

PERSPECTIVE ON ASEAN DEFENCE COOPERATION ON DEALING WITH CLIMATE CHANGE

Overview

Southeast Asia is one of the most vulnerable regions to climate change and its impacts as four of the world's countries most affected by climate changes are located in Southeast Asia, namely Myanmar, the Philippines, Thailand and Vietnam. Southeast Asia is already affected by rising sea levels, extreme weather events and heat waves¹ and this trend will continue as rising sea levels and weather extremes associated with global warming will continue to rise, storms will become stronger and the UN predicted increasing incidences of flooding through the year 2040 in the region.

Within the region, countries experiences different form and levels of climate change and this paper highlights Brunei Darussalam's experiences and approaches in dealing with climate change and its impacts and the need to further enhance ASEAN defence cooperation and coordination in building its resilience in managing and dealing with climate change.

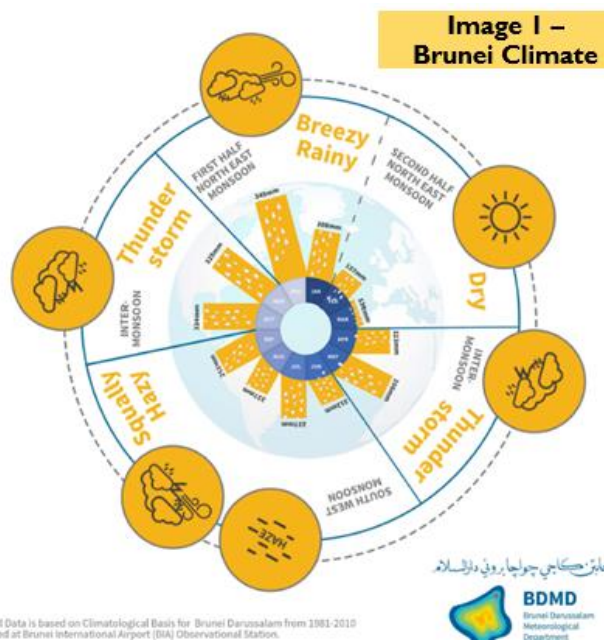
Nation's Perspectives

1. Brunei's Climate Context

Situated within the equatorial tropics, the climate of Brunei is generally hot and wet throughout the year and governed by the shifting flow of winds following the Northeast and Southwest Monsoons cycle. In the past decade, Brunei has been experiencing changing weather that are determined by many variables and interaction between nature and man-made. The infographics in Image 1 gives an overview of Brunei's climate cycle as it transition from one weather to another.

With the changing weather patterns, Brunei's wet months are getting wetter as we are seeing an increasing trend of rainfall during the wet months (November to January) extended to the dry months (February to August) where the collective average rainfall is 37.2mm above climate normal. At the same time, the country also experience rise in temperature and warming by +0.3 degrees and peaks during el-nino years; and increasing wind speed in excess of 25 knots when the climate normal is only 7 knots. With wetter and hotter months, coupled with stronger wind gust, the weather is getting unpredictable.

However, rising rainfall trends and temperature are not the only causes to climate changes. Urbanization, for one, has been considered to be the top driving factor in this era of modernization and fast-paced culture that may increase the numbers, intensity and severity of disasters. This can be seen in the huge population displacement and economic loss in the aftermath of disasters across countries in the region. For Brunei Darussalam however, there is minimal rural-urban migration unlike what other ASEAN countries faced. Brunei's urbanization is more focused on developing land area for both residential and commercial purposes across the country. The process of deforestation and construction, however, may lead to cause sequential disasters such as flooding, landslides, air pollution, haze, and forest-fires



¹ https://issuu.com/gpulawska/docs/handbook_for_asean_government_offic, p.16

if it is not monitored, controlled and planned carefully. On a national level, floods are the most common and biggest threat as seen below:

- Back in 2009, Brunei Darussalam has experienced the worst flood ever that where the National Disaster Management Centre (NDMC) received 59 calls related to landslides and 165 related to flashflood. Record shows that there were abnormal intensity of rainfall recorded at 167.6mm² and the highest tides were experienced by the water villagers. Although the casualty was as low as 2 deaths, this was the worst flood experienced and a big blow to the country due to its small size and close-knit society.
- In 2014, for example, Brunei experienced another episode of extensive flooding where there were over 115 cases of flooding and 105 landslides reported³. Consequently, the government was pushed to review its development plans to upgrade the waterways and drainage system. The successes of this plans can be seen as most flood-prone places are no longer prone to flood nowadays except in several low-lying areas across the country.
- In March 2019, Brunei experienced a prolonged dry period (February to April) and cause forest fires raged across the Brunei-Muara district for four days, with flames destroying more than 161 hectares. The Fire and Rescue Department stated about 461 bush and forest fires were reported across the country between January and March⁴ and due to its intensity, Brunei experienced localized hazy conditions.

2. Addressing Climate Changes and its impacts

a) Whole- of Nation Approach

In addressing the climate changes and its impact, the Brunei Darussalam Meteorological Department (BDMD) is responsible for the provision of meteorological and climate services. They are maintaining a weather forecast office that provides warnings, forecast and advisories for government and non-government agencies as well as for the general public such as agriculture, aviation, construction, fisheries and tourism, as well as safety and emergency responders.

While BDMD perform its role, NDMC is another important agency that has been entrusted by the government to shoulder the responsibility to manage disasters in the country. The Centre ensures the safety and well-being of the people by being responsible for all aspects of disaster management ranging from prevention, mitigation, preparedness, response and recovery through policies, strategies and practices.

The NDMC acts as a leading government agency to coordinate the multi-agencies effort in any events that requires relief operation. This is where government agencies, private sectors and volunteers from NGOs cooperate and coordinate their efforts in pooling and distribution all the necessities required by the affected population. Besides that, NDMC also initiate interaction and engagement through its various community outreach across the four districts as part of creating awareness as well as collecting localised knowledge as part of its **preventive efforts** to ensure any foreseeable disasters such as failure of drainage system, uproot of trees and others that may cause floods and landslides could be avoided through early management.

b) Defence Role – Domestic and Regional

Domestically, Royal Brunei Armed Forces (RBAF) has always served as supporting multi-agency along with the Royal Brunei Police Force (RBPF), the Fire and Rescue Department (FRD) as well as others in curbing natural calamities such as during floods, forest-fires and landslides. So far, the RBAF has involved in a number of domestic natural disaster relief efforts. Back in 2008 and 2009, the RBAF was heavily involved in providing relief

² http://www.sultanate.com/news_server/2009/24_jan_1.html

³ http://www.ipcbee.com/vol85/rp007_ICFEB2015-C0014.pdf

⁴ <https://thescoop.co/2019/03/22/bomba-161-hectares-of-forest-destroyed-by-fire-in-past-week/>

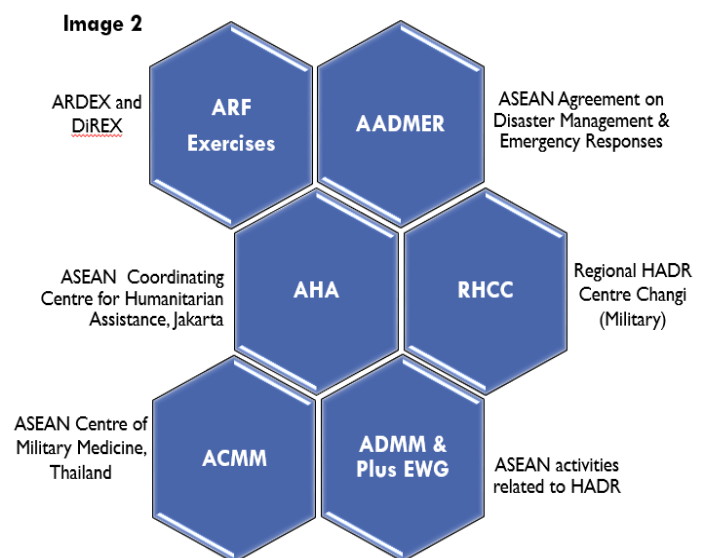
operation throughout the country when Brunei Darussalam experienced one of the worst floods, landslides and strong winds. In 2014, they committed a number of its manpower and assets to other flash floods incidents across the nation, and together they extended assistance to relief operations and flood victims. Drones also played an important part as it were deployed to give an aerial overview of the situation during flood and forest-fires.

While the initial response to disasters and the primary responsibility for the protection of life, property and the environment in emergencies rests with the NDMC, the RBAF has demonstrated its adaptable nature and ability to respond to challenging and complex tasks - at short notice especially when civilian resources are exhausted, unavailable or cannot be mobilized in time. This arrangement has enabled the RBAF to better contribute in saving lives, alleviate suffering and prevent loss of life or property.

Enhancing Regional Defence Cooperation

In the past decade, there has been tremendous intensification of regional initiative and cooperation in dealing with climate change and its impacts through better management and coordination in dealing with disasters. This is especially with the presence of various mechanisms under ASEAN as well as strengthening of defence discussions through the establishment of ADMM and ADMM Plus where substantive discussions are done via Expert Working Groups (EWGs) as seen in Image 2.

Through the various platforms and mechanisms, there has been improvements in national disaster-response coordination and capabilities derived from the sharing of best practices among member states as well as regional cooperation, when required. There has also been better integration and coordination on HADR in the broader ASEAN disaster response mechanism with effort for closer coordination between military and civilian responders.



Despite these, there is a need to further enhance and strengthen current ASEAN defence cooperation in dealing with climate changes especially as ASEAN's priority remains to be centered on working together to build societal resilience and to address and mitigate the impacts of climate changes both in defence and wider regional responses. Hence there is a need to strengthen and work on (1) achieving a more coordinated region-based humanitarian assistance and disaster relief through the various platforms seen in Image 2; (2) ensuring continuous improvement in regional coordination when providing assistance especially civil-military cooperation; and (3) further streamlining processes between ASEAN and military mechanisms as well as among military related mechanisms.

In moving forward, these are the recommendations to consider to further enhance regional defence cooperation:

- Develop more HADR scenarios in tabletop/ field exercises to enhance civil-military cooperation.
- Workshops under ADMM Plus EWG HADR must involve relevant stakeholders including civilian related agencies to share knowledge and experiences as well as improved coordination such as streamlining SOPs between existing civilian and military mechanisms.