



**NON-TRADITIONAL
SECURITY THREATS**
TO PEACE AND SECURITY IN
THE INDO-PACIFIC

MELY CABALLERO-ANTHONY, PH.D.

BEYOND THE CRISIS:

A STRATEGIC AGENDA
FOR THE NEXT PRESIDENT

The Stratbase ADR Institute for Strategic and International Studies (ADRI) is an independent strategic research organization with the principal goal of addressing the issues affecting the Philippines and East Asia through:

1. Effecting national, regional, and international policy change or support
2. Fostering strategic ideas based on cooperation and innovative thinking
3. Providing a regional venue for collaboration and cooperation in dealing with critical issues in East Asia; and
4. Actively participating in regional debates and global conversations

With its international focus, ADRI believes that Philippine and regional security and development can be achieved through the cooperation of the public and private sectors.

ADRI traces its roots to the Stratbase Research Institute (SRI) established in 2004. SRI focused on providing strategic solutions to domestic governance, socioeconomic, and other policy concerns. It aimed to contribute to Philippine development through research and responsive policy alternatives.

As SRI sought solutions, East Asia's affairs frequently inserted themselves into the equation. There was and is a clear relation between domestic and regional affairs; movement in one reverberates in the other.

NON-TRADITIONAL SECURITY THREATS TO PEACE AND SECURITY IN THE INDO-PACIFIC

WRITTEN BY
MELY CABALLERO-ANTHONY, PH.D

 **+** **ADRI PUBLICATIONS**
STRATBASE ADRI FOR STRATEGIC AND INTERNATIONAL STUDIES
Manila, Philippines

Stratbase ADRi

Albert Del Rosario Institute for Strategic and International Studies

Copyright © 2022

A Publication of the Stratbase Albert Del Rosario Institute for
Strategic and International Studies

Stratbase ADRi Website: www.adrinstitute.org

Facebook: <https://facebook.com/stratbaseadri/>

Twitter: <https://twitter.com/stratbaseadri/>

All rights reserved. Without limiting the rights under copyright reserved above, no part of this publication may be reproduced, stored in or introduced into a retrieval system, or transmitted, in any form or by any means (electronic, mechanical, photocopying, recording or otherwise), without the prior written permission of the Institute, except in the case of brief quotations embodied in critical articles and reviews.

The views, opinions and conclusions expressed in this paper are those of the author and do not necessarily reflect those of the Institute or any of its officers and trustees.

The author is solely responsible for its content.

For information, address ADRi Publications:
The Financial Tower, 6794 Ayala Avenue, Makati City 1226

Design by Carol Manhit
Text set in 11 type Minion Pro

ABOUT THE ORGANIZATION

Victor Andres “Dindo” C. Manhit is the President of Stratbase Albert Del Rosario Institute for Strategic and International Studies. Concurrently, he is Philippine Country Head of the renowned BowerGroupAsia (BGA). He was a former Chair and recently retired Associate Professor of the Political Science Department of De La Salle University. Among the government positions he held include Undersecretary for External Affairs and Special Concerns of the Department of Education, Culture and Sports and Deputy Secretary for Administration and Financial Services of the Philippine Senate. Meanwhile, his legislative experience encompasses the 8th, 9th, 10th, and 12th Congress as the Chief of Staff of the late Former Senate President Edgardo Angara and senior policy research adviser in key senate committees.

BOARD OF TRUSTEES

Ambassador Albert del Rosario was the Secretary of Foreign Affairs of the Philippines from 2011 to 2016. He also served as Philippine Ambassador to the United States of America from 2001 to 2006. Prior to entering public service, Amb. Del Rosario was on the Board of Directors of over 50 firms. He received numerous awards and recognition for his valuable contributions to the Philippines and abroad.

Manuel V. Pangilinan is CEO and managing director of First Pacific Company Limited. He is also the chairman of Metro Pacific Investments Corp., Philippine Long Distance Telephone Company, Manila Electric Co. (Meralco), and Smart Communications, among others. He is a recipient of several prestigious awards including the Ten Outstanding Young Men of the Philippines (TOYM) Award for International Finance in 1983 and the Presidential Pamana ng Pilipino Award by the Office of the President of the Philippines in 1996.

Edgardo G. Lacson is an honorary chairman of the Philippine Chamber of Commerce and Industry (PCCI). He is the Chairman of the Employers Confederation of the Philippines. He holds numerous leadership positions in various companies. He served as a Director of The Philippine Stock Exchange, Inc. and is an Honorary Member of the Rotary Club-Diliman.

Benjamin Philip G. Romualdez is the former president of the Chamber of Mines of the Philippines. He also holds, among others, the following positions: Chairman of MST Management, Inc., President of Oxford University and Cambridge University Club of the Philippines, Director at Philippine-Australia Business Council (PABC), Trustee/Vice President of Doña Remedios Trinidad Romualdez Medical Foundation, Inc, and Trustee/Vice President of Dr. Vicente Orestes Romualdez (DVOR) Educational Foundation, Inc.

Ernest Z. Bower is a senior adviser for Southeast Asia at the Center for Strategic and International Studies (CSIS), having founded the first chair for the region. He is CEO of BowerGroupAsia (BGA) and a leading expert on Southeast Asia.

Renato C. de Castro, Ph. D is a full professor of international studies at De La Salle University – Manila (DLSU). In 2009, Dr. de Castro became the U.S. State Department ASEAN Research Fellow from the Philippines and was based in the Political Science Department of Arizona State University. A consultant in the National Security Council of the Philippines during the Aquino administration, he has written over 80 articles on international relations and security.

Judge Raul C. Pangalangan, Ph. D is a judge of the International Criminal Court. He was previously the dean of the University of the Philippines College of Law and publisher of the Philippine Daily Inquirer. He has taught in many universities around the world, such as Melbourne University, Hong Kong University, and Harvard Law School.

Epictetus E. Patalinghug, Ph. D is a professor emeritus at the Cesar E.A. Virata School of Business, University of the Philippines (UP), Diliman. He received his doctorate degree in Agricultural Economics from the University of Hawaii. His works have been featured in various publications around the world.

Francisco A. Magno, Ph. D is the executive director of the Jesse M. Robredo Institute of Governance and former President of the Philippine Political Science Association. He is a professor of political science at DLSU and previously served as Chair of the Political Science Department and Director of the Social Development Research Center.

Carlos Primo C. David, Ph. D. is a licensed geologist and professor in UP Diliman having obtained his PhD in Environmental Science and Geology from Stanford University. He is a former the Executive Director of DOST-PCIEERD. A project leader of the DOST's Project NOAH, Dr. David pioneers short term rainfall forecasting in the country and climate change-related research on water resources.

CONTENTS

Introduction	1
The kinds of threats to state and human security have expanded beyond conventional security threats	
Understanding Non-Traditional Security Challenges	2
Non-traditional security challenges, e.g., climate change, reinforced the need to seriously re-think approaches to security governance at multiple levels	
Climate Change and Security	4
A most visible consequence of climate change like extreme weather events, for example, generate multiple consequences from more frequent natural disasters, drought and floods, significant damages to properties and livelihood, and loss of lives	
Pandemics and Human Security	9
Like climate change, the COVID-19 pandemic has been a threat multiplier, causing an economic crisis of global proportions	
Addressing Multiple Challenges To Food Security	12
It is beyond doubt that climate change has significantly affected food security and livelihoods in the country	
Summary and Conclusion	17
The growing number of NTS challenges gravely impacted the well-being and security of states and societies -- from climate change to pandemics, environmental degradation, and food security-- bringing about cross-cutting consequences on state capacity and resources.	
Recommendations	18
More efforts must be given to strengthen adaptive capacity in dealing with climate change	
References	
Acknowledgments	
About the Author	25

ABSTRACT

The rapid changes in the global environment have seen the growing list of non-traditional security (NTS) challenges. NTS challenges are non-military in nature but can severely threaten the well-being and security of states and societies. They include climate change, pandemics, environmental degradation, and resource scarcity threatening food and energy security. NTS threats are complex and cross-cutting in nature and seriously challenge the capacity of states to address and mitigate their impact. More significantly, their impacts go beyond territorial boundaries. This transnationality further compounds the challenges to states' ability and capacity to manage NTS threats which can occur simultaneously, compelling multilateral and multi-sectoral approaches. Given the complexity and transnational consequences of NTS issues, this paper argues that ASEAN states can no longer afford to be complacent. NTS challenges like climate change and pandemics must be key priorities in their security and foreign policy agendas. NTS issues are security imperatives for the safety and security of peoples and states. Thus, it behoves governments to be forward looking, build multiple capacities and engage with different stakeholders to make them legitimate and 'fit for purpose' to respond to 21st century challenges. The paper offers recommendations to address these challenges. First, in dealing with climate change, governments should set out key policy priorities to address its multifaceted consequences. Second, comprehensive risk assessment and management strategy must be done regularly to inform national policies. Third, finance and resource mobilisation strategies must be developed. Fourth, food resilient systems must be developed to ensure food security against disruptions. Fifth, strategies on pandemic preparedness and response must include building up capacity in disease surveillance, data collection and multi-sectoral responses in public health emergencies. Sixth, deeper cooperation among ASEAN countries is needed. Lastly, countries should actively support and participate in multilateral frameworks to promote greater dialogue and engagement to advance cooperation.

NON-TRADITIONAL SECURITY THREATS TO PEACE AND SECURITY IN THE INDO-PACIFIC

MELY CABALLERO-ANTHONY, PH.D.

To say that we live in interesting times is an understatement! Some security analysts would, in fact, go further to argue that we are living in dangerous times. These sentiments have become more pronounced here in Asia as rivalry and competition between major powers have become more acute, raising concerns about the future of international and regional order. These concerns have been expressed by no less than the political leaders in the Indo-Pacific as they weigh on the state of regional security. Singapore's Prime Minister Lee Hsien Loong, for instance, wrote about 'The Endangered Asian Century' in an article published in the July/Aug 2020 issue of *Foreign Affairs*, expressing worries about the growing US–China confrontation and the implications for Asia's future.¹ Echoing similar concern is former Australian Prime Minister (and also former Foreign Minister) Kevin Rudd in his two *Foreign Affairs* articles published in July and August 2020, that drew attention to the prospect of an armed conflict between the US and China and a new Cold War 1.5.²

While major power competition causes perturbations to regional and global security, this is not the only thing that matters. Today, the world is facing two existential threats to humanity – climate change and the COVID-19 pandemic. The latter has already been called the 'crisis of a generation' as most countries across the globe continue to grapple with containing the spread of the disease, deal with its unfolding multi-faceted consequences and struggle to lift their economies from the devastating impact of the pandemic and plan for recovery.

Climate change and pandemics are but some of the grim reminders of the kinds of security challenges we now face in the 21st century. To be sure, the rapid changes in the global environment have significantly altered the nature of threats and risks defining the security landscape. These changes compel states to seriously assess their security agendas, revisit approaches and rethink the policies crafted to address these challenges. These are key considerations if the goal is to be prepared for sudden disruptions and keep both states and societies safe and secure.

To be sure, in the last two decades, the kinds of threats to state and human security have expanded. Beyond conventional security threats like territorial disputes, armed conflicts, nuclear non-proliferation, arms race, and the likes are also the so-called non-traditional security challenges like climate change whose impact is equally the same, if not more severe, than the those from conventional ones. These issues have shown transborder impacts and wider scope, as well as compound extant human security threats that have increased the urgency of dealing with these issues.

Understanding Non-Traditional Security Challenges

A common trend that has been observed by a number of security scholars in Asia is the growing tendency to highlight and designate any security concern that is non-military in nature as non-traditional security or NTS.³ The appropriation of the security label attached to certain risks/threats is indeed significant in that the act of 'security-framing' or 'securitising' issues is deemed to be an effective way of bringing attention to these NTS challenges, conveying urgency and commanding governmental resources to address them.

More significantly, non-traditional security challenges reinforced the need to seriously re-think approaches to security governance at multiple levels—from the national, regional, and international arenas. It also underscores the criticality of taking no less than a multilateral approach to collectively address these transboundary challenges. The rationale being that unless the impacts of these transnational challenges are addressed and mitigated collectively, these issues can escalate into threats to global peace and security.

Conceptually, non-traditional security (NTS) is a concept used to refer to

issues or challenges that threaten the survival and well-being of peoples and states, arising primarily from non-military sources. The issues include, but not limited to, climate change, environment degradation and resource scarcity, infectious diseases, natural disasters, irregular migration, food shortages, people smuggling or trafficking and transnational crime like cybersecurity. Any one of these NTS threats, like climate change, brings about cross-cutting consequences such as food scarcity and water stresses, and have transborder implications like population displacement and forced migration.

Aside from these issues being non-military in nature, NTS issues share common characteristics, namely:

- Threats do not stem from competition between states or shifts in the balance of power.
- Threats are often caused by human-induced disturbances to fragile balance of nature with dire consequences to both states and societies.
- Threats are not only man-made but also triggered by a rapidly changing global climate and by advances in technology (e.g., cybersecurity).
- The kinds of threats are transnational in nature, in terms of their origins and effects.
- The impacts/consequences are difficult to reverse or repair (e.g., desertification, drought, loss of habitat).
- The impacts/consequences are severe and affects large swathes of communities.
- The object of security is no longer just the state (state sovereignty or territorial integrity), but also its peoples' survival, well-being, dignity both at individual and societal levels.⁴

Given the catastrophic impact of an NTS threat like pandemics, the distinction between what is high or low politics is now blurred. This is particularly relevant to many developing states whose capacity to deal with transborder threats are seriously challenged. As such, national solutions are no longer sufficient in addressing NTS threats and dealing with its consequences would often require comprehensive approaches beyond the political-security responses to include socio-economic approaches, as well as humanitarian use of military force.⁵

Against this background, this paper looks at the kinds of non-traditional security issues endangering human security and their implications on societies and states in the Indo-Pacific region, particularly Southeast Asia. By focusing on the security impact of selected NTS challenges like climate change, pandemics and food security, I argue that the international community writ large has the responsibility to deal urgently with these issues. At the national level, the governance of the NTS issues involve a whole-of-government approach, one that is multi-sectoral and multi-agency, and inclusive where as many stakeholders as possible are involved particularly civil society organisations. I further argue that given the transborder impact of NTS threats, more can certainly be done to deal with these issues at the regional and global levels. But to do so, in a responsive and effective manner, requires confronting difficult challenges such as generating resources, working around the norms of non-interference and sovereignty and recognizing the reality that ‘one is never secure unless everyone is secure’.

The following sections highlight some of the major NTS challenges in the Indo-Pacific and discuss their implications on the national security and foreign policy agendas of states in the region, including the Philippines.

Climate Change and Security

Much has been written about climate change and its impact on people’s security. Several scientific reports and analyses that have been published found that climate change is a threat multiplier given the cross-cutting impacts that a change in the global temperature above 1.5 degrees centigrade brings. A most visible consequence of climate change like extreme weather events, for example, generate multiple consequences from more frequent natural disasters, drought and floods, significant damages to properties and livelihood, and loss of lives. The multiplicity of risks associated with climate change like resources scarcity including food and water are also well-established drivers of conflict. These can in turn compound existing fragilities that could destabilise already vulnerable regions, including Southeast Asia.

Despite a plethora of robust scientific studies, global summits, conferences, and workshops on climate change, one observes that the narratives on this issue

are often lost in technical details. There remains the need to ‘downscale’ existing scientific findings to apply and translate them to regional and national contexts. In Southeast Asia, climate change is now receiving a lot of attention not least because of the region’s vulnerability to the risks of the changing climate that include increased frequency of unprecedented heat extremes and heavy rainfall events leading to intensified flooding and other natural hazards.⁶ As is already well known, Southeast Asia is one of the most disaster-prone regions in the world. This is well illustrated in Figure 1 below.

Figure 1 . State of Disasters in Southeast Asia



Source: AHA Centre Disaster Information Network

Based on the information from the ASEAN Coordinating Centre for Humanitarian Assistance, since 2012, there have been at least 2260 disaster events which have taken place in the region, including notable large-scale disasters such as the Sulawesi Earthquake and Tsunami (2018), Typhoon Haiyan (2013) and Typhoon Damrey (2017).⁷ In 2020 alone, 530 natural hazards were reported in the region – from earthquakes to cyclones and to floods – a significant increase from past year’s reported 188 disasters. This has resulted in over 24 million people affected, including 3.37 million people displaced – all significant increases from previous years.⁸

There are, of course, the human stories behind these numbers that are often lost in the narratives. Between 2000 and 2016, approximately 362,000 lives had been lost because of natural disasters. The economic loss had also been staggering. For example, Thailand’s floods in 2011 that lasted for a few months were the worst that the country has had in fifty years prior and caused more than USD 45 billion in economic loss and damages.⁹ The flood crisis inundated

large parts of human settlements, farms, infrastructures, and many other areas, affecting 12.8 million people,¹⁰ and displacing more than 165,000.¹¹ Some 9,859 factories were affected, and 600,000 jobs were lost triggering fear of further economic hardship for individuals and families. Moreover, considering Thailand's role as the world's top rice exporter, the flooding that affected 16,558.55 km² of agricultural area created acute concerns over rice shortage and food security.

In the Philippines, Typhoon Haiyan in 2013 was considered the fastest moving and strongest typhoon ever measured since 1945 whose recurrence is estimated to be within 200 years.¹² The sheer scale of the disaster saw more than 7,000 deaths, more than 4 million people displaced, 1.1 million homes destroyed, 14 million people affected, and 6 million people lost their sources of income.¹³ Typhoon Haiyan in 2013 inflicted USD 10 billion in loss and damage to the Philippine economy.¹⁴ Health concerns included treating the injured, attending to pregnant and nursing women and newborn children, breaking out of diseases such as measles, polio, dengue, and typhoid, treating non-communicable diseases such as heart attacks and diabetes, as well as trauma and other mental health problems.¹⁵

It is not just the significant increase in disaster numbers that is alarming. Compounded by an ever-changing climate and environmental degradation, not only are disasters in the region increasing in frequency and intensity, but they are also deviating from their usual patterns – affecting areas with little historical precedent (floods, cyclones).¹⁶ This in turn, makes it harder for policymakers and other stakeholders to respond with adequate disaster management strategies. Climate change has thus, become more than a serious concern for ASEAN.

Preparedness, Mitigation and Adaptation

ASEAN countries have been using global frameworks such as the Sendai Framework for Disaster Risk Reduction, the 2030 Agenda for Sustainable Development, the Paris Climate Agreement, Addis Ababa Action Agenda and the New Urban Agenda to deal with the complex consequences of climate change.¹⁷ In efforts to promote regional cooperation in disaster preparedness and response, ASEAN adopted the ASEAN Agreement on Disaster

Management and Emergency Response (AADMER) which came into force in 2009. AADMER is a legally binding agreement that allows ASEAN to establish several regional mechanisms to help its member states cope with the devastating impact of natural disasters and provide critical assistance in disaster response and assistance. These mechanisms include the establishment of the ASEAN Coordinating Centre for Humanitarian Assistance and Disaster Management (AHA Centre) which was launched in 2011 as the operational and technical body of AADMER.

The AHA Centre essentially facilitates the cooperation and coordination among ASEAN members of states, with the United Nations, other international organisations, and dialogue partners of ASEAN for disaster assistance and emergency response in the region. The AHA Centre also works closely with the national disaster offices of every ASEAN state. In times of disasters, the AHA Centre deploys the ASEAN Emergency Response and Assessment Team (ASEAN-ERAT) and coordinates the deployment of relief items to disaster-affected areas in the region. To further enhance regional capacity to monitor and predict such natural hazards, the AHA Centre uses technology as seen in its use of the AHA Centre's ADInet.¹⁸

ASEAN countries also conduct disaster simulation exercises to test, practice, review and assess ASEAN's emergency response. These exercises are the ASEAN Regional Disaster Emergency Response Simulation Exercise (ARDEX) and the ASEAN Regional Forum (ARF) Disaster Relief Exercises (ARF DiRex). To test the interoperability of disaster relief forces, the ARDEX, in particular, helps improve the Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP). The ARF DiRex, on the other hand, is a large-scale disaster scale exercise bringing all 27 participating members and involving multiple partners and stakeholders. Both exercises, which are held every two years, also serve to promote capacity building through exchanges of skills and expertise in the field of disaster relief.

Adaptation and the Code Red for Humanity

The regional measures cited above are certainly not enough. Beyond cooperation in disaster preparedness and response is the challenge for countries to improve

their adaptive capacity to respond to the different impacts of climate change. This is becoming more critical given the rapid climatic changes noted by scientists. Most recently, the International Panel on Climate Change (IPCC) published its latest Sixth Assessment Report (AR6) in August 2021. Dubbed “code red for humanity,” the report affirms the role of human activities in inducing global warming and confirms that climate change is already happening in every region in the world.¹⁹

While countries continue to make efforts to transition to renewable energy sources, the current speed and scale of decarbonization seem to indicate that the world may have to prepare for warming temperature that goes beyond 1.5 degrees by the end of the century. In this regard, climate adaptation becomes even more urgent. However, adaptation capacity is still low in developing countries, which partly explains why they are especially affected by the impacts of climate change.²⁰ In the ASEAN region, Myanmar, the Philippines, and Thailand are among the world’s top ten most at risk in the last two decades.²¹ Other Southeast Asian countries such as Vietnam, Cambodia, Lao PDR, and Indonesia are ranked 13th, 14th, 52nd, and 72nd in the same period respectively.²² Thus, strengthening adaptation measures and building resilience are key to averting climate-induced catastrophic disasters turning into communal conflicts or other security concerns.²³ It follows that mainstreaming climate and security issues into the security planning of states should already be done and advanced. This means that climate change needs to already be part of ‘normal language’ in the security planning of states, integrated in risk assessments and risk management strategies.

As one of the more vulnerable countries in Southeast Asia, the Philippines needs to put climate change in the top three priorities in its national security agenda. As a known driver of conflicts, the government must be extremely sensitive to the risks that climate change brings to conflict settings in the country where peace is fragile. Moreover, given the impact of climate change on the country’s water resources, agriculture and coastal and marine resources, the Philippines cannot afford to be complacent nor reactive to climate change. More significantly also, the impact of climate change on the agriculture sector which provides food and contributes to a third of the country’s total employment should be part of its policy agenda.²⁴ (Food security is discussed separately below).

Pandemics and Human Security

An overlooked or perhaps underestimated NTS threat to national and human security is infectious diseases. The outbreak of COVID-19 pandemic has caught the global community by surprise. Described as an extraordinary, once-in-a-century pandemic, COVID-19 continues to rage in most parts of the world and has already caused untold human sufferings to millions of people globally. By mid-October 2021, there were already over 238 million confirmed cases and 4.8 million deaths globally.²⁵ Since its outbreak in 2020, the pandemic has upended people's lives, cost millions of jobs, severely restricted people's mobility and resulted in an economic downturn not seen since the global recession in the 1930s. This long-drawn-out pandemic has exacted a huge toll on the health and well-being of communities, caused instability within states and triggered tensions between states, particularly the United States and China.

Like climate change, the COVID-19 pandemic has been a threat multiplier. As countries introduced a string of strict public health measures to contain the spread of the disease, from mandatory mask wearing to social distancing, lockdowns and closing of borders to stop the movements of people, the health crisis rapidly became an economic crisis of global proportions. Reports from the World Bank and the Asian Development Bank projected a global economic contraction of up to 8-10%, resulting in the worst downturn since the Great Depression of the 1930s. The severe consequences of the sudden economic downturn included job losses of over 80 million in the Asia-Pacific alone, a figure that does not include the millions more lost in the informal economy.²⁶ Global poverty rose significantly with 150 million more people falling into extreme poverty. The economic-induced crisis also impacted food security, adding 100 million more undernourished people globally compounding the dire situation of the other 135 million people already facing acute hunger prior to the outbreak of the Covid-19 pandemic.²⁷

As most parts of the world continue to grapple with the huge task of ending the pandemic, the message could not be clearer: health security is fundamental to international peace and security. For a region that is no stranger to pandemic outbreaks, COVID-19 and its severe consequences, serve as a grim reminder of the fragility of peace and security in Asia. Like the rest of the world, Southeast Asian economies were not spared from the ravages of COVID-19. Most

economies suffered economic contraction averaging between four to 7%.²⁸ The region's lived experience with COVID-19 raises questions about regional security in view of its lingering effects and concerns about the possibility of more pandemic outbreaks in the future.

To be sure, the failure to contain COVID-19 early before it could spread across the globe, was viewed as a serious challenge to global health governance. The health crisis is seen as a failure of global leadership as major powers turned inwards, adopted protectionist policies and stoked nationalistic sentiments. It was an indictment of the inability of global institutions, particularly the World Health Organisation (WHO), to immediately respond to a rapidly escalating public health emergency of international concern (PHEIC) that has led to severe consequences. Further, international institutions like the United Nations were viewed to be no longer fit-for-purpose given the growing challenges to global peace and security. Among these is the inability of global institutions to stop the trends of vaccine nationalism which has exacerbated inequality, putting the less developed states at a serious disadvantage in getting access to the much-needed COVID-19 vaccine for their people.²⁹

The failures in global leadership bring attention to the importance of regional cooperation. ASEAN cooperation in addressing COVID-19 can be seen in efforts towards closer information exchange, and several inked agreements to: build an ASEAN stockpile of essential medical supplies and equipment, set up an ASEAN Recovery Fund to assist member states severely affected by the pandemic, and to commit to ensure the smooth flow of essential goods by refraining from imposing unnecessary non-tariff measures (NTMs) during the pandemic and strengthen supply chain connectivity and resilience, including making trade facilitation more effective. Under the ASEAN Comprehensive Recovery Framework adopted in November 2020, member states also agreed to set up a bilateral travel bubble or corridors to help revive transport and tourism sectors which were adversely affected by the pandemic, and to provide greater support to small and medium enterprises.

Addressing Impediments to Regional Health Security: ASEAN's Weakest Links

It has been more than a year since COVID-19 spread across the globe and while some ASEAN states appear to be managing the pandemic despite recent surges

caused by new variants of COVID-19 virus, the progress in the region remains uneven. There are a number of factors that explain why some ASEAN countries are managing better while others continue to struggle. Top of the list are the lack of access to COVID-19 vaccines and the emergence of new variants that are reportedly more transmissible. But there are significant governance factors as well. Among these were strong national leadership, speedy and decisive response, more centralised and/or better coordination at all levels from the national to the local levels and having a multi-agency task force that acts as the main focal point for an integrated response.

There are also intangible factors that have been critical to pandemic control. One of these is the trust that citizens have in their government which helped significantly in public compliance with strict public health measures. Much of this trust came from the competence demonstrated by relevant government agencies as reflected in the decisiveness and consistency in the implementation of policies of COVID-19. The other is good governance. One saw how a militarised approach to the pandemic resulted in ineffective responses despite initial progress. More importantly, the appointment and reliance on retired military personnel to head the national COVID-19 task force were seen as undermining the country's political institutions.

Another critical element is the capacity of national public health systems. What this long-drawn COVID-19 pandemic has revealed is the uneven capacity of public health systems among ASEAN countries. It has long been recognised that strong and resilient health systems are essential, not only in effectively addressing severe pandemics but also as defence against other communicable and non-communicable diseases. Moreover, with the impact of climate change on the burden of diseases, strong health systems become even more important to build resilience – of the economy, food systems, and related areas.

Being able to measure the performance of national health systems would be a good starting point. The 2005 International Health Regulations (IHR) has specified 13 core competencies. In the 2017 World Health Statistics Report, ASEAN members generally reported optimistic measures of their average IHR core competency between 2010-2016, as follows: Malaysia (100), Indonesia and Singapore, Vietnam (99), Thailand (98), Brunei Darussalam (92), Philippines (87), Myanmar (84) Lao DPR (75) and Cambodia (55) (WHO Health Statistics Dashboard, 2017). The high scores, however, belie the fact that many health

systems in several countries in the region are still struggling with healthcare delivery, providing access and affordability, especially for the poorer and more vulnerable groups.

As ASEAN countries continue to fight the long-drawn COVID-19 pandemic, the weaknesses in their healthcare systems are now exposed and are significantly affecting their abilities to cope with the debilitating effects of the pandemic. Thus, while ASEAN has played an important role in building regional capacity for health security, there are clearly limitations to what it can do. ASEAN's health system is only as good as the health systems of its member states.

Addressing Multiple Challenges to Food Security

Like many developing countries in Asia, the agriculture sector in the Philippines is an important yet often overlooked sector. According to the country's 12-year National Framework Strategy for Climate Change (2010-2022), the agriculture sector not only provides food through production of rice and other cereals, but also contributes to a third of total employment.³¹ There is no doubt that climate change has significantly affected food security and livelihoods in the country.

At the height of the food crisis in 2008, then former World Bank President Robert Zoellick referred to the crisis as the 'silent tsunami.' This statement reflected what he saw then as the worrying state of food insecurity globally. This includes the situation in the Philippines described below.

Undernourishment

Cereals and cereal products take up 39% of household consumption, followed by vegetables (15%) and fish (11%), according to data from the Food and Nutrition Research Institute of the Department of Science and Technology.³² Yet, the average diet is lacking and short of meeting the recommended daily consumption requirements across macro- and micro-nutrients; only 24.2% of the total population in 2018 was found to meet 100% of the recommended daily calory requirements, and this is in fact lower than the figure in 2015, of 31%. Moreover, the share of the population meeting the recommended dietary intake for Vitamin C has shrunk from 32.5% in 2015, to 16.4% in 2018. In fact, the

UN Food and Agriculture Organisation's State of Food Insecurity and Nutrition (SOFI) in the World report showed that the Philippines had the highest numbers of undernourished, with over 59 million Filipinos facing moderate to severe food insecurity.³³

These outcomes can be attributed to multiple factors. A key factor is the accessibility of food, which is shaped by food prices. Inflation of the price of rice increased in succeeding months from 0% per annum in July 2016, to more than 10% per annum between July 2018 and October 2018.³⁴ This peaked at a high of PhP 22.04 in September 2018 which prompted the country to eventually undertake the Rice Tariffication Law in 2019, which was passed in February 2019. This removed the quantitative barriers on rice imports, and effectively reversed the rice price inflation, reaching close to negative 10% inflation by October 2019, based on the analysis by Action for Economic Reform (AER) that was reported by The Asia Foundation.³⁵

The complexity of rice prices, however, is that after the RTL was implemented, farmers started to complain about the negative impacts of falling rice prices on their own economic security. After the implementation of the law, average rice paddy prices "plummeted" from PhP 18.38 per kilogram in the previous year (March 2017-February 2018), to a lower level of PhP 15.79 per kilogram in the year after it was implemented (March 2019-February 2020). It is estimated that farmers lost as much as PhP 80 billion in 2019 as a result of falling rice prices.³⁶

Beyond the RTL, Philippine farmers have faced challenges from other fronts too, including floods, droughts, pests and diseases, which are related to climate change. In the study of Israel and Briones (2013) found that from 2000 to 2010, the country had 171 typhoons, leading to flooding instances. It was also significantly impacted by droughts in 2007 and 2010; altogether, the damage from typhoons, floods and droughts has been estimated at USD 1.2 billion. Damage to agricultural facilities and irrigation infrastructure has further been valued at USD 102 million and USD 203 million, respectively. In total, the cost of the damage amounted to 4% of its total production from 1995-2010, and 5.9% of its total corn production.³⁷

The direct impacts of these on household undernourishment can be seen in the responses of farming households impacted by typhoons Ondoy and Pepeng in 2009. The findings of Israel and Briones showed that the general coping mechanism by 79% of the households was "eating less of preferred foods" and

that more than one-third (39%) of those surveyed resorted to reducing meal portions. Worse yet, 34% of the households reported reducing the number of meals for adults, and in the extremes, 12% of households surveyed even reported reducing the number of meals by children, and 15% reported skipping meals in the household for the whole day.

Moving forward, these stress the importance of the “provision of defensive investments and rehabilitation expenditures to cope with these natural disasters.”³⁸ The onus today, is on how the rice tariffs collected from the Rice Tariffication Law, estimated at PhP 10 billion per annum can translate into farmer support programs through seeds, farm machineries, credit and technical extension.³⁹

Marine Sustainability

A related but equally important agenda to address food security is the sustainability of the marine environment. This is particularly relevant to the maritime countries in Southeast Asia, like the Philippines. In the 2020 East Asia Leaders Statement on Marine Sustainability, a number of priority areas were identified to ensure the long-term conservation and sustainable use of fish stocks. Among these are taking cooperative activities, including taking action against cases of Illegal, Unreported and Unregulated (IUU) fishing and illegal activities, as well as concerted efforts to protect and conserve the marine and coastal environment, including marine biodiversity, ecosystems and resources, as well as protecting people.⁴⁰

In finding a suitable path to food security, the Philippines’ efforts at having and maintaining a good integrated coastal management (ICM) is of vital importance to the country’s long-term social and economic development. Similarly current efforts to develop an Integrated River Basin Development and Management Framework to protect the country’s river basin from pollution and ensure the supply of clean and safe water must be strengthened.

Given that river basins are connected in maritime Southeast Asia, the ability of the Philippines to forge closer cooperation with neighbouring countries should also be further strengthened. Over the years, the Philippines has established and managed Marine Protected Areas (MPA), which are important in preventing the degradation of coastal habitats and the decline in

Food Security Challenges in Vietnam

An interesting case in food security is that of Vietnam, which is today among the world's largest rice exporters, but which is only seeing average levels of food security (measured by household undernourishment), as noted by its Prime Minister Nguyen Xuan Phuc. This breaks the fallacy that food security is only supply-based, since rice makes up 65% of the average diet in the country, and having significant surpluses of rice would have been expected to lead to below-average undernourishment levels.

An important factor that shapes food insecurity, is poverty or economic insecurity in urban contexts. In fact, a study of one of the economically "disadvantaged" districts in Ho Chi Minh City, Vietnam, showed that 34.4% of the households were food insecure, and that lower income levels led to higher levels of food insecurity. (Vuong, Gallegos and Ramsey, 2015).

Governance plays a critical role in shaping the food insecurity outcomes. The previous successes of the government in increasing food supplies are attributable to President Ho Chi Minh's 1945 law on "Launching agricultural production for the entire population" led to the transfer of land rights from "rulers" to farmers, and after this, the 1988 Land Law allowed farmers greater flexibility in their land use. Within a normal market system, however, the availability of higher-value uses of land has led to the conversion of 500,000 hectares of agricultural land to non-agricultural uses from 2000 to 2008, representing 5% of Vietnam's agricultural area (Gorman, 2018: 241). This has led the government to intervene in land use decisions, in ensuring sufficient land used for rice planting purposes in each sub-national region (Hoang, 2017).

Similar to the Philippines, Vietnam also faces important challenges on the front of climate change. The region suffers from the impacts of flooding and droughts. Within its Mekong Delta and Red River Delta, it has been found that close to half (47%) of rice paddy areas are vulnerable to flooding, with potential implications on the 67% of its population (Van Dijk et al., 2012). This is aggravated when combined with the impacts of sea-level rise that is commonly associated with greenhouse gas emissions, where Vietnam has been identified among the countries which were especially impacted (Dasgupta et al., 2009).

Climate impacts on Vietnam raise the need for adaptive investment in improved agricultural infrastructure. This led Vietnam to implement an action plan that focuses on climate-adaptive agricultural development in 2016-2020, "with a vision towards 2050 aims to sustain the food production under climate change context" (Anh and Nghiep, 2020: 1). Prompted in part by the global food crisis in 2007, Vietnam implemented Government Resolution No. 63/NQ-CP, which sought to regulate the national food industry (Anh and Nghiep, 2020). A further government decree was issued in 2010 (Decree No. 61/2010/ ND-CP) to incentivise private agricultural investment.

A further challenge that remains today is in value-chain competitiveness and in food safety. One of the imperatives proposed by the World Bank (2016) was to produce "more from less". This is based on potential benefits from mechanisation, which necessitates greater concentration in farm land ownership and in turn greater crop land sizes. The problem is, as Anh and Nghiep (2020:1) critiqued, that only 13% of the households had more than 2 hectares of land. On the challenge of food safety, chemical use has likewise been cited as a challenge, which has resulted from greater agricultural intensification to increase rice paddy yields. Thus, a further avenue for future government policy lies in strengthening capacities on the part of both the public and private sector, in ensuring safer food management practices. (Anh and Nghiep, 2020: 1).

Sources:

Anh, Dao The and Nghiep, Pham Cong (2020). New Challenges for Food Security in Vietnam. Food and Fertilizer Technology Centre for the Asian and Pacific Region; Hoang, Uong Dinh (2017). Policy development in Vietnam: theory vs practice. In: Petersen E. (ed.), Vietnam food security policy review. Australia: Australian Centre for International Agricultural Research; Gorman, Timothy (2019). From food crisis to agrarian crisis? food security strategy and rural livelihoods in Vietnam. Food anxiety in globalising Vietnam, 235; Van Dijk, M., Hilderink, H., Van Rooij, W., Rutton, M., Lam, V.C. Kartikasari, K., and Ashton, R (2012). Land Use, Food Security, and Climate Change in Vietnam. Policy Brief September 2012. Netherlands: Landbouw-Economisch Instituut (LEI), Wageningen Universiteit; World Bank (2016). Vietnam Development report 2016: Transforming Vietnamese Agriculture: Gaining more from less. Washington D.C.: World Bank. https://data.opendevelopmentmekong.net/dataset/6ebc7acd-d430-4bf6-959d-522ee6d1608e/resource/28abc233-8421-43ce-8ba1-c10b6c123615/download/vn-agri-gain-more-from-less_en.pdf

fisheries. Complementing these efforts are several national programmes like “Philippines’ National Plan of Action (NPOA) for the Prevention, Reduction and Management of Marine Litter (NPOA-ML) and the “Clean Seas Pilipinas” – a United Nations Development Programme in the Philippines under its Turn the Tide Against Plastics campaign which aims to address plastic pollution that has become one of the most serious threats to the health of oceans and a major hazard to marine biodiversity.⁴¹ These efforts certainly cannot be done solely by the government and its relevant agencies. Addressing marine pollution requires the involvement and participation of the business sector and other stakeholders in protecting the marine environment.

Fighting Marine Pollution in Indonesia

Indonesia has been taking steps to reduce marine pollution, including the recent publication of the National Plastic Action Partnership Action Plan. The plan outlines a set of actions to reduce marine pollution by 70% by 2025 and to achieve near zero plastic pollution by 2040. Improving waste management is given high priority, while efforts towards reducing waste generation and enhancing recycling are going to be tackled in stages. The Plan envisages five systemic interventions, including reducing plastic usage, redesigning plastic products and packaging with reuse and recycling in mind, doubling plastic waste collection to 80% by 2025 (currently 15%), and building or expanding safe waste management facilities capable of managing an additional 3.3 million tonnes of plastic waste per year. Through Law 18/2008 on Waste Management the government attempted to reduce the amount of waste entering landfills by favouring recycling. One of the programmes launched for the purpose of advancing the reduce, re-use, recycle concept (3R) was the creation of solid waste banks through which people can dispose of their waste in exchange for money.

Sources:

Sustainable Ocean Economy Country Diagnostics of Indonesia, [https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD\(2021\)5&docLanguage=En](https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD(2021)5&docLanguage=En)

Last, but certainly not least, is the need to strengthen efforts at combatting illegal, unregulated and unreported (IUU) fishing. Most recently, the Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR) and the Philippine National Police-Maritime Group (PNP-MG) signed a memorandum of understanding (MOU) on Oct 1, 2021.⁴² The MOU aims to intensify the efforts of these two government agencies to, among others, enforce fishery laws that prevent, deter, and eliminate illegal fishing activities and to protect the marine environment of the area from overexploitation. In this regard, the experience in Indonesia is instructive. The country invested in intelligence against IUU. In July 2021, Indonesia set up the Indonesia Maritime Information Centre (IMIC), a multi-agency data-sharing centre to help its

coastguard protect its maritime interests which have been challenged by a number of IUU incidents. Indonesian authorities have seized Vietnamese and Filipino vessels that have illegally fished in Indonesian waters, even as authorities have intensified diplomatic efforts to work with its neighbours. The fight against IUU fishing depends upon effective data sharing within and between states. IMIC therefore is an important initiative to enhance cooperation among the neighbouring countries in the Indo-Pacific.⁴³

The MOU between DA-BFAR and PNG-MG is therefore an important initiative in working collaboratively to protect the marine environment and help ensure food security. But with many other initiatives of this nature, effective implementation and enforcement are critical if these cross-cutting goals of achieving food security and protection of the marine environment were to succeed.

Summary and Conclusion

Over the years, we have seen a growing number of NTS challenges that gravely impact on the well-being and security of states and societies. The list is long and certainly not exhaustive. From climate change to pandemics, environmental degradation, and food security—these threats have proven to challenge human security. Any one of these NTS threats, like climate change, brings about cross-cutting consequences such as food scarcity and water stresses and have transborder implications. As such, national solutions are no longer sufficient to respond to these NTS threats. The heavy burden on state capacity and resources necessitates the participation of a range of non-state actors to assist states in providing security particularly to vulnerable communities.

NTS has now become part of the security lexicon of the region. NTS issues are getting included in the security agendas and policy priorities of many states. Given the complexity of NTS issues, their impacts are recognized as not only threats to people's security but also to national sovereignty and territorial integrity. It is therefore imperative for policymakers to seriously re-think—if they have not done yet—their political and strategic approaches and find new and innovative ways to address these emerging challenges beyond

the narrow state and military-centric approaches. These would have profound implications on regional and global governance.

In dealing with complex NTS issues like climate change and its cross-cutting consequences, the policy choices and approaches of states cannot be siloed. These kinds of issues need a whole-of-government approach to allow for more comprehensive ways to deal with multiple consequences—from food crisis caused by extreme weather events, diseases, forced migration, conflicts and instability. Policy responses therefore cannot be reactive.

Dealing with NTS threats further underscores the importance of multilateral cooperation. The transborder nature of these challenges compels states to work closer together to mitigate their impact on human security. And given the urgency of finding workable solutions to 21st century problems like climate change and new pandemics, it behooves states and communities to improve security governance, including confronting head-on certain norms that hinder the ability of the international community to respond effectively to NTS problems.

Recommendations:

NTS challenges like climate change and pandemics have underscored the need for states and societies to be better prepared for a much more complex and uncertain future. In this regard, governments and other stakeholders may wish to consider the following recommendations.

1. In dealing with the complex issue of climate change, governments should set out key policy priorities to address its multifaceted consequences. More efforts must be given to strengthen adaptive capacity in dealing with its direct impact through enhanced disaster preparedness and response mechanisms and relevant frameworks. Establishing a specialised climate security agency and/or advisor should be considered to develop targeted strategies, create synergies among relevant agencies, and engage with international funding agencies.

2. Comprehensive risk assessment and management strategy must be done regularly to inform national policies to deal with major NTS threats, such as

natural disasters and pandemics. Monitoring capacities must be strengthened at the regional, national and local levels. These include developing mechanisms to compile national and sub-national risk profiles and capacities. The latter will help in facilitating humanitarian assistance to populations of concern and to review mandates and capacities at the national level.

3. Finance and resource mobilisation strategies must be developed to address different NTS challenges. Countries must harness resources from their bilateral partners, international institutions like the ADB, AIIB, World Bank, as well as engage with the private sector. These strategies must also be streamlined to avoid duplication and waste.

4. Food resilient systems need to be developed to ensure food security against disruptions like pandemics and other crises. Global pandemics like COVID-19 have long-lasting consequences, so 'pandemic-proofing' food security strategies at the national and regional levels is imperative if states were to sufficiently respond to multiple disruptions caused by pandemic or other types of crises. These include increasing investment in the agri-food sector through R&D and entrepreneurship. Expanded R&D is needed to develop climate-smart and resource efficient technologies to build sustainable and resilient food systems.

5. In the "age of pandemics," strategies on pandemic preparedness and response are critical to national and human security. These include building up capacity in disease surveillance, data collection and multi-sectoral responses in public health emergencies. With respect to COVID-19 pandemic, it is clear that inaction across governments came at a great cost to human lives and livelihood. There should be more investments in building up comprehensive national health systems and informed by the principles of universal health coverage.

6. Greater efforts must be done by ASEAN countries to promote deeper cooperation in addressing NTS challenges. Joint collaboration or partnership must be developed in protecting the marine environment including stopping plastic pollution, and encourage collaboration in manufacturing of vaccines

and therapeutics, as well as R&D partnership in developing and/or harnessing technologies and artificial intelligence to manage NTS threats.

7. Countries should actively support and participate in multilateral frameworks like ASEAN, the ASEAN Plus Three, East Asia Summit and minilaterals like the QUAD to promote greater dialogue and engagement to advance cooperation in NTS issues.

¹ Lee Hsien Loong, (2020) ‘The Endangered Asian Century’, *Foreign Affairs*, July/August 2020, <https://www.foreignaffairs.com/articles/asia/2020-06-04/lee-hsien-loong-endangered-asian-century>

² Kevin Rudd, (2020), (2020), ‘Beware the Guns of August—in Asia: How to Keep U.S.-Chinese Tensions from Sparking a War’, *Foreign Affairs*, 3 August 2020, <https://www.foreignaffairs.com/articles/usa/2020-08-03/beware-guns-august-asia>

³ See, for example, Mely Caballero-Anthony, Ralf Emmers and Amitav Acharya (eds.), *Non-Traditional Security in Asia: Dilemmas in Securitisation*, (London: Ashgate 2006).

⁴ See Mely Caballero-Anthony, Ralf Emmers and Amitav Acharya (eds.), *Studying Non-Traditional Security in Asia: Trends and Issues* (Singapore: Marshall Cavendish, 2006).

⁵ See Mely Caballero-Anthony, *An Introduction to Non-Traditional Security*, (ed), London: Sage Publications, 2016.

⁶ Asian Development Bank (ADB), *A Region at Risk: The Human Dimensions of Climate Change in Asia and the Pacific*. Metro Manila: ADB, 2017.

⁷ ADInet, ‘Homepage’, AHA Centre Disaster Information Network (ADInet), 2020 <http://adinet.ahacentre.org/>, accessed 15 July 2021.

⁸ AHA Centre 2021, 2020

⁹ The Economic and Social Commission for Asia and the Pacific (ESCAP). 2017. *Leave No One Behind: Disaster Resilience for Sustainable Development*. Bangkok: ESCAP. https://www.unescap.org/sites/default/files/1_Disaster%20Report%202017%20Low%20res.pdf (accessed November 30, 2020).

¹⁰ Nipon Poaponsakorn and Pitsom Meethom, “Impact of the 2011 Floods, and Flood Management in Thailand”, *ERIA Discussion Paper Series*, 2013. <https://www.eria.org/ERIA-DP-2013-34.pdf> (accessed November 30, 2020).

¹¹ The World Bank, *Thai Flood 2011: Rapid Assessment for Resilient Recovery and Reconstruction Planning*, Bangkok, 2012.

¹² Hiroshi Takagi and Miguel Estaban. 2016. “Statistics of Tropical Cyclone Landfalls in the Philippines: Unusual Characteristics of 2013 Typhoon Haiyan.” *Natural Hazards*. 80: 211-222. <https://link.springer.com/article/10.1007/s11069-015-1965-6> (accessed November 30, 2020).

¹³ Sherwood, Angela, Megan Bradley, Lorenza Rossi, Rufa Guiam and Bradley Mellicker. 2015. *Resolving Post-Disaster Displacement: Insights from the Philippines after Typhoon Haiyan (Yolanda)*. Washington, D.C./Geneva: The Brookings Institutions/International Organization for Migration.

¹⁴ The Economic and Social Commission for Asia and the Pacific (ESCAP), *Leave No One Behind: Disaster Resilience for Sustainable Development*, 2017. Bangkok: ESCAP. https://www.unescap.org/sites/default/files/1_Disaster%20Report%202017%20Low%20res.pdf

¹⁵ World Health Organization (WHO). 2014. “Turning Crisis into Opportunity: Typhoon Haiyan One Year On”, November 2014. <https://www.who.int/features/2014/typhoon-haiyan-2014/en/>, accessed 5 January 2021.

¹⁶ UNESCAP, ‘The Disaster Randscape Across Asia-Pacific Pathways for resilience, inclusion and empowerment: Disaster Report 2019’, (Bangkok: United Nations Publication, 2020), p. 6-7, https://www.unescap.org/sites/default/d8files/knowledge-products/Asia-Pacific%20Disaster%20Report%202019_full%20version.pdf, accessed 1 July 2021.

¹⁷ United Nations (2015). “Sendai Framework for Disaster Risk Reduction (SFDRR)”. July 9, 2020. <https://bit.ly/2N0Krag>; United Nations (2015). “Paris Agreement on Climate Change”. November 2, 2020. <https://bit.ly/34Puk9c>; United Nations (2015). “2030 Agenda for Sustainable Development”. November 2, 2020. <https://bit.ly/2HZhTyV>; United Nations, 2016, “New Urban Agenda.”, <https://bit.ly/3jcA55W>.

¹⁸ ADInet. (2020), “Homepage”, AHA Centre Disaster Information Network (ADInet), <http://adinet.ahacentre.org/>.

¹⁹ IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf

²⁰ David Eckstein, Vera Künzel, Laura Schäfer, 2021, *Global Climate Risk Index 2021*, Bonn/Berlin: Germanwatch e.V https://reliefweb.int/sites/reliefweb.int/files/resources/Global%20Climate%20Risk%20Index%202021_1_0.pdf

²¹ Ibid.

²² Ibid.

²³ Margareth Sembiring, 2021, ‘Code Red for Humanity’: What Next for Mankind?, RSIS Commentary, <https://www.rsis.edu.sg/rsis-publication/nts/code-red-for-humanity-what-next-for-mankind/#.YWGqa9pBw2w>

²⁴ Climate Change Commission, n.d., *National Framework Strategy on Climate Change 2010-2022*, https://www.preventionweb.net/files/24305_nfscsgd.pdf

²⁵ See World Health Organization (WHO) Covid-19 Dashboard, https://covid19.who.int/?adgroupsurvey={adgroupsurvey}&clid=EAlaIqobChMsrDixOLi8wIVjpVLBR3-5gluEAYASABEgJLt_D_BwE, accessed 12 October 2021.

²⁶ The Straits Times, December 2020.

²⁷ Food Security Information Network. (2020). *Global report on food crises*. Technical report. <https://www.fsinplatform.org/report/global-report-food-crises-2020/>

²⁸ International Monetary Fund. (2020). *World Economic Outlook*, April 2020. https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april2020?utm_source=CSIS+All&utm_campaign=51349e0ba2-EMAIL_CAMPAIGN_2020_04_14_09_47&utm_medium=email&utm_term=0_f326fc46b6-51349e0ba2-150484457

²⁹ See Mely Caballero-Anthony, “Towards a multipolar order post-pandemic”, East Asia Forum, 27 April 2021, <https://www.easiaforum.org/2021/04/27/towards-a-multipolar-order-post-pandemic/>.

³⁰ See ASEAN-Comprehensive Recovery Framework, November 2020, https://asean.org/storage/ASEAN-Comprehensive-Recovery-Framework_Pub_2020_1.pdf

³¹ Climate Change Commission, n.d., *National Framework Strategy on Climate Change 2010-2022*, https://www.preventionweb.net/files/24305_nfscsgd.pdf

³² Food and Nutrition Research Institute (2020). *Expanded National Nutrition Survey: 2018*. Food Consumption Survey, Household Level. Dissemination Forum, 28 July 2020, Taguig City. FNRI Website, http://enutrition.fnri.dost.gov.ph/site/uploads/2018%20ENNS%20Dissemination_Household%20Food%20Consumption%20Survey.pdf

³³ United Nations Food and Agriculture Organisation (2020). *State of Food Insecurity and Nutrition in the World 2020*. Rome: UN FAO. https://www.who.int/docs/default-source/nutritionlibrary/publications/state-food-security-nutrition-2020-en.pdf?sfvrsn=147d6db3_4&download=true

³⁴ King Francis Ocampo and Kimberly Karen Pobre (2021). *Fighting the Good Fight: The Case of the Philippine Rice Sector*. The Asia Foundation, 14 April <https://asiafoundation.org/2021/04/14/fighting-the-good-fight-the-case-of-the-philippine-rice-sector/>. See also Raul Montemayor (2020). *Winners and losers from the rice tariffication law*. Philippine Daily Inquirer, 6 September, <https://newsinfo.inquirer.net/1332019/winners-and-losers-from-the-rice-tariffication-law>.

³⁵ Ibid.

³⁶ Raul Montemayor (2020). Winners and losers from the rice tariffication law. Philippine Daily Inquirer, 6 September, <https://newsinfo.inquirer.net/1332019/winners-and-losers-from-the-rice-tariffication-law>.

³⁷ Danilo C. Israel and Roehlano M. Briones (2013). Impacts of Natural Disasters on Agriculture, Food Security, and Natural Resources and Environment in the Philippines. ERIA Discussion Paper 2013-15. <https://www.eria.org/ERIA-DP-2013-15.pdf>

³⁸ Ibid., p.1

³⁹ Department of Agriculture, Philippines (2021). Rice Competitiveness Enhancement Fund (RCEF). DAR Website. <https://ati.da.gov.ph/ati-main/PROGRAMS/RCEF>

⁴⁰ East Asia Summit Leaders' Statement on Marine Sustainability, <https://www.mofa.go.jp/files/100115532.pdf>

⁴¹ APEC Marine Debris Roadmap- Implementing Progress: Philippines, http://mddb.apec.org/Documents/2021/OFWG/OFWG1/21_ofwg_017.pdf

⁴² DA, PNP sign MOU on joint-seaborne patrol, <https://www.pna.gov.ph/articles/1155317>

⁴³ <https://verumar.com/the-philippines-and-indonesia-ramp-up-the-fight-against-illegal-fishing/>

ACKNOWLEDGMENTS

The Stratbase ADR Institute extends its deepest gratitude to all involved in developing this strategic agenda. This publication would not have been possible without your commitment, collaboration, and support.

The strength of this strategic agenda comes not from any single policy. Rather, it draws from the collective insight of our expert authors from the academe, public and private sectors, and civil society. Hence, we are grateful for our authors' generous sharing of knowledge and experiences that make up this strategic agenda.

We would especially like to thank Prof. Victor Andres 'Dindo' Manhit, President of the Stratbase ADR Institute, for this initiative would never have come to fruition without his leadership, vision, and direction.

Finally, we would like to thank the tireless and dedicated members of the Stratbase ADR Institute;

Our design consultant, Ms. Carol Manhit, for the publication layout and cover design;

Stratbase ADR Institute's leadership team, led by Executive Director Paco A. Pangalangan, Deputy Executive Director for Programs, Ms. Ma. Claudette Guevara-Hizon, and Deputy Executive Director for Research, Dr. Jimmy Jimenez, for their guidance;

And our research team, led by Research Managers Venice Rañosa and Jikko Puzon, and the project management team composed of Program Managers Kim Bay and Clarisse Dacanay and Program Associate Karl Martinez, for their diligence and hard work.

ABOUT THE AUTHOR

Mely Caballero-Anthony, Ph.D

President of IRSS

Nanyang Technological University, Singapore

Dr. Caballero-Anthony currently holds the President's Chair of International Relations and Security Studies of the Nanyang Technological University (NTU) in Singapore. Aside from being a professor of International Relations, she is also the Head of the Centre for Non-Traditional Security Studies (NTS) at the S. Rajaratnam School of International Studies (RSIS) at NTU. Dr. Caballero-Anthony is currently a member of the Asia-Pacific Leadership Network on Nuclear Non-Proliferation and Disarmament (APLN) and is the Secretary-General for the Consortium on Non-Traditional Security Studies in Asia.

Dr. Caballero-Anthony's research interests include regionalism and multilateralism in the Asia-Pacific, global governance, human security, non-traditional security, nuclear security, and conflict prevention. She has published extensively on a broad range of political and security issues in Asia-Pacific in peer-reviewed journals and international academic presses. Her works include *Nuclear Governance in the Indo-Pacific* (Routledge, forthcoming 2022), *Negotiating Governance on Non-Traditional Security in Southeast Asia and Beyond* (New York: Columbia University Press, 2018), *An Introduction to Non-Traditional Security Studies* (London: Sage Publications Ltd, 2016), and *Human Security and Climate Change* (UK: Routledge, 2014).

Dr. Caballero-Anthony has served as the Secretary-General of the Consortium on Non-Traditional Security Studies in Asia since 2008. From 2015-2017, she was Vice President at-large of the Governing Council of the International Studies Association (ISA) and is currently a member of the ISA's

Global South Task Force. She held a visiting fellowship at the Elliott School of International Affairs, George Washington University, in 2015. From 2013-2017, Dr. Caballero-Anthony was a member of the UN Secretary-General's Advisory Board on Disarmament Matters. She was also the principal investigator of the MacArthur Asia Security Initiative project of Internal Security Challenges in Asia and Cross-Border Implications. Dr. Caballero-Anthony has actively participated and shared her policy recommendations regarding non-traditional security issues at various events organized by the Stratbase ADR Institute.

The views, opinions, and conclusions expressed in this paper are those of the author and do not necessarily reflect those of the Institute or any of its officers and trustees.

The author is solely responsible for its content.



+ ADRI PUBLICATIONS

STRATBASE ADRI FOR STRATEGIC AND INTERNATIONAL STUDIES

The Financial Tower
6794 Ayala Avenue
Makati City,
Philippines 1226

www.adrinstitute.org