Plus Countries, especially those with relatively advanced AI technology.

Republic of Indonesia

Presenter: Dr Arie Sukma Jaya, S.T., M. Eng, Researcher, Republic of Indonesia of Defence University (RIDU)

28. Dr Arie Sukma Jaya presented findings by RIDU on regional security challenges which arise from the development of unmanned systems. The study suggested that the hostile and illegal operations of unmanned systems becomes a real and common threat for regional defence and security among ASEAN members. In terms of regulation, the study emphasised that there are no common interests in the regulation of hostile and illegal operations of unmanned systems among ASEAN members. Furthermore, the study indicated that ASEAN members have limited knowledge and competency to encounter the hostile and illegal operations of unmanned systems in Southeast Asia.

29. Based on the research findings, he recommended several actions by ASEAN. Firstly, ASEAN should broaden its cooperation to include building mutual understanding and joint action against hostile and illegal operations of unmanned systems in Southeast Asia. Secondly, ASEAN should initiate a working group within the ADMM platform to implement its cooperation against hostile and illegal operations of unmanned systems. Lastly, ASEAN should conduct joint academic initiatives, as well as research and development on unmanned systems technology for common interests to counter hostile and illegal operations of unmanned systems in the region.

Republic of Singapore

Presenter: Mr Eugene Tan, Associate Research Fellow, Centre of Excellence for National Security, S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University (NTU)

30. In his presentation, Mr Eugene Tan underscored the mounting risks posed by both cyber threats and disinformation campaigns. He noted that communication and dialogue with all stakeholders on cybersecurity and disinformation issues should be heightened as societies are increasingly becoming reliant on technology for economic growth, education, social interaction, and government communications. He stressed the importance of discussing disinformation and cybersecurity as separate concepts because the targets and proposed solutions are different. As states become more confident in grappling with issues stemming from information and communication technologies, Mr Tan warned about the dangers of any disproportionate response to an incident. To prevent this, he noted the need to deepen cyber diplomacy among AMS, which includes a greater role in building consensus over international law and norms for cyberspace, confidence building, and capacity building measures.

31. Mr Tan put forward the following policy recommendations for the ADMM's consideration:

a) The defence establishments of AMS should play supporting roles to their respective national civilian agencies in tackling cyber threats and disinformation;
b) AMS should consider adopting whole-of-government approaches when dealing with cybersecurity and disinformation issues, including the promotion of media literacy among their respective populations, conducting fact-checking against potential online falsehoods, and strengthening cyber deterrence against hackers and other cyber criminals;
c) The ADMM can leverage on existing platforms, such as the ADMM Cybersecurity and Information Centre of Excellence (COE) and ASEAN Cyber Defence Network (ACDN) to see how they can better synergise and coordinate their actions. In this regard, the ADMM, in concert with civilian agencies, can promote the development of cyber confidence building measures and capacity building among AMS and;
d) ASEAN defence establishments should also collaborate with research and academic institutions, as well as relevant government agencies, to develop voluntary and non-binding norms for responsible state behaviour, and contribute to international law governing cybersecurity.

Malaysia

Presenter: Professor Dato' Dr BA Hamzah, Director of Centre for Defence and International Security Studies, National Defence University of Malaysia (NDUM)

32. Professor Dato' Dr BA Hamzah stated that the world currently lives in an age of digital interdependence where technologies are rapidly transforming societies and economies of nation states with unprecedented challenges to human security. The advent of dual technologies for commercial and military purposes at exponential rates like robotic process

automation, AI, internet of things (IoT), autonomous systems, drones, and big data, to name some, is a challenge that no single society or nation can successfully overcome alone.

33. These emerging technologies are already embedded in the DNA of societies which struggle very hard to keep up with the speed and range of change. As an example, he used the case of cyber-attacks worldwide. The number of cyber-attacks, according to one source, has risen by 180 percent between 2018 to 2019. The frequency of cyber-attacks is postulated to rise to 11 seconds in 2021, up from 14 seconds in 2019 and 39 seconds two years before. Although lately, the motivation for cyber-attacks (for example, by ransomware) is mainly for financial gain. Further, he highlighted how cyber-weapons and AI-enabled weapons can pose a security threat to humanity. As force multipliers, they are among the most feared in the internet-dependent world i.e., cyberspace.

34. The way forward for ASEAN is to develop regional collective mechanisms to address the legal, ethical, economic, and military footprint of emerging digital technologies to minimise their harmful impact on societies and the security of nation states, and optimise their benefits. To be effective, these cooperative mechanisms must address the needs of civil society, government, academia, and the private sector in a transparent, accountable, and in an inclusive way.

SUMMARY OF DISCUSSIONS

35. NADI delegates exchanged views on the adaptation and impacts of emerging technologies in defence and security, as well as explored the developments of unmanned systems and cybersecurity in the age of AI:

Opportunities in Enhancing Military Capabilities

a) Recognised the different forms of emerging technologies and its dual use to benefit both the civilians and military sector. These include cyber technology, AI and automation, robotics, unmanned systems, quantum technology, nanotechnology, autonomous weapons, advanced materials and manufacturing, mixed reality and synthetic environments, space technology, hypersonic technologies, directed energy weapons, and soldier enhancement systems.

b) Noted that these emerging technologies would enable militaries to enhance existing capabilities in areas such as ISR, communications, logistics, HADR operations, counterterrorism efforts, maritime security, and military strategy and doctrines.

Challenges to Applying Emerging Technologies in Military

c) Noted that in incorporating emerging technologies, it may be challenging to define and operationalise human intervention.

d) Acknowledged the growing dependence of society on technologies in the cyber domain. Thus, a targeted approach is required to overcome heightening cyber threats in the future.

Technological Arms Race

e) Noted that the development of emerging technologies may place the world at risk of an arms race. This technological advancement can be observed as an extension of existing geopolitical rivalry between major powers in the region.

f) Viewed that the rapid technological developments can influence the present defence and security architecture, and global international order.

ASEAN Centrality in Steering Technological Advancement

g) Acknowledged ASEAN's drive in adapting to the Fourth Industrial Revolution, and the need to overcome the disparity in technological development among AMS through cooperation and capacity building measures.

h) Observed that there is limited governance concerning application and use of emerging technologies in the region, and acknowledged that such issues are highly sensitive. Hence, there is a need for continuing study on the ethical, policy and legal implications arising from emerging technologies.

i) Ensure that ASEAN strengthens its capacity and resilience in facing the potential challenges from emerging technologies, and underlined the importance for collaboration to implement ASEAN-led sustainable measures and solutions.

ASEAN Collective Action

j) Need to enhance collective action of ASEAN member states in addressing the complex externalities that may arise from the growing military use of emerging technologies, including AI.

RECOMMENDATIONS

36. NADI agreed the following recommendations for the consideration of the ADMM:

Importance of Multilateralism

a) Stress the role of the international community through active engagement and dialogue to ensure that emerging technologies are used responsibly; benefits are shared equitably while risks are appropriately managed for peace, stability, and prosperity in the region.

Building Technological Capacity in the Region

b) Underscore the importance of a whole of government approach in dealing with cybersecurity and disinformation issues. The public and private sectors could work together as partners to enhance cooperation in managing these issues.

c) View that defence establishments of AMS should play supporting roles to their respective national civilian agencies in tackling cyber threats and disinformation.

d) Enhance technology and industrial collaboration in ASEAN through the ASEAN Defence Industry Collaboration (ADIC) committee to minimise regional disparity and reduce over-dependence on external sources.

e) View the importance of promoting current ASEAN-led initiatives and cross-sectoral coordination on technology.

Strengthening ASEAN Defence Cooperation

f) Consider constructive discussion on development and the ethical use of emerging military technologies through ADMM and ADMM-Plus platforms.

g) Reaffirm the importance of ADMM and ADMM-Plus in enhancing practical cooperation in the area of emerging technologies. This includes leveraging existing platforms such as the ASEAN Cyber Defence Network (ACDN), and ADMM Cybersecurity and Information Centre of Excellence (COE).

h) In supporting the ADMM, NADI may consider collaborating in addressing issues related to emerging technologies within ASEAN think-tank institutions, researchers and defence academies in the region. This may include ethical, policy and legal implications.

i) Propose utilising existing platforms, such as the ADMM-Plus EWG on Cyber Security as a forum to discuss AI-enabled cyber threats.

OTHER MATTERS

Future NADI Activities

37. The workshop welcomed and agreed to the following activities:

Date	**Activities**	**Country**	**Via**
12 – 13 October 2021	NADI Workshop: *Value and Role of Military History in Enhancing and Maintaining Peace, Security and Practical Cooperation in the Region*	Cambodia	VTC
15 – 17 November 2021	NADI Workshop: *Research and Development in the Region as a Momentum in Strengthening Defence Cooperation*	CSSRD-TNI, Indonesia	VTC
16 – 17 December 2021	NADI Workshop:	NDCP,	VTC

	ASEAN Centrality in Era of Great Power Competition	Philippine	
21 – 22 March 2022	15th NADI Annual Meeting / 7th NADI Retreat	Cambodia	VTC
April 2022	NADI Workshop: *Climate Change (TBC)*	Brunei Darussalam	VTC
June 2022	NADI Workshop: *TBC*	Thailand	VTC
End of July 2022	NADI Workshop: *TBC*	Singapore	VTC
November 2022	NADI Workshop: Cyber Threat and Its Impacts to National and Regional Security in Southeast Asia	CSSRD-TNI, Indonesia	Physical

CLOSING SESSION

Farewell Remarks by outgoing Head of NADI Thailand, Air Vice Marshal Poomjai Leksuntarakorn, Director, Strategic Studies Center (SSC), National Defence Studies Institutes, Royal Thai Armed Forces, Kingdom of Thailand

38. He began his remarks with his appreciation to the NADI community, as well as the conduct of various NADI activities. He also recalled Thailand's achievements during his time in office including SSC's NADI engagement in 2012 under his first stewardship, and becoming host for the 12th NADI Annual Meeting in Chiang Mai, Thailand in 2019.

Concluding Remarks by the Chair of NADI, Mr Jolkipli bin Haji Hidop, Acting Director of SHHBIDSS, Ministry of Defence Brunei Darussalam

39. In his concluding remarks, Mr Jolkipli expressed appreciation for commitments of NADI members in their contribution towards the constructive discussion in emerging technologies. He emphasised the need to realise and adjust to the technological transition.

40. At the end of the workshop, NADI members also congratulated SHHBIDSS, as the hosting think tank for organising yet another successful and informative workshop.