

Centre for Non-Traditional Security Studies

# Year In Review 2023



**RSiS**

S. RAJARATNAM  
SCHOOL OF  
INTERNATIONAL  
STUDIES

Nanyang Technological University, Singapore



**NANYANG  
TECHNOLOGICAL  
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SINGAPORE

CENTRE FOR  
NON-TRADITIONAL  
SECURITY STUDIES  
*YEAR IN REVIEW 2023*

CENTRE FOR NON-TRADITIONAL SECURITY STUDIES,  
S. RAJARATNAM SCHOOL OF INTERNATIONAL STUDIES,  
NANYANG TECHNOLOGICAL UNIVERSITY, SINGAPORE

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# Contents

Messages	04	Climate Security and Role of Women in ASEAN	19
Key NTS Events 2023	06	<i>Tamara Nair</i>	
Climate Change and Its Impact on Peace and Security in Southeast Asia	08	HADR Cooperation: Insights from Turkey's Response to the 2023 Earthquake	21
<i>Mely Caballero-Anthony, Julius Cesar Trajano, Alistair Cook, S. Nanthini, Jose Ma. Luis Montesclaros, Keith Paolo Landicho, and Danielle Lynn Goh</i>		<i>Lina Gong</i>	
Climate Change and Security: Addressing Complex and Cross-cutting Challenges	10	Public Health Emergencies: Moving beyond an Ad-hoc Military Response	23
<i>Mely Caballero-Anthony</i>		<i>S. Nanthini</i>	
Disaster Management in Southeast Asia: 20 Years of Progress and Challenges	11	Low-carbon Energy Transition: Lessons from the Philippines	25
<i>Mely Caballero-Anthony, Alistair D. B. Cook and Jonatan Lassa</i>		<i>Margareth Sembiring</i>	
Re-Thinking Food Security for ASEAN	13	ASEAN's Growing Agenda on Nuclear Security	28
<i>Paul Teng</i>		<i>Julius Cesar Trajano</i>	
Global Food Security Disruptions: Preventing the Next Crisis	15	Fukushima Water Release: Trusting Scientific Innovation and Nuclear Safety Regime	30
<i>Jose Ma. Luis Montesclaros</i>		<i>Mely Caballero-Anthony and Julius Cesar Trajano</i>	
Navigating the Climate Emergency: The Crucial Role of Adaptive Decision Support Systems in ASEAN's Disaster Management	17	Publications and Activities	32
<i>Keith Paolo C. Landicho</i>		Research Grants	36
		About RSIS	37
		About NTS Centre	38
		About NTS-ASIA Consortium	39

# Message from the Executive Deputy Chairman, S Rajaratnam School of International Studies (RSIS)

Dear Readers,

Non-traditional security (NTS) challenges continue to confront states and societies worldwide. The need to strengthen our resilience in the face of NTS threats is growing ever greater. Yet, resources available to state and non-state actors to do so are limited. More concerted measures are required to reduce the resource deficit.

Complicating the multifaceted implications of NTS is the current geopolitical landscape. From tackling climate change and managing natural hazards to coping with mass movement of people in search of refuge and safety, multilateral cooperation is essential. But mutual trust is lacking and zero-sum assumptions are the norm.

Regardless, the need to prioritise the welfare of people – the individuals living on our planet – must remain a constant. Considering the need to stretch resources and the complexity of solutions necessitated, partnerships and innovation must be the way to go forward. Policymakers have to adapt themselves to realities and results.

Existing and emerging technologies such as artificial intelligence (AI) can be used to strengthen the ability of governments, communities and individuals to adapt to NTS challenges, particularly through the use of early warning systems. As such technologies may not always be equally available to all, accessibility is a priority.

In this Year In Review 2023 from the RSIS Centre for Non-Traditional Security Studies (NTS Centre), our scholars and researchers have written a series of insightful articles outlining new trends and challenges, as well as highlighting possible mitigation measures and future actions.

We hope that this publication will enrich readers' understanding of our planet's increasing vulnerability to climate change, communicable diseases, food insecurity, other NTS threats, and the breakdown of credible functioning in key multilateral institutions. There is no way out except by working together with utmost urgency.

Looking ahead, the NTS Centre will continue to conduct policy-oriented research focusing on climate and food security, humanitarian assistance and disaster relief, pandemics, nuclear hazards, and their respective impacts on the economic well-being of states in the ASEAN region. We welcome your feedback and suggestions.

Thank you.



**Ong Keng Yong**  
Executive Deputy Chairman  
S. Rajaratnam School of International Studies (RSIS)  
Nanyang Technological University, Singapore

# Message from the Head of Centre for Non-Traditional Security Studies

Dear Readers,

Over the past year, non-traditional security (NTS) issues have played a significant role in the challenges affecting our region. Not only have there been food shortages, natural hazards, and the still ongoing COVID-19 pandemic, but these have also all taken place against the backdrop of the rapidly changing climate landscape. With the threat multiplier effect of climate change increasingly on display in the region, the capacity and capability of states and other non-state actors to come up with solutions are also increasingly tested.

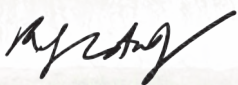
Against these challenges and disruptions, concerns about resilience and human security have become even more critical. The concept of compounding risks is becoming increasingly pertinent to the region, as minor changes in the climate are capable of greatly exacerbating the scale of NTS threats and cascading over time, potentially producing risks we have yet to face. This is particularly pertinent in the ASEAN region given the vulnerability of nations to climate change.

As such, regional cooperation in Southeast Asia is extremely important. With NTS challenges becoming increasingly climate-related and having transboundary effects, the region needs to strengthen its ability to work together and find common solutions. Technology, in particular, has increased our ability to adapt to disasters and other NTS issues as seen through the use of early warning systems. It is thus important to continue to find innovative ways to manage such disruptions and find more avenues for multilateral and multi-stakeholder collaboration.

In Southeast Asia, ASEAN's commitment to address shared challenges as one community is significant in helping ASEAN member states build and strengthen capacity, mobilise as well as share resources and expertise. The regional organisation also provides a platform for non-state actors like the private sector, civil society organisations, the international community, and most especially, members of local communities. Moreover, ASEAN's role in acknowledging and highlighting the importance of various social groups in disaster management, including youth and women, as active agents in building disaster resilience are vital in dealing with in the increasingly multifaceted NTS challenges in the region.

The *NTS Year in Review 2023* comprises articles which reflect on the impact of recurrent and emerging NTS challenges on our nations and communities. These articles draw out some of the potential pathways to addressing such issues. We hope that you will find these articles useful in providing a holistic understanding of the kinds of threats we face today.

As the NTS Centre continues to conduct policy-relevant research on emerging NTS issues and their regional implications, we would value any feedback and look forward to any engagement on our research areas.



**Professor Mely Caballero-Anthony**

Head

Centre for Non-Traditional Security (NTS) Studies  
S. Rajaratnam School of International Studies (RSIS)  
Nanyang Technological University, Singapore

# Key NTS Events 2023

The World Meteorological Organisation (WMO) confirmed 2022 as one of the warmest years on record and that it was the eighth consecutive year that global temperatures have risen 1 degree Celsius above pre-industrial levels. The concerning finding risks the breaching of the Paris Agreement's limit of 1.5 degrees Celsius.

Almost 100,000 people and 15,000 homes were affected by severe flooding and landslides in areas of Sumatra Island, Indonesia which began after heavy rainfall on 21<sup>st</sup> January.

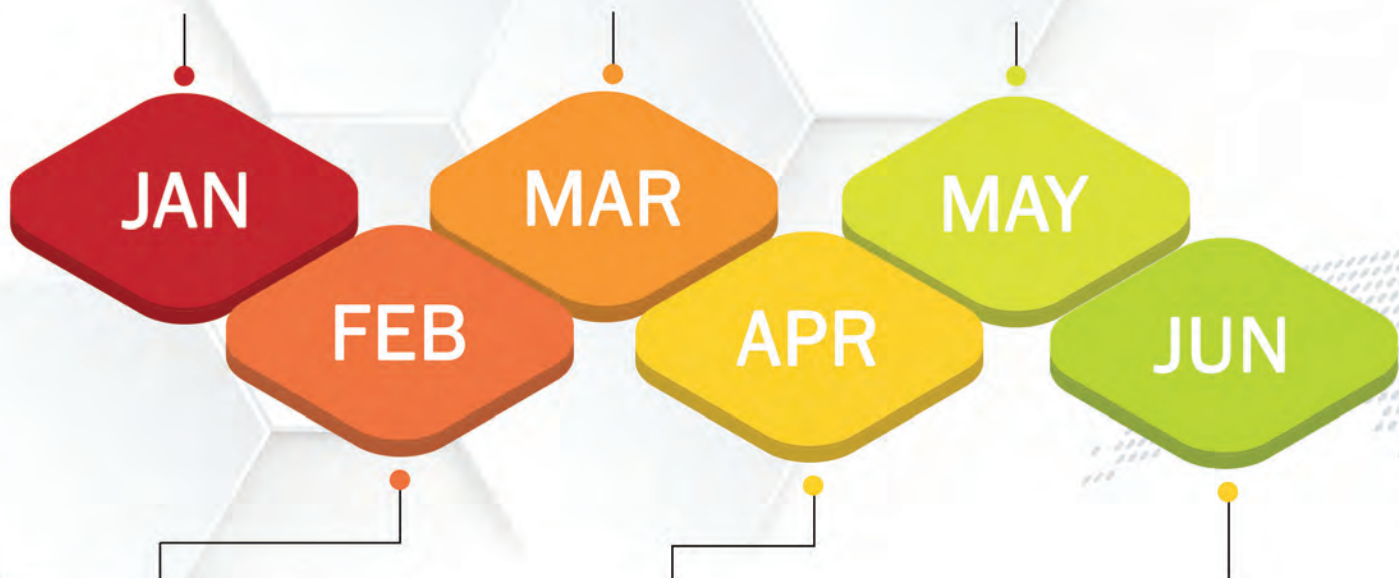
The Intergovernmental Panel on Climate Change (IPCC) finalised the Synthesis Report for the Sixth Assessment Report during the Panel's 58<sup>th</sup> Session in Interlaken, Switzerland on 13<sup>th</sup>-19<sup>th</sup> March. The report elaborates the devastating consequences of climate change and offers recommendations to avoid the intensifying risks.

On 3<sup>rd</sup> March, members of WHO began negotiations on a global accord on pandemic prevention, preparedness and response, which is aimed to protect nations and communities from future pandemic emergencies. The negotiations will continue over the next year.

On 3<sup>rd</sup> May, the Global Report on Food Crises 2023 produced by the Food Security Information Network was launched. The report revealed the gravity of the food insecurity issue in 58 countries/territories, with over 258 million people reportedly requiring urgent food, nutrition, and livelihood assistance.

On 5<sup>th</sup> May, the head of the WHO declared with "great hope" the end of COVID-19 as a public health emergency but stressed that it does not mean the disease is no longer a global threat.

On 14<sup>th</sup> May, Tropical Cyclone MOCHA made landfall in Sittwe, Myanmar peaking at Category 5. Damages amounted to more than US\$2 billion in Myanmar, equivalent to 3.4% of the country's GDP.



On 6<sup>th</sup> February, a Magnitude 7.8 earthquake struck southern and central Türkiye and northern and western Syria. The earthquake claimed more than 50,000 lives, injured more than 100,000 others, and left 1.5 million people homeless.

On 28<sup>th</sup> February, the United Nations Office for the Coordination of Humanitarian Assistance (OCHA) released the Global Humanitarian Overview 2023. The report detailed the largest-ever appeal for humanitarian assistance at US\$54 billion targeting 346.6 million people in need.

The Myanmar Air Force bombarded the opening celebration of a People's Defence Force administration office on 11<sup>th</sup> April, with at least 165 people killed.

The National Oceanic and Atmospheric Administration declared April 2023 as the warmest April for the Southern Hemisphere on record. This month also saw the third-smallest global April sea ice extent on record.

On 7<sup>th</sup> June, the fifth World Food Safety Day was celebrated to draw attention and inspire action to help prevent, detect, and manage foodborne risks, contributing to food security, human health, economic prosperity, agricultural production, market access, tourism and sustainable development.

On 19<sup>th</sup> June, the Treaty of the High Seas, which emphasizes the importance of protecting the ocean and the environment as well as tackling climate change, was formally adopted by Member States during the United Nations meeting in New York.

WMO officially declared the onset of *El Niño* conditions on 4<sup>th</sup> July. WMO emphasised the importance of early warning and anticipatory action to save lives and livelihoods as *El Niño* is likely to further global temperature increase and affect weather and storm patterns globally.

The global average temperature for July 2023 was the highest on record for any month and is estimated to be 1.5 degree Celsius warmer than the average for 1815 to 1900 (average of pre-industrial times).

From 24<sup>th</sup> to 26<sup>th</sup> July, over 2,000 participants from over 160 countries attended the UN Food Systems Summit +2 Stocktaking Moment. They reviewed progress on the commitments made at the first Food Systems Summit in 2021, identified successes as well as continuing bottlenecks, and refocused key priorities.

On 8<sup>th</sup> September, Morocco's High Atlas Mountain range was rocked by a Magnitude 6.8 Earthquake that resulted in more than 5,000 casualties and extensive damage to life and property. It is the first earthquake of such intensity to be recorded in a century for the country.

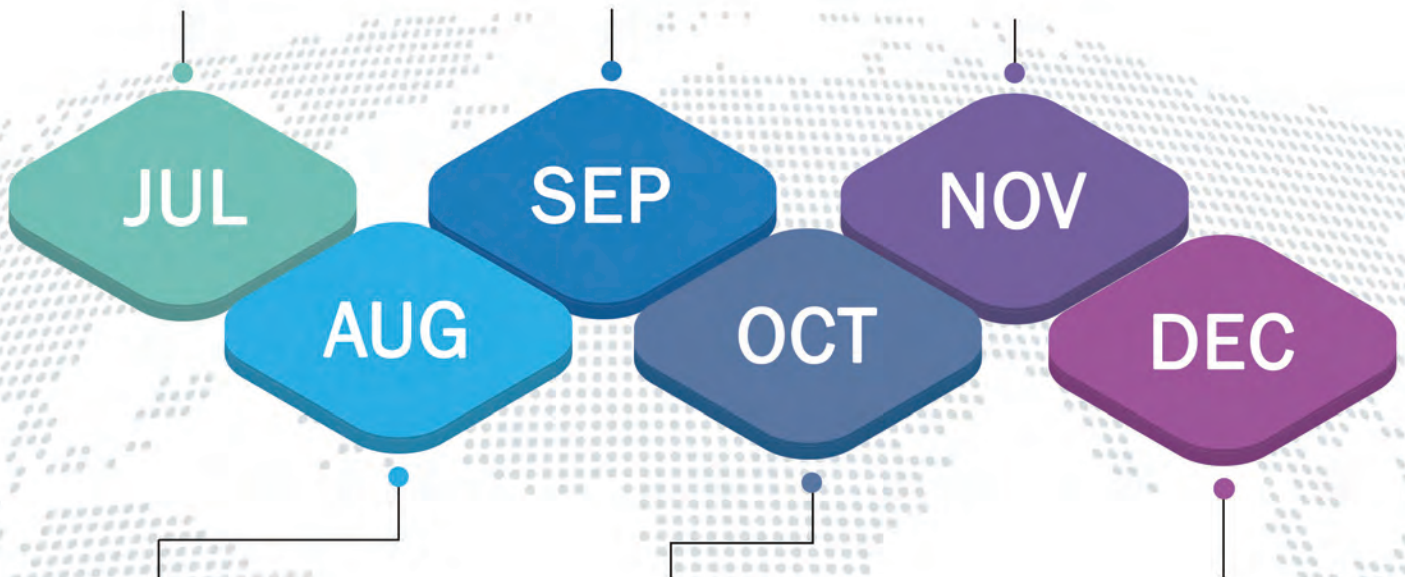
On 12<sup>th</sup> September, the UN World Food Programme declared a "historic funding shortfall" placing stress in its operations and potentially pushing an additional 24 million people to the "brink of starvation over the next 12 months".

The 78<sup>th</sup> UN General Assembly was held from 18<sup>th</sup> to 26<sup>th</sup> September. Discussions and debates this year centred on how to confront the global polycrisis—climate change, poverty, and food insecurity amid war and inflation, and find strategies to accelerate action on the SDGs.

Myanmar saw serious escalation of clashes impacting multiple areas in November. The combination of the active conflict, monsoon floods, and access barriers have reportedly hampered the improvement of the humanitarian situation further, resulting in the displacement of over 286,000 more and casualties reaching hundreds.

The ADMM-Plus Joint Statement on Women, Peace, and Security (WPS) was adopted during the 10<sup>th</sup> ASEAN Defence Ministers Meeting Plus (ADMM-Plus) convened on 16 November 2023 in Jakarta, Indonesia. This reaffirmed the ADMM-Plus' commitment to fully implement the ASEAN Regional Plan of Action on WPS as well as advance the WPS agenda in its Experts' Working Groups starting with the 2024 to 2027 cycle.

The 2023 United Nations Climate Change Conference, or COP28, was held from 30<sup>th</sup> November until 12<sup>th</sup> December in Dubai. The conference is aimed to drive global transformation towards a low-emission and climate-resilient world, foster ambitious climate action, and facilitate implementation.



On 20<sup>th</sup>-24<sup>th</sup> August, World Water Week 2023 took place in Stockholm with the theme, 'Seeds of Change: Innovative Solutions for a Water-Wise World'. The event focused on a rethink of global water management and governance in a water scarce world.

The 41<sup>st</sup> ASEAN Ministers on Energy Meeting (AMEM) was hosted by Indonesia on 24 August and reaffirmed the regional commitment towards Regional Energy Interconnectivity and Energy Security.

On 24<sup>th</sup> August, Japan began discharging treated water from the crippled Fukushima Daiichi Nuclear Power Station into the Pacific Ocean raising public concerns about its safety. The International Atomic Energy Agency's safety review concluded that the method used is consistent with established nuclear safety standards.

The 11<sup>th</sup> Global Dialogue Platform on Anticipatory Humanitarian Action took place in Berlin from 10<sup>th</sup>-12<sup>th</sup> October. Organised by the Anticipation Hub, in collaboration with FAO, WFP, and OCHA, the dialogue centred on how to drive anticipatory action forward, strengthening key initiatives that support early warning and the anticipatory action value chain.

On 7<sup>th</sup> October, Hamas launched a large-scale terror attack on Israel from the Gaza Strip. The Israel-Hamas war resulted in severe civilian casualties and displacement, with thousands of deaths and millions displaced.

A 7.4-magnitude earthquake struck Mindanao in the southern Philippines on 3<sup>rd</sup> December, triggering coastal evacuations and some waves in there and Japan. Three people died while a total of 132,615 families, composed of 528,203 individuals, were affected by the earthquake.

Eleven hikers were found dead on 4<sup>th</sup> December and another 12 were missing after Mount Marapi, an active volcano, erupted in West Sumatra, Indonesia. Marapi is on the second alert level of Indonesia's four-step system.



# Climate Change and Its Impact on Peace and Security in Southeast Asia

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*Mely Caballero-Anthony, Julius Cesar Trajano, Alistair Cook, S. Nanthini, Jose Ma. Luis Montesclaros, Keith Paolo Landicho, and Danielle Lynn Goh*

Climate change is today one of the greatest risks to peace and security, but arguably remains at the margins of policy action amid the loss of trust in multilateral institutions. The impacts of climate change are already felt by local communities in regions on the frontline. While communities have exercised agency to generate local impact and promote trust, the overwhelming impact of climate change necessitates effective state responses, and regional and global cooperation. Global cooperation, in turn, needs to better address the challenges to peace and security faced by regions most exposed to the impacts of climate change.

Southeast Asia is already experiencing direct climate change impacts from changes in temperature, precipitation, sea-level rise, ocean warming, and more frequent and intense extreme weather events. The subsequent indirect climate change impacts on food and water security, and changes in natural resource exploitation and migration patterns, affect the lives and livelihoods of people and communities across the highly diverse region and threaten its peace and security.

While climate change is a global collective-action problem, different states and societies are not affected in the same ways. In the World Economic Forum's Global Risks Report 2023, the impact of "natural disasters and extreme weather events" was again ranked the second most important over the next two years and third most important over the next 10 years. According to the report, this risk disproportionately affects low- and middle-income countries, which suggests that the countries of Southeast Asia, most of which fall in the middle (upper or lower) income category, would be particularly affected. Unless climate change is addressed, the Asian Development Bank (ADB) estimates that the region's economy could shrink by 11 percent by the end of the century due to the toll on agriculture, fisheries and tourism.

This has significant implications for transnational security in the region because the region is connected through supply chains and people movement to the global

system. The impacts of climate change are not only felt in economic terms but also impinge on societal resilience. Climate change and its resulting impacts are now viewed as key drivers of potential instability at all levels of society in Southeast Asia. Vulnerability is higher in locations with poverty, governance challenges and limited access to basic services and resources, violent conflict, and climate-sensitive livelihoods. This is exacerbated by inequity and marginalisation linked to gender, ethnicity, low income, or combinations of these. These converging risks are a source of major concern for the sustainability of peace and security in Southeast Asia.

## **Climate, Peace and Security: Adopting a Comprehensive Security Approach**

Comprehensive security is the organising concept of security in Southeast Asia, integrated and widely reflected in the security lexicon in the region, and already underpins how the region understands and deals with the cross-cutting impacts of climate change on its peace and security. This concept also accounts for the disaggregated impacts of security threats on marginalised and disadvantaged social groups, such as people with disabilities, women, ethnic minorities, migrants and rural populations.

The region is home to populations of diverse religions, ethnicities, cultural groups and political systems. Economic interests and economic development are a common thread that promotes stability and security within and between states across the region. Against this backdrop, ASEAN member states collectively recognise the potential impact of climate change on the basic needs for human life, particularly for already vulnerable groups that would be disproportionately affected by the impacts. In other words, the notion of climate security for the region goes beyond the concern about the potential for violent conflicts to also include economic, political and socio-cultural dimensions.

The severe human security challenges brought on by climate change are more than enough for the countries of Southeast Asia to consider climate change as a real and existential threat. Equally important is the need to recognise the transnational consequences of sea-level rise, competition over water and marine resources, and forced displacement of already vulnerable groups. Managing these intersectionality and cross-border implications compels states and societies to work together while strengthening and deepening regional cooperation.

## **Climate, Peace and Security Risks**

Climate change has heightened food insecurity, by reducing food production, increasing food prices, and disrupting food distribution. Further, extreme heat exposure and increase in vector-borne diseases as temperatures rise, and the cascading impacts, pose significant threats to



*A vegetable farm in Indonesia being irrigated by a solar pump*  
Photo credit: ADB via Flickr, under Creative Commons license

human health. On mainland Southeast Asia, rivers have long been a source of livelihood and power generation to support national economic growth. As countries search for energy alternatives to fossil fuels to reduce greenhouse gas emissions, river systems like the Mekong River have become important components of energy mixes. The increasing importance of hydropower provides opportunities for local communities and for relations between states connected by these river systems, but also has the potential to heighten both socio-economic risks and political-security fault lines.

As extreme weather events increase, the region will face more acute direct challenges to the survivability of exposed communities, again with cascading impacts, including socio-economic issues disproportionately affecting already vulnerable groups. These could drive migration in new directions, with important implications for local communities and inter-state relations. Climate change will exacerbate pre-existing tensions both internally and between countries in Southeast Asia and the wider region.

While the existing internal conflicts in the region are not caused by climate change, the convergence of climate change impacts and conflict could undermine the human security of internally displaced persons and vulnerable communities, worsening the humanitarian challenges in the region, reducing development and undermining the capacity of communities to adapt. The relationship between climate and conflict is not linear. It is complex, nuanced and context-specific. That said, climate change and conflict, separately and together, undermine livelihoods, hinder adaptation and weaken social cohesion.

Climate change will further complicate geo-political dynamics emanating from inter-state security challenges in the Mekong Sub-region and illegal, unreported and unregulated fishing in the South China Sea. The Mekong River connects Cambodia, China, Lao PDR, Myanmar, Thailand and Vietnam. As interest in hydropower increases, the transboundary water management issue among the Mekong countries could only become more complex, and would also likely be exacerbated by changes to the river due to climate change. In the South China Sea, sea-level rise and a warming ocean will further influence the trajectory of disputes, with the movement of fish stock and the submergence of islands shifting the contours of disputes between claimant states and with wider fishing interests.

Climate change can exacerbate the intensity and frequency of multifaceted peace and security issues in Southeast Asia. The compounding impact of climate change – interacting with various intractable peace and security challenges in the region – on vulnerable sectors and peoples could generate new security challenges to the well-being of states and communities. It is therefore important to appreciate how climate security is framed and understood in Southeast Asia and the interconnections between the effects of climate change and current and extant security challenges in the region.

*This article is excerpted from the Report on Climate Change and Its Impact on Peace and Security in Southeast Asia presented at the ASEAN-UN Regional Dialogue on Climate, Peace and Security held at the ASEAN headquarters in Jakarta, Indonesia on 21-22 November 2023. The RSIS NTS team was commissioned to produce the report.*

# Climate Change and Security: Addressing Complex and Cross-cutting Challenges

*Mely Caballero-Anthony*

The *Sixth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC)* states that climate change is rapid and intensifying in every region in the world. This has been seen in Asia which is widely known as the region most exposed to natural hazards with climate change causing more frequent and intense occurrences of extreme weather events like typhoons and droughts.

In Southeast Asia, six ASEAN members are among the world's 20 countries most vulnerable to climate (Indonesia, Malaysia, Myanmar, the Philippines, Thailand, and Vietnam). The *ASEAN State of Climate Change Report* notes that Southeast Asia's high vulnerability to climate change is due to 'growing intensity and magnitude of extreme weather events, and increasing economic, environmental, and social damage.'

The challenges faced by countries in the region are not limited to the geophysical effects of climate change. Other challenges include a low adaptation capacity, lower economic development, and governance. Against these risks, there are compelling reasons to elevate climate security to the highest priority in the political and security agendas of states from the national to the international levels.

## Multifaceted Linkages

Linking climate change with security often brings concerns about the unintended consequences such as being a military-driven agenda, justifying an increased role of the military in 'nonmilitary' matters and potentially causing more competition rather than cooperation. But the severe human security challenges brought on by climate change are more than enough to allay concerns about military's involvement in traditional military threats. These challenges can be seen particularly in times of extreme weather events.

In 2022, 137 disasters were reported in the Asian region, with around 14.3 million displaced in Asia and the Pacific region—all significant increases from previous years. The economic loss of these disasters had been staggering with current estimates of annual losses at \$780 billion and projected to increase to

between \$1.4 trillion and \$4.7 trillion by 2050. With the projected impact of climate change on food security, the undernourished in Asia which make up more than half of the world's undernourished (424.5 of 725 million who are undernourished globally), will only increase causing more human sufferings. There are also the increasing threats to human health considering that environmental changes contribute to emerging infectious diseases.

The magnitude of the climate emergency extends well beyond the economy, food, and health. The multiplicity of risks associated with climate change -- like resources scarcity including water are also well-established drivers of conflict. Climate-induced forced displacement of vulnerable groups and communities could also compound existing fragilities, which in turn, destabilise already vulnerable areas in Southeast Asia. There is therefore the urgency for the region to proactively engage on climate security.

## Advancing the Climate Security Agenda

For a region where ideas of comprehensive security, human security and non-traditional security are deeply ingrained and seen in states' practices, advancing the agenda of climate security goes a long way in helping states address climate-related security risks while promoting regional cooperation. ASEAN should therefore be at the forefront of climate security engagement and urge its member states to integrate climate security in their national policies. At the same time, existing regional mechanisms like the ASEAN Coordinating Centre for Humanitarian Assistance and Disaster Relief, the ASEAN Plus Three Rice Emergency Reserve and the ASEAN Centre for Public Health Emergencies and Emerging Diseases should be strengthened.

More attention should be given to building regional capacity in adaptation, including climate financing. More investments are also needed to support energy transition, such as building sustainable infrastructure particularly in renewables. With the complex and cross-cutting challenges of climate change, it would do well for countries in Southeast Asia and beyond to think about what needs to be done today to protect and ensure the security of peoples and states a climate change world.



*A makeshift evacuation centre for internally displaced people in Mindanao, southern Philippines*

Photo credit: EU ECHO in the Philippines via Flickr, under Creative Commons license

# Disaster Management in Southeast Asia: 20 Years of Progress and Challenges

*Mely Caballero-Anthony, Alistair D. B. Cook and Jonatan Lassa*

The management of consequences arising from natural hazards in Southeast Asia has seen laudable advancement in the last 20 years. The Association of Southeast Asian Nations (ASEAN) has played a positive role in this progress. However, there is emerging disaster policy inertia that reflect local realities at the ASEAN and global levels.

Among both proponents and critics, there is a shared perception and narrative that disaster risk reduction policy reform in ASEAN has been fruitful, marked by the steady development of the ASEAN Committee on Disaster Management (ACDM) since 2003 that laid the foundation for the legally binding ASEAN Agreement on Disaster Management and Emergency Response (AADMER) in 2009. AADMER led to the establishment of the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre) in 2011.

Since then, the AHA Centre has been instrumental in ASEAN disaster relief and humanitarian operations. It has built upon ASEAN's pivotal role during the response to Cyclone Nargis in Myanmar in 2008. It has since repeatedly proven its legitimacy to the member states, as exemplified during the Central Sulawesi earthquakes in 2018. ASEAN international partners, including bilateral and multilateral institutions, have supported the ASEAN disaster management systems and mechanisms, illustrating an important avenue for cooperation between countries in the region and the international community.

Since 2008, ASEAN mechanisms have been consistently facilitating and catalysing significant regional initiatives and policy changes leading to the "nationally-led, regionally-supported and international-as-necessary" mantra often heard in disaster management and emergency response dialogues. The five-year work plan serves as a platform for the ACDM to operate in a shared and collaborative manner.

At the regional and diplomatic levels, 'everything' seems to be working and moving in the right direction towards implementing ASEAN disaster management commitments that have been strategically aligned with global agendas such as the Sendai Framework for

Disaster Risk Reduction and the Sustainable Development Goals. However, there is a perception in some quarters that despite active engagement in global platforms and participation in the discourses and policies of international organisations and dialogue partners, there is less focus on reflecting local needs and voices.

## **Institutional Inertia?**

Notwithstanding ASEAN's achievements in disaster management to date, there are significant challenges to maintaining the momentum built over the past twenty years. We have observed that policy developments at the regional level and the sustainable development needs and policy impact at the local level are diverging. The ASEAN Secretariat and AHA Centre appear frustrated at the lack of progress at the national and sub-national levels. This begs the question about how ASEAN can provide global leadership when there is a lack of progress at these levels.

At global meetings and in their contributions to global initiatives, the ASEAN Secretariat and AHA Centre have collaborated with other entities and adopted much of the terminology and terms of reference. Such collaboration is necessary for a multi-stakeholder environment, but it needs to be carefully calibrated with its home constituencies. In the case of disaster management, this means that efforts need to be focused on the local level.

Over the past two decades, ASEAN's disaster management community has shown significant progress in terms of garnering policy priority within the regional organisation. ASEAN provides strong capacity building programmes to help member states advance disaster management as an important policy agenda, but its local impact has plateaued.

It is becoming more apparent that trends are in reverse in the regional disaster management landscape in terms of achieving measurable goals. Regional meetings have received criticism similar to that of other sectors in ASEAN, where these meetings are seen as an end in themselves and implementation of their outcomes is at best sporadic.

Recent formal reports such as the *Asia-Pacific Disaster Report 2022*, shows that across nearly all indicators, the region is regressing in terms of its 2030 targets. A report on Indonesia at the Global Platform on Disaster Risk Reduction held in Bali in May 2022 showed that 6 out of 7 indicators demonstrating progress to achieve the Sendai Framework goals by 2030 are likely to fall short. Countries in the region often regarded as disaster risk reduction champions can lose legitimacy among their peers in the global community if this trend continues.

Policy developments and pronouncements need to reconnect with the local community in ASEAN. One crucial component of this is the engagement of the university research sector at the local level. Strong



*ASEAN member states have been enhancing HADR framework in the region*

Photo credit: Wikimedia, under Creative Commons license

relationships should be built with these institutions of higher learning to help them become not only repositories of local knowledge of disaster management, but also to inform and develop locally-led disaster management policy that shapes regional efforts within and outside the region to fully realise the original aims under the motto “One ASEAN One Response”.

It was not for regional entities to become dominated by global norms shaped by more powerful entities, but for them to contribute regional perspectives to inform the global dialogue, particularly in a policy realm where the grounds for multi-stakeholder cooperation are fertile.

While it is inevitable that socialisation and power politics occur within the global context, there is a need for this conversation to be heard, and to articulate the priorities of the people. This will generate much-needed momentum within the region to address disaster risk, build a more disaster-resilient society, and achieve the 2030 goals on time. This experience will even provide the global community with evidence-based policies to shape broader disaster policy conversations.

### **Revitalising Disaster Policy: An Important Agenda for ASEAN Towards 2043**

At present, there is a lack of initiatives reflecting local realities to sustain and elevate disaster management

policy to meet the challenges of today and those we will face in the next 20 years. The region faces two fundamental challenges that need to be addressed: (1) failure to meet Sendai Framework indicators and regression even by 2030; and (2) the loss of strong leadership that drives action, engages personnel, and provides direction in the coming years.

There is a very real possibility that ASEAN would not meet the Sendai targets by 2030. This prospect is not simply because of the COVID-19 legacy of the past three years but signals the divergence between local needs and policy action at ASEAN level. When measured by tangible outcomes at the societal level, including the ground-level real-risk trajectory, data suggests that the real risks should concern many players and stakeholders. For example, one small earthquake event can be disastrous, as shown recently in Cianjur, Indonesia.

We note that progress achieved in ASEAN disaster management policy has become weak. There are thousands of preventable hazards turning into disasters in the region. Furthermore, there is a lack of systematic evidence to show that sustainable recovery to avert future disasters, as promoted by the ‘build-back better’ framework, is underway. If the dual challenges of regressing on the 2030 targets and the loss of leadership are not tackled, then the progress achieved over the past twenty years will not be sustained.

# Re-Thinking Food Security for ASEAN

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*Paul Teng*

Countries need to re-think their approaches to food security in light of new and recurring (intensified) threats arising from climate change, severe weather events, geopolitical tension, conflicts, supply chain disruptions and the possibility of additional “Black Swan” events. To most politicians and policy makers, food security immediately suggests increasing food availability and assuring its uninterrupted supply. However, in the face of a VUCA (Volatile, Uncertain, Complex, Ambiguous) future, a more nuanced approach is needed which explicitly addresses all the dimensions of food security – availability, physical access, economic access, utilisation and stability.

## **Pursue a Preparedness Paradigm**

This needs to be considered at the national, sub-national and household levels. While there may be sufficient amounts of food at the national level (high self-sufficiency level), there will still be food insecure households (commonly those on the lower socioeconomic ladder). In this regard, it will be essential as part of the re-thinking to consider having multi-agency, cross-sectoral and inter-disciplinary entities in each country that are empowered with developing and implementing national food security agendas which include technological, financial and social considerations. Within ASEAN, different approaches seem to have been adopted. Singapore had an Inter-Ministry Committee on Food Security which provided a forum for cross-cutting discourse and coordination but appears now to focus using one government agency to drive its food security agenda. Indonesia formed a National Food Security Agency to improve coordination and effectiveness to address all the five dimensions of food security, although it is



*A rice field in Southeast Asia*

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anchored by the agriculture ministry. Agriculture is an important sector but not necessarily the critical entity when it comes to assuring household food security.

Some time ago, we recommended that going forward, a “Preparedness” paradigm must prevail in which countries not just anticipate threats to food security but have in place response plans which address all dimensions of food security, similar to preparing for health crises. Because food security is complex and multi-dimensional, the threats of disruption extend beyond production (agriculture) to imports via supply chains (transport/ logistics) to economic access (affordability, employment) and nutrition (and health). Practicing a preparedness paradigm that explicitly addresses all dimensions in the food security complex is essential in a VUCA environment. It is heartening that in the ASEAN Leaders’ *Declaration on Strengthening Food Security and Nutrition in Response to Crises*, adopted by the ASEAN Leaders at the 43<sup>rd</sup> ASEAN Summit on 5 September 2023, “preparedness” has received much attention.

### **Integrate Technological Applications**

Making more food available in the longer term, stably and affordably, means improving the production efficiency of farming through technology, best management practices and supportive policies and regulations. Countries like Malaysia and Indonesia are leading in some applications of digital technology, but the applications are still uneven across crops, livestock, poultry and aquaculture. Digital technologies can significantly improve productivity and total production but need enablers like policy, regulation, innovations and investments to make it fulfill its potential. To this effect, ASEAN exemplifies a regional approach when it endorsed the “ASEAN Guidelines on Promoting the Utilization of Digital Technologies in the Food and Agriculture Sector” at the 43<sup>rd</sup> Meeting of ASEAN Ministers on Agriculture and Forestry (AMAF).

Another area is biotechnology. It is no coincidence that the main food exporting countries of the world are those that have adopted biotechnology in their agriculture. Within ASEAN, the Philippines adopted Biotech-maize and was able to significantly reduce its imports of this key animal feed. Southeast Asia, in general, is short of soybean and maize to grow more meat and relies heavily on the Americas for animal feed. The region may need to re-think its attitudes towards biotechnology crops, and could help itself by investing its research capabilities to speed-breed new soybean varieties for the tropics, eventually leading to reducing the cost of producing chicken and fish.

### **Increase Productivity**

Today, no country is completely self-sufficient in all its food requirements, and most countries import food. Although ASEAN is a rice surplus region, it still imports from beyond. India announced an export ban on non-Basmati rice in August 2023 and Thailand has asked its farmers to plant less rice in the main season because of anticipated water shortages caused by the *El Niño* weather event. This means that the smaller amounts available for international trade will likely cost importing countries (e.g., the Philippines, Malaysia and Singapore) more to import. Ironically, some ASEAN countries, like Malaysia, can produce more rice but until recently purposely decided not to do so but to import.

A re-think on this will likely take place, with its associated questions on how to up the total production and the individual farm yields through improved deployment of proven technology. Increasing productivity is a low-hanging fruit if the right set of enablers (policy, technology, subsidies, etc.) are strictly implemented. In the longer term, structural transformation of the rice sector, better R&D to improve rice varieties, and to find the “sweet spots” to reduce yield gaps are essential. The situation with rice is illustrative of other food sectors. Together with supply chain connectivity agreements with key exporting countries, and releases from stockpiles, these would help narrow any supply deficits.

### **A Stronger Commitment to be Food Secure**

Many parts of Southeast Asia are well endowed with land, water and favourable farming environments. In principle, it has enough capability to produce more food at reasonable prices. The past focus on industrial, export-oriented crops may have affected investments in food agriculture. A well-coordinated regional food security plan, premised on national plans, with clear targets and milestones aimed at key food items will be an important step in a re-think exercise, if adequately resourced. This then begs the question of how strong is the political commitment to be food secure?

In the strictest sense, “securitising” food is more appropriate than addressing food security per se. In the international security community, to securitise an issue means to elevate its status and put in sufficient resources (money, people, etc.) to remove that issue as a security threat. For example, most countries have securitised their boundaries through adequate investments in military defence. Hence, another important advancement would be to commit to elevate food, with adequate resources and institutional capacity to a comparable level with that of a threat to national security.

# Global Food Security Disruptions: Preventing the Next Crisis

*Jose Ma. Luis Montesclaros*

Rice export bans had become, arguably, among the food security disruptions in 2023. India's decision to limit the exportation of its non-basmati rice had significantly affected global rice supply and prices given that it made up a third of its milled rice exports. Historically, India has been the world's largest rice exporter, contributing 40% of global rice exports.

This decision occurred a week after Russia's 14<sup>th</sup> July pull-out from the Black Sea Grain Initiative. Russia's withdrawal from the initiative effectively removed

guarantees of safe passage for shipments of grains (prominently, wheat and maize) and fertilisers. In combination, these had contributed to rallying prices for "semi-milled 5% broken rice" – a key benchmark for non-premium rice prices, which were up to 50% above the prices in 2022. Prices reached the same level of S\$870 per tonne as in the 2007-08 global food price crisis.

India's moves can be better understood as a reflection of the continued impacts of COVID-19 pandemic and the Ukraine War since 2020. Understanding how India has been impacted, can prove insightful regionally, including for Thailand and Vietnam as other top rice exporters.

## **Understanding Export Bans from India's Perspective**

India's export ban came as a result of its previous contributions to global food security amid the Russia's war in Ukraine, since India stepped up to fill the gap in international wheat exports left by these two warring countries. It increased its wheat exports to more than



*Rice being sold in the markets of India*

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1.4 million tonnes in April 2022, roughly five times the previous year's April exports. Greater wheat exports amid the war led to domestic shortages and a surge in Indian wheat prices, culminating in India's wheat export ban in May 2022, which remains in place today.

Apart from banning wheat exports, India has even had to roll back on its massive COVID-19 food aid/distribution programme known as Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) which previously allocated additional grains for distribution. However, owing to the domestic wheat shortages and rising wheat prices in from the Ukraine War in 2022, the country decided to roll back the PMGKAY by 1<sup>st</sup> January 2023, and re-allocated grains away from the said food distribution programme and into domestic markets to quell inflation.

The wheat shortage further fed into India's rice shortage, as wheat is a substitute for rice in making up India's grain stockpiles. This led to fast-rising food price inflation domestically in mid-2022, and the need for a minimum rice export price restriction in September 2022. Food price inflation continued to increase to 11.51% in July 2023 despite such a ban, which prompted the government to place stronger rice export restrictions that month, and subsequently in August.

### **Role of Rice Reserves**

Southeast Asian countries could explore how regional mechanisms, such as the ASEAN Plus Three Emergency Rice Reserves (APTERR), can be leveraged to prevent further instability. In July, the United Arab Emirates (UAE) had already imposed a four-month ban with a focus on re-exported Indian rice. By August, Myanmar too had banned its rice exports. Thailand and Vietnam have not yet made drastic moves.

The goal of regional cooperation, in this regard, would be to prevent traders from engaging in "strategic" or speculative behaviour by imposing rice export bans or export constraints aimed at increasing revenues from higher international prices, and to stop major importing countries from engaging in speculative purchases of rice. It would be timely for ASEAN to explore how the rice reserves can be used in a strategic way to mitigate price spirals before they worsen, and to explore what other mechanisms can be engaged to prevent spiralling increases in the price of rice.

### **Capital Assistance to Food Exporting Countries?**

Criticisms of India's rice export ban must be balanced with the recognition of its responsibility to ensure food

affordability for its constituents. India's efforts to support the global community when the war started inadvertently posed a challenge to food security within its borders due to higher domestic food prices, consequently necessitating export bans on wheat and rice.

A more constructive approach to engaging India would be to recognise the complex balancing act it undertakes within the global food order, in particular, its dual mandate of serving as a reliable food source in the international food trade on the one hand while meeting the food security needs of its domestic constituents on the other.

Building on this, a further imperative is to explore how India and other rice exporting countries can be better supported by the international community. A potential approach moving forward lies in providing international capital assistance to bridge the financing gaps faced in subsidising domestic constituents.

Such support would allow exporting countries to sustain consumer support programs to their poorer constituents and remove the need to ban grain exports. Grain supplies in international markets would be less disrupted as India would continue exporting, premised on the support it expects to receive in exchange. This approach thus compensates India for playing its role as a net food exporter in the current global food order.

A starting point for such an approach would be to build on the Global Food Import Financing Facility (GFIFF) proposed by the UN Food and Agriculture Organization to the International Monetary Fund, to support poorer importing countries who face balance of payments constraints or budget shortages. The difference would be that instead of supporting lower-income food importing countries only, it would be further extended to lower-income food exporting countries too.

Granted, global grain prices would still increase with such a solution. But this would serve to eliminate the prospects for a worse crisis should a prolonged ban by India spur countries dependent on the rice trade to speculate on prices as they seek to maximise profits and minimise costs, leading to a repeat of the 2008 global food price crisis.

# Navigating the Climate Emergency: The Crucial Role of Adaptive Decision Support Systems in ASEAN's Disaster Management

*Keith Paolo C. Landicho*

The Index for Risk Management (INFORM) Report for 2023 by the Inter-Agency Standing Committee and the European Commission presents the latest results of its risk and severity indexes, as well as analyses of historical trends and future projections relating to humanitarian crises and disasters. The suite of information synthesises hazard, demographic, and socioeconomic information and projections. The addition of a climate change component — INFORM Climate Change — in 2022 showcases foresight and synergy in analysing climate change risks. Since its first report, released in 2014, INFORM has set the benchmark for the development of humanitarian crisis decision support systems.

Regionally-led efforts like ASEAN's 2018 Regional Risk and Vulnerability Assessment (RVA) paved the way for

informed decision-making, guiding long-term disaster risk reduction and management. This and succeeding editions have developed concurrently with their global counterparts, signifying ASEAN's commitment to sustainable resilience. However, ASEAN's approaches to addressing pandemics, socioeconomic conditions, and disasters remain siloed, evident in the ASEAN RVA. The reactionary development and myopic scope of the regionally-led decision support system sets a precarious precedent, especially in the midst of the climate emergency.

## Decision Support Systems

Decision support systems are a collection of information that provides contextual and integrated analysis. The latest edition of the global decision support system INFORM presents Risk, Severity, and Climate Change components to inform a range of functions, including development, crisis preparedness and response, adaptation, and mitigation. INFORM Climate Change, in particular, presents a climate change risk index that integrates all components of each dimension of risk (hazard, exposure, vulnerability, and coping capacity). It includes future projections in various scenarios, i.e., atmospheric concentrations of greenhouse gases and other radiative forcings, and potential changes in socioeconomic factors over the next century.

The ASEAN RVA presents a singular risk score – similar to INFORM Risk – to measure the multiple drivers of risk. However, compared to ASEAN RVA, key information is more clearly highlighted by INFORM's dynamic, anticipatory nature, and its development trends. While ASEAN RVA tackles risk as a result of hazard and exposure, vulnerability, and lack of coping



*The ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre)*

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capacity, INFORM tackles risk and climate change together, recognising their interconnectedness, along with potential trends.

## **Role of Decision Support Systems in Humanitarian Assistance and Disaster Relief**

Decision support systems are used by all kinds of humanitarian actors — the World Food Programme (WFP), the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), the International Federation of Red Cross and Red Crescent Societies (IFRC), the World Health Organization (WHO), and the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre). INFORM, in particular, has supported risk analysis, preparedness and response planning, and efficient funding allocation in Humanitarian Assistance and Disaster Relief (HADR) operations globally.

The AHA Centre has facilitated over 40 emergency responses as the primary coordinating agency for HADR in Southeast Asia. Its repository of situation reports showcases reliance on decision support systems to facilitate a timely and effective response.

Considering the convergence of climate change and the increasing magnitude, frequency, and severity of disasters, the risk landscape is obviously changing. The additional pressure for a region like ASEAN piles on its notable geographic vulnerabilities and limited resources. The role of decision support systems, such as INFORM and the ASEAN RVA, could not be more vital as informed decision-making is crucial to safeguarding lives, minimising economic losses, preventing secondary effects, and adapting to the climate emergency.

### **ASEAN's Efforts**

Studies conducted by the AHA Centre in collaboration with the Pacific Disaster Center (PDC-Global) in 2019, 2020, and 2022 have worked towards a regional-scale decision support system for climate change adaptation. The computation of a risk index (hazard, exposure, vulnerability, and lack of coping capacity) forms the basis of the joint study. The 2019 study compared the INFORM and RVA indices side by side and revealed majorly consistent and similar findings. The 2020 study embarked on a trend analysis and placed ASEAN member states in the changing risk landscape. The latest study in 2022 aimed to depart from ASEAN's differentiation of pandemics from natural hazards with closer likeliness to INFORM, considering the convergence of COVID-19, climate change and the existing disaster risk landscape.

The AHA Centre is also working towards strengthening the existing ASEAN Joint Disaster Response Plan (AJDRP). This stems from challenges and needs that have been identified to be addressed by the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) Priority Programme 3 Preparedness and Response. Identifying potential disaster risk scenarios in the AJDRP ties in regional efforts to scale and adapt to converging impacts of climate change and the increasing magnitude, frequency, and severity of disasters — a testament to the region's strategic foresight in HADR.

Furthermore, Canada's Department of Foreign Affairs, Trade and Development (DFATD) entrusted the AHA Centre with the implementation of a five-year project, "Improving ASEAN's Humanitarian Assistance Capacity in Multi Hazards". The project aims to address the socioeconomic component of the climate emergency by raising awareness of how climate change and disasters affect individuals differently. This is done through capacity building in emerging complex crises and inclusive HADR.

Efforts in creating a decision support system that is adaptive to emerging challenges have become apparent in the ASEAN region, but the challenge remains in reaching a synergistic approach. Taking a multidimensional approach (e.g., ASEAN efforts through the AHA Centre) and synthesising the plethora of information into an integrated and comprehensive decision support system allows ASEAN, or any region, to navigate the climate emergency strategically, proactively, and in an informed manner.

### **Moving Forward**

ASEAN's commitment to sustainable resilience paves the way for the development of resilient disaster management systems in the region. Despite existing operating procedures and arrangements being instrumental for ASEAN, older data forming the basis of legacy decision support systems pale in comparison to present day risks. The number of disaster deaths reported in 2022 is twice the 2002-2021 median of 16,011 — the harsh reality of the climate emergency.

Moreover, in this era of climate uncertainty and evolving risks, synergistic decision support systems are of paramount importance. They enable tailored response to challenges posed by changing climate patterns and geographic vulnerabilities. Their role in strengthening resilience cannot be overstated but can be easily overlooked when the components remain siloed. Looking into the future of climate change-amplified crises, leveraging data and insights from these decision support systems will be crucial in mitigating the impact of disasters, especially for vulnerable groups and communities.

# Climate Security and Role of Women in ASEAN

Tamara Nair

Climate change processes are acknowledged as critical components of regional and international security, and ASEAN should mobilise all segments of its population and existing plans of action to tackle this challenge. The role of women in ASEAN's peace and security including climate change should be acknowledged and strengthened systematically. The ASEAN Women, Peace and Security Regional Plan of Action offers such an opportunity for increased regional cooperation and resilience.

United Nations Security Council Resolution 1325 on Women, Peace and Security (WPS) calls on the international community to incorporate gender perspectives in frameworks analysing international security issues. There is a growing debate on the relationship between climate security and women that is merging with existing literature on women and armed

conflict. An understanding of women's vulnerabilities in climate change is essential to understanding the magnitude and urgency of the issue. The impact on women should be investigated and addressed as an integral part of ASEAN's climate security architecture. ASEAN could pursue this through its WPS Regional Plan of Action (RPA).

## Women and Climate Change

The UN has already begun to broach the intersection between climate change, and women and security, arguing the connection between resource scarcity and violent conflicts and proposing the strengthening of women's networks to engage in dialogue and mediation processes around natural resources management. The effects of climate change have broad gendered implications due to the entrenched inequalities women face in accessing and managing key resources such as water, food and energy. In understanding women's role in climate change, it is essential to understand their role in making decisions about natural resources and how these decisions manifest regionally.

Take the water sector for example. Successful and effective water projects are vital in a new climate reality. There is evidence that water projects designed and run with the inclusion of women to the maximum extent possible are more likely to succeed in the long term. However, the reality is that women across Asia and the



*The role of women in climate security needs to be recognised and enhanced*

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Pacific lack representation at the management level in the water sector.

The argument for more active participation by women in discussions on climate change and food security is borne out by the 2021 OECD report, which stated that over a quarter of the female labour force in Southeast Asia worked in the agriculture industry and in food production. Moreover, according to the Asia-Pacific Forum on Sustainable Development held in March 2022, 48-75 per cent of employed women worked in the agriculture and agricultural value chains in Cambodia, Myanmar, Lao PDR and Vietnam.

Women are also under-represented in the energy sector in Southeast Asia. This under-representation is partly due to sociocultural norms, which limit the presence of women in employment and hence impeding the move towards a gender-just energy transition. It is this author's assessment that policymaking should include the participation of women and should cover all levels – from grassroots to corporations – to ensure equitable decision-making on vital resources. We have to recontextualise our understanding of security and climate change to include gendered understandings of adaptation to and mitigation of the impacts of climate change. By not integrating gender analysis into every level of security discourse, climate security policies will continue to miss the crucial inputs of women in analysing the catalysts of social fractures, like increasing gender and class divisions, and discrimination, as well as seizing opportunities for innovative adaptation and mitigation strategies.

### **WPS Regional Plan of Action in ASEAN**

The WPS RPA is a result of decades of political engagement in the ASEAN region as expressed by the Declaration on the Elimination of Violence Against Women in the ASEAN Region (2004), and the ASEAN Regional Plan of Action on the Elimination of Violence against Women (2015). ASEAN leaders also adopted the Joint Statement on Promoting WPS in the region in 2017. In addition, the ASEAN Ministerial Dialogue on Strengthening Women's Role for Sustainable Peace and Security in 2020 further drove the integration of WPS across the three ASEAN community pillars, which are: Political-Security Community, Economic Community and Socio-Cultural Community. The ASEAN WPS RPA, launched in December 2022, is the latest regional effort to further acknowledge and increase sensitivity to women's role in conflict prevention and peacebuilding.

While we applaud the launch of a regional plan on WPS in ASEAN, we should not lose sight of this opportunity to make the agenda work for the region by including new threats, such as climate change. Adopting ASEAN's own version of a WPS RPA independently without emulating RPAs from elsewhere, most of which focus

on the threat of armed conflict, would go a long way to ensure the success of the agenda here. I take my cue from the growing global conversations on WPS and climate security.

Acknowledging the threats of climate change facing women is a start, especially in vital areas of economic, food, water, energy, and health securities, as well as complex emergencies that result from natural hazards and human insecurities. All of these will only be exacerbated by climate change. One way of addressing these concerns in an inclusive manner would be through the integration of the four WPS pillars, i.e., protection, prevention, participation and women's active role in relief and recovery, as essential parts of the existing climate security architecture, and not to see women as an area of 'special interest'; subjective and analysed outside of existing climate adaptation and mitigation frameworks.

### **Beyond ASEAN Community 2025**

In planning to move beyond the ASEAN Community 2025 agenda, existing regional frameworks should look to merging concerns for a better appreciation of threats to different groups of people. One such merger should be that between frameworks that address violence against women and gender inequality, and those that address climate change. Policymakers will need to adopt cross-cutting approaches to incorporate gender into their areas of expertise to mutually feed into their policy gaps. In this way, ASEAN will fully utilise and strengthen existing frameworks to address concerns around gender equality, climate security, and peace in the region. This would help to identify policy blind spots that might compromise the effectiveness and reach of climate change policies. This is also a good way to maximise the advantages of having an ASEAN WPS RPA.

# HADR Cooperation: Insights from Turkey's Response to the 2023 Earthquake

Lina Gong

The twin earthquakes that hit Turkey and Syria on 6 February 2023 shocked the world by the enormous damage caused and huge number of casualties. Over 45,000 people were killed and 20 million affected on the Turkish side alone. On the same day, Turkey's interior minister appealed for international assistance. Over 100 countries offered assistance in different forms, including the deployment of search and rescue teams. These included countries that are facing their own humanitarian emergencies at home.

In contrast to the rapid international assistance, the government-led relief effort has been criticised for a number of weaknesses, particularly insufficient capacity in search and rescue. While it is unfair to ignore the fact that the twin earthquakes significantly compounded the challenge, two other issues contributed to the inadequacy of this disaster response: delayed deployment of the military and a lack of contingency planning.

## Role of Militaries in Disasters

Although it is widely recognised that military humanitarian assistance and disaster relief (HADR) operations play a critical role in responses to major disasters due to the advanced capacities and equipment of militaries, it is up to the affected government to decide whether and when to deploy military assets, a decision that is heavily influenced by political and social contexts. One of the major criticisms of the Turkish government is that the military was not deployed in sufficient numbers within the first 48 hours, which is a critical window for search and rescue. In addition, military assets that are useful in relief efforts such as drones, electronic surveillance, and heavy transport and communication equipment were not fully utilised.

Regardless of the actual time when the Turkish military was dispatched, institutional changes suggest that the country's disaster management structures have been centralised. The Disaster and Emergency Management Authority (AFAD) was established in 2009 and designated as the sole authority for disaster management. In parallel was the marginalisation of the military in the country's latest Disaster Response Plan. Such institutional adjustments are not unique to Turkey; other countries have done the same. Indonesia, for instance, formed the National Agency for Disaster Countermeasure (BNPB) in 2008 after the Indian Ocean tsunami of 2004 to enhance coordination and efficiency in disaster management.

What is interesting is the contrast between Turkey's reluctance to deploy the armed forces in disasters and the trend of greater use of military assets in other



Aerial View of Islahiye after the 7.8 magnitude earthquake in Turkey

Photo Credit: Voice of America via Wikimedia Commons, under Creative Commons License

countries. The two opposite trends represent different perceptions of military humanitarianism. On the one hand is the principle of the military as a last resort, as outlined in the Oslo Guidelines on the Use of Military and Civil Defence Assets in Disaster Relief, which was first released in 1994 primarily for complex emergencies, such as armed conflicts.

Military involvement for humanitarian purposes is sensitive in a complex setting, carrying various risks such as threatening the safety and security of humanitarian workers, and compromising the humanitarian principles of humanity, impartiality, neutrality and operational independence. Moreover, given the coercive nature and war-fighting mission of militaries, their involvement in domestic issues, if not handled properly, risks being perceived as undermining democracy and freedom. Therefore, the principle of last resort has long been upheld by governments and humanitarian organisations, particularly those in the west.

On the other hand, some countries have high acceptance of militaries as first responders, particularly those in the Asia-Pacific. In Indonesia, while the BNPB is considered a civilian agency, all heads of BNPB since its establishment have had military backgrounds, with the recent ones taking up service as active military officers. In addition, due to the pandemic and natural hazards arising from climate change, some developed and developing countries have increasingly been found to deploy armed forces to support pandemic response measures and domestic disaster relief operations, although this trend has caused concern over democracy being threatened.

The debate on military disaster response is not new, but the criticism of the Turkish government over delayed deployment of the military in this earthquake highlights the importance for governments of reviewing the role of their militaries in disaster relief and the mechanisms to maximise the value of military involvement in a timely manner.

### **Importance of Future-oriented Planning**

Another failure in the Turkish government's response is inadequate disaster preparedness, which points to the need for a more anticipatory approach to planning rather than just planning for a replication of the past disaster. Highly exposed to seismic hazards, Turkey has rich experience in responding to earthquakes, supported by a set of established institutions, mechanisms and procedures. In 2019, in anticipation of a 7.5 magnitude earthquake, AFAD conducted an exercise in Pazarcik, the epicentre of the recent earthquake. The expectation of support from neighbouring cities was a critical link in the response plan then.

While AFAD largely anticipated the magnitude and location of the latest earthquake, the disaster response plan, possibly developed based on past experience,

did not foresee the geographical expanse of the effects and the inability of neighbouring cities to provide the expected help because they themselves were affected and waiting for relief. What is worse, local disaster responders themselves or their family members were victims of the tremors, which undermined the capacity of local response. The chaos in the early days suggested that the contingency plan was inadequate in not having anticipated local and neighbouring support systems being paralysed.

An important lesson from the Turkish experience is that disaster response planning should be more future-oriented, anticipating factors and trends that can disrupt or limit relief efforts and developing alternative plans, instead of solely relying on past experience. This is particularly important for disaster-prone countries. Professor Dwikorita Karnawati, director of the Indonesian Agency for Meteorology, Climatology and Geophysics, pointed out that a similar tragedy could possibly occur in Indonesia. The increasing possibility of concurring disasters – as evident in the past three years, when we experienced the pandemic, the repercussions of the Ukraine crisis and extreme weather events in many parts of the world – also highlights the need for greater anticipation in disaster planning and action.

### **Implications for HADR Cooperation**

Turkey's response to the earthquake highlights at least two areas of HADR cooperation in Southeast Asia. First, a few Southeast Asian militaries, including those of Indonesia, Malaysia, Thailand, the Philippines and Vietnam, deployed assets to support the relief efforts in Turkey this time, demonstrating the ability and potential to develop HADR cooperation beyond the region. HADR cooperation within the ASEAN-centred frameworks, such as workshops and table-top exercises, could possibly be extended to engaging disaster-prone countries in other regions, such as the Middle East and Latin America. Such exercises would allow militaries that hold different views on the role of militaries in disasters to share experience and be sensitised to the other perspective.

Second, humanitarian futures, that is, the application of futures thinking in the humanitarian context, should be encouraged in disaster response planning. As defence establishments invest heavily in strategic foresight and planning, they should take the lead in promoting future-oriented approaches through HADR workshops and exercises and develop scenarios based on emerging risks and trends.

HADR is a core area of security cooperation in Southeast Asia. The Turkey-Syria earthquake points to the potential for expanding the region's HADR network beyond the traditional comfort zone of the Asia-Pacific and diversifying perspectives and experiences. It also highlights the importance of strengthening future-oriented humanitarian planning through HADR cooperation.

# Public Health Emergencies: Moving beyond an Ad-hoc Military Response

S. Nanthini

In the face of the various infectious disease outbreaks and public health emergencies over the past few years, public health is becoming increasingly securitised. This has in turn led to defence organisations – as protectors of the state – becoming key actors in this space. In particular, COVID-19 has caused the growing trend of involving the military in health crises, with states around the world having mobilised their militaries as part of their national response to the devastating effects of the pandemic.

Should the use of the military in the face of non-traditional security threats such as health crises be permissible, or even normalised? This is the primary question that states are grappling with in the wake of military mobilisations

across the world in response to non-conflict crises. While there are advantages to increased military involvement in health crises, this involvement has also proven controversial with some warning it risks militarising health processes or diluting the purpose of the military and over-stretching military resources.

## Current Military Involvement in Health

According to United Nations guidelines, militaries should only be used during a situation of “last resort”. However, this is rarely adhered to in practice with some countries in regions like Southeast Asia tending to regard their militaries as first responders in crises. In the absence of resilient national health systems – which are generally civilian in nature – it was therefore no surprise to see militaries filling in the gaps of national COVID-19 pandemic responses by deploying soldiers, support staff and logistics capacities. They also tend to be used reactively by their governments, often in an ad-hoc manner rather than as part of a planned ‘whole-of-society’ approach.

During the early stages of the COVID-19 pandemic, militaries were mobilised around the world to support their national response by enforcing curfews and movement control orders, constructing of makeshift



US and Indian military participating in Tiger TRIUMPH humanitarian assistance-disaster relief Exercise

Credit: United States Marine Corps via Wikimedia Commons, under Creative Commons License



hospitals, transportation and logistics. However, this usage of the military during a health crisis is not just limited to the COVID-19 pandemic. Militaries have also been mobilised in other health crises such as the Ebola and Zika epidemics when civilian health services were overwhelmed. For example, during the Zika outbreak in Brazil, over 220,000 military personnel were mobilised to raise awareness about the virus, visiting homes and public places.

### **Dangers of ‘Militarising’ Health**

This growing role of the military in health crises has also been viewed as a dangerous trend, increasingly blurring the line between military and non-military affairs.

After all, the pre-eminent motivation of a military is not to improve health outcomes but to defend the interests of the state. Indeed, it is extremely visible in its role as an extension of state power. As such, while mobilising the military during a health emergency could be viewed as a sign of the national government taking visible action during times of crisis, this could also be looked on with suspicion as a cover for political objectives including potential abuses of power among local populations.

The financial cost of involving militaries in health crisis must also be taken into account. There is likely to be significant opposition from public health officials and professionals if this ‘militarisation’ of health is regarded as a possible first step in the transference of funds from public health services to the military. On the other hand, militaries – already facing the prospect of budget cuts in an uncertain global economy – may themselves be reluctant to take on more responsibilities during health emergencies – particularly if they are expected to fund it themselves.

### **Trends in Civil-Military Collaboration: The Military in a Supporting Role**

The COVID-19 pandemic has highlighted the growing trend of military involvement in national responses to public health crises – a trend which is unlikely to reverse in the near future. For example, the 2021 WHO Guidance document on National Civil–Military Health Collaboration Framework acknowledges the likely continuation of this trend and provides guidance for strengthening national health emergency preparedness through civil-military collaboration. In particular, it highlights the need to move beyond using the military in an ad-hoc manner only once a public health emergency

has been declared and instead, move towards their inclusion in national preparedness strategies.

The key first step must be to acknowledge the differences between the civilian and military health services, and systemically assess their capacities for emergency preparedness. It would then be easier to define their individual roles and responsibilities and importantly, the scope of their limitations – particularly that of the military. This will allow the military to only be involved when and where necessary such as in areas of technical expertise, human resources, logistical capacities. However, investment in a strong national health system is still vital. While the military may help to ‘fill in the gaps’ in times of crisis, there should not be broad institutional reliance on the military as a replacement for resilient national health systems. At the end of the day, the military should be there to support the civilian health services in times of health emergencies with clearly defined roles and limitations in national preparedness and response strategies.

With the world still reeling from the effects of the COVID-19 pandemic, it is necessary to be prepared for looming emergency health crises. With the trend of military involvement in emergency health crises unlikely to reverse in the near future, states should therefore look towards institutionalising civil-military collaboration in such situations, developing national collaborative strategies with civilian health services as the lead and the military in a supporting role.

# Low-carbon Energy Transition: Lessons from the Philippines

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*Margareth Sembiring*

The Philippines presents an interesting case for renewable energy development. Defying cost concerns typically expressed by developing countries, the Philippines is making strides to expand its renewable energy capacity. With low-carbon energy transition on the horizon, finding the right balance between the interests of the private sector and the consumers will be the key to success.

Low-carbon energy transition is a major global agenda aimed at combatting climate change, but there is a notable variation across countries in terms of progress. Transition efforts are largely a domestic undertaking, and understanding the specificities is critical to facilitate effective regional and international cooperation on the issue, and ultimately, to its eventual success.

Developing countries generally find renewable energy costs challenging. The Philippine experience shows an interesting yet delicate dynamic between its renewable energy ambitions and cost considerations, with the overall direction looking increasingly promising.

## **A Promising Start**

Since the passage of the Renewable Energy (RE) Act in 2008, the Philippines has been making good progress in developing renewable energy. Within less than a decade, 92 new renewable energy plants totalling 1.4GW of installed capacity were constructed. Wind power installed capacity had doubled and solar power's had grown ten times. At present, the Philippines' wind and solar installed capacities rank among the top 50 countries in the world.

Although renewable energy development is an essential step towards low-carbon energy transition, it does not amount to an energy transition until and unless fossil fuel share decreases and gets replaced by renewable energy sources.

In this regard, the Philippines has yet to begin its low-carbon energy transition. This is because coal use expanded significantly, from 34 per cent in 2010 to 55 per cent in 2019, alongside the impressive renewable energy growth. The simultaneous development of coal and renewable energy sources shows that the primary motivation to promote the latter was not necessarily the environment but meeting the country's increasing energy demands.

This is set to change. A string of initiatives to accelerate energy transition processes had been introduced following a moratorium on new coal power plants that was announced in late 2020.

## **Stronger Momentum towards Low-carbon Energy Transition**

The Green Energy Option Programme (GEOP) is one of those initiatives. Launched in late 2021 by the Independent Electricity Market Operator of the Philippines, the GEOP is a mechanism mandated by the 2008 RE Act to give consumers the choice to source their electricity from licensed renewable energy suppliers. This is in contrast with having to consume whatever distribution utilities sell them.

The high probability of entering the low-carbon energy transition phase is further affirmed by President Ferdinand "Bongbong" Marcos Jr., who is sending strong signals of his preference for renewable energy including the nuclear source. Significantly, to further boost renewable energy investments, the Department of Energy (DOE) has recently removed the restrictions on Filipino ownership of renewable energy projects and allowed 100 per cent foreign ownerships.

Renewable energy expansion received a stronger justification from global coal price hike brought about by the war in Ukraine given that 80 per cent of coal use in the Philippines came from imports. Not only are renewable energy sources becoming more cost competitive in comparison, but they are also increasingly seen as an indigenous solution to reduce reliance on imported energy sources. This is in line with the energy independence paradigm which is central to the Philippines' energy security discourse.

The continuing expansion of renewable energy is discernible from the additional 2,000 MW projects awarded to 19 bidders under the Green Energy Auction Programme (GEAP) in mid-2022. Following its success,



*Offshore wind power projects are in the pipeline in the Philippines*

Photo Credit: Freepik under Creative Commons license

the DOE conducted the second round of green energy auction in 2023 and awarded close to 3,600MW projects to 40 renewable energy developers. The private sector's enthusiastic participation in the GEAP reflects confidence in the Philippine government's commitment to promote renewable energy.

### **Managing Consumer and Stakeholder Interests**

The Philippines is reliant on the private sector for power generation. Creating a conducive environment for investors and developers is therefore vital for the country's energy provision.

The Feed-in Tariff (FiT) introduced in 2012 was a game changer. Private companies responded overwhelmingly to FiT-enabled wind and solar power projects, to the point of oversubscription. The Renewable Portfolio Standards (RPS) was subsequently implemented in 2020 to mandate electricity suppliers, particularly the distribution utilities, to source a fraction of their power

supply from eligible renewable energy resources. Starting from 2023, the DOE has raised the RPS from one per cent to 2.52 per cent. The GEOP and the increased RPS have thus enlarged renewable energy market size.

While favourable treatments to the private sector play a pivotal role in the country's electricity provision, consumer feedback is vital to energy transition success. It is worth noting that consumers are shouldering parts of the costs. The pass-through arrangement, which is typically reflected in Power Purchase Agreements with coal power producers, automatically passes on to end-users any additional charges resulting from fluctuations in global coal prices. A call has been made to remove pass-through mechanism on the basis of protecting consumers from having to bear the high prices during volatile period.

Similarly, to enable FiT for renewable energy developers, FiT-Allowance (FiT-All) are charged to end-users at a uniform rate. While this ongoing mechanism is largely

accepted by the society, critics of FiT and FiT-All generally point to the lack of environmental benefits that the consumers are supposed to enjoy, given that emissions from expanding coal use continue to rise while they are paying for FiT-All. Former energy secretary Alfonso Cusi directly positioned FiT as an unjust burden to consumers.

Indeed, at about USD0.20 per kilowatt-hour (kWh) or Php10 per kWh, the Philippines is long known to have the highest electricity rates in Southeast Asia. Different administrations have attempted to address this issue, but it remains unsolved. The possible reasons range wide: from heavy reliance on imported fossil fuels, to the absence of nuclear power to meet energy needs, to the passage of the 2001 Electric Power Industry Reform Act (EPIRA) that privatises the electricity sector. Low-carbon energy transition is perceived as a solution to slash consumers' electricity bills although it remains a difficult task to achieve.

To ensure that the overall direction in the energy sector will stand through leadership changes, a draft bill on Energy Transition is currently being pushed. Among other things, the proposed bill envisions the elimination of

fossil fuel power plants and internal combustion engine vehicles from the country. Should it turn into a law, fossil fuel interests will get constrained and low-carbon energy transition is very likely to gain speed and scale in the Philippines.

The Philippines is undoubtedly on track to advance its renewable energy development. However, with consumers contributing directly to financing this, the continuous balancing between the interests of the private sector and the consumers will be crucial to the Philippines' energy transition efforts.

Tasked to perform this difficult role, the Energy Regulatory Commission (ERC) has already made several downward adjustments to the FiT-All charges over the years. More recently, the ERC has made a decision to suspend FiT-All collection until the end of 2023 to help consumers cope with inflation-induced rising expenses.

The success of the Philippines' low carbon energy transition in the years to come will necessarily involve finding the right balance between consumer and stakeholder interests.



*A new wind farm project in the Philippines*

Photo Credit: ADB via Flickr, under Creative Commons license

# ASEAN's Growing Agenda on Nuclear Security

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*Julius Cesar Trajano*

Nuclear security is essential in preventing and detecting illicit use, storage and transport of nuclear and radiological materials. It is not only important for states that have nuclear weapons and nuclear power plants, but also for those that do not, as nearly all states use nuclear and radioactive materials for peaceful applications. In recent years, ASEAN member states have looked beyond nuclear disarmament and non-proliferation and moved towards nuclear security cooperation.

## **ASEAN's Nuclear Security Concerns**

For Southeast Asian states, it is no longer just about freeing the world of nuclear weapons; it is also about enhancing the region's nuclear security capacity and

cooperation. All ASEAN member states share a common interest in ensuring the security of future nuclear power plants (including small advanced modular nuclear reactors) constructed in the region, as well as radioactive materials used for peaceful purposes.

Presently, several of these countries are studying the possibility of using small modular reactors as a source of zero-carbon nuclear energy to strengthen their energy security and to reduce their greenhouse gas emissions. Nuclear security challenges for secure deployment for small modular reactors should be duly considered by ASEAN member states.

There is already widespread use of nuclear and radiological materials for peaceful and developmental purposes in the region. Nuclear technology is used in industrial facilities, medicine and healthcare, climate adaptation measures, water management, pollution monitoring, and agricultural production in all the ASEAN member states.

There is a need to ensure that radiological materials used for peaceful purposes do not fall into the hands of people with malicious and criminal intentions. Sound security measures, including regulatory oversight on the use, transport, and handling of radioactive materials, and strict security norms and practices for radiological sources, are therefore important for the region.



*The mothballed Philippine Nuclear Power Plant*  
Photo Credit: Julius Trajano/NTS Centre

## ASEAN's Nuclear Security Agenda

There have been several concrete initiatives and activities in ASEAN-led forums, such as the ASEAN Regional Forum (ARF) and the East Asia Summit (EAS), that demonstrate the region's burgeoning agenda on nuclear security, which goes beyond the Southeast Asia Nuclear Weapon-Free Zone (SEANWFZ) Treaty and the associated disarmament and non-proliferation agenda.

In recent years, as Southeast Asian countries expand their peaceful applications of nuclear technology, the ARF has introduced regional initiatives to strengthen nuclear security which go beyond discussions on nuclear disarmament. For instance, the annual ARF Inter-Sessional Meeting on Non-Proliferation and Disarmament deliberates over member-states' collaboration on nuclear security issues, such as joint tabletop exercises on chemical, biological, radiological, and nuclear (CBRN) emergencies, and exchanges of good practices on strategic trade and export control.

The ARF Hanoi Plan of Action II (2020-2025) also promotes capacity-building cooperation in nuclear security and knowledge-sharing to prevent illicit trafficking in nuclear and radioactive materials. This, and the ARF's recent initiatives, including regional workshops and joint tabletop exercises on the prevention of such illicit trafficking, demonstrate ASEAN's attention to the establishment of nuclear security norms and the expansion of its nuclear security agenda.

Just like ARF, the EAS has broadened its nuclear governance agenda beyond disarmament and non-proliferation to include nuclear security related to the peaceful uses of nuclear energy and technology. The collective call by EAS leaders (presidents and prime ministers in East Asia Summit) in their Statement on Safe and Secure Use, Storage, and Transport of Nuclear and Other Radiological Materials, in 2018 highlights the regional concern over the security governance of nuclear and radiological materials.

The EAS Leaders' statement paid particular attention to the ASEAN Network of Regulatory Bodies on Atomic Energy (ASEANTOM) and its role in advancing regional cooperation in nuclear security.

### ASEANTOM and Regional Cooperation in Nuclear Security

ASEANTOM serves as a framework for cooperation amongst nuclear regulatory bodies or relevant authorities within ASEAN, enabling regulators to share nuclear-related information and experiences on best practices, enhancing cooperation, and developing capacities.

Since its inaugural meeting in 2013, ASEANTOM has helped raise the level of knowledge and expertise on the

safety and security of nuclear and radioactive materials through expert missions and exchange programmes; technical meetings and workshops; and capacity-building cooperation projects with international organisations such as the International Atomic Energy Agency (IAEA) and the European Union.

Strong regulatory mechanisms on the use and handling of nuclear and radioactive materials are required to minimise the risk of such materials being used by criminals or terrorists. To address this concern, ASEANTOM has conducted regional projects and workshops to boost the capacity and awareness of its members in the field of nuclear security, focusing on inspection, regulation and enforcement mechanisms.

ASEANTOM also collaborates with ASEAN dialogue partners such as South Korea and the United States to enhance the nuclear security regime in Southeast Asia.

In March 2023, the Philippines hosted a regional workshop on radiological incidents and emergency consequence management with experts from the IAEA and the US Department of Energy National Nuclear Security Administration. Participants from Southeast Asia and other Asia-Pacific countries jointly trained on the use of radiation detection equipment, the sharing of best practices on radiation detection, and national arrangements for monitoring, sampling, and assessment during a nuclear or radiological incident.

Furthermore, the US and South Korea simultaneously organised regional workshops with ASEANTOM members to develop nuclear security training courses and a training strategy aimed at enhancing the latter's national capabilities.

### The Challenge of Delays

Despite notable progress on nuclear cooperation, several ASEAN states have yet to sign and ratify important global nuclear conventions, including the Amendment to the Convention on the Physical Protection of Nuclear Materials, and to make political commitments to the non-legally binding Code of Conduct on the Safety and Security of Radioactive Sources.

The delays can be attributed to tedious legislative processes as it may take years before a treaty is translated into domestic legislation, and to the limited capacities of relevant state bodies to craft and implement nuclear security frameworks.

Within ASEAN, a broad consensus has formed that a regional approach to nuclear security would complement national frameworks and capabilities. ASEANTOM's work is promising, but there is room to deepen and expand this work.

# Fukushima Water Release: Trusting Scientific Innovation and Nuclear Safety Regime

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*Mely Caballero-Anthony and Julius Cesar Trajano*

Japan's decision to begin discharging treated water from the Fukushima Daiichi Nuclear Power Station into the Pacific Ocean on 24 August 2023 has been met with mixed responses within and outside Japan. The decision to release the treated radioactive water was done after the International Atomic Energy Agency (IAEA) had completed a comprehensive two-year technical review of the safety-related aspects regarding the handling and discharging of the treated water. The IAEA issued its review report on 4 July 2023.

Against the intense geopolitical tensions in East Asia involving Japan and its neighbours, and the growing concerns about the multiple threats to the health of our oceans, Japan had to find ways to reassure and to address the criticisms of its neighbours, environmental activists and its local fishing communities. Decisions based on science and technology still need to be backed by efforts to build trust and confidence at multiple levels.

## **The Controversial Japanese Plan**

For many years, the Tokyo Electric Power Company Holdings (TEPCO), the operator of the Fukushima Daiichi nuclear power plant, which was crippled by the 2011 earthquake and tsunami, had collected the plant's highly radioactive water, and stored them in special tanks on site to prevent them from polluting the environment.

To date, tanks on the site store about 1.3 million tonnes of radioactive water, equivalent to 500 Olympic-sized swimming pools. In treating the contaminated water, TEPCO had installed the Advance Liquid Processing System (APLS), a pumping and filtration system, which removed most of the hazardous isotopes from the water, leaving only tritium, a radioactive isotope of hydrogen that is hard to separate. TEPCO will dilute the treated water until its tritium level falls below the regulatory limit

– when it is considered safe for drinking under World Health Organization standards – before pumping it into the Pacific.

The discharge of the treated water will not be done all at once. Japan plans to release the treated water gradually over several decades. By the end of this fiscal year, TEPCO intends to release 31,200 tonnes of the water.

## **Trusting the Scientists and Technical Safety Assessments**

The safe discharge of the stored water in the vicinity of the Fukushima nuclear plant needs to proceed with the decommissioning of the plant. The decision of Japan, with the strong backing of IAEA's scientific review, is not merely about easing the financial burden of TEPCO in maintaining the water tanks. The larger and more important issues are the complete decommissioning of the nuclear station and ultimately, the much-needed reconstruction in Fukushima prefecture.

The IAEA safety report confirmed that tritium does not cause significant damage to the environment if kept within regulatory levels. However, it can be dangerous to humans if it enters the body in highly concentrated levels, a risk which the APLS system was intended to avoid. For over 60 years, waste water containing tritium had been routinely released by nuclear plants around the world at the level deemed to be safe for the marine ecosystem.

The IAEA safety report had concluded that that the approach and actions taken by TEPCO, the Japanese government, and its regulatory body, the Nuclear Regulation Agency, for the discharge were consistent with international safety standards, and that the radiological impact on people and the environment would be negligible. The safety standards followed were stringent and based on 11 key IAEA nuclear safety documents developed by nuclear experts from IAEA member states over the years.

Furthermore, the IAEA Task Force that contributed to the report comprised experts from the IAEA Secretariat alongside internationally recognised independent experts (with extensive experience from a wide range of technical specialties) from Argentina, Australia, Canada, China, France, the Marshall Islands, the Republic of Korea, the Russian Federation, the United Kingdom, the United States and Vietnam.

The IAEA acknowledged that the release of the Fukushima nuclear plant's treated water has stoked societal, political and environmental concerns associated



*Fukushima Sea water sampling*

Photo Credit: IAEA via flickr.com under creative commons license

with the feared radiological impacts on the marine ecosystem. However, independent marine and nuclear scientists, while acknowledging that the method for treating the waste water is controversial, believed that it will not harm the oceans and cause safety issues to marine food supply.

### **Public Trust Issues**

Despite safety assurances from the IAEA, the Japanese government, and various technical experts, Tokyo's announcement on the commencement of the discharge on 24 August was met by an angry response from China, which banned the import of all seafood from Japan. Hong Kong and Macau also imposed import bans on Japanese seafood, but partially. The South Korean government would not endorse the plan although it did not object to the scientific basis of the water release plan.

Japanese domestic stakeholders, including especially Fukushima's fisherfolks, have raised reputational concerns given that Japanese and foreign consumers will avoid Japanese fish and seafood products, which would also impact on their livelihoods even before any meaningful recovery from the 2011 nuclear disaster had taken place.

As for the Japanese anti-nuclear movement, and environmental and community groups from Japan

and the neighbouring countries, the water release was tantamount to "dumping nuclear-contaminated water into the sea", notwithstanding that the Fukushima water had been treated and found safe in accordance with strict safety standards.

In the years ahead, regaining the trust of its neighbours and the Fukushima communities will be an uphill task for Japan. Even when a scientific innovation becomes available to solve a nuclear problem, it will have to deal with environmental activists and politicisation of the issue. For the discharge of waste water from the Fukushima nuclear plant and the reconstruction of the prefecture, the concerns that will arise during the decades-long discharge plan need to be addressed by continued scientific transparency and effective public communication on the part of Japan and the IAEA.

### **Public Communication and Scientific Transparency**

Japan and the IAEA have been transparent in its approach and actions on the matter. This open, nothing-to-hide policy will help to restore public trust. Therefore, regular updates, and sharing of information, including scientific data, post-release assessments, and engagements with international and domestic stakeholders, through effective public communication, would be necessary.



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ASEAN Strategic Policy Dialogue on Disaster Management (SPDDM) 2023 "Disaster Resilience: Understanding What Lies Ahead", 24 August 2023, One Farrer Hotel, Singapore

CSCAP Nuclear Energy Experts Group Meeting, 2-3 August 2023, Voco Hotel, Singapore

RSIS Seminar on "Disaster Policy Reform in ASEAN 2003-2023: Progress and Challenges" by Dr Jonatan Lassa, Senior Lecturer, Emergency & Disaster Management Faculty of Arts and Society, Charles Darwin University, Australia, 20 February 2023, RSIS, Singapore

Planetary Health Proposal Development Meeting, 13 February 2023, Orchard Hotel, Singapore

RCRC-RSIS Climate Change, Environment and Humanitarian Action Workshop 2023, 27 January 2023, Virtual

# 2023 Events



## RSIS Webinar on “Climate Security and the Women, Peace and Security Agenda”, 20 November 2023

In this webinar, the speakers examined the connection between the traditional and human security implications of climate change and its effects on women in various regions, with a focus on the Women, Peace, and Security Agenda and how this framework might be used to address the national and regional concerns affecting women’s ability to adapt to the intensifying climate landscape.

## RSIS Webinar on “Is Malaysia Ready for its Next Major Flood? History, Politics, and Policy Challenges in Flood Governance”, 16 November 2023

This webinar was co-organised by the HADR and Malaysia Programmes. It was moderated by Dr Alistair D. B. Cook, Coordinator of the HADR Programme and Senior Fellow. Ms Ariel Tan, Coordinator of the Malaysia Programme and Senior Fellow served as the discussant.



## Humanitarian Futures Forum, 3rd November 2023

The 2nd Humanitarian Futures Forum was jointly organised by the RSIS HADR programme and the Changi Regional HADR Coordination Centre (RHCC). It was the successor iteration of a series of events focused on humanitarian futures in various formats during the COVID-19 pandemic. The forum brought together over 130 local and overseas participants from various sectors including the military, civilian government agencies, academia, the private sector, philanthropic entities, local civil society, as well as international NGOs and international organisations. the region.

## RSIS Workshop on “Humanitarian Policy and Action in Asia”, 16-17 October 2023

This workshop brought together scholars from across the region for two days in Singapore to deliver papers and to discuss the emerging humanitarian policy landscape in Asia, its challenges, and the new dynamics of reform.



Panel  
n:

## Bridging the Gap: Enhancing Communication and Early Act Proactive Disaster Management

Moderator:

**Dr. Lina Gong**

Research Fellow  
RSIS, Nanyang Technological University, Singapore

**Mr. Hiro Nishiguchi**

President, Japan Bosai Platform



## ASEAN Strategic Policy Dialogue on Disaster Management (SPDDM), 24th August 2023

The ASEAN Strategic Policy Dialogue on Disaster Management (SPDDM) was held on 24 August at the One Farrer Hotel. It was the concluding event of the inaugural ASEAN Disaster Management Week 2023. The event was co-organised by the Singapore Civil Defence Force, the ASEAN Secretariat, the AHA Centre, and the Swiss Agency for Development and Cooperation, with the RSIS HADR Programme participating as knowledge partner for the event.

## CSCAP-Nuclear Energy Experts Group, 2-3 August 2023

Prof Mely Caballero-Anthony and Mr Julius Cesar Trajano co-chaired with Pacific Forum the annual meeting of the CSCAP-Nuclear Energy Experts Group held in Voco Hotel Singapore from 2-3 August 2023. Around 40 participants from Asia-Pacific countries discussed key nuclear governance issues related to nuclear energy and the clean energy transition, the impact of SMR and other emerging reactor technology, and the key roles of the ASEAN Network of Regulatory Bodies on Atomic Energy and other Asia-Pacific networks.



## Policy Reform in ASEAN 2003-2023: Progress and Challenges\*

Monday, 20 February 2023  
10.30 am to 12.00 pm



## Seminar on Disaster Policy Reform in ASEAN 2003-2023, 20th February 2023

This seminar was delivered by Dr Jonatan Lassa, Senior Lecturer, Emergency & Disaster Management, Faculty of Arts and Society, Charles Darwin University, Australia and moderated by NTS Centre Head, Professor Mely Caballero-Anthony. Dr Lassa presented on the fragility of disaster reform in ASEAN based on long-term data from disaster trends and recovery trajectories.

## Planetary Health Proposal Development Meeting, 13th February 2023

This meeting brought together the principal investigator and co-investigators of the SSHR seed grant on planetary health to share perspectives from their respective disciplines and further develop the proposal, along with other potential partners, including Prof Tan Sri Dr Jemilah Mahmood, Executive Director and Professor, Sunway Centre for Planetary Health, Sunway University, Malaysia.



# Research Grants

## Climate Change and its Impact on Peace and Security in Southeast Asia

The NTS Centre received a grant from the United Nations' Department of Political and Peacekeeping Affairs to conduct a regional study of the cross-cutting impacts of climate change and their implications on peace and security in Southeast Asia. The NTS Centre team investigated the impacts of climate change on key socio-economic challenges, political-security fault lines, and geo-political dynamics in Southeast Asia. Their study also contains a proposed set of recommendations to foster a region-wide understanding of the climate, peace and security nexus and create collaborative opportunities. The team was invited to present the key findings and recommendations from the study at the ASEAN – UN Regional Dialogue on Climate, Peace and Security in ASEAN in Jakarta, Indonesia on 21<sup>st</sup> November 2023.



# About The S. Rajaratnam School of International Studies

The S. Rajaratnam School of International Studies (RSIS) is a think tank and professional graduate school of international affairs at the Nanyang Technological University, Singapore. An autonomous school, RSIS' mission is to be a leading research and graduate teaching institution in strategic and international affairs in the Asia Pacific. With the core functions of research, graduate education, and networking, it produces

research on Asia Pacific Security, Multilateralism and Regionalism, Conflict Studies, Non-traditional Security, Cybersecurity, Maritime Security and Terrorism Studies.

For more details, please visit [www.rsis.edu.sg](http://www.rsis.edu.sg). Follow us at [www.facebook.com/RSIS.NTU](https://www.facebook.com/RSIS.NTU) or connect with us at [www.linkedin.com/school/rsis-ntu](https://www.linkedin.com/school/rsis-ntu).

The image features a large, white, curved wall in the foreground with the RSIS logo and name. The logo consists of 'RSiS' in a large, bold, serif font, with a vertical line to its right. To the right of the line, the text 'S. RAJARATNAM SCHOOL OF INTERNATIONAL STUDIES' is written in a smaller, sans-serif font. Below this, 'Nanyang Technological University Singapore' is written in an even smaller font. At the bottom of the wall, the word 'LIBRARY' is written in a large, bold, sans-serif font. In the background, a modern library interior is visible, featuring a curved ceiling, bookshelves filled with books, and several black office chairs around a table. The floor is a mix of grey carpet and light-colored wood.

**RSiS** | S. RAJARATNAM  
SCHOOL OF  
INTERNATIONAL  
STUDIES  
Nanyang Technological University Singapore  
**LIBRARY**

# About the Centre for Non-Traditional Security Studies (NTS Centre)

NTS Centre conducts research and produces policy-relevant analyses aimed at furthering awareness and building the capacity to address non-traditional security (NTS) issues and challenges in the Asia Pacific region and beyond. The Centre addresses knowledge gaps, facilitates discussions and analyses, engages policymakers, and contributes to building institutional capacity in Sustainable Security and Crises. The NTS Centre brings together myriad NTS stakeholders in regular workshops and roundtable discussions, as well as provides a networking platform for NTS research institutions in the Asia Pacific through the NTS-Asia Consortium.

## Our Research Areas

- Sustainable Security
  - Climate Security
  - Food Security
  - Economic Security
- Crises
  - Humanitarian Assistance and Disaster Relief
  - Pandemics
  - Nuclear Hazards

## Our Output

### Policy Relevant Publications

The NTS Centre produces a range of output such as research reports, books, monographs, policy briefs and conference proceedings.

### Training

Based in RSIS, which has an excellent record of postgraduate teaching, an international faculty and an extensive network of policy institutes worldwide, the NTS Centre is well-placed to develop robust research capabilities, conduct training courses and facilitate

advanced education on NTS. These are aimed at, but not limited to, academics, analysts, policymakers and non-governmental organisations (NGOs).

### Networking and Outreach

The NTS Centre serves as a networking hub for researchers, policy analysts, policymakers, NGOs and media from across Asia and further afield interested in NTS issues and challenges.

The NTS Centre is the founding member of the Asia Pacific Partnership for Atrocity Prevention, inaugurated 7-8 November 2016. RSIS co-hosted with the Asia Pacific Centre for the Responsibility to Protect (APR2P), School of Political Science and International Studies, University of Queensland St. Lucia, the 'High Level Advisory Panel's (HLAP) Report on Mainstreaming the Responsibility to Protect in Southeast Asia: Pathway Towards a Caring ASEAN Community.' This was to generate comments and inputs from the participants on how the HLAP Report on mainstreaming the Responsibility to Protect and mass atrocities prevention can be promoted in ASEAN, as well as in operationalizing the Report's recommendations in the domestic and regional contexts. Previously, it served as the Coordinator of the ASEAN-Canada Research Partnership (2012-2015) supported by the International Development Research Centre (IDRC), Canada. It also serves as the Secretariat of the initiative. In 2009, the NTS Centre was chosen by the MacArthur Foundation as a lead institution for its three-year Asia Security Initiative (2009-2012), to develop policy research capacity and recommend policies on the critical security challenges facing the Asia-Pacific. It is also a founding member and the Secretariat for the Consortium of Non-Traditional Security Studies in Asia (NTS-Asia Consortium). More information on the NTS Centre is available at: <http://www.rsis.edu.sg/research/nts/>.



# About The NTS-Asia Consortium

The NTS-Asia Consortium was launched in January 2007 as a network of NTS research institutes and think tanks. The aims of the consortium are as follows:

- To develop a platform for networking and intellectual exchange between regional NTS scholars and analysts.
- To build long-term and sustainable regional capacity for research on NTS issues.
- To mainstream and advance the field of NTS studies in Asia.
- To collate and manage a regional database of NTS publications and other resources.

NTS issues include the challenges to the survival and well-being of peoples and states that arise from nonmilitary sources, such as climate change, resource scarcity, infectious diseases, natural disasters, irregular migration, food shortages, people smuggling, drug trafficking and transnational crime. These dangers are transnational in scope, defying unilateral remedies and requiring comprehensive – political, economic and social – responses, as well as the humanitarian use of military force. NTS studies also look at the multidimensional civilian angle to security in conjunction with state, military and governmental actors.

## Inaugural Meeting of The Consortium of Non-Traditional Security Studies

The Inaugural Meeting of the Consortium of Non-traditional Security Studies in Asia (NTS-Asia) from the 8th to 9th January 2007 was a milestone in the progress of NTS studies. The meeting not only officially launched the Consortium but also brought together its pioneering network members - comprising 14 research institutes and think tanks from across Asia - to discuss current NTS challenges facing the region, and possible policy responses to address these problems.

The pioneering members of NTS-Asia are as follows:

### South Asia

- Bangladesh Institute of International and Strategic Studies, Bangladesh (BIISS)
- Women in Security, Conflict Management and Peace, India (WISCOMP)
- Centre for the Study of Developing Societies, India (CSDS)

- Refugee and Migratory Movements Research Unit, Bangladesh (RMMRU)
- Regional Centre for Strategic Studies, Sri Lanka (RCSS)

### Northeast Asia

- Institute of Asia-Pacific Studies, Chinese Academy of Social Sciences (CASS)
- Ilmin International Relations Institute, Korea University
- Center for International Security and Strategic Studies, Institute of World Economics and Politics (IWEP), Vietnam
- Beijing Foreign Studies University (representing IWEP China)
- Centre of Asian Studies, University of Hong Kong

### Southeast Asia

- Centre for Strategic and International Studies, Indonesia (CSIS)
- Institute for Strategic and Development Studies, Philippines (ISDS)
- The World Fish Center, Malaysia
- S. Rajaratnam School of International Studies, Singapore (RSIS)

## NTS-Asia Relaunch in 2016

The RSIS reactivated the NTS-Asia Consortium in early 2016 with the aim to re-establish the Consortium's significance and value to NTS research in the region, and to reemphasize the increasingly relevant and urgent need to focus on transnational and multilateral non-traditional security issues. The primary platform for the Consortium communication and outlet of publication is the NTS-Asia Website. The Website is envisioned to be the one-stop platform for NTS issues. See website link below: <http://rsis-ntsasia.org/>

## NTS-Asia Secretariat

The RSIS NTS Centre functions as the Secretariat of the NTS-Asia Consortium. Led by Professor Mely Caballero-Anthony, Head of the Centre for Non-Traditional Security (NTS) Studies at the S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University, Singapore and supported by Ms Margareth Sembiring, Associate Research Fellow, and Ms Joey Liang, IT Executive and Webmaster.





