

CHAIRMAN'S REPORT

**TRACK II NETWORK OF ASEAN DEFENCE AND SECURITY INSTITUTIONS
(NADI) WORKSHOP**

“Marine Environmental Protection”

**21-23 November 2017
Summit Ridge Hotel, Tagaytay City, Philippines**

Introduction

1. The Track II Network of ASEAN Defence and Security Institutions (NADI) Workshop on “Marine Environmental Protection” was co-organized by the National Defense College of the Philippines (NDCP) and the Armed Forces of the Philippines-Office for Strategic Studies and Strategy Management (AFP-OSSSM). It was held at Summit Ridge Hotel, Tagaytay City, Philippines.
2. The representatives from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Viet Nam attended the Workshop. The list of the participants is at **Annex I**. The workshop was co-chaired by Rear Admiral Roberto Q Estioko, AFP (Ret), PhD, MNSA, President, NDCP; and Colonel Adriano S Perez Jr GSC (INF) PA, Chief, AFP-OSSSM.

Welcome Remarks by Rear Admiral Roberto Q Estioko AFP (Ret), PhD, MNSA, President, NDCP, and Chair, NADI Workshop on “Marine Environmental Protection”

3. In his remarks, Admiral Estioko welcomed the participants. Noting that the workshop is held during the golden jubilee of ASEAN and the tenth anniversary of NADI, the NDCP President underscored that NADI must always be forward-looking and must stay ahead-of-the-curve on a whole range of security challenges. As such, the Philippines chose the topic of marine environmental protection for the workshop. The ASEAN Political-Security Community Blueprint 2025, adopted by the 27th ASEAN Summit in 2015, identified issues relating to marine environmental protection as an area of cooperation in ASEAN platforms. These non-traditional security issues are oblivious to borders and therefore, directly or indirectly, affect all states. For NADI, the challenge is to examine these issues more closely in order to develop timely and relevant recommendations.
4. In closing, Admiral Estioko looked forward to a fruitful discussion and exchange among the participants.

Welcome Remarks by Colonel Adriano S Perez Jr GSC (INF) PA, Chief, AFP-OSSSM, and Co-Chair, NADI Workshop on “Marine Environmental Protection”

5. In his remarks, Colonel Perez likewise welcomed the participants to the Philippines. The topic of marine environmental protection is one of great relevance to the long-term prosperity and security of ASEAN as a whole. The vast majority of ASEAN member states are gifted with coasts, and even landlocked members have their unalienable maritime rights as enshrined in Part X of the United Nations Convention on the Law of the Sea (UNCLOS). The marine environment provides many important benefits to ASEAN as a whole, foremost of which is food security.
6. Colonel Perez also underscored that the protection of the bodies of water is certainly a non-traditional concern that ideally would be handled by the countries' respective environmental and law enforcement agencies; however, it is precisely due to the importance of the marine environment that topic deserves the attention of defence institutions. In conclusion, Colonel Perez emphasized that like other non-traditional security concerns, protecting the marine environment requires a whole-of-nation approach to ensure its effective implementation.

Adoption of Agenda

7. The meeting adopted the agenda and the programme attached in **Annex II** and **Annex III** respectively.

Overview of the Workshop

8. The Track II NADI Workshop on “Marine Environmental Protection” focused on three major objectives: (1) the broad range of marine environmental challenges confronting individual countries; (2) the strengths and weaknesses of national or international legal instruments and policies in protecting the marine environment; and (3) the role of ASEAN Defence Ministers' Meeting (ADMM) and ADMM-Plus in marine environmental protection.

Session One: Marine Environmental Protection

Indonesia

Presentation by Brigadier General Benny Octaviar, Chief, Center for Strategic Studies (CSS) of TNI

9. As a country with a vast sea territory, Indonesia has interest in safeguarding resources and the marine environment. Therefore, nationally, Indonesia has sought to enhance cooperation between both civil and military institutions in enhancing the protection of the marine environment. One of these efforts is to establish illegal, unreported, and unregulated (IUU) fishing eradication Task

Force. But the national effort will not be enough if it is not supported at the regional and global levels. One effort that can be done is to have IUU fishing declared as a transnational crime.

10. Therefore, CSS, TNI recommends the following: 1) to encourage current regional collaboration to combat IUU fishing in the Southeast Asian region; and; 2) to encourage ADMM to forward efforts to acknowledge IUU fishing action considered as transnational crime because it endangers sovereignty, sustainability, and prosperity at sea.

Presentation by Col (Army) Budi Pramono, S.IP., M.M., M.A., Head of Relevance and Management, Education Development and Quality Assurance Institution, Indonesia Defense University

11. ASEAN Member States (AMS) should have a common understanding and commitment to fight IUU fishing due to its threat to the sustainability of the marine environment. Every AMS has to have the appropriate policy to prevent IUU fishing. In the case of violation of fishing regulation in the respective country, it has the right to conduct specific measure as its own right of sovereignty, with subject to regional and international arrangement.
12. Pollution of marine environment coming from land-based activities cannot be overcome without cooperation from AMS. ASEAN has to initiate a strict policy in order to induce suitable infrastructure to process both industrial and domestic waste water, as well as establishing the system to manage solid waste material in the municipal level.
13. Each AMS has to have the mindset to preserve marine environment from an economic perspective. Conventional economics sometimes does not comply with the need to have a sustainable environment because its emphasis on economic development in an anthropocentric way. Ecological economics could be an alternative for AMS because it values ecological goods and services.
14. ASEAN should continue its track on marine environmental preservation. Existing regional arrangement such as ASEAN Working Group on Coastal and Marine Environment (AWGCME) and AWMQC should be implemented through a concrete action plan. Further detailed arrangements could be added as long it is needed and not overlapping with the current regional and international agreements.
15. AMS should consider ratifying international instruments related to marine environmental protection such as International Convention for the Prevention of Pollution from Ships (MARPOL) or Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) to show their commitment to marine environmental protection.
16. Neighboring countries have to be wary of the use of the sea. Sovereignty has to be taken into account when facing the possibility of conflicting stance such as border issue or claim to natural resources in Southeast Asia. AMS should

respect the right of sovereignty in preserving marine environment lest they destroy each others' trust.

Philippines

Presentation by Dr Fernando P Siringan, Director, Marine Science Institute, University of the Philippines

17. ASEAN countries' consumption of fish is double compared to the rest of the world's. About 55% of fish consumed comes from the sea and in the 19.7 million tons of total fisheries capture in ASEAN in 2014, 86% or a total of 17 million tons are from the sea. However, an overall decrease in fish catch in the Philippines has been observed for the past years mainly because of deterioration of marine habitats and illegal and overfishing. Climate change, especially the overall warming of the oceans, coral bleaching and ocean acidification also threaten the productivity of the marine environment. The coastal countries and even landlocked countries are encouraged to move for the establishment of marine protected areas (MPAs), a space in the ocean where human activities that are more strictly regulated than the surrounding waters to 1) ensure the long-term viability and maintain the genetic diversity of marine species and systems; 2) protect depleted, threatened, rare or endangered species and populations and 3) preserve habitats considered critical for the survival and/or lifecycles of species, including economically important species.

18. The MPA can be a significant tool that ASEAN countries can utilize to protect the marine environment. A network of interconnected MPAs is proposed as a means to improve the overall state of health of the coral reefs and the entire marine area.

Singapore

Presentation by Mr Henrick Z Tsjeng, Associate Research Fellow, S. Rajaratnam School of International Studies (RSIS)

19. Mr Henrick Tsjeng emphasised how the marine environment in Southeast Asia has been facing numerous threats for many decades. For Singapore, this is a particularly serious issue as it is an island state dependent on ship-borne trade for its economic well-being. In addition, Singapore imports large quantities of food, including seafood, from neighbouring countries, and sea pollution will put these food sources at risk. The marine environmental threats include ship-based pollution, land-based pollution and climate change. Regionally, anti-pollution initiatives still require further improvement.

20. Mr Tsjeng further elaborated how Singapore takes its responsibilities in protecting the marine environment very seriously, both within its waters and beyond, to help safeguard not only its own marine environment but also to play a responsible role in ensuring the protection of the regional marine environment. Singapore has passed comprehensive laws against polluters,

effectively enforced these laws, and cooperated with various stakeholders at the national, regional and international level.

Viet Nam

Presentation by Lieutenant General Nguyen Duc Hai, Director General, Institute for Defense Strategy

21. Lt Gen Nguyen Duc Hai stressed that Viet Nam is a long coastal country, therefore, the sea plays an important role in the country's socio-economic development, environment, security and defence. The sea is not only the seafood resource for the Vietnamese people for thousands of years but also serves as a gateway to integrate into regional and the world economies and cultures. Recently, the Vietnamese Government has issued important guidelines and applied measures to enhance marine management and exploitation, bringing about practical results. Viet Nam has established a State unified marine management system from Central Government to the local authorities. Viet Nam has signed a number of marine international treaties, as well as commitments and agreements with its neighboring countries for maintaining peace, stability and cooperation for development in the South China Sea.
22. However, Viet Nam is faced with a number of marine environmental challenges, such as: 1) the lack of the awareness of some governmental bodies, coastal provincial authorities and people on the significance and importance of marine environmental management, exploitation and protection; 2) lack of modern equipment for marine scientific and technological research; 3) small scale natural disasters early warning and monitoring system as well as marine search & rescue centers; 4) unsustainable marine exploitation and use of natural resources; and 5) the increase of marine pollution and the decrease of eco-diversity and aquatic resources, etc.
23. In the coming time, in order to enhance the management of marine exploitation and protection, it is necessary to implement the following solutions such as: 1) promoting the work of propagation; 2) using marine resources efficiently, reasonably and economically; 3) decreasing the pollution of marine environment; 4) promoting the Integrated Coastal Zone Management (ICZM); 5) opportune and proper warning and monitoring marine environment; and 6) applying economic instruments and policies flexibly and perfecting environmental legal system.

Summary of Discussion

24. During the open discussion, the participants talked about another issue on marine environmental protection that needs equal and similar kind of conservation and management mechanism as the protection of oceans and seas – the protection of rivers. The Mekong River, one of the longest rivers in Southeast Asia, which spans through five countries in the region (Myanmar, Laos, Thailand, Cambodia and Viet Nam), is an important body of water in the region influencing the livelihood and food security of people along the river.

25. However, different challenges in the marine protection of the Mekong River include the following: 1) economic and aquatic ecosystem implications of dam construction in the Mekong River; 2) coastal erosions; 3) mangrove farm depletion; and 4) low water levels or lack of water in some portions of the river which consequently affects fish breeding. The Mekong River Commission (MRC) was noted to be one of the governance mechanisms for a coordinated protection and sustainable use of the Mekong River.

26. It was also noted that the MPA proposal of the Philippines has been shared with other scientists and MPA managers in various international conferences, as well as concerned agencies in the Philippines.

Session Two: Legal Instruments and Policies in Marine Environmental Protection

Brunei

Presentation by Ms Selina Farahiyah Safwan Teo, Research Officer, Sultan Haji Hassanal Bolkiah Institute of Defence and Strategic Studies

27. Ms Selina Farahiyah Teo, in her presentation, highlighted the importance of the marine environment and the need to address this on a national, bilateral and multilateral levels. Brunei has continuously promoted the awareness and protection of its marine environment through various initiatives at the national level. As Brunei continues to pursue economic diversification for sustainable economic growth, there is a growing recognition of the need for delicate balance in pursuit of economic development vis-à-vis the sustainability of marine environment. This requires close coordination, consultation, and cooperation among agencies and ministries at national level and collaboration at regional level. She shared that the two main agencies responsible for regulation and enforcement are the Maritime Port of Authority and Department of Fisheries as the front lines in dealing with marine environment protection.

28. As a way forward, she recommended for countries in the region to improve its coordination and collaboration with one another in addressing a wide range of marine environment issues; to learn best practices most suitable to address the issues of their marine environment including legal and human resource-related matters and to invest in land and marine-friendly technologies and technology-know-how to ensure the sustainability of its marine environment.

Myanmar

Presentation by Major General Soe Naing Oo, Deputy Chief of Armed Forces Training, Office of the Chief of Armed Forces Training, Myanmar Armed Forces

29. In his presentation, Major General Soe Naing Oo underscored that marine habitat destruction will affect human lives, and the marine environment must be protected before massive damages occur. The challenges include: 1)

marine pollution from ships; 2) by noxious liquid substances carried in bulk; 3) harmful substances carried by sea in packaged form; 4) sewage; 5) garbage; and 6) air pollution from ships.

30. Major General Soe Naing Oo also mentioned that the high cost and technology gaps are main challenges for marine environmental protection. ASEAN should discuss and cooperate with ASEAN Plus countries and seek technical assistance in order to protect regional marine environment.

Singapore

Presentation by Mr Adrian Tan Tai Loon, Deputy Head of Policy Studies, RSIS

31. Mr Tan noted the importance of the sea to Singapore's economy. He also noted that at the same time, Singapore was mindful of the impact of economic activities on the marine environment. To protect Singapore's marine environment, Singapore took a comprehensive approach in managing the problem of marine pollution, including legislation such as the Prevention of Pollution of the Sea Act, the tight control of pollutant discharges, strict anti-littering laws, the development of an integrated waste management system which included the recycling of used water, and cooperation with the private sector and the general public. Mr Tan also noted that Singapore was also actively managing, protecting, and conserving its marine and coastal ecosystems, including taking steps to make aquaculture sustainable. To encourage the reduction of shipping emission, the Maritime and Port Authorities of Singapore launched a comprehensive pro-environment initiative, known as the Maritime Singapore Green Initiative.
32. Mr Tan also noted that Singapore provided assistance to other countries in developing their own expertise and capacity through the Singapore Cooperation Programme. Most recently, in July 2017, the course "Sustainable Oceans and Marine Resources" was held. The course aimed to "provide an understanding of the impact of man's activities on the marine environment and discuss sustainable approaches for better management of marine resources and biodiversity conservation". Mr Tan concluded that while countries must take steps to protect their marine environment, countries must also cooperate with each other as many of these issues have transboundary implications. With planet Earth under extreme stress, Mr Tan reiterated that there was a serious urgency to enhance cooperation.

Thailand

Presentation by Colonel Pratuang Piyakapho, Director of Regional Studies Division, Strategic Studies Center (SSC), National Defence Studies Institute (NDSI), Royal Thai Armed Forces Headquarters (RTARF HQs).

33. Colonel Pratuang stated that Thailand is very concerned with the maritime environment. So "Thailand Maritime Enforcement Coordinating Center" has been set up to be the coordinating body of all marine activities for both maritime security and marine environmental protection since 1998. For the

current situation, Thailand's challenges include: 1) negative environmental effects of the tourism industry; 2) pollution and marine environment; 3) global warming and coral bleaching; 4) pollution in harbor and fishing port; 5) oil spills; 6) natural gas drilling; and 7) transnational crimes, including illegal fishing, illegal activities, piracy, rescue, or etc.

34. Marine environmental protection is an important issue that affects many countries and no one country can do it efficiently. All countries need to work closely together and a "Network of Marine Environmental Protection" is one good solution to enhance coordinating efforts among member-states to protect regional resources and marine environment.

Summary of Discussion

35. During the open discussion, it was clarified that the role of the Thailand Maritime Enforcement Coordinating Center (THAI-MECC) is a coordinating mechanism under the, National Security Council, Office of the Prime Minister. With the Royal Thai Navy as the focal authority, the Thai-MECC coordinates the operations of various agencies, including the other five major authorities, namely, Marine Police Division, Marine Department, Customs Department, Department of Fisheries, and Department of Marine and Coastal Resources.

36. The participants also underscored the importance of cooperation on marine environmental protection, especially with respect to the issue of micro plastics. It was noted that the plastics can break into miniscule pieces, which can be ingested by fish and other marine species, which in turn, are consumed by humans.

Session Three: ADMM and ADMM-Plus in Marine Environmental Protection

Cambodia

Presentation by Commander Ponleu Touch, Chief of Planning Office, Planning Department, National Committee for Maritime Security

37. After discussing the marine environment of Cambodia, Commander Ponleu Touch identified its challenges. First, overfishing has caused alarming declines in biodiversity and fisheries resources around the globe as well as in Cambodia, while destructive fishing using explosives or cyanide poison has been devastating coral reef habitats. Second, plastic, a man-made pollutant, is the bane of the seas. Collecting in the ocean, they are consumed by small organisms and introduced into the food chain. Plastic bags, bottles, straws and foam dumped into the ocean are mistaken for food and are consumed, often with fatal effects, by marine animals like fish, birds and turtles. Third, long after it has been abandoned, discarded fishing gear smothers and kills coral reefs, damages mangroves and catches marine life such as fish and turtles. This is known as "ghost fishing." Waste nets, lines and traps continue to deplete fish stocks, without anyone benefiting from the catches. Fourth, it is often those living intimately with the sea who are the most vulnerable to a

changing climate. Storms will become more unpredictable and intense; sea levels will rise and flooding will increase; while warming, increasingly acidic oceans will threaten the coral reefs upon which marine resources depend. Fifth, mindful of the other marine challenges, there are threatened species, such as sea horses and sea turtles.

38. Commander Ponleu Touch discussed the recommendations to improve the marine environment of Cambodia:

- a. First, conservation action always begins by identifying the issues that threaten an ecosystem. Only then can solutions be found—solutions that mitigate threats in a way that benefits both the environment and the people that rely upon it for their livelihood. Through partnerships, organizations and communities across the country are working to provide these sustainable and realistic conservation solutions, guided by sound science and community needs.
- b. Second, safeguarding critical habitats and livelihoods. The islands of Koh Rong and Koh Rong Sanloem have been declared a Marine Fisheries Management Area—the first of its kind in Cambodia. This 405 sq km multiple-use marine protected area supports both people and biodiversity, ensuring that vital fishery resources are managed sustainably, while protecting valuable habitats, promoting ecotourism and reducing poverty.
- c. Third, promoting sustainable fisheries resources is paramount—without healthy fish populations, coastal families who depend on the seas for food and income would suffer. Sustainable fisheries management in Cambodia involves not only marine science and effective policy, but also, crucially, local engagement and local leadership. With generations of knowledge about the ocean, local fishermen can lead the way.
- d. Fourth, the promotion of holistic marine conservation. Much of the Marine Fisheries Management Area is open to sustainable, traditional fishing reserved for local residents. There are areas under strict year-round protection. These “no-take zones” are closed during certain parts of the year to allow young fish to develop. Other protected zones are open to responsible tourism activities such as diving and snorkeling.

Lao PDR

Presentation by Lt Col Souksan Khaiphom, Deputy Chief of the Office of Military Science and History Department, Ministry of National Defence

39. Lt Col Souksan stated that ASEAN faces many security threats in protecting the marine environment. These challenging issues include illegal fishing; oil leaks; piracy; illegal logging; human and drug trafficking; influx of migrants, refugees and asylum seekers; smuggling of goods; and marine pollution

caused by man-made and natural disasters. To address these problems, the AMS need to do their utmost efforts at national and regional levels.

40. Practical cooperation in addressing these challenges needs to be strengthened between and among the AMS and external partners, especially the ADMM-Plus. The concerned parties should work collectively to explore real threats hindering marine environmental protection; as well as to actively share and exchange useful information and intelligence, lessons and best practices in dealing with the problem.

Malaysia

Presentation by Lieutenant General Dato' Suhaimi bin Hj Mohd Zuki Chief Executive, Malaysian Institute of Defence and Security

41. Southeast Asia is a maritime region flanked by vital sea areas and huge marine environments including the South China Sea, Straits of Malacca, the Gulf of Thailand, the Sulu Sea and the Sulawesi Sea. Regardless of its esteem, marine and coastal ecosystems in the region like the Straits of Malacca and South China Sea are being degraded and diminished by human activities and natural phenomenon. Recognizing the challenges to marine environment protection, AMS have modestly embarked on cooperative activities regionally and globally such as ASEAN Ministerial Meeting on the Environment (AMME), ASEAN Working Group on Coastal and Marine Environment (AWGCME), Coral Sea Triangle (CT) etc.
42. However, there have been challenges faced in implementing such noble initiatives ranging from conflicting priorities, overlapping responsibilities to lack of binding environmental regimes. Malaysia's environmental management policy came into light during the Third Malaysia Plan (1976-1980) with the objective of balancing the aim of socio-economic development and preservation of the environment. Sustainable development was the key point during the formulation of protection measures to cater to rapidly evolving societal needs. One of the national initiatives and practices on environmental protection is the incorporation of environment preservation into the national development plans such as The 11th Malaysia Plan (2016-2020). The National Green Technology Policy 2009 is also another example where green technology shall be a driver to accelerate the national economy and promote sustainable development. Under the National Blue Ocean Strategy (NBOS), the Malaysian Armed Forces (MAF) is partnering with the Ministry of Natural Resources and Environment to conduct joint land, sea and air patrols at National Parks and Marine Parks. This initiative takes a low cost with high impact approach through the collaboration and sharing of resources of multiple ministries and agencies while protecting the protected areas of the nation. To realize the AMS common vision of ASEAN as an integrated community, the importance of environmental cooperation (as in other areas) needs to be reiterated.
43. Lt Gen Dato' Suhaimi bin Hj Mohd Zuki recommended the following: 1) enhance inter-agency and inter-sectoral coordination at the regional and

international levels for achieving sustainable development of ASEAN's coastal and marine environment; and 2) expand existing multilateral defence cooperation such as Malacca Straits Patrol (MSP) and Trilateral Cooperative Arrangement (TCA) that is in operation to include roles such as patrolling of marine protected areas and joint research.

Singapore

Presentation by Mr Tan Seng Chye, Senior Fellow, RSIS

44. Mr Tan Seng Chye stated that maritime environmental protection is the most important issue for Southeast Asia particularly for the maritime ASEAN countries. The high maritime traffic through the Straits of Malacca and Singapore poses serious challenges for the littoral states of these two Straits in ensuring the safety of navigation and protecting the marine environment for the well-being of these states as well as those in the South China Sea. Marine pollution in all forms could affect the livelihood of the peoples of the ASEAN states who depend on marine farming of fish, mussels, prawns, oysters and so on, as well as on fish stock as sources of food and industry for their livelihood. Tourism and beach resorts would depend on an un-polluted marine environment and clean sea and beaches for them to thrive. Pollution would seriously affect the marine eco-system. Pollution from coastal agriculture lands and industries could also cause pollution to the seas if the chemical fertilisers and industrial wastes are discharged into the sea. Managing climatic change will also be important to prevent destruction of marine corals and vegetation that are essential for marine life.
45. Mr Tan stressed the need to ensure the safety of navigation by commercial ships and other vessels sailing through the Straits of Malacca and Singapore and the South China Sea, and the need for all commercial ships and vessels, and military naval vessels to follow the traffic separation schemes in the Straits to avoid collision that could result in pollution due to oil spillage and so on. Thus, safety of navigation and enforcement of marine pollution arising from ships and vessels travelling through the region will be important for the well-being of maritime ASEAN states. Similarly riparian states of the Mekong sub-region will also face similar challenges from pollution. Mr Tan concluded by discussing the areas where ADMM and ADMM-Plus can play a role in contributing to managing the challenges of maritime environmental pollution and river pollution, and proposes the following recommendations to the ADMM for consideration:
- a. ADMM could promote safety of maritime navigation by encouraging naval vessels of all countries to observe the Traffic Separation Schemes observed by commercial ships and vessels when travelling through the busy Straits of Malacca and Singapore so as to prevent any ship collision.
 - b. ADMM should promote closer cooperation among the navies of the ASEAN countries and their cooperation with the Coast Guards and Marine Police in monitoring and deterring discharges of pollution and

poaching of marine resources like coral and illegal fishing.

- c. ADMM could cooperate with the Plus countries in the areas of sharing of information and expertise in marine environmental protection. In this regard workshops or seminars could be conducted by the ADMM Track with the participation of relevant government officials, the navies, Coast Guards and Marine Police of ASEAN countries and some Plus countries which could share their experiences and expertise in these areas, as well as to promote closer cooperation among these enforcement agencies.

Summary of Discussion

46. During the open discussion, it was clarified that in Cambodia, there are initiatives to incorporate the marine environmental protection to the national education system, focusing on the grassroots, elementary levels, and other stakeholders. It was likewise noted that Cambodia works with non-government organizations (NGOs), such as Flora and Fauna International, to teach children along the coastlines as well as fishermen and other community stakeholders. In the Philippines, there are similar initiatives for primary and secondary educational levels.
47. The participants noted that during the ASEAN Navy Chiefs' Meeting 2017, held in Chonburi, Thailand, it was agreed that marine environmental protection is one of the areas of cooperation among the countries in the region.
48. The participants further discussed the issue of the traffic separation scheme. It was acknowledged that not all navies accede to the traffic separation scheme, which will cause issues in the long term including the greater chance of collisions. While there are sovereignty issues, the participants emphasized such issues are not obstacles to cooperation among ASEAN member states to cooperation on marine environmental protection in the region.

Remarks by Commissioner Emmanuel M de Guzman, Vice Chairperson, Climate Change Commission, Republic of the Philippines

49. In his remarks, Commissioner de Guzman noted that the NADI workshop is crucial in capacitating Southeast Asian policy analysts specializing in defence and security issues with the necessary knowledge on the security threat posed by climate change to the marine environment. Emphasizing the impacts of global warming, Commissioner de Guzman underscored that climate change poses a serious threat to the marine environment and its resources. Citing the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5), Commissioner de Guzman noted that climate change and ocean acidification are altering the global ocean at a rate that is unprecedented, leading to multifaceted impacts on marine and coastal ecosystems, associated goods and services, and human societies. Such

impacts include damages to wetlands due to sea level rise and intense storms, coral bleaching caused by anomalous warming.

50. The impact of climate change, in particular to human and food security, can be highly disastrous. For instance, in coastal and near-coastal populations, where most or majority of the fisher folks are struggling to make ends meet, they will be rendered more vulnerable to risks from sea level rise, extreme events such as typhoons, notwithstanding other human-induced pressures. They will hardly be able to adapt and respond to the adverse impacts of climate change, including changes in economic pressures.
51. Commissioner de Guzman also discussed the current initiatives of the Philippine Government to address climate change challenges.

Recommendations to the ASEAN Defence Ministers' Meeting (ADMM)

52. The NADI Workshop on "Marine Environmental Protection" recommends the following for the ADMM's consideration:
- a. ADMM could promote safety of maritime navigation by encouraging naval vessels of all countries to observe the Traffic Separation Schemes observed by commercial ships and vessels when travelling through the busy Straits of Malacca and Singapore so as to prevent any ship collision;
 - b. ADMM should promote closer cooperation among the navies of the ASEAN countries and their cooperation with the Coast Guards and other maritime law enforcement agencies in monitoring and deterring discharges of pollution and poaching of marine resources like coral and illegal fishing.
 - c. ADMM could cooperate with the Plus countries in the areas of sharing of information and expertise in marine environmental protection. In this regard workshops or seminars could be conducted by the ADMM Track with the participation of relevant government officials, the navies, Coast Guards and other maritime law enforcement agencies of ASEAN countries and Plus countries which could share their experiences and expertise in these areas, as well as to promote closer cooperation among these enforcement agencies;
 - d. Enhance information and intelligence sharing among the militaries and other maritime law enforcement agencies of ASEAN countries to respond to marine environmental crisis and challenges;
 - e. Strengthen the sharing of best practices in addressing marine environmental challenges; and
 - f. Expand the existing bilateral/multilateral cooperation to include marine environmental protection as part of the agenda.

Other Matters

- 53. The participants discussed the NADI activities for the year 2018.
- 54. The participants noted that the number of NADI activities per year should be three to four workshops, in addition to the Annual Meeting.

Upcoming NADI Activities

- 55. Singapore (RSIS) will host the 11th NADI Annual Meeting on 2 – 5 April 2018.
- 56. Thailand (SSC) will host a NADI Workshop on ASEAN Cooperation in Cyber Capacity Building on 7 – 10 May 2018.
- 57. Singapore (RSIS) will host a NADI Workshop on Counter-Terrorism, Counter-Radicalisation and Cybersecurity on 25 – 29 June 2018.
- 58. Indonesia (IDU) will host a NADI Workshop on Transnational Organized Crimes on 22 – 25 August 2018.

Concluding Remarks

- 59. The Co-Chairs extended their congratulations to the delegates for the comprehensive and insightful discussions during the workshop.
- 60. The delegates conveyed their appreciation for the hospitality of and excellent arrangements by the Philippines in chairing the NADI Workshop on “Marine Environmental Protection.”

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