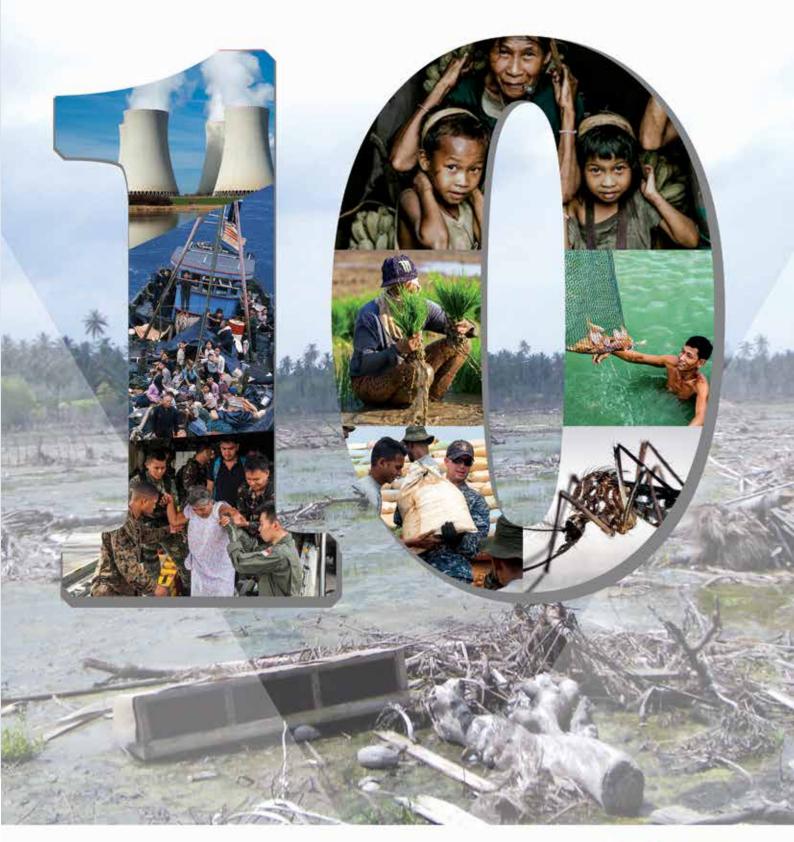
Centre for Non-Traditional Security Studies 2018 Year In Review 2018







CENTRE FOR NON-TRADITIONAL SECURITY STUDIES YEAR IN REVIEW 2018

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

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Acknowledgements

The NTS Year in Review is a team effort, and we would like to acknowledge all the authors and the administrative support of Charlotte Yu, Joey Liang and Chiam Shin Shing.

Recommended Citation

Centre for Non-Traditional Security Studies, 2018, Centre for Non-Traditional Security Studies Year in Review 2018, Singapore: S. Rajaratnam School of International Studies, Nanyang Technological University.

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Message from Executive Deputy Chairman

Dear Readers,

Non-Traditional Security (NTS) challenges continue to threaten the well-being of states and societies in Asia and around the world. State and non-state actors need to be resilient and innovative in addressing and managing the ever-complex and transboundary implications of these threats, ranging from climate change and natural disasters to mass movement of people in search of refuge and safety.

Being resilient and innovative is not just about utilising new technology. It also entails effective mobilisation of available resources and existing mechanisms to empower communities to have the capability to deal with any contingency. It does not always require huge amounts of funding. The key is preparedness which comes with citizens' adequate knowledge of the potential peril from any change and disruption of the status quo.

Faced with significant constraints and complex humanitarian crises, communities adapt to find more efficient and sustainable solutions. In this respect, it is timely to look at more bottom-up innovation, which is primarily driven by the vulnerable population itself. We need to study how practical ideas and sensible measures by individual actors and groups at the grassroots level can be utilised by and incorporated into national and regional policies. Fresh collaborative ways to address issues of climate change and mass displacement of people are important in this endeavour.

In this NTS Year In Review 2018 from the RSIS Centre for Non-Traditional Security Studies (NTS Centre), our established scholars and trained researchers have written insightful articles on innovative approaches to the NTS challenges and what to do going forward.

Our NTS Centre marks its 10th anniversary this year. Looking ahead, it will continue to conduct policy-oriented research focusing on three core areas: climate change mitigation, humanitarian assistance and disaster relief, and migration issues.

RSIS is proud to be at the forefront of research in the area of non-traditional security as we enhance our policy relevance. We hope that this NTS Year In Review will be useful to all readers in understanding the risks and impact of NTS challenges on peoples across the region.

As usual, we welcome your feedback on what RSIS and its NTS Centre are doing.

Ong Keng Yong

Executive Deputy Chairman

Ongkenfort.

S. Rajaratnam School of International Studies (RSIS)

Nanyang Technological University, Singapore

Message from Head of Centre

Dear Readers,

The emergence of multifaceted and interlocking non-traditional security (NTS) challenges is testing the capability of ASEAN Member States to effectively deal with them. In 2018 alone, several significant NTS issues threatened the resilience of affected communities and states in the region. Foremost among these challenges were the simultaneous disasters that hit regional states such as Indonesia's twin earthquake-tsunami disaster, dam collapse in Laos, and deadly monsoon rains in the Philippines, Myanmar and Vietnam. Meanwhile, the impacts of climate change and technological advancements have been notably dramatic. They have brought about significant implications on many aspects of human security, including managing disruptions and finding more avenues for multi-stakeholder collaboration.

Against these perennial challenges and the emergence of new types of disruptions, the concern about resilience – particularly for vulnerable communities that are struggling to bounce back and/or adapt after a disaster – has become even more critical. The theme of Singapore's chairmanship of ASEAN for 2018, "Resilient and Innovative" reminds us that building regional resilience and innovation entails a lot from ASEAN as a regional institution to assist its member states to deal with complex NTS threats.

ASEAN's commitment to address shared challenges as one community goes a long way to help its member states build capacity, mobilise and share resources and expertise, and provide the platform for non-state actors like the private sector, civil society organisations, the international community, and most especially, the local communities, to be engaged in helping the region cope with the complexities of NTS challenges.

How these actors collectively work together to be resilient and innovative is comprehensively explained in this NTS Year In Review 2018 from the Centre for Non-Traditional Security Studies (NTS Centre), which marks its 10th anniversary this year. Building on what we achieved in our first ten years, we will continue to conduct policy-relevant research on emerging NTS issues and their regional implications. As ASEAN aspires to be a resilient community in a peaceful, secure and stable region, it is crucial to understand the common challenges and disruptions confronting the ASEAN community of nations and peoples. We hope that you will find the articles in this Year In Review useful as we reflect on the impact of recurrent and emerging NTS challenges on our nations and communities.

Professor Mely Caballero-Anthony

Apropay

Head

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

Key NTS Events 2018

On 15 January, Mount Sinabung in Sumatra and Mount Agung in Bali erupted in tandem sending thick plumes of smoke and volcanic ash into the sky Indonesia. Mount Agung was a major source of concern for the residents of Bali in 2017 as its violent eruption forced tens of thousands of residents to flee their homes.

On 24 January, tens of thousands of people were forced to evacuate their homes in the Philippine province of Albay as Mount Mayon erupted several times. Farms and thousands of homes were covered with thick dust and ash triggering safety, public health and livelihood concerns from affected communities.

On 19 February, Singapore announced that large carbon emitters in the country will be taxed S\$5 for each tonne of greenhouse gases generated from 2019 to 2023. Known as the carbon tax, the rate will be increased to between S\$10 and S\$15 by 2030.

On 20 February, an energy task force advising Japan's foreign minister proposed increasing the share of renewable energy while drastically reducing dependence on coal and nuclear power in the country's energy mix.

On 26 February, a strong 7.5-magnitude tremor hit Papua New Guinea. At least 145 people died and about 270,000 people, including 125,000 children, required urgent humanitarian assistance. From 5 – 7 March, climate scientists and city planners began charting a global roadmap on how cities can best battle climate change at the Intergovernmental Panel on Climate Change (IPCC) Summit in Edmonton, Canada. It was the first time that cities rather than nations were given seats at the table of IPCC to discuss a global approach to climate change mitigation.

On 11 March, Japan observed a moment of silence to commemorate the seventh anniversary of the mega-quake and tsunami that left about 18,000 people dead or missing while triggering the Fukushima nuclear accident, the world's worst nuclear disaster.

On 14 March, a panel of 11 Heads of State and Special Advisors released a comprehensive policy report calling for a fundamental shift in the way the world manages water so as to achieve sustainable management of water and sanitation for all. The panel warned that as many as 700 million could be displaced by 2030 in search for water if water scarcity worsens.

January

February

March

August

September

Torrential rains brought floods and triggered landslides in western Japan in early July, killing at least 176 people, forcing millions to evacuate and leaving dozens missing in the country's worst weather disaster in 36 years. Disaster experts claimed torrential rains are becoming more frequent, possibly due to global warming.

Devastating floods caused by the collapse of a saddle dam hit the Province of Attapeu in southern Laos on 23 July. Nine people were killed, 111 missing and 16,000 directly affected as of 25 July. In the wake of the dam collapse, AHA Centre has released regular situation updates, provided relief items and dispatched personnel to facilitate coordination between the Laotian government and external actors.

Throughout much of July 2018, following torrential rains, a record-breaking heat wave affected large areas of Japan, and South Korea. In South Korea, some 42 people died, while in Japan at least 138 people died from heat-related causes.

According to the US Defense Department's annual report on Chinese military activity released on 20 August, China could add "a nuclear element" to the South China Sea disputes by deploying 20 floating nuclear power plants to energise its military outposts and artificial islands by 2020.

An industrial device containing radioactive material was reported missing by Malaysian authorities on 20 August. The device was lost while being transported from Seremban in Negri Sembilan to Shah Alam, Selangor by two technicians of a company. There were concerns that the radioactive iridium contained in the device could cause radiation exposure or be used as a 'dirty bomb' by malicious actors.

On 27 August, the UN investigation report said Myanmar's military generals must face investigation and prosecution for "genocidal intent" against Rohingya in Myanmar's northern Rakhine state. The Myanmar government strongly rejected the UN's findings, calling the allegations false.

From 3 - 6 September, Pacific Islands' leaders committed to a new security agreement, the Boe Declaration, at the Pacific Islands Forum. The agreement updated the 2000 Biketawa Declaration to include human security concerns. Notably the Boe Declaration recognises that climate change remains the single greatest threat to the livelihood, security and wellbeing of the Pacific people.

Super Typhoon Mangkhut hit northern Philippines on 15 September, killing 64 people, mostly due to landslides and collapsed homes. Mangkhut then battered Hong Kong and southern China, injuring more than 100 people and killing four.

A magnitude 7.5 earthquake hit Indonesia's Central Sulawesi province on 28 September triggering a tsunami and landslides that caused massive destruction and major casualties. Around 2,000 people died and at least 2,500 were seriously injured.

On 9 April, the Philippines announced that it was aiming to forge an agreement with China within the next few months to explore hydrocarbons together in the South China Sea, in areas both sides claim, without needing to address the touchy issue of sovereignty. Manila clarified that the agreement will be between oil companies and not the governments of China and the Philippines.

On 28 April, the Russian nuclear corporation Rosatom announced the deployment of the world's first floating nuclear power plant to provide electricity for an isolated town in Russia's far east in the Arctic Ocean. ROSATOM claimed it is "invincible for tsunamis and natural disaster" but environmental groups called it a "floating Chernobyl" due to safety and security risks.

Twenty-six cities from the 10 ASEAN member states were identified as pilot cities for the ASEAN Smart Cities Network (ASCN), according to a concept note issued by ASEAN on 27 April. Proposed by Singapore, ASCN is envisioned as a collaborative platform where up to three cities can work together to jointly achieve smart and sustainable urban development.

On 4 May, ASEAN's finance ministers met to discuss establishing Southeast Asia's first "catastrophe risk pool" to be called the South-east Asia Disaster Risk Insurance Facility (Seadrif). It aims to address the growing "protection gap" in financing to cover for economic losses due to disasters.

On 20 May, Thailand hosted a meeting between representatives of ASEAN member states to discuss cooperative measures against illegal fishing activities in the region. The meeting sought to establish a consensus on illegal fishing policies, create an ASEAN-wide database for fishing vessels and share information on vessel traffic.

The first meeting of the UN Ad Hoc Open-ended Expert Group (OEEG) on Marine Litter and Micro-plastics was held in Nairobi, Kenya from 29–31 May. Approximately 270 delegates from across the globe represented governments, NGOs, academia and interested groups discussed existing and future barriers to combatting marine litter and microplastics as well as the feasibility and effectiveness of response options.

On 23 June, early monsoon rains in northern Thailand trapped a young football team inside a flooded cave. The team was trapped for nearly three weeks, triggering global attention on several attempts to rescue them.

Flash floods and landslides killed 15 people in Vietnam's mountainous northern region in the late June. Storms destroyed homes and wiped out crops and infrastructure. The country's first major weather incident of the year caused US\$6.1 million in damage.

Nuclear regulators from all 10 ASEAN Member States met in Singapore from 26 June to 28 June for the 5th Association of Southeast Asian Nations Network of Regulatory Bodies on Atomic Energy (ASEANTOM) Annual Meeting and the Technical Workshop on Nuclear Safety, Human Resource Development and Emergency Preparedness.

April

May

June

October

November

December

The UN Intergovernmental Panel on Climate Change (IPCC) published a report on 8 October warning that global temperatures were likely to rise by 1.5 degree Celsius between 2030 and 2052 if global warming continues at its current pace. It outlines the consequences of global warming of 1.5 deg C above preindustrial levels and measures required to contain increasing temperatures to that level.

An estimated 6,000 migrants have entered Mexico in mid-October, part of a new, and much larger, caravan of migrants intending to go to the US to seek refuge from poverty, crimes and violence in El Salvador, Guatemala and Honduras.

Bangladesh and Myanmar agreed on 27 October to start repatriating Rohingya refugees in November 2018. Myanmar and Bangladesh originally announced a large-scale repatriation plan in November 2017, but it was delayed due to deeply entrenched bureaucratic challenges.

On 15 November, in the 33rd ASEAN Summit and related summits held in Singapore, East Asia Summit (EAS) members agreed to do more to strengthen cyber security and ensure the safe and secure use, storage and transport of nuclear and other radioactive materials.

On 16 November, the UN-backed tribunal, called the Extraordinary Chambers in the Courts of Cambodia, for the first time declared that that the crimes committed by the Khmer Rouge regime were genocide. It also held the two most senior surviving members of the Khmer Rouge regime responsible for the genocide.

On 21 November, during the state visit of Chinese President Xi Jinping in Manila, China and the Philippines signed a memorandum of understanding on joint oil and gas exploration in the South China Sea.

Thousands of world leaders, experts, activists, creative thinkers, and private sector and local community representatives gathered for a two-week climate change conference known as COP24, beginning on 2 December at Katowice, Poland to negotiate on the Paris Agreement's 'work programme.' COP24 kicked off with a special focus on advancing carbon neutrality and gender equality in climate actions.

On 3 December, the World Bank pledged US\$200 billion in climate action investment for 2021-25. The World Bank clarified that "a key priority is boosting support for climate adaptation," as millions of people are already enduring severe effects of extreme weather events.

Non-Traditional Security: Then and Now

Mely Caballero-Anthony

It has been a decade since the RSIS Centre for Non-Traditional Security (NTS) Studies was established in 2008. Now known as the Centre for NTS Studies, its mission has been to advance and mainstream the evolving field of non-traditional security, provide a platform for scholars and policymakers in Asia and beyond to guide NTS policies, and engage the academic and policy communities to craft informed approaches to NTS challenges. In this 2018 NTS Year in Review, it is therefore fitting that we reflect on how far the Centre has come in the last ten years in advancing and mainstreaming NTS.

We are happy to report that through our continued commitment to advance scholarship on NTS, the Centre has been at the forefront in research on a number of NTS issues in Asia. Through the publication of several academic and policy articles, as well as our engagement with several policy communities and analysts, the concept of NTS is now very much part of the security lexicon in Asia and the wider region.

Conceptualising NTS

Since the start of the NTS programme in RSIS in 2003, which preceded the establishment of the NTS Centre in 2008, our research worked on operationalising the concept of non-traditional security and locating its place in the other familiar concepts of security in Asia like comprehensive security, cooperative security and human security. We have argued that while comprehensive security has been the organising concept of security in many developing states in Asia, and is an expanded concept that goes beyond the traditional preoccupation with military threats to national security to include political, economic and socio-cultural issues, the state-centric focus of comprehensive security was not reflective nor adequate to address a slew of emerging security challenges to states and societies brought on by a rapidly changing international environment.

In advancing NTS scholarship, our researchers recognised the critical contribution of human security in challenging the state-centric focus and approach to security. The introduction of the human security concept in reconceptualising security was indeed a welcome development in that it underscored the importance of paying attention to the security threats of individuals, communities and societies - human security threats that were often lost in the state-centric security shuffle. By reframing questions about who or what is to be secured, human security raised issues on the nature of security practices that could be detrimental or beneficial to ensuring human security for all. It is in safeguarding and guaranteeing human security where cooperative security approaches not only among state actors but also non-state actors become even more important.

However, while the NTS concept shares the conceptual space of human security, NTS does not privilege a singular security referent. As a concept and as an approach to security, NTS recognises the role of the state in addressing human security threats while, at the same time is mindful of how state apparatuses can also create them. More importantly, NTS underscores the transnationality of NTS challenges—that insecurities caused by climate change, food and energy demands, irregular and forced migration have transborder implications, severely affecting human and consequently state security that therefore compels no less than multilateral and multisectoral cooperation.

Addressing issues of clarity and coherence

In developing NTS scholarship, it is unavoidable that conceptual and practical challenges emerge. Among the questions raised include: what does NTS include and not include, whether policy makers find value in the NTS concept and how are these NTS threats addressed? These were indeed the questions that guided the kinds of approaches adopted in NTS research. At the NTS Centre, we have drawn and built on the concepts of securitisation and desecuritisation. Originally advanced

by the Copenhagen School of Security Studies, this approach emphasises security as a speech act, where a decision-maker tries to move a topic from politics to an area of security legitimising extraordinary means to respond to the newly identified security threat. We went beyond applying the process of securitisation by operationalising indicators of successful securitisation and desecuritisation.

By combining theoretical innovation with a systematic and focused empirical research programme and policyrelevant analyses and findings, we produced both academic and policy-relevant articles that aimed to promote better understanding of how NTS issues are perceived and managed by states and non-state actors. Our main objectives were to go beyond theory building to developing a more contextualised framework of how NTS issues are framed by different actors - state and non-state, public and private - to provide a more comprehensive understanding of the multiple processes that are involved in dealing with transnational security challenges. These were reflected in our earlier research that produced important works which include edited volumes on: Non-Traditional Security in Asia: Dilemmas in Securitisation (Ashgate, 2006), and Studying Non-Traditional Security (Marshall Cavendish, 2006). The academic approach to the study of NTS has continued to draw interest among researchers beyond RSIS. The two volumes and the more recent work on Non-Traditional Security in Asia: Issues, Challenges and Frameworks for Action (ISEAS, 2013) and Introduction to Non-Traditional Security Studies (SAGE, 2016) are also now used by many scholars in their own research and have formed part of the readings on NTS courses in the region.

Our NTS work in RSIS also allowed us to have a number of research collaborations among academics and researchers in Asia. In 2007, RSIS established the Consortium of NTS Studies in Asia (NTS-Asia), a network of 31 research institutes and think tanks dedicated to developing links among scholars and analysts on NTS issues in the region to build research and guide policy on NTS issues. We have also become an important partner of international organisations and development agencies like the World Health Organisation (WHO), Food and Agriculture Organisation (FAO), ASEAN Secretariat, Asian Development Bank (ADB), International Committee of the Red Cross (ICRC), International Organisation for Migration (IOM), United Nations High Commissioner for Refugees (UNHCR) and International Development Research Centre (ICRC) in raising awareness and promoting international cooperation in addressing NTS challenges.

As we continue to develop research and scholarship on NTS, we are ever mindful of the constant need to push for mainstreaming and institutionalising NTS. While NTS is no longer in the fringe of security thinking in Asia, there remains the task of institutionalising NTS at multiple levels of governance - from the local to the international. The agendas of climate change, health security, food, energy and water securities can no longer be the security agendas of developing states only. The security issues of the 21st century weigh heavily on NTS threats to state and human security. Further, there are increasing and disquieting evidence that climate change and its attendant threats, forced population displacement from natural, human-induced and man-made disasters, emerging infectious diseases, demographic changes and widening income disparities, among others, threaten the lives of countless vulnerable communities and the future progress upon which societies across the world depend on. Our charge has been and will continue to be examining NTS issues comprehensively and in ways that can add value to policy making and governance and more importantly, to contribute to the security and welfare of communities.



NTS research now

Our current research on NTS continue to span a number of salient NTS challenges found across the region. Top among these is climate change and security which looks at the multi-faceted impact of a changing global climate on peoples and states. Seen from the perspective that climate change is a threat multiplier that generates 'consequence of its consequences', the global community needs to respond to the devastating impact of climate change that is unfolding.

In the 2018 Global Risks Report published (annually) by the World Economic Forum, climate change, manifested in extreme weather events and natural disasters, ranked highest in list of global risks in terms of likelihood and impact. It is also noteworthy that failure of climate mitigation and adaptation is among the top 5 global risks. Further, the latest Report released in October 2018 by the UN Intergovernmental Panel on Climate Change (IPCC), entitled Global Warming of 1.5°C has warned that our planet is on the way to the 1.5°C limit and that the sustained trend of global warming has shown no sign of relenting. Yet, despite these warnings, there is certainly a wide gap in generating decisive action to manage climate change and protect people from the multi-faceted threats of a changing climate.

The impact of climate change on the environment such as desertification of land, drying up of rivers and bleaching of corals are extremely consequential to humanity but are proving difficult to reverse or repair. High sea rise levels threaten the future of states in

low-lying areas, not to mention the very existence and identity of people living in these states. The UN Secretary General Antonio Guterres has warned that the interconnection of megatrends like food insecurity and water crises with climate change and people's movements are becoming more enhanced and creating situations where more people are displaced and more tensions and conflicts can emerge. To be sure, climate change and other NTS issues are no longer 'soft' security issues. They are in fact becoming issues of high politics. Thus, the artificial boundaries between hard and soft security challenges or traditional and non-traditional securities are increasingly blurring. This also means that the imperatives to addressing NTS challenges – be it climate change, humanitarian emergencies, infectious diseases and others must not only be comprehensive but require no less that the involvement of a range of actors from a range of disciplines and vocations.

In the immediate and medium term, NTS research must be proactive in highlighting the many critical challenges affecting the wellbeing and security of peoples and states. As evidenced in East Asia and the other regions, NTS challenges are increasingly becoming the core concerns for most governments and policy communities. Moving forward, more work on helping states deal effectively with NTS threats, building capacity, building resilience, and providing protection particularly among vulnerable communities must be done. Similarly, promoting more multilateral cooperation among states, more inclusion and participation of non-state actors and coordination among different stakeholders help in advancing effective governance of NTS challenges.



Launch of the RSIS Centre for Non-Traditional Security (NTS) Studies 6 May 2008 Traders Hotel, Singapore

Climate-Resilient Agriculture in Southeast Asia

Jose Ma. Luis P. Montesclaros

Global food security is at risk, with the the 2018 special report by the United Nations Environment Programme's Intergovernmental Panel on Climate Change (IPCC) projecting as many as 396 million people globally facing lower food production yields if global temperatures increase by 2°C.

Countries now need to help their farmers adapt to more occasions of hot and cold temperature extremes, less consistent precipitation, and changing humidity levels that have already been seen. Southeast Asia has been particularly affected by extreme weather events in 2018 from flash floods in Vietnam in June which wiped out crops and infrastructure causing US\$6.1 million in damage to the October floods in Cambodia which saw 44,000 hectares of rice paddy and infrastructure destroyed.

Ricebowl Region of the World Under **Threat**

Within Southeast Asia, the Mekong sub-region -Cambodia, Laos, Myanmar and Vietnam – is particularly vulnerable to these challenges. Also known as the 'Rice Bowl Region of the world', these countries depend on agriculture as a major source of jobs and household income. Moreover, their low income level prevents them from purchasing the food needed in cases of disruption that wipe out entire batches of crops for harvest.



Farmer Ploughs His Rice Field After the Flood Subsides

This impacts their ability to raise the needed funds to make agricultural practices resilient to environmental threats, a trouble shared by public sector participants at the Workshop on Roadmaps for Disaster Resilience and Climate Change Adaptation in Siem Reap, Cambodia this year.

Technology-Enabled Agriculture Resilience

One way of addressing funding challenges to resilient and adaptive regional agriculture, is to reframe the way these challenges are perceived. Rather than seeing early warning systems, environmental sensors and other climate-adaptive agricultural technologies (CAATs) as cost-items in government budgets, what needs highlighting is the potential for the private sector to venture into providing these in an open market setting. For instance, Singapore has over 26 private-led indoor farms, each investing in its own methods to increase yields amid changing growing environments (e.g. sensors, analytics and automatic controls to allow for the ideal growing environment for vegetables).

Mekong countries, where agriculture is done in vast plots of land hundreds of hectares wide, will need to mainstream technologies relevant to them, with the private sector's help. They can, for instance, encourage private companies to take part in producing rice varieties resistant to droughts, as can be seen in Thailand.

Another is to open up to a wide array of CAATs and other upstream farming technologies, where investments have more than doubled over the past five years according to the AgFunder AgriFood Tech Investing Report 2017. For instance, Vietnam's Ministry of Agriculture has welcomed the entry of a company which produces drones that can spray pesticides over large areas. Alongside openness, governments must also encourage responsibility, such as Myanmar's regulations requiring drone registration and safe use, holding technology users accountable.

Looking ahead and learning from these experiences, and from one another, will contribute to greater regional agricultural resilience and food security.

Governing Migration in a Fractured World

Alistair D. B. Cook

Globally, migration and refugee issues dominate news headlines today and have become a key policy priority for many governments and civil societies. In 2018, international negotiations continued towards forging global agreements on migrants and refugees with significant implications for Asia and the Pacific.

The current global estimate is that there were 244 million international migrants in the world in 2015, an estimated 3.3% of the global population. Concurrently, the world faces an upturn in forced migration with 23 million refugees and asylum-seekers, and an estimated 30.6 million Internally Displaced Persons (IDPs) in 2017.

Asia and the Pacific is home to more than 60 per cent of the total global population. While the region continues to grow economically with many positive effects such as rising living standards, it is also home to those who have not benefitted from such positive trends. Asia and the Pacific is now home to some 4.2 million refugees, 2.7 million IDPs, and an estimated 2.2 million stateless people. Some 655,000 people fled Myanmar into Bangladesh to seek refuge in 2017 alone. While this year was supposed to signal their return, the overwhelming majority of them remain in Bangladesh.

While international migrants and refugees are often grouped together, their journeys differ considerably. International regular migrants move within the regulatory norms of sending, transit and receiving countries. In contrast, irregular migrants may not have the necessary authorisation or documentation to work in a destination country or may have left their own country without a valid passport or travel document. Most often, this group includes people who have been smuggled or trafficked. For those forcibly displaced due to conflict, the legal term of refugee is used and defined in international law. It is with these differing journeys in mind that countries came together at the United Nations General Assembly and unanimously agreed to the New York Declaration for Refugees and Migrants on 19 September 2016. The declaration marked the start of a two-year intergovernmental negotiation and brought countries together to address this steadfast global challenge. It moved forward on two tracks with one for migrants and the other for refugees. The aim was to conclude the Global Compact for Safe, Orderly and Regular Migration for adoption at an intergovernmental conference in Marrakesh, Morocco on 10-11 December 2018.

This differed from the Global Compact for Refugees, which was tasked to the UN High Commissioner for Refugees in consultation with states and other stakeholders. The High Commissioner presented the outcome document as part of his annual address to the UN General Assembly in 2018 for their endorsement.

New York Declaration for Refugees and Migrants

The United Nations General Assembly unanimously adopted the declaration on 19 September 2016, which included three bold commitments:

- 1. Start negotiations leading to an international conference and the adoption of a global compact for safe, orderly and regular migration;
- 2. Develop guidelines on the treatment of migrants in vulnerable situations; and
- 3. Achieve a more equitable sharing of the burden and responsibility for hosting and supporting the world's refugees by adopting a global compact on refugees.

As the processes draws to a close this year, the international community has undergone significant shifts in its political landscape. A new United Nations Secretary-General took office in 2017 who champions



Tuvalu is expected to be uninhabitable by 2050.

the process but faces an increasing number of countries withdrawing from the negotiations. The negotiations excluded Internally Displaced Persons, which is the largest single group of people displaced in the world. This meant the process began with only the mandate to include people who crossed international borders.

Even under this significant constraint, Australia, Austria, Chile, the Czech Republic, Italy, Hungary, Poland, Latvia, Slovakia and the Dominican Republic withdrew their support from the final Global Compact. The United States withdrew its participation in the non-binding process last year illustrating the difficulties surrounding the governance of people-on-the-move. It is therefore important to highlight some key achievements and challenges to realise the New York Declaration and its potential impact on the Asia-Pacific.

Global Compact for Safe, Orderly and **Regular Migration**

Over the past two years, international negotiations have identified 23 objectives to better manage migration. These include commitments to mitigate adverse drivers and structural factors that hinder people in their country of origin; to reduce risks and vulnerabilities migrants face in their journeys; to address concerns of states and communities while recognising the demographic, economic, social and environmental shifts underway and the implications these have on migration; and to develop conducive environments for migrants to contribute to their new communities. These are founded on a set of cross-cutting and interdependent human security guiding principles.

While the comprehensive nature of these principles is clear, one critique of the current document is the need to develop and include a tangible work plan to ensure accountability and transparency. In this way, the Global Compact for Safe, Orderly and Regular Migration could further develop linkages between global commitments and regional organisations like ASEAN to craft these work plans in line with local capacities, whilst remaining committed to the cooperative framework of the New York Declaration.

As we head to the intergovernmental conference in Marrakesh, it is important to see how the declaration made two years ago is turned into action. The Global Compact for Safe, Orderly and Regular Migration is not legally binding and does not include enforcement mechanisms. The compact is rather more a signal of principle that international migrants have basic rights. In other words, it lays the groundwork for countries to cooperate in the future to develop mechanisms at the international level whatever shape they may take. The second important takeaway from this compact is that it recognises climate change as a driver of migration. It calls for countries to cooperate to address this so that conditions do not arise that encourage irregular migration.

The recognition of climate change as a driver of migration is important to Asia and the Pacific. In September, leaders agreed the Boe Declaration at the Pacific Islands Forum Leaders' Summit, which reaffirmed that climate change remains the single greatest threat to the livelihood, security and wellbeing of the Pacific people. The Maldives, Kiribati, Marshall Islands, Tokelau and Tuvalu are the Island countries in Asia and the Pacific most at risk of disappearing under rising sea levels. Tuvalu is expected to be the first nation to be uninhabitable by 2050. It is on this basis that the Global Compact for Safe, Orderly and Regular Migration is an important foundation for the international community, and particularly Asia and the Pacific. The compact provides an important



The Border Consortium in Thailand provides returnees with the cash equivalent of three months' rice supply to subsidise resettlement in Myanmar.

signal to move forward on how to manage this form of migration in a system that provides safety, security and dignity to migrants.

Global Compact for Refugees

The negotiations led by United Nations High Commissioner for Refugees sought to achieve four key objectives as unanimously agreed in New York through the Comprehensive Refugee Response Framework. The negotiators' task was to develop an action plan and achieve an agreement that those people forced to flee their countries of origin are a shared international responsibility, which is distributed equitably and predictably in the future.

However, it remains unclear how the compact will rework the system towards greater global ownership and participation of countries. A strong commitment on this would recognise the participation of countries in the Global South beyond broad commitments already found in the New York Declaration towards a truly Comprehensive Refugee Response Framework and a more predictable and equitable sharing of responsibility. The difficulty with the agreement is that while it says all the right things, the ground reality shows there is a wide gulf between rhetoric and reality on protection issues.

Global Compact for Refugees

The negotiations over the past two years have had four key objectives:

- Ease pressures on host countries
- Enhance self-reliance
- Expand access to third country solutions
- 4. Support conditions in countries of origin for return in safety and dignity

If the compact is viewed more as a stock-taking and consolidation exercise of policy developments in refugee assistance and protection over recent years than as

breaking new ground, then it is a positive contribution. The humanitarian system was established to offer shortterm relief but the reality is that the global average for time spent in a refugee camp is now 17 years. With this in mind, the Comprehensive Refugee Response Framework illustrates the developments made in the humanitarian system to bridge this gap. The move towards the provision of cash assistance for refugees is the most prominent.

Cash assistance is provided by humanitarian agencies to refugees who can use the money as they see fit subject to some constraints. This programmatic shift has been witnessed in multiple scenarios from responses to climate change and pro-poor development policies. In Asia and the Pacific this year, the United Nations World Food Programme switched from in-kind food donations to cash transfer in Nepal to the over 100,000 Bhutanese people living in refugee camps for the past 15 – 20 years. The compact documents this shift and provides an avenue for global acknowledgement of such developments.

From Technical Fixes to Shifting **Mind-Sets**

This year bore witness to the culmination of two separate but inter-related global negotiations governing the movement of people. In an unfavourable global political and security climate, these negotiations have culminated in two documents that provide a framework for future deliberations. The Global Compact for Safe, Orderly and Regular Migration notably recognises climate change as a driver of migration, a core security concern, for countries in the Asia and the Pacific. The Global Compact for Refugees acknowledges the present disproportionate burden placed on proximate countries to conflicts as well as particular programmatic developments. As we move into 2019, countries in Asia and the Pacific will likely further pursue dialogue on finding durable solutions to climate-induced migration as its impact becomes a grave reality for its people. Now that the frameworks are established it will be important to move from stock-taking to building political capital to develop more robust systems that govern and protect people-on-the-move.

Revisiting Health Governance in Southeast Asia

Margareth Sembiring

The emergence of multiple health challenges necessitates a global response that accurately addresses pressing health concerns at a particular time. This is evidenced in the expansion of the scope for health-related issues from reducing child mortality, improving maternal health, and combating HIV/AIDS, malaria and other diseases in the Millennium Development Goals (MDGs) to including prevention and control of non-communicable diseases in the 2030 Sustainable Development Goals. In response, the World Health Organization (WHO) Independent High-level Commission on NCDs convened in October 2017, which met for the first time in March this year. In early June, the WHO launched a report detailing recommendations to reduce premature death, alcohol and tobacco use, physical inactivity and unhealthy diets.

In light of the dynamic responses at the global level, ASEAN too has come a long way in shaping its regional approach to health governance. Beginning with a framework that positioned health within the broader development, economic growth, and human rights agendas in the early 1980s, regional health cooperation took a transformative turn when the SARS crisis hit the region in 2003. Fears over the spread of the highly pathological SARS coronavirus across national borders prompted health securitisation and triggered closer regional collaboration and cooperation. A special Health Summit between ASEAN leaders and Japan, China and South Korea was key to establishing a coordinated response at border controls and immigration aimed at containing the spread of the disease. It also gave rise to the ASEAN Diseases Surveillance Network in 2003, the ASEAN Highly Pathogenic Avian Influenza Task Force and the ASEAN Plus Three Emerging Infectious Disease Programme, the ASEAN Partnership Laboratories, and the Field Epidemiology Training Network, among others, to monitor and respond to further pandemic outbreaks.

ASEAN's more recent approach to health is back to embracing multiple framings including human rights, equity, protection, social welfare and justice. This was captured in a recently published article titled "Health and Human Security Challenges in Asia: New Agendas for Strengthening Regional Health Governance." The post-2015 ASEAN Health Development Agenda highlights this approach. Most notably, it now emphasizes the 'prevention' aspect by, among others, promoting healthy

lifestyles to prevent and control non-communicable diseases. The increased emphasis on the prevention of non-communicable diseases reflects the changes at the global level and conforms to the SDGs, the WHO and broader Global Health Security agenda.

While the renewed approach testifies to ASEAN's enduring commitment to health security, the primary bastion against health challenges rests on national public health systems. In this regard, greater regional efforts need to be geared towards strengthening public health systems in ASEAN member states, particularly those in need of support. However, to allow for targeted regional interventions in building national capacity, transparency is important and the norm of non-interference in domestic affairs needs to be re-examined. Moreover, given member states' limited financial resources, ASEAN may engage non-state actors and the private sector in regional health security governance to lend them the necessary resources aimed at strengthening public health systems.

The call for continuing regional cooperation to strengthen capacity at regional and national levels is particularly critical in light of multiple emerging health issues brought about by, among others, climate change and Antimicrobial Resistance. Some gaps are already identifiable. For example, while combating Antimicrobial Resistance has been streamlined in the post-2015 ASEAN Health Development Agenda, climate-related diseases are yet to feature sufficiently despite the WHO already designating them as legitimate health concerns. Additionally, the current regional mechanisms for information and data sharing of emerging infectious diseases and public health emergencies need strengthening to enable better disease surveillance and regional response.

Although the SARS experience has equipped the region with mechanisms to respond to the outbreak and spread of infectious diseases, ASEAN needs to stay on guard. Panic and fear associated with a pandemic disease outbreak may be able to generate strong joint regional responses; but the region needs to respond with equal urgency and intensity to emerging health challenges that are now threatening its populations. By ensuring a robust regional health governance, ASEAN is on the right track to attain its vision for a healthy, caring, and sustainable ASEAN Community.

NTS Centre - The First Decade in Pictures

































Countering Human Trafficking with a Data-Driven Approach

Foo Yen Ne

In 2018, the International Organisation for Migration (IOM) released the new version of the Counter Trafficking Data Collaborative (CTDC), the world's first data hub on human trafficking. The database draws on primary data of human trafficking cases contributed by organisations around the world. At the time of the launch in October, over 90,000 cases of human trafficking have been inputted into the CTDC. IOM states that disaggregated data from the initial caseload has already provided new insights on themes such as the main industry sectors where trafficking occurs, survivors' geographical regions of origin and exploitation, trafficking routes and focus areas like kidnapping and recruitment. The dataset will be updated regularly and will form the foundations on which anti-trafficking public policy will be formulated.

The CTDC addresses a critical need for collecting and analysing data on human trafficking to understand the multifaceted nature of the crime, to assess key trafficking trends and to design effective anti-trafficking response. This is in line with objectives of the United Nations' Global Compact for Safe, Orderly and Regular Migration to "collect and utilise accurate and disaggregated data as basis for evidence-based policies" and to "prevent, combat and eradicate trafficking in persons in the context of international migration". A substantial portion of the treaty focuses on the need for data management and information sharing between different stakeholders including states, NGOs, migrants and citizens of destination countries.

A similar drive towards information sharing between different stakeholders is in the ASEAN Plan of Action against Trafficking in Persons Especially Women and Children (the "Action Plan") adopted in 2015. The Action Plan articulates not only ASEAN's need to

"collect suitable data" on but also to develop national data collection systems and methods of exchange of such data among ASEAN Member States with a view to developing a regional database for trafficking in persons. As human trafficking within ASEAN involves more than one country, a regional database for comprehensive, reliable and comparable data on human trafficking is a logical step forward.

Progress towards establishing a common regional database on human trafficking in ASEAN, however, has been slow since the adoption of the Action plan. There are challenges to creating a regional database on human trafficking in ASEAN. For example, a common database requires standardisation of definitions, standards for data collection practices and data confidentiality which is difficult to achieve given the diversity of legal traditions and conception of human trafficking within and between ASEAN Member States. Further, data collection in a digital age presents unique security and data management challenges that the Action Plan does not address. They include risks of database breaches, capacity building for maintaining and managing databases, and lack of agreed standards for data collection and protection.

The CTDC illustrates how challenges facing ASEAN may be overcome and provides an example how data on human trafficking from a variety of sources may be organised, compared and harmonised to create datasets for analysis and designing targeted response to human trafficking. With intra-region mobility expected to grow as Southeast Asia becomes more economically integrated, there is a strong case for reigniting ASEAN's commitment to coordinated and systematic sharing of information on human trafficking.

Urban Disasters in Asia: The Next Frontier in Humanitarian Action

Angelo Paolo L. Trias

The impact of natural disasters to people, properties, and assets in Asia are extensive and substantial. Its population is around five times more likely to be affected by natural disasters than those living elsewhere. Even so, the figures are likely underestimated because of unreported cases of disasters. As we become better at capturing disaster events, the numbers will necessarily increase. According to UNESCAP, the region accounted for 57 per cent of the global natural disaster-related deaths, and about 88 per cent of the global population affected by natural disasters from 1970 to 2016.

Asia is the most natural disaster-prone region in the world. It experiences a broad array of geophysical, hydro-meteorological, climatological hazards mainly due to its geographical location and physical features. The region is surrounded by ocean basins where tropical cyclones regularly develop and pass through numerous countries along major tracks. It also houses two of the world's most seismically active fault lines and strings of volcanoes that cut across several countries.

Asia is also subject to cross-border natural disasters that affect multiple countries with cascading effects. In 2013, Typhoon Haiyan made landfall in the Philippines but set-off storm surges in Taiwan and China. The 2015 Nepal Earthquake also triggered landslides in Bangladesh and India. Transboundary floods in countries that share rivers like Cambodia and Vietnam are quite common. According to the CRED international disaster database, the region

has the highest number of reported natural disasters in total compared to other parts of the world since 1900.

While the primary interest is to ensure human survival and safety, there is a growing concern about the impact on urban life and increasing economic costs of disasters given the on-going shift of the global economy to Asia. The latest Asia-Pacific Disaster Report estimated that damages and losses in Asia increased from US \$52 billion to around US \$1.3 trillion since 1970. It also indicates average annual losses amounting to US \$160 billion by 2030 based on the shift of more people moving to urban areas.

Evolving disaster risks of an urbanizing Asia

Cities tend to generate proximal efficiencies and economies of scale that may enhance productivity and enable the access of various forms of wealth and well-being to advance in life. The increase in economic activity and work prospects in cities led to a steady growth in urban migration, with more than half of the region's people now living in urban areas. Urban centres now serve as cultural, knowledge and resource hubs in the region as well as significant drivers of global economies. For instance, a UNESCAP study found that around 40 per cent of the region's urban population are contributing up to 80 per cent of Asia's GDP.

However, unsustainable development patterns in the region are intensifying existing risks and creating new ones that manifest in unexpected ways. Unplanned urban expansion is disrupting ecosystems and depleting ecological buffers serving as protection from natural hazards. Mismanaged urban centres are generating disaster hotspots that put greater numbers of people, properties, and assets at further risk. Many Asian cities are located and expanding in highly exposed and unprotected areas such as those along coastal areas, at major river basins, and on top of fault lines. According to the UNEP/UNISDR risk index, around 700 million in the region are living in multi-hazard prone urban areas subject to "high" and "extreme" disaster risks - a number expected to reach one billion by 2030.

Asia's burgeoning cities may not be sufficiently prepared and equipped to manage urban disasters that could occur more frequently and with greater intensity. The accumulating exposure of and increasing inability of cities to keep up with urbanization are exacerbating disaster vulnerabilities and impacts in the region.

The UNESCAP Asia-Pacific Disaster Report 2017 concluded that disaster risk is outpacing disaster resilience building in the region. The critical question is - what are we doing to better cope and adapt to a rapidly urbanizing world? Evidence indicates that future disasters will highly likely be urban. Clearly, there is a pressing need for the humanitarian and DRR communities to re-align the way they prepare for and respond to disasters in cities. But where do we begin?



Dynamism of cities.

Filling in gaps and operating at the nexus

The scale, scope, and complexity of urban HADR have increased with the growing number, size and importance of cities. In the last decade, researchers and practitioners co-created platforms for shared learning, communities of practice, and dedicated repositories of resources on context-appropriate HADR. A significant collection of guidance notes, policy briefs, methodologies and tools are now available and allow the exploration of the structure and dynamics of urban systems and spaces. This in turn enables the examination of the ways cities behave and function.

While considerable progress has been made in raising awareness and exploring different ways humanitarian aid workers and disaster responders could better navigate complexities of urban contexts, much is yet to be done. The two main issues limiting effective urban HADR are: (i) lack of guidance for more comprehensive and in-depth sectoral assessments, and (ii) the low emphasis on capturing the targeted needs of vulnerable and marginalized groups. The varying interests of HADR actors over time led to different concentrations of expertise that broadened boundaries of humanitarian aid and disaster response. This, however, also contributed to silo mentalities and disjointed activities between and within HADR organizations which are more ineffective in dense, diverse and dynamic urban settings. These limitations highlight that challenges pertaining to urban HADR are usually addressed within specializations with insufficient inter-disciplinary exchange. Addressing cross-cutting issues could enhance HADR stakeholder coordination and assist in empowering beneficiaries.

Another critical consideration is the urban povertydisaster-conflict and violence nexus. High incidences of poverty and levels of inequality continue to rise despite rapid economic and urban growth in the region. Asia is home to more than half of the world's poor and urban slum populations that are disproportionately affected by disasters. Disasters often pull people back into poverty while extensive disasters contribute to poverty traps that widen inequality. Increased poverty and inequalities in competitive city environments tend to promote urban conflict and violence that could be short-lived and opportunistic such as looting and rape, or chronic and systemic such as kidnapping and human trafficking through organized crime. The particular challenge this presents to HADR actors is that urban violence, that

may affect a sizeable percentage of a population, does not qualify as warfare under international humanitarian law and is not covered by its protective measures. Rules of engagement in such situations have to be refined to facilitate HADR that also address the effects of urban conflict and violence.

People displaced by disasters, conflict and violence elsewhere often migrate to urban centres in search of better lives. However, poverty and inequalities in cities often push the vulnerable and marginalized populations further at-risk from shocks and stresses – a high proportion of which are women and girls. Those disproportionately impacted by disasters become more susceptible to conflict and violence, which in turn could further impoverish and disadvantage them, thus creating a vicious feedback loop. Further complicating the matter is the tendency for both disasters and conflict to occur simultaneously in such areas in developing countries, mutually reinforcing the threats and risks faced by affected populations. Disasters and conflict could create resource-scarce urban environment that heighten tensions for future crises and intensify pressure on HADR actors to constantly re-prioritise attention and re-deploy resources.

A more flexible and inclusive urban HADR

A rapidly urbanizing Asia presents an urgent and significant challenge for HADR actors, but it also presents opportunities for adopting more flexible and inclusive policies and practices that build upon existing urban systems and spaces. Each emergency and disaster is unique in terms of what the nature of hazards are, when it occurs, where it is situated, and how it impacts on people, properties and assets. But the clear and obvious distinctions between these dimensions blur



Dense urban areas in Asia.

in dense, diverse and dynamic cities. Paul Currion, a humanitarian consultant studying city networks, argued that they represent a continuum defined by socio-cultural, economic, political, and technological systems shaped by urban life. And in the face of evolving urban disaster risks, traditional approaches and practices like using historical information for forecasting and area-based assessments for needs targeting may no longer be sufficient.

Urban HADR needs to be re-adapted to each emergency and disaster context in partnership with local actors, as well as re-aligned to existing collective efforts such as regional preparedness and response frameworks, institutional arrangements, and coordination mechanisms. Regular engagement and participation of urban dwellers in decision-making and planning, and constant coordination and joint activities with regional HADR organizations, are prospects for improving access and coverage of aid and relief in Asian cities and for developing innovative HADR techniques and tools for disaster-affected urban settings.

Strengthening Marine Environmental Protection through the Code of Conduct

Lina Gong

ASEAN Foreign Ministers and China agreed in early August 2018 on a single text for negotiations on the Code of Conduct in the South China Sea. This agreement represents a positive step forward for settling the South China Sea issues, although some experts are cautiously optimistic about its significance. While geopolitical and military dimensions are the focus, sufficient attention should also be given to marine environmental protection in the South China Sea. The adverse impacts of marine environmental deterioration threatens the security of people and states through food security, health security, economic security and environmental security.

Among the various causes of marine environmental deterioration in the South China Sea is the unsustainable exploitation of marine resources and unregulated discharge of pollutants. As regional countries are interested in boosting the marine economy, it is essential to limit the development-induced burdens on the marine environment in the South China Sea. Marine scientific research is a precondition for protecting the seas since effective MEP depends on accurate scientific knowledge and data. Therefore, the marine economy and scientific research were proposed as areas for enhancing cooperation ASEAN and China in the negotiations on the code of conduct.

Promoting Sustainable Growth Patterns in Marine Economy

The marine economy is an important sector of the national economies of many member states. For instance, fisheries and aquaculture account for 25 percent of Vietnam's GDP. However, warnings over the depletion of fishing resources have long been made, with many fishing grounds in the South China Sea overfished. Earlier this year, Thailand and the Philippines temporarily closed down tourist islands due to environmental concerns. As some countries have identified the marine economy as a potential area to enhance cooperation, it is necessary to incorporate the promotion of sustainable patterns of growth in the talks on the Code of Conduct as well as specific cooperative activities, like effective regulation on the discharge of sewage into the South China Sea and minimizing adverse impacts of tourism on marine habitats. This also contributes to the region's achievement of Goal 14 of the UN Sustainable Development Goals that pushes for conservation of the marine environment and sustainable use of marine resources.



Marine litter on Pasir Ris Shore of Singapore

Strengthening Marine Scientific Research

The importance of scientific research has long been recognised, evidenced by remarks by regional leaders like Indonesian President Joko Widodo and Chinese President Xi Jinping on various occasions. Moreover, such research is perceived as less controversial and thus making it easier to initiate cooperation. While there have been joint marine scientific research in the South China Sea at bilateral and multilateral levels, various factors still hamper more substantive cooperation. The lack of a clear definition of scientific research, variations in standards among countries and gaps in regulations and laws create difficulties for cooperation in marine scientific research and territorial disputes further complicate the problem. For instance, the Philippines ,in January 2018, approved the application from a team of Chinese scientists to conduct research in Philippine territorial waters but later banned all foreign scientific research ships in February 2018 due to domestic opposition and criticism. Negotiations on the Code of Conduct can provide a venue for states to coordinate on the issues that hamper cooperation in scientific research and build a common understanding about related issues like the scope of research activities.

The region has seen the rising momentum for marine environmental protection, represented by the Declaration for a Decade of Coastal and Marine Environmental Protection in the South China Sea that was signed in November 2017. Sufficient attention to the issue of environmental protection during the negotiations on Code of Conduct can build the momentum further. In turn, cooperation in Marine Environmental Protection provides opportunities for states to build confidence for addressing the more challenging issues like territorial disputes.

Smart City Development: Supporting Climate Resilience In Southeast Asia?

Margareth Sembiring

The excitement for the wider application of Information and Communication Technology (ICT) is evident in Southeast Asia with nearly all ASEAN member states having Smart City plans in their development pipelines. The focus on cities is partly a response to incessant urbanisation that has now seen 55% of world's population living in cities. The World Bank projects that the number will increase to 68% in 2050. In this light, the phenomenal speed and scope of ICT advancement is perceived to be able to offer tangible solutions to numerous development-related issues primarily by transforming people's ways of living in the urban setting.

As the 2018 ASEAN Chairman, Singapore supported the attainment of this common aspiration by formulating the ASEAN Smart City Network (ASCN). The ASCN envisions the applications of technology and digital solutions in different sectors including transport, water, energy, health care, education, and public services. Subsequently, twenty six cities across ASEAN member states have been nominated as pilot sites. While the ASCN primarily aims to facilitate Smart City development, the elements within Smart City concepts may well contribute to the fight against climate change.

Sustainable Cities and Climate Resilience?

City development impacts the environment in a number of ways. From air and water pollution to waste management and the loss of green spaces, activities in urban environment act as stressors on the environment. The vision to minimise environmental degradation caused by urban development has given rise to green, low-carbon and sustainable living concepts. The acknowledgment of the critical intersection between cities and the environment, and further on climate change, is reflected in Goal 11 of the Sustainable Development Goals (SDGs): "Sustainable Cities and Communities." Among other targets, Goal 11 envisions an increasing number of resilient cities capable of mitigating and adapting to climate change.

Smart City is an expansion of a similar thinking where the application of ICT in cities is expected to result in more efficient use of water, energy and other resources. The Global e-Sustainability Initiative estimates that the use of ICT in the power, transportation, agriculture, building, manufacturing, and service sectors could bring down global emission by 9.1 GtCO2e, or about 16.5 percent of total global emissions, by 2020.

One example of the components within the Smart City concept that may significantly reduce greenhouse gas emission is the Smart Grid. The application of Smart Grid can solve intermittency and reliability issues inherent in the use of renewable sources such as solar and wind energy. By addressing these problems, Smart Grid will allow a greater share of renewable energy sources in the energy mix and reduces fossil fuel usage accordingly.



While Smart City offers a promising outlook for a reduction of greenhouse gas emissions therefore climate change mitigation, the ways by which it can contribute to climate change adaptation are less clear. Increasing energy and water use efficiency through ICT-enabled automation may be able to conserve such resources better than current technologies; however, the mechanisms by which they can ensure steady supply of energy and water when a disaster event strikes remains untested.

Smart City Development in Southeast Asia

The desire for modernisation, coupled with an increasing awareness of sustainable, healthy and environmentfriendly living, is the driving force behind growing interest for Smart City in Southeast Asia. Singapore is at the forefront of the initiative and is ranked second after Copenhagen in the 2017 Smart Cities Index. Indonesia's cities of Jakarta, Bandung, Surabaya, and Makassar are already incorporating Smart City components by operationalising the ICT platform for public transportation and other public services. Additionally, the transformation of about 100 more cities towards smart cities are in the pipeline. A similar plan was rolled out in Thailand with 100 cities being envisioned to become smart cities within the next two decades. Vietnam is on board too, with the plan to develop a Smart City in cities of Hanoi, Ho Chi Minh and Danang. Additionally, 30 cities will also be developed into smart cities.

While Indonesia, Thailand and Vietnam started with an expansive plan to develop their smart cities, other countries chose to concentrate on one or two specific cities. Malaysia, for example, has engaged China's Alibaba Group to develop Southeast Asia's first "Brain City" in Kuala Lumpur. It prioritises transport



Smart buildings are estimated to reduce global emissions by 1.6 GtCO2e by 2020



Smart grid allows better integration of renewable energy sources thus reducing fossil fuel usage

management first before applying the technology in other sectors. The partnership also hopes to develop Malaysian human resources for data analytics and management, and start-ups with Artificial Intelligence technology in the next two years. Similarly, the Philippines plans to build smart cities in Manila and Clark, Pampanga. Under the Yangon Urban Development Master Plan, Myanmar is set to build two smart cities in Kwee Myin Daing and Dala townships. Cambodia concentrates its Smart City development in Phnom Penh and Preah Sihanouk Province. Brunei Darussalam seeks to develop Temburong into a Smart City that emits zero carbon and is self-sufficient in energy and water.

While Lao PDR, has yet to formulate clear plans for Smart City development, it has laid the groundwork for multisectoral use of ICT, including in e-government services, as seen in in the National ICT Policy 2015-2025 and National Broadband Plan 2012-2020.

The development of smart cities in Southeast Asia heavily engages multiple extra-regional partners as consultants, investors or developers. Vietnam, for example, sees the involvement of Japan's Sumitomo, South Korea's Lotte Group and South Korean city of Daigo. The Philippines' New Clark City will be developed with the help from Singapore's Surbana Jurong and Japan's Overseas Infrastructure Investment for Transport and Urban Development (JOIN), and is set to be complete in 2022. Cambodia engages South Korea's state-run Korea Land and Housing Corp and Hong Kong's Smart City Consortium. In Lao PDR, despite not having Smart City plans as yet, Singapore's Surbana Jurong has been

involved in infrastructural projects and the development of strategic townships and industrial clusters.

The engagement of extra-regional actors signifies that the technology-dense aspect of Smart City requires certain technological knowledge and advancement that need to be acquired from other entities with such comparative advantage. This suggests that Smart City projects can be too costly for some states to commit to. Given the uneven fiscal capacity across Southeast Asian countries, it remains to be seen if a Smart City vision in the region can truly materialise.

Beyond Smart Cities

The positive outlook of Smart City development in contributing to climate mitigation and sustainability needs to be complemented with a wider perspective that includes rural areas. While statistical projections estimated that a big proportion of countries' populations may gravitate towards cities in the next decade and therefore it makes more economic sense to concentrate the expansion of ICT use in cities, it is worth noting that rural areas are home to important economic activities such as agriculture and fisheries that supply and sustain urban living. Additionally, rural areas are often the most vulnerable places against disaster events. Take the case of Indonesia for example. Indonesia's 2015-2019 National Medium Term Development Plan identifies 136 areas with high disaster risk index, and it is the rural areas within identified regencies that have the lowest adaptive capacity to withstand disasters. As overall resilience can only be achieved through a comprehensive approach, cities cannot be the only places benefiting from ICT advancements although the majority of the population are living in cities. Not only will it make rural areas remain vulnerable when possible solutions to build up their resilience may be available, it will also further increase the digital divide between urban and rural spaces. From the development perspective, this scenario is undesirable as it will drive urbanisation even further.

Learning from the experience of mobile phone penetration that now has reached rural spaces widely, the transformation of rural areas into a "smart village" concept is therefore possible. With attaining sustainability and building resilience as the ultimate goals, smart village concept needs to be mindful of local culture and practices. It may start off with the applications of ICT in assisting people's livelihoods as seen in the Indonesia's ongoing Integrated Broadband Village Program that aims to provide relevant and useful information for fishermen, farmers, and remote villagers.

While ASEAN member states are picking up on the wonders of ICT advancement in their cities, it is worth remembering that a chain is only as strong as its weakest link. Although the use of ICT in a Smart City plan is currently capable of supporting only climate mitigation efforts, this cannot be more pertinent. After all, technological development is known to be able to keep up with societal needs and demands. Moving forward, therefore, as the repercussions of climate change and climate-induced disasters know neither cities nor rural areas, it is important to ensure that potential ICT-enabled solutions to enhancing climate resilience are made available to both spaces.



Smart transportation promises solutions to traffic gridlocks in many major cities

Floating Nuclear Power Plants in ASEAN?

Julius Cesar Trajano

In April 2018, Russia announced the deployment of the world's first-ever floating nuclear reactor, Akademik Lomonosov, in the Arctic Ocean. Akademik Lomonosov's two 35 megawatts (MW) small reactors will be connected to the grid and provide electricity for an isolated town in Russia's far east. Meanwhile, China may add a 'nuclear element' to the South China Sea disputes as it plans to construct up to 20 floating nuclear power plants (NPPs) to provide electricity and desalinated water to its artificial islands and military outposts. Nuclear experts have been deliberating the implications of the commercialisation of floating NPPs on Southeast Asia's nuclear energy plans and nuclear safety and security governance.

According to the 2018 pre-feasibility study on nuclear power in Southeast Asia by the ASEAN Centre for Energy, several ASEAN Member States aspire to include nuclear energy in their future and long-term power generation sources. They closely study and monitor the development of small modular nuclear reactors as an emerging nuclear technology. In May 2018, Russia's state nuclear energy firm ROSATOM offered to put up floating NPPs, similar to Akademik Lomonosov, in the Philippines as the country explored the possibility of nuclear power generation in the future. If successfully commercialised, ASEAN Member States may find floating small reactors more acceptable and less controversial than building land-based NPPs. The International Atomic Energy Agency considers small reactors as a good option to electrify "remote regions with less developed infrastructures." Floating NPPs may help energise Southeast Asia's far-flung regions and islands and feed into the region's decentralised power grid system. In terms of desirable features, floating NPPs may be more affordable than conventional NPPs

with cheaper construction cost, higher safety levels, less radioactive waste, and reduced opportunity for nuclear weapons proliferation.

However, there are key challenges to the possible deployment of floating NPPs in the region. There is a need to adopt a dedicated international legal framework for this new technology that adheres to nuclear safety and security conventions. Currently, the Convention on Nuclear Safety is only limited to land-based NPPs. Countries that will utilise floating NPPs also have to come up with a broader regulatory framework that governs oversight of this technology. Another challenge is that national regulatory bodies need to have competent staff who can undertake independent reviews of the adherence of floating NPPs to nuclear safety and security within their jurisdictions.

It remains to be seen how floating NPPs in the South China Sea can withstand the risks from natural hazards such as tsunamis, earthquakes and typhoons that may trigger transboundary nuclear accidents. With Southeast Asia's persistent maritime security issues such as piracy, territorial disputes, smuggling and hijacking, would floating reactors pose greater nuclear security risk to the region than land-based NPPs?

The ASEAN Network of Regulatory Bodies on Atomic Energy (ASEANTOM), should now include nuclear accidents at sea as a potential scenario in their regional nuclear emergency preparedness and response projects. A holistic approach to nuclear safety and security in Southeast Asia is therefore crucial given the possible deployment of floating NPPs in the South China Sea and in preparation for potential utilisation of offshore modular reactors by Southeast Asian countries.

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The Centre for Non-Traditional Security Studies (NTS

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 - Food Security
 - Environmental Security
 - Nuclear Security
- Humanitarian Assistance and Disaster Relief
- Migration

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 non-military 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 multi-dimensional 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 WorldFish Center, Malaysia
- S. Rajaratnam School of International Studies, Singapore (RSIS)

NTS-Asia Relaunch 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.

Publications and Activities

COMMENTARIES

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Different "Humanitarianisms," Differing Appraisals of Humanitarian Innovations

Martin Searle, ATHA Blog, 30 May 2018

Laos Dam Collapse: The Regional Response

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Missing Iridium: Enhancing Regional Nuclear Security Mely Caballero-Anthony and Julius Cesar Imperial Trajano, RSIS Commentary CO18142, 29 August 2018

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Why Nuclear Security Matters in Southeast Asia? NTS Centre, RSIS, October 2018

Behind Increasingly Tech-savvy Societies: A Concern for the Environment

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EVENTS

Council for Security Cooperation in the Asia Pacific (CSCAP) Nuclear Energy Expert Group Meeting, 22 January 2018, Singapore

RSIS Seminar by Mr Said Faisal, Visiting Senior Fellow, RSIS, and Senior Advisor to Minister/Head of BNPB (National Disaster Management Agency of Indonesia) on "The Challenge of Solutions for Refugee Crises in the World Today", 25 January 2018, Singapore

RSIS Seminar by Ms Janet Lim, Visiting Senior Fellow, RSIS; and Former UN Assistant High Commissioner (Operations) for Refugees on "The Challenge of Solutions for Refugee Crises in the World Today", 31 January 2018, Singapore

RSIS Seminar by Dr Noeleen Heyzer, Distinguished Visiting Fellow, RSIS; and Former Under-Secretary-General of the United Nations (2007-2015) on "Mediation for Peace: Conflict Prevention and Early Action", 7 February 2018, Singapore

RSIS Seminar by Mr Said Faisal, Visiting Senior Fellow, RSIS; and Senior Advisor to Minister/Head of BNPB (National Disaster Management Agency of Indonesia) on "AHA Centre – The First 5 Years", 9 February 2018, Singapore

NTS-Asia Consortium Annual Conference "Resilience in the Face of Disruptions", 27 March 2018, Singapore

RSIS Seminar by Dr Alvin Chew, Adjunct Fellow at RSIS on "Address Energy Security Challenges: Technological Options for Singapore", 3 May 2018, Singapore

NTS Centre Roundtable on "Humanitarian Technology and Innovation: Critical Questions and Implications for Southeast Asia", 11 June 2018, Singapore

RSIS Seminar by Catherine Jones, Visiting Fellow, RSIS; East Asia Research Fellow, Department Politics and International Studies, University of Warwick on "Decolonising Research Methods: Exposing International Practices", 1 August 2018, Singapore

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RSIS Seminar by Air Commodore Bill Booth (Retd), Associate Fellow, Geneva Centre for Security Policy, Switzerland on "Cyber Operations in War and Peacetime – Fundamental Issues and Critical Reflections" 6 September 2018, Singapore

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RSIS Roundtable on Developments in Nuclear Energy in Southeast Asia: Emerging Challenges and Opportunities, 11 December 2018, Singapore

RSIS Seminar by Dr Olli Heinonen, Senior Advisor on Science and Nonproliferation, Foundation for Defense of Democracies on "Denuclearization of North Korea: What Can be Learned from South Africa, Libya and Iran", 12 December 2018, Singapore





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