

CHAIRMAN'S REPORT
TRACK II NETWORK OF ASEAN DEFENCE AND SECURITY
INSTITUTIONS (NADI) WORKSHOP
ON
ADDRESSING CLIMATE CHANGE HOLISTICALLY: WAY FORWARD FOR
DEFENCE-FOCUSED CONTRIBUTION

17 – 18 May 2022
Via Video-Teleconference

Sultan Haji Hassanal Bolkiah Institute of Defence and Strategic Studies,
Ministry of Defence, Brunei Darussalam

INTRODUCTION

1. The Track II Network of ASEAN Defence and Security Institutions (NADI) Workshop titled as “**Addressing Climate Change Holistically: Way Forward for Defence-Focused Contribution**” 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 from Tuesday, 17 May 2022 to Wednesday, 18 May 2022.
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 COVID-19 pandemic restrictions. The full list of the participants is attached as **Appendix I**. The meeting was chaired by Mr Abdul Malik Kamis, Acting Director of SHHBIDSS.

Welcoming Remarks by the Chair of NADI Workshop, Mr Abdul Malik Kamis, Acting Director of SHHBIDSS, Ministry of Defence, Brunei Darussalam

3. Mr Abdul Malik Kamis in his remarks underscored the significance of addressing climate change and working collectively towards mitigating its impacts as it has greatly affected the region. This subject is not a novelty for the members of NADI as it was once discussed during a NADI workshop by the Institute for Defence Strategy (IDS), Ministry of National Defence of Vietnam in 2019.
4. In advancing the climate change agenda in the region, there is a need to acknowledge how the impacts of climate change have affected the defence and military sector in many ways, first on the military’s readiness and operations and secondly, in their roles as first responders in areas of Humanitarian Assistance and Disaster Relief (HADR).

ADOPTION OF AGENDA

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

SESSION I: KEYNOTE ADDRESS

Delivered by: **Mr Ahmad Zaiemaddien bin Pehin Datu Lailaraja Major General (Retired) Dato Paduka Seri Haji Awang Halbi, Head of Brunei Climate Change Secretariat, Ministry of Development, Brunei Darussalam**

6. Mr Ahmad Zaiemaddien highlighted that climate change is a key issue that impacts everyday lives. 2018, 2019 and 2020 were observed as the warmest years since records began. On a global level, no reduction in emissions will result in a temperature increase of up to 4 degrees by the end of the century, and it is imperative that global temperature rise should be limited to 1.5 degrees. In such a scenario, food security will be compromised as droughts will aggressively impact agriculture and resilience of crops – placing people from vulnerable backgrounds further at risk. Further, the melting of polar ice caps will result in global sea level rise to at least 1.3 metres by 2100. Southeast Asia is particularly at risk to sea water intrusion as sea level rise is projected to rise faster than any other parts of the world – placing 450 million people living in coastlines at risk.
7. Brunei Darussalam has not been exempted from the impacts of climate change. Mean temperatures have been increasing in Brunei Darussalam at a rate of 0.25 degrees per decade and may reach 4 degrees by the end of the century. The country has also experienced an increase of rainfall and saw an upward trend in floods, forest fires, major landslides and strong winds.
8. The speaker further emphasised that as climate change continues to impact daily livelihoods, the effects will transcend to the defence sector and militaries. The strategic location of military bases will be at an immediate threat from sea-level rise. Additionally, as climate change alters the geo-strategic environment, it will further increase the complexity of forces engaged in conflicts especially in unfamiliar territories and unpredictable environments. As such, it is important to:
 - a) Ensure defence can operate under changing climate conditions through integration of climate-informed strategic planning and decision making;
 - b) Train and equip climate-ready forces to operate effectively in all anticipated climatic conditions;
 - c) Develop resilient and natural infrastructures necessary for successful mission-preparedness, military readiness, and operational success in rapidly changing conditions; and
 - d) Safeguard stability through supply chain resilience and innovation – ensuring uninterrupted access to key supplies, materials and services.

SESSION II: CLIMATE CHANGE AND CHALLENGES FOR STABILITY

Brunei Darussalam

Presenter: **Mr Muhammad Umair Akmal bin Haji Noor Ahsffian, Research Officer, SHHBIDSS, Ministry of Defence**

9. Mr Muhammad Umair Akmal presented that climate change is increasingly reshaping the

geostrategic, operational and tactical environments with significant implications for security and defence. The threats of the modern world made worse by rising seas, extreme weather and creeping desertification, will almost certainly affect geo-politics and can lead to more conflict. Existing hotspots such as the South China Sea may see a change in its security landscape through fishing and an influx in foreign vessels such as by China's pseudo-military instruments. Further, a new frontier in the Arctic may also pose a threat to the international world order as countries strive for control over new trade routes and untapped natural resources. As such, the defence and security sector will have to adopt new political and security measures to ensure it stays on top of operational readiness.

10. The Southeast Asian region will not be exempted from the effects of climate change especially as it is located directly along the equator and will be most susceptible to climate change. More importantly, it will be vulnerable to sea level rise. In a scenario where the world exceeds climate targets beyond 1.5 degrees, the region may see further inundation of at least 79 million of its population and estimates from the International Monetary Fund and the ASEAN Central Bank predicts that climate change could further decrease Southeast Asia's overall GDP by over 11 per cent. As such, it is necessary for ASEAN to invest in measures to limit its impact to climate change. This can be undertaken through the adoption of new technologies, the 'greenification' of the armed forces and switching to a more alternative energy source.

Republic of Indonesia

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

11. Major General Jhonny Djamaris highlighted that the effects of climate change on the challenges for regional stability lies in the climate change adaptation framework, which is inseparable from the aspect of political interest in the climate change adaptation policy-making mechanism. Therefore, ASEAN member states (AMS) need to act immediately to implement the decarbonisation programme, including by providing greater funding. In addition, it also establishes a carbon market boundary programme with high standards combined with technology. Thus, ASEAN must immediately reduce carbon emissions.
12. Therefore, the presenter recommended that ASEAN needs to:
 - a) Commit to the ASEAN taxonomy for sustainable finance. The ASEAN taxonomy emphasises all the AMS finance sustainable economic activities, as well as represents the collective commitment of ASEAN states towards the transition to a sustainable region;
 - b) Promotes green energy programmes such as encouraging new renewable energy projects in ASEAN, mass tree planting and reducing plastic consumption;
 - c) Strengthen AMS military and civil cooperation for disaster relief management that caused by climate change;

Malaysia

Presenter: **Lieutenant Colonel Dr Maimunah binti Omar, Assistant Director Contemporary Security, Malaysian Institute of Defence and Security (MiDAS)**

13. Lieutenant Colonel Dr Maimunah underscored climate change as one of the greatest threats to long-term regional stability in Southeast Asia. It is estimated that by 2050, daily high tides will flood some areas where over 48 million people in Southeast Asia now live, while predicted average annual flood levels would inundate the homes of over 79 million people. At the same time, the direct threats of sea-level rise and superstorms will compound food and water insecurity throughout the region. All of these impacts, which will disproportionately affect the communities, will contribute to political instability and damage local and national economies and also pose a threat to human security.
14. For future improvement on our action regarding climate change, MiDAS proposed three main elements as follows:
 - a) Establishing climate change research team—utilising science and technology institutions;
 - b) Sharing of information between experts through seminars, forums and others;
 - c) Activating and strengthening ASEAN cooperation on climate change that is guided by ASEAN socio-cultural community (ASCC) Blueprint 2025 and others (environmental sustainability issues). Under this umbrella, ASEAN could strengthen cooperation on environmental protection with a more integrated and directed approach such as utilising technologies, focus on awareness promotion and improve the understanding of climate change, review and revisit some of the policies if needing new inputs and/or amendments, enhanced coordinated community engagement, and monitor and evaluate the output of its implementation.

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**

15. Major General Myint Kyaw Tun mentioned that greenhouse gas emissions are more than 50 per cent higher than in 1990, global average temperature has increased, and global warming is causing long-lasting changes to the climate system. There is an urgency in focusing on, not only human-induced climate change but also in addressing the impacts of this climate variability on the global populations, especially millions of vulnerable people that will be directly or indirectly affected. He also noted that climate change worsens existing social, economic and environmental risks that can fuel unrest and potentially result in conflict.
16. He further highlighted that competition for access to essential natural resources such as water and arable land, which will be constrained in some regions due to climate change, can lead to instability and even violent conflicts. The increased insecurity of people who rely on natural resources for their livelihood is likely to induce climate related migration. He also mentioned that climate change will reduce grazing land, dry up water resources, and threaten jobs connected to climate-sensitive economic sectors, which could also push people to turn to

illegal sources of income. Climate change alters the world's physical and geopolitical landscapes. He stated that the risks of conflict and instability will increase, and become more difficult to manage if governments are unable to mitigate climate change.

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*

17. Brigadier General Edgardo C Palma PA's presentation was divided into four parts: The first part revolved around the role of climate change in politics in three different time frames. In the past, the impacts of climate change had resulted to political upheavals and the collapse of empires and civilisations; whereas in the present climate change has led to severe catastrophic natural events and brought about social and environmental implications; and in the future will likely bring endless natural disaster events and mass displacement of people. Here, the role of Kyoto Protocol is crucial in establishing an environmental mitigating policy. Next, the presenter emphasised how climate change has affected several sectors in the Philippines such as the sectors of water resources, energy, coastal ecosystems, urban infrastructures, and human health. These sectors are supported under the Philippine Development Plan for 2017-2022 and participation to various international initiatives such as the Paris Agreement.
18. In the third part of the presentation, he further underscored how climate-induced crisis affects societal stability on three areas of focus. First is food security, where malnutrition and increase in food prices will have an effect to the poorest and most vulnerable of people. Second is the issue on water security, where extreme drought may cause water scarcity and water resource conflict that will likely affect global migration. Final emphasis was placed on emergency response security, where the absence of a super coordinating body, lack of information sharing protocols, and absence of communication platform will lead to further institutional problems. For the final part, as part of the recommendations, for food security there is a need to update the ASEAN Integrated Food Security framework, sustain agriculture and food cooperation, and operationalise climate change responses to ensure food security. As for water security, there is a need to pursue effective disaster governance, engage in more participatory dialogue, and prepare regional contingency plans. Lastly, to address emergency response security, there is a need to ensure a comprehensive and robust disaster management and emergency response system, strengthen partnership and innovation with counterparts, and forge strong relationships with international community.

SESSION III: CLIMATE CHANGE AND ITS IMPACT TO DEFENCE AND SECURITY

Republic of Indonesia

Presenter: *Colonel Engineer Helda Eisman, M. Han., CIQaR, Secretary of Total War Strategy Study Program, Defense Strategy Faculty, Republic of Indonesia of Defence University (RIDU)*

19. Colonel Engineer Helda Eisman stated that the climate change impact on the military can be seen in two main aspects, through military planning and military asset management. From the

planning aspect, climate change has increased the defence budget to anticipate (mitigation and adaptation) that climate change impacts war and other than war military operation. While from the military asset management aspect, the impact has disrupted the function of military assets, such as infrastructures, equipment, and facilities.

20. To respond to the phenomenon, the military needs to have some efforts at the policy, strategy, and operational levels to achieve desired future military capabilities. Due to the climate change characteristics transcending beyond state boundaries, there will be a need for multilateral cooperation to minimise the impacts of climate change to military institutions. The multilateral framework can be reached by cooperation in research, training and education, joint operations, and strengthening defence diplomacy.

Malaysia

Presenter: ***Lieutenant General (Retired) Dato' Fadzil Bin Mokhtar, Teaching Fellow at Centre for Defence and International Security Studies (CDISS), National Defence University of Malaysia (NDUM)***

21. Lieutenant General (Retired) Dato' Fadzil highlighted that climate change poses two types of impacts to the military. Firstly, its impact on the readiness and operations as climate change will take a toll on military bases, installations, personnel and equipment. Coastal military bases and those located in low lying areas inland will be prone to flooding as the sea level rises – damaging military real estate, assets and infrastructure. Flooding can also damage critical civilian infrastructure supporting those bases, disrupting military activities and hindering the rapid mobilisation of resources from those areas. Rising temperature, on the other hand, can undermine the health and fitness of troops, making it challenging for field training and degrading readiness for mission performance. Extreme heat can similarly affect the functioning of weapons platforms and other mechanical/electronic equipment, placing burdens on logistical capacity and subjecting the operational life of those systems to greater stress. Secondly, climate change will see a demand for the military to be the first responders in natural disasters, and the increase in the frequency of such events will place more pressure on the military, hastening the wear and tear of critical military assets and degrading the military's ability to maintain a high combat readiness.
22. The impact of climate change on military readiness and operations might be slow and gradual, necessitating detailed scientific studies for the formulation of mitigation and adaptation measures. Meanwhile, the military should focus on reducing its carbon and ecological footprint. This may include changing the energy source of military bases and installations, or reducing consumption of electricity and natural resources. Further, the reduction of the environmental footprint of future systems must be given priority, the easiest of which is by switching to an electric non-tactical vehicle fleet. For tactical vehicles and other primary platforms, efforts must be exerted to achieve fuel efficiency and to source for alternative fuels. Although options for naval assets are limited, biofuels and alternative propulsion systems, that are already experimented, should be seriously considered. For military aircraft, energy-optimisation initiatives can be implemented to reduce fuel consumption and fuel waste pending the introduction of alternative fuels. Further, alternative energy, that is already available in the market, can be used for autonomous devices, electronics and sensor networks. In other ways,

the use of simulation for military training should be emphasised to reduce consumption of fossil fuels. The prospects for reducing its environmental footprint are enormous, but there is currently a lack of pressure for the military to measure its carbon emissions. Environmental considerations must therefore be incorporated into military planning to promote awareness and inducing behavioural change amongst military personnel. Still, another biggest challenge facing the military in its efforts to adapt to, and mitigate the impact of, climate change is budgetary constraints.

Socialist Republic of Viet Nam

Presenter: ***Colonel Vu Cao Dinh, Deputy Director of International Studies Department, Institute for Defence Strategy (IDS), Ministry of National Defence***

23. Colonel Vu Cao Dinh stated that climate change is exerting an adverse influence on the defence and security of many nations and regions around the world. It increases the risk of war and armed conflict by exacerbating competition for scarce resources such as land, water, and minerals triggering social, political, and economic unrest. The impacts of climate change, most notably extreme weather conditions, sea level rise, and climate induced migration may cause many difficulties and challenges for the build-up and mobilisation of defence capability (people and assets) to deal with defence and military situations, should they arise.
24. To mitigate impacts of climate change on defence and security, it requires countries to adopt holistic measures synchronously, such as:
 - a) By carrying out propagation and education to raise awareness and responsibility of ministries, localities, and people to cope with impacts of climate change;
 - b) By enhancing the effectiveness of research, prediction, and development of plans to cope with challenges posed by climate change to defence and security;
 - c) By leveraging the role of militaries and armed forces in responding to climate change;
 - d) Promoting international cooperation in coping with climate change.

Republic of Singapore

Presenter: ***Ms S. Nanthini, Humanitarian Assistance and Disaster Relief Programme, Senior Analyst, Centre for Non-Traditional Security Studies, S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University***

25. Ms S. Nanthini gave an overview of the increases in the frequency and intensity of extreme weather and the impacts of climate change in Southeast Asia, as temperatures and sea levels continue to rise. By highlighting the status of climate change as both a direct security threat in the form of natural hazards as well as a “threat multiplier” that exacerbates the underlying political, social and economic conditions behind instability, she showed that militaries are likely to face more pressure to develop and enhance their HADR capabilities while also maintaining traditional defence capabilities. Ms Nanthini then described the implications of climate change on militaries including potential deployments into new climate scenarios, interrupted military operations and the danger to military bases. Militaries in ASEAN therefore need to regard themselves as agents of change in order to prepare for the new climate landscape.

26. Ms Nanthini recommended that:
- a) Militaries should 'go green' by incorporating climate change considerations into defence planning, capability development, and civil preparedness and exercises allowing them to significantly reduce greenhouse gas emissions arising from their activities and installations;
 - b) ASEAN militaries could plan for the future by creating scenario-based planning to assess military readiness and eventually, integrate climate security into national security strategies;
 - c) ASEAN militaries should broaden the mandate of the region's platforms for multilateral defence cooperation, ADMM and ADMM-Plus, to include climate security, within the Experts' Working Group on HADR. Such efforts could adopt a human security perspective to enhance current efforts in developing a framework for climate disaster response. Track I and/or Track II could also organise workshops or seminars for further discussion on this issue.

SESSION IV: WAY FORWARD: AMS DEFENCE SECTOR COLLABORATION ON CLIMATE CHANGE

Kingdom of Cambodia

Presenter: ***Captain Cheng Sereyvireak, Deputy Chief Secretariat, Sena Techo Unit, General Department of Policy and Foreign Affairs, Ministry of Nation Defence, General Department of Policy and Foreign Affairs (GDPFA), Ministry of National Defense***

27. Captain Cheng Sereyvireak stated that the world is enduring a process of profound changes. Traditional and non-traditional threats coupling with the turn of a new industrial evolution, exist alongside the issues of climate change that are of concern worldwide. Climate change is having irrevocable and devastating effects on humanity, bringing challenges that are just on the corner, if not already here. "Climate change has emerged as one of the most serious threats to humanity and a top priority for global concern in the twenty-first century." He also expressed the concern about climate change because it is the military's responsibility to confront all credible risks to their various national security. These risks can be direct or indirect, such as direct threats to military installations, operations, or strategies.
28. To contribute to addressing climate change issues, He laid out some strategic principles for strengthening the capacity and knowledge to respond to the challenges of climate change. This includes to enhance the education, training, awareness, participation, and access to information by the people and international cooperation for climate change, strengthen existing channels for promoting awareness on climate change through government service providers, lectures, press, religious leaders and community elders, facilitate public access to information on climate change through social network, sensitise the private sector on threats and opportunity of climate change, develop a public-private partnership for community and strengthen the capacity for collection and sharing information of climate data. Additionally, to strengthen collaboration and active participation in regional and global climate change processes, there is a need to implement commitments under the UNFCCC, cooperation under the ASEAN framework and through the Clean Development Mechanism (CDM), carbon market mechanisms, as well as other relevant carbon credit schemes. Mainstreaming climate change knowledge and information into formal

and non-formal education is the key principle to sustaining climate change awareness for green, equitable and climate-resilient society.

Lao People's Democratic Republic

Presenter: ***Lt. Col Souksan Khaiphom, Deputy Head, Office of Military Science and History Department (MSHD), Ministry of National Defense***

29. Brigadier General Viengxay Somvichit highlighted that ASEAN has set strategies to address climate change based on international cooperation mechanisms. In addition, ASEAN has been cooperating closely in promoting environmental cooperation focusing on 10 key areas outlined in the 2009-2015 ASCC Blueprint. Furthermore, the defence sector should share lessons learned through best practices to pave the foundation for a long-term vision for ecological sustainability, promote ownership in the implementation of existing ASEAN environmental mechanisms.
30. He also emphasised the need to focus on improving technical knowledge, including raising awareness, building capacity, and building information sharing networks through the Joint HADR in both bilateral and multilateral forms and between the military and civilians on a regular basis to build capacity and prepare for practical action. By the end, he expressed his perspective on the exchange of information on natural disasters in the ASEAN region as a good lesson for all since each AMS have different geographies and are threatened by different natural disasters.

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***

31. Group Captain Choosak Kasatewit stated that climate change is a global concern, and it is the direct collective result of rapid industrialisation and economic expansion over the last few decades. This has resulted in the global temperature increase by approximately one degree Celsius over pre-industrial levels. ASEAN is one of the regions that are highly vulnerable to the climate change impacts such as droughts, floods, typhoons, sea-level rise, and heatwaves. According to the Global Climate Risk Index 2021, three countries in Southeast Asia – Myanmar, the Philippines and Thailand – suffer the greatest long-term risks of climate change and were listed among the top ten most affected countries from 2000 to 2019. ASEAN Disaster Information Network (ADInet) recorded a total of 1,899 disaster events in the 10 AMS from July 2012 to May 2020. These disasters affected more than 147 million people, displacing more than 18 million, resulting in almost 84,000 casualties (dead, injured, and missing), and amounting to at least 17 billion USD in damages. During the past eight years, hydrometeorological hazards (floods, winds, storms, landslides, and droughts) have consistently accounted for at least 90 per cent of annual disasters in the ASEAN region meaning that climate change can exacerbate them.
32. The ASEAN Working Group on Climate Change (AWGCC) was established to facilitate ASEAN cooperation on climate change. The role of the AWGCC is to implement relevant actions set out in the ASCC Blueprint 2025, through the formulation and implementation of

AWGCC Action Plan. While climate change issues have become cross-cutting and involve various ASEAN sectoral bodies, the AWGCC's role, however, is still limited to the environmental mandate. In order to deal with climate change, recommendations are as follows:

- a) ADMM should consider climate change as an existential threat that militaries and governments in the region are responsible to work together.
- b) ASEAN should focus on joint exercises on disaster emergency response based on regional relevant risk foresight and disaster scenarios.
- c) Strengthening ASEAN's existing mechanisms to cope with challenges of climate change in the region.

Republic of the Philippines

Presenter: *Brigadier General Archimedes H Viaje AFP (Retired), PhD, MNSA, President, National Defense College of the Philippines (NDCP)*

33. In his presentation, Brigadier General Viaje noted that climate change has taken a toll on the security and socio-economic well-being of people around the world. To be able to deal with climate change, the phenomenon should first be understood from the perspective of human security, which has aspects, namely, economic security, food security, health security, environmental security, personal security, community security, and political security. From the perspective of human security, one will have a better understanding of the breadth and depth of the impacts of climate change on the lives of ordinary individuals. Statistics from the United Nations demonstrate the staggering and fatal consequences of climate change in terms of lives lost and economic damages sustained.
34. Actions in dealing with climate change should cover a wide range of thematic areas. In response to what has essentially become a global crisis, the Philippine government has enacted the Republic Act 9729 also known as the Climate Change Act of 2009 and RA 10121 or the Philippine Disaster Risk Reduction and Management System Act. The Climate Change Act of 2009 and the Philippine Disaster Risk Reduction and Management System Act is an accessible document that can provide steps that ASEAN can also undertake in making the region more resilient and adaptive to climate change. In moving forward, Brigadier General Viaje pointed out that ASEAN defence establishments must promote training for immediate and effective response to disasters, as well as supporting coordinating centres to facilitate international offer of assistance. ADMM and ADSOM should also call for more involvement from civilian government agencies, private sector, and civil society in disaster risk reduction and management. There should also be information exchange and scenario simulation that involve the interplay between natural disasters and difficult political/security circumstances. ADMM and ADSOM in particular, and the ASEAN Political-Security Community in general, should support the ASEAN Socio-Cultural Community as the lead in ASEAN in dealing with climate change.

Brunei Darussalam

Presenter: *Ms Siti Diana Othman, Research Officer, SHHBIDSS, Ministry of Defence*

35. In her presentation, Ms Siti Diana stated that looking through climate change from the lens of non-traditional security threats, the impacts of climate change necessitate cooperation; within the nation – whole-of-government approach with multiple stakeholders is needed, while in the international arena, a unified approach must be undertaken. At the national level, Brunei Darussalam’s climate change effort is led by Brunei Darussalam Climate Change Secretariat, with the Ministry of Defence and the Royal Brunei Armed Forces supporting the whole-of-government approach towards mitigating the impact of climate change and increasing the climate resilience in the country. On the global scale, the UN Framework Convention on Climate Change (UNFCCC) is the main body tasked to drive the global responses to the threats of climate change. Regionally, ASEAN is working on ASEAN Climate Vision 2050 to outline its cooperation towards climate change targets in line with the Paris Agreement.
36. The defence and military sectors are not exempted from the impacts of climate change. While there are direct and obvious impacts, climate change also causes indirect security implications such as political instabilities, economic loss, conflicts and forced migration. However, the link between climate change with the defence and military sectors are mostly limited to HADR, especially towards climate change-induced disasters. In advancing the climate change agenda in the defence and military sectors, several recommendations have been identified towards enhancing cooperation for the defence and military sectors to undertake:
- a) Exploring a suitable and dedicated platform for discussing and addressing climate change matters. This can start as an ad-hoc platform or riding along existing platforms such as in the various HADR collaborative activities. NADI can also be a useful platform to tap on as its Track II nature allows a more flexible setting for conversations, including engaging expertise from international and civil society organisations.
 - b) Issuing collective ASEAN defence statement on climate change. Defence and military leaders may consider adopting a joint statement or declaration to highlight the importance of climate change in the region’s security landscape. This can be followed by deeper commitment such as pledging for greener initiatives, carbon neutrality targets and more sustainable developments. To emphasise the urgency of climate change, the ADMM can also hold meetings specifically in addressing climate change and creating defence roadmap or strategy paper.
 - c) Furthering cohesive effort on defence contribution with other sectors. ASEAN defence and military sectors can work with other sectoral agencies including ASEAN climate change institutions, in order to have a more holistic approach towards climate change mitigation efforts. The Strategic and Holistic Initiative to Link ASEAN Responses to Emergencies and Disasters (ASEAN SHIELD) can be used to advance the climate change agenda in a wider platform.

SUMMARY OF DISCUSSIONS

37. NADI delegates exchanged views on climate change and its challenges for stability, impacts to defence and security, as well as the way forward for AMS Defence Sector collaboration on climate change:

Threat Multiplier

- a) Acknowledged that impacts of climate change could threaten political, economic and societal stability.
- b) Highlighted that changing geostrategic landscape resulting from the impacts of climate change could exacerbate conflicts in certain areas.

Human Security

- c) Recognised that climate-induced disasters could lead to mass displacements, resource competition and damage of public infrastructure.
- d) Recognised that climate change could affect food, water, and health security.

Impacts to Defence and Military

- e) Identified how climate change could affect military planning and operations, assets, infrastructure, and personnel.
- f) Recognised that military planning needs to adapt to the changing operating environments, in particular the heightened expectation of the role of military as first responders in addressing climate-related events.
- g) Acknowledged that emerging climate-induced developments might necessitate revision or prompt new policy planning measures for the development of future military capabilities.
- h) Recognised that while the defence establishments are at the forefront of response to climate change-related disasters, the wide spectrum of climate change mitigation and risk management requires efforts and intervention largely from civilian government, private sector agencies and other non-military entities.

International and Regional Collective Efforts

- i) Recognised the importance of the United Nations Climate Change Conference of Parties in Glasgow (COP26), the Paris Agreement, the Kyoto Protocol and other climate-related documents in aligning respective efforts, priorities, and future planning.
- j) Recognised that ASEAN's existing platforms and mechanisms in the region, such as the ASEAN Working Group on Climate Change (AWGCC) and the ASEAN Taxonomy, could be used to tackle issues related to effects of climate change.
- k) Identified that there are gaps and limitations in the existing platforms that could be further reduced to advance the agenda for addressing climate change in the region.

RECOMMENDATIONS

38. In moving forward, NADI recommends the following for ADMM's consideration:

- a) The need to address the expanding role of militaries in responding to climate change by incorporating climate change considerations into defence planning, capability development, civil-military coordination, training and exercises.

- b) To ensure that the defence sector could maintain its resilience and operate under the changing climate conditions by enhancing its planning, infrastructure development, assets acquisition, personnel development and future preparedness.
- c) To underline the importance of adopting green policies in the defence sector through energy-optimisation initiatives, alternative energy sources, and decarbonisation programmes.
- d) To enhance science and technology-related research to further tap into potential areas of cooperation in addressing climate change, such as through forecasting mechanisms, scenario-based planning and simulation training.
- e) To encourage better sharing of information and Confidence Building Measures (CBMs) at all levels, enhance joint exercises and training, as well as educate and promote awareness on issues of climate change.
- f) To produce an ASEAN defence statement on climate change such as a joint declaration or strategy paper.
- g) To broaden existing mechanisms in the defence sector, such as the ADMM-Plus Experts' Working Group (EWG) on HADR, the ASEAN Militaries Ready Group (AMRG) on HADR, and the Concept Paper on the Use of ASEAN Military Assets and Capacities in HADR.
- h) To support the ASEAN Socio-Cultural Community and the ASEAN Economic Community as they lead in efforts to mitigate climate change and manage the risks associated with it.

OTHER MATTERS

Future NADI Activities

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

Date	Activities	Country	Via
28 - 30 June 2022	NADI Workshop: <i>ASEAN Security Challenges in the Next Five Years (2023 – 2027)</i>	SSC, Thailand	VTC
20 - 21 July 2022	NADI Workshop: <i>Strengthening Confidence Building Measures (CBMs) in the Region</i>	RSIS, Singapore	VTC
5 - 7 September 2022	NADI Workshop: <i>Cyber Threats and Its Impacts to National and Regional Security in Southeast Asia</i>	RIDU, Indonesia	VTC
15 - 17 November	NADI Workshop:	CSSRD-TNI,	VTC/Physical

2022	<i>Strengthening Cooperation</i>	<i>Border Management</i>	Indonesia	(TBC)*
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* CSSRD-TNI will confirm the format of the workshop during RSIS' NADI Workshop in July 2022.

CLOSING SESSION

Concluding Remarks by the Chair of NADI Workshop, Mr Abdul Malik Kamis, Acting Director of SHHBIDSS, Ministry of Defence Brunei Darussalam

40. Mr Abdul Malik Kamis underscored climate change as an important security matter. The impacts of climate change threaten human, economic and food security with permanent ramifications to the security architecture. In his remarks, he highlighted the significance of cooperation in addressing climate change and hope the NADI platform could continue to advance the climate change agenda in the defence and military sector. Lastly, he expressed his sincere appreciation to NADI colleagues for their continuous support.
41. NADI members congratulated and expressed their words of appreciation to SHHBIDSS, Brunei Darussalam for the conduct on the NADI Workshop on the theme of climate change.