Disaster Response Regional Architectures

Assessing Future Possibilities

Edited by Jessica Ear, Alistair D.B. Cook, and Deon V. Canyon

Daniel K. Inouye Asia-Pacific Center for Security Studies

RSiS Nanyang Technological University | S. Rajaratnam School of International Studies

Disaster Response Regional Architectures

Assessing Future Possibilities

Edited by Jessica Ear, Alistair D. B. Cook, and Deon V. Canyon

First published September 2017
Published by the Daniel K. Inouye Asia-Pacific Center for Security Studies
2058 Maluhia Road
Honolulu, HI 96815
www.apcss.org

ISBN-13: 978-0-9719416-8-7

Printed in the United States of America

Disaster Response Regional Architectures

Assessing Future Possibilities

Edited by Jessica Ear, Alistair D. B. Cook, and Deon V. Canyon

COORDINATING INSTITUTIONS

About the Daniel K. Inouye Asia-Pacific Center for Security Studies

The Daniel K. Inouye Asia-Pacific Center for Security Studies (DKI APCSS) is a U.S. Department of Defense institute that officially opened Sept. 4, 1995, in Honolulu, Hawaii. DKI APCSS addresses regional and global security issues, inviting military and civilian representatives of the United States and Indo-Asia-Pacific nations to its comprehensive program of executive education and workshops, both in Hawaii and throughout the Indo-Asia-Pacific region. For more information about DKI APCSS, please visit www.apcss.org.

About S. Rajaratnam School Of International Studies

The S. Rajaratnam School of International Studies (RSIS) is a professional graduate school of international affairs at the Nanyang Technological University, Singapore. RSIS' mission is to develop a community of scholars and policy analysts at the forefront of security studies and international affairs. Its core functions are research, graduate education and networking. It produces cutting-edge research on Asia Pacific Security, Multilateralism and Regionalism, Conflict Studies, Non-Traditional Security, International Political Economy and Country and Region Studies. RSIS' activities assist policymakers to develop comprehensive approaches to strategic thinking on issues related to security and stability in the Asia Pacific. For more information about RSIS, please visit www.rsis.edu.sg.

ACKNOWLEDGEMENTS

This publication is the result of three days of discussion among humanitarian assistance and disaster relief (HADR) practitioner and academic subject matter experts at a workshop convened in Bangkok, Thailand in July 2017. The insights presented here would not have been possible without the enthusiasm of participating government officials, distinguished academics and civil society representatives. Brigadier General (Ret) James Hirai, Deputy Director of DKI APCSS and Associate Professor Mely Caballero-Anthony, Head of the Centre for Non-Traditional Security Studies (NTS Centre) at RSIS, provided the necessary leadership to enable frank discussion of complex, and sometimes technical issues to unfold. The editors acknowledge both workshop leads and all participants' generous contributions of candor, expertise and time. We have learned a great deal from their insights, and this publication serves to convey their perspectives of humanitarian assistance and disaster response to leaders of this region.

We acknowledge the facilitation, administration and research support provided by a number of contributors whose efforts were invaluable to move these insights from the seminar room into plenary and from there to print. Dr. Miemie Winn Byrd, Prof. David Shanahan, Dr. Lina Gong, Mr. Mike Sashin, Lt. Col. Dan Makalena and Ms. Vishalini Suresh for their skilled facilitation and chapter contributions. Additionally, we thank Mr. Darren Adams, Ms. Lenore Patton, and Ms. Sherly Vivaldi for their support in bringing participants together. Appreciation goes to Mr. Seongwon Han, Major General (Ret) Nozomu Yoshitomi, Mr. Oiroa Kaihau and Mr. Lloyd Puckett for their writing contributions. Lastly, special thanks go to Dr. James Campbell for copyediting and to Mr. Benjamin Ryan, Ms. Mary Markovinovic and Ms. Debra Castro for additional publication support. This report is the result of your efforts.

TABLE OF CONTENTS

ACRONYMS

AADMER ASEAN Agreement on Disaster Management and Emergency Response
ACDM ASEAN Committee on Disaster Management
ADB Asian Development Bank
ADMM ASEAN Defense Ministers Meeting
ADRC Asian Disaster Reduction Center
AHA Centre ASEAN Coordinating Centre for Humanitarian Assistance on disaster management
AMCDRR Asian Ministerial Conference on Disaster Risk Reduction
AMRG ASEAN Militaries Ready Group
AMS ASEAN Member States
APAN All Partners Access Network
APEC Asia Pacific Economic Cooperation
APG AADMER Partnership Group
ARDEX ASEAN Regional Disaster Emergency Response Simulation Exercise
ARF ASEAN Regional Forum
ASEAN Association of Southeast Asian Nations
CMCF Civil-Military Coordination Function
CMCoord Civil-Military Coordination
DRM Disaster Risk Management
DRR Disaster Risk Reduction
EAS East Asia Summit
EOC Emergency Operations Center
EPWG Emergency Preparedness Working Group
ERAT Emergency Response and Assessment Team
EWG Experts' Working Group
EWS Early Warning System
FEMA Federal Emergency Management Agency
GIS Geographic Information System
HADR Humanitarian Assistance and Disaster Relief
HuMOCC Humanitarian-Military Operations Coordination Centre
ICS Incident Command System
ICT Information and Communication Technology
ICVA International Council of Voluntary Agencies
IFRC International Federation of Red Cross and Red Crescent Societies
INSARAG International Search and Rescue Advisory Group
IO International Organization

INGO International Non-Governmental Organization
ISDR International Strategy for Disaster Reduction
JOCCA Joint Operations and Coordination Centre of ASEAN
MNCC Multinational Coordination Center
NAPCI Northeast Asia Peace and Security Cooperation Initiative
NIDM National Institute of Disaster Management
NDMA National Disaster Management Authority
NDMO National Disaster Management Office
NGO Non-Governmental Organization
OPERA CIS OPERA Computer Information System
OSOCC On-Site Operations Coordination Centre
PICTs Pacific Island Countries and Territories
PIF Pacific Islands Forum
PIHAC Philippine International Humanitarian Assistance Reception Center
PIHAG Philippine International Humanitarian Assistance Guidelines
REOC Regional Emergency Operations Center
RHCC Regional HADR Coordination Centre
SAARC South Asian Association for Regional Cooperation
SAR Search and Rescue
SARRND SAARC Agreement on Rapid Response to Natural Disasters
SARS Severe Acute Respiratory Syndrome
SASOP Standard Operating Procedures for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations
SCFDM SAARC Comprehensive Framework on Disaster Management
SDMC SAARC Disaster Management Centre
SFDRR Sendai Framework for Disaster Risk Reduction
SIDS Small Island Developing States
SOP Standard Operating Procedure
SPC Secretariat of the Pacific Community
TCS Trilateral Cooperation Secretariat
TTX Table Top Exercise
UAV Unmanned Aerial Vehicle
UNDAC United Nations Disaster Assessment and Coordination
UNDP United Nations Development Programme
UNOCHA United Nations Office for the Coordination of Humanitarian Affairs
WFP World Food Programme

EXECUTIVE SUMMARY

The HADR cooperation landscape in the Indo-Asia-Pacific is becoming more complex as the growth of frameworks and mechanisms are often developed in isolation from other existing coordination efforts. These areas of potential duplication can hamper efficient and effective live-saving assistance. Recognizing these challenges, the Daniel K. Inouye Indo-Asia-Pacific Center for Security Studies (DKI APCSS) and the S. Rajaratnam School of International Studies (RSIS) at Nanyang Technological University, Singapore organized a blended practitioner and academic workshop focused on the future development of disaster response regional architectures.

From July 18-20, 2017 DKI APCSS and RSIS convened 43 participants from 14 Indo-Asia-Pacific states and Taiwan to assess future possibilities associated with improved disaster response regional architectures. Workshop participants had a mixture of professional backgrounds leading and/or coordinating disaster management sharing efforts to include international, regional and civil society organizations, defense ministry officials, foreign affairs and national disaster management bodies. Of those who participated in the workshop, 30 percent were women. Non-national participants included representatives from the United Nations Office for the Coordination of Humanitarian Affairs, the Association for South East Asian Nations (ASEAN) Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre) and the South Asian Association for Regional Cooperation (SAARC) Disaster Management Center, the World Food Programme (WFP), and the International Council of Voluntary Agencies (ICVA). The objectives of the workshop were to (1) increase shared understanding of sub-regional disaster response efforts and regional dynamics. (2) Identify opportunities for deepened disaster response collaboration centered on a network of disaster management practitioners via RSIS, DKI APCSS alumni and key stakeholders; and (3) publish a policy report highlighting existing regional disaster management architecture and key mechanisms that can be optimized and enhanced for effective disaster response collaboration.

The workshop agenda addressed the response cooperation landscapes of the Indo-Asia-Pacific at the strategic and sub-regional levels. Case studies presented from each sub-region viewed aid through the lens of receiver and provider nations, to identify best practices and opportunities for intra and inter-regional sharing and considerations. Over the course of the three days, facilitators and practitioners worked collectively to prioritize the top five opportunity areas for improved response coordination and to recommend integration methodologies for institutional changes. Participants then nested the workshop key findings and recommendations within a strategic discussion on policy and conditions needed for adaptable and resilient regional disaster response architectures.

Participants' identified disaster cooperation developments and deliberated on ways forward, three overarching themes emerged:

1. *Diversity of Perspectives:* Inclusion of participation via HADR professionals from states' National Disaster Management Organization, regional organizations, and United Nations (UN) representatives enabled intra-regional cross sharing of disaster response dynamics. It was noted that representatives from civil society, Non-Governmental Organizations (NGOs) and International Organizations (IOs) needed to sensitized government officials

to better integrate and institutionalize civil society contributions to disaster relief and response. Some participants identified that as national capacity increased space for non-state actors became more restricted and negatively impacted protection and assistance activities in some cases. Participants also identified inter-regional experiences as important particularly between SAARC and the ASEAN. They recognized that states in the Indo-Asia-Pacific benefited from the sharing of insights from both recipient and provider nations as well as international and regional organizations.

2. *Importance of Leadership*: Participants identified the need for HADR leaders to recognize and incorporate local/national sensitivities to facilitate deeper national and regional disaster response collaboration. Some seventy percent identified politics and leadership of countries and organizations as a key factor in response cooperation, often serving as the primary obstacle to effective and efficient disaster response cooperation.

3. *Need for Improved Coordination*: A significant majority of participants also agreed that civil-military dynamics are somewhat effective indicating that there is more work required to improve coordination in this realm. Participants confirmed that foreign military support to relief operations should be limited to its unique capabilities and be coordinated through a host nation military led multi-national coordination center. Further, for improved coordination, regional disaster response architectures should focus on multi-national responses as well as on building national capabilities, by sharing best practices through dialogues, exercises and knowledge management.

This report captures the workshop discussions and presents key findings and recommendations for policymakers and decision-makers in governments, international organizations, academic institutions, and civil societies. Reference to the Indo-Asia-Pacific region consists of the Pacific Islands, China, Japan, South Korea, Mongolia, Taiwan and member states of ASEAN and SAARC. The report provides guidance and fosters ongoing dialogue to inform and assist leaders to achieve greater disaster response collaboration through improved architectures and cooperation.

KEY FINDINGS AND RECOMMENDATIONS

Regional Mechanisms

- Efforts should encourage mutual learning between sub-regions as they have developed good practices from their respective experiences in responding to disasters. ASEAN has made notable progress in building a regional architecture for disaster response by setting up AHA Centre as well as various regional mechanisms, and this can serve as an inspiration for other sub-regions where regional mechanisms are absent or inchoate.
- Historical tensions and geopolitical factors hamper the institutionalization of cooperation in some sub-regions. While disaster response opens the space for countries to cooperate and ease tensions, standing regional mechanisms for cooperation require political will and commitment from countries concerned.
- Linkages between different regional platforms such as APEC and ASEAN should be established and strengthened to facilitate the building of regional architectures.

National Response

- An increasingly complex community of actors and institutions constitutes the entire regional disaster response architecture. It is thus important to develop a networked approach to ensure that the definition of roles and responsibilities is clear and the strengths of different actors are known.
- Good leadership practices are required at all levels of engagement because leadership creates and sustains commitment and cooperation momentum.
- Recognition of the multi-sectoral dimension to disaster response, which engages line ministries covering areas such as disaster management, health, the economy or defense, is important.
- A centralized national framework is essential for effective response, with one national entity doing the main coordination between national and foreign civilian and military actors.
- Ensure clear national frameworks, policies and legislation on disaster response exist to facilitate timely foreign and domestic assistance.
- Context specific guidelines and standard operating procedures assist responders and disaster relief recipients by raising awareness of national and local regulatory frameworks.
- The lack of a common operating framework and agreement on assessment results in duplication of effort, hinders optimum civilian use of defense assets, and diminishes response effectiveness and efficiency.
- Countries differ in culture and tradition, which requires a nuanced understanding by requesting and assisting parties. Localized disaster management and resilience efforts increase community ownership and result in culturally appropriate solutions and approaches. Foreign actors need to have an awareness of cultural sensitivities of affected nations.

Stakeholders and Coordination

- The sovereignty of affected countries requires respect. The building of trust between nations encourages affected countries to make more timely requests for foreign assistance. Affected state national governments need to lead the response with other stakeholders supporting and facilitating.
- It is necessary to include non-state actors in the strategic planning of disaster response. The dual use of business assets provides an underlying capability for a nation to surge and augment disaster relief capabilities and reduces capital expenditure. Local communities and organizations play a crucial role, as they are the first on scene and possess long-term knowledge of gaps and strengths. Funding is essential to empower local communities to build resilience and respond to their own disasters. However, overly centralized humanitarian funding from UN sources reduces the amount of funds available to NGOs and local and national governments.
- In the Indo-Asia-Pacific region, the domestic military is usually the primary disaster responder as they possess human resources, capabilities and equipment beyond the means of civil actors. Bilateral and multilateral agreements are important to facilitate access and reduce response times for humanitarian operations. Bilateral commitment executed multilaterally on the ground through the Multinational Coordination Center (MNCC) promotes optimal use of foreign defense assets.
- Civil-military coordination is essential for a quick and effective disaster response. It is thus necessary to strengthen knowledge and understanding of civil-military coordination concepts, principles and applicable guidelines.

Emerging Issues

- Embracing technological solutions to reduce carbon emissions was common while there were signs that others were seeking to reduce an over-reliance on niche but highly skilled people to make solutions more affordable and sustainable.
- Disconnects across research, practice and capacity building providers may limit opportunities for partnerships, sharing of resources and program coordination. There is a need to strengthen and align research, documentation, training, public awareness and operational resources.
- Climate change and unsustainable development increasingly lead to unforeseen secondary and tertiary crises that complicate the disasters and response efforts. Countries require better preparedness to meet complex humanitarian emergencies in all their forms.

ADAPTABLE AND RESILIENT RESPONSE ARCHITECTURES

Jessica Ear

Strategic and operationally based recommendations are only effective if integrated within the existing disaster response architectures. To realize opportunities and ideas for improved disaster response architectures, leaders and key stakeholder should set the conditions for adaptable and more resilient frameworks and mechanism. With the changing Indo-Asia-Pacific disaster response landscape as observed through increasingly complex humanitarian needs, proliferation of regional initiatives by differing actors, shifting fund structures, emerging new technologies and expanding roles of militaries, national and humanitarian leaders can improve response regional architectures by advancing policies that recognize and strengthen the following:

Improve political will

Sub-regions and states vary in political will and leadership strength. For Southeast Asia and countries such as the Philippines, strong political will and leadership to prioritize disaster response have proven to be effective in re-organizing governance structures while providing the national disaster management body greater authority and resources to establish disaster response preparedness and build capabilities. In anonymous polling, seventy percent of the group recognized that the biggest challenge to effective and efficient disaster response cooperation is politics and leaderships of countries and organizations. A resilient and adaptable regional response infrastructure will require engagement of leaders via efforts to inform and raise awareness of disaster issues. Efforts such as offering executive-level training at strategic gatherings can help to influence and sensitize leaders to disaster management concerns.

Inclusion of other actors

Inclusion relates to strong political will and leadership. Regional, national and organizational leaders are responsible for capacity optimization through the inclusion of actors, whether national to local or cross sectors, who can contribute to and improve collective resources and abilities. By expanding differing sectors' and local agencies' roles and responsibilities, while including disenfranchised civil society actors in existing response infrastructures, leaders will proactively enable more adaptable and resilient architectures by creating flexibility in the system to receive other contributions and developments. While more than half of participants identified civilian government as having the primary responsibility for civil society actor inclusion in disaster response, an additional thirty-seven percent felt that integration responsibilities befall on civil society. Most participants felt that integration should occur at the national and grass root levels and that increased government and regional organization response capacity correlated with increased value of civil society actors and participation.

Strive for credible, transparent processes and systems

Assessing processes and systems for credibility, accountability and transparency will promote greater adaptable and resilient regional architectures. Process effectiveness and efficiencies to increase life-saving operations and speed of relief will improve mechanisms and systems' credibility and accountability. Therefore, assessing response efforts and initiatives for transparency and accountability will strengthen regional response infrastructures by validation and trust. Disaster response cooperation built on trust and validation through effectiveness will enable adaptation to changes and new developments. Without these properties, regional architectures will lack the ability to evolve and improve to serve affected populations.

Simplify processes and bureaucracies

Participants strongly expressed the need for cooperative response efforts to incorporate simplified processes and lessen bureaucracies where possible. The proliferation of mechanisms advancing disaster response in the region require closer integration of new developments with the existing regional institutional infrastructures. Complicated processes and undue bureaucracies will hamper collaboration and synergies among initiatives to negativity affect speed and effectiveness of response capabilities. Additionally, flexible policies and programs to allow room for partnership and collective work create conditions for inclusive and resilient architectures. Assessing and simplifying existing mechanisms and tools with ability to adopt new technology, knowledge and capabilities establishes conditions for national or regional systems to evolve and achieve more optimized ways to save lives and mitigate disaster damages.

Institutionalize knowledge and information management

Throughout the workshop, participants shared lessons learned and disaster management best practices among states and across sub-regions. Collectively, participants recognized the value and opportunity to institutionalize knowledge and experiences through improved knowledge management and information sharing between states and regions. Regional organizations' "centrality" or "being at the center and as a bridging node" helps to explain ASEANs ability to act as the "driver of and a fulcrum of other regional institutions," (Caballero-Anthony, 2015). Compared to other organizations, regional organizations such as ASEAN, SAARC and Pacific Islands Forum (PIF) through their "centrality" are best positioned to promote improved knowledge management and information sharing among their member states. Categorizing experiences, models of best practices and practical demonstrations of workable approaches will help to improve national capacities, enabling states' abilities to advance conditions for more adaptable and resilient disaster response cooperative regional architectures.

Continued education and training

Lastly, adaptable and resilient regional response architectures require continuous education, training and exercises for improved operational and tactical disaster response skills. Whether through the professionalization of disaster management capabilities, through

more comprehensive and focused integration of disaster management in military education and training or through consolidated or joint, regularly occurring exercises, it is imperative for states and each sub-region to maintain and improve operational and tactical disaster response skills. As many participants noted, people, plans and procedures are only effective when frequently tested and practiced.

References

Mely Caballero-Anthony, 2015, "Understanding ASEAN's centrality: bases and prospects in an evolving regional architecture," The Pacific Review, 563 – 584.

SECTION 1: SUB-REGIONAL RESPONSE ISSUES, CHALLENGES, AND COOPERATION DEVELOPMENTS

The "Indo-Asia-Pacific" is a term that covers the area comprising the Indian Ocean to the Western Pacific and the seas that join the two. In terms of countries, it includes Pakistan on its western edge through the Pacific Islands and China in its eastern-most tip. With such a large number of countries in the Indo-Asia-Pacific, it is broken down into four sub-regions: South Asia, Southeast Asia, Northeast Asia and Oceania.

This section presents the cooperation initiatives in each of the Indo-Asia-Pacific sub-regions to gauge the level of regional interaction on disaster response. Each chapter considers the trends, challenges and developments to enhancing cooperation within these sub-regions on disaster response. In the first chapter, Dr. Alistair D. B. Cook assesses the developments within the context of Southeast Asia. The region comprises the Association of Southeast Asian Nations (ASEAN), which was established over fifty years ago and has member states along the Pacific Ring of Fire, making it home to a large number of natural hazards. This chapter tracks the development of the ASEAN Community and the increasing cooperation seen within it on disaster response.

In the second chapter, Prof. David Shanahan investigates cooperation initiatives in South Asia, which is home to many disasters. This sub-region possesses SAARC, a more recently established regional organization that is still finding its feet. The chapter assesses the challenges and developments found in disaster response cooperation within the context of SAARC.

In the third chapter, Dr. Miemie Winn Byrd and Mr. Seongwon Han appraise activity in Northeast Asia between China, Japan and South Korea and its connection to the wider regional response architecture.

In the fourth chapter, Mr. Oiroa Kaihau and Dr. Deon V. Canyon study the different cooperation initiatives in Oceania, which consists of the four ethnic sub-regions of Australasia, Melanesia, Micronesia and Polynesia. The Pacific Island nations typically have many islands spread over vast distances that support small populations. This inherent tyranny of distance severely challenges small countries with limited resources when they face major cyclones, earthquakes and tsunamis.

Collectively these chapters offer an assessment of the trends, challenges and cooperation developments to determine the prospects for future collaboration at the sub-regional level. The authors highlight the Indo-Asia-Pacific as a region possessing significant variation in sub-regional cooperation initiatives on disaster response at different levels of integration. This provides insight into the gaps and potential areas for learning between the different sub-regions cognizant of the local context. In sum, this section offers an overview of the developments in the disaster response architecture and the prospects for augmented cooperation in disaster response across the Indo-Asia-Pacific.

Southeast Asia

Alistair D. B. Cook

Progress on regional cooperation in Southeast Asia is often punctuated by decades rather than years. While this characterization remains broadly true, it does not for the regional disaster response architecture. The exposure of the wider Indo-Asia-Pacific to disaster renders it the world's most disaster prone region and an issue of high importance to states and societies. Since the devastating Indian Ocean Earthquake and Tsunami in 2004 there are three significant broad trends that have shaped the regional disaster response architecture namely ASEAN centrality, sectoral approaches and a diversifying multi-stakeholder environment. The challenge for the region remains how these communities of actors engage with one another for more effective action. It is also important that these communities continue to develop their skillsets and be able to apply them to the "new normal" in terms of what disasters to expect, and to highlight the need for more systematic horizon scanning.

Since the founding of the Association of South East Asian Nations (ASEAN) fifty years ago in 1967, the regional organization has become central to cooperation development in the region. Nearly a decade later, the ASEAN member states agreed on the objectives and principles of the Declaration of ASEAN Concord I in 1976, which declared that member states shall extend assistance for relief to other member states in distress (ASEAN 1976). After over twenty-five years, the member states made the Declaration of ASEAN Concord II in 2003, which committed ASEAN to intensify cooperation in disaster management through the ASEAN Socio-Cultural Community, one of three pillars of the ASEAN Community (ASEAN 2003). However, since the 2004 Indian Ocean Earthquake and Tsunami, regional cooperation has intensified and led to the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) in 2008 (ASEAN 2009). The Agreement paved the way for the establishment in Jakarta, Indonesia, of the AHA Centre in 2011. The AHA Centre is its operational hub to facilitate and support man-made and natural disaster affected states and facilitate real-time information sharing with relevant United Nations and international organizations in promoting regional collaboration (ASEAN 2011). The AHA Centre is governed by the ASEAN Committee on Disaster Management (ACDM), which is made up of the National Disaster Management Offices (NDMO) of member states. The aftermath of the Indian Ocean Earthquake and Tsunami of 2004 also saw the commencement of the ten-year Hyogo Framework for Action, which was replaced two years ago with a new fifteen-year plan – the Sendai Framework for Disaster Risk Reduction.

Over the past five years, activity within ASEAN has seen the AHA Centre build its operational capacity to respond to natural disasters in the region when requested by the affected state. Indeed, its first large-scale deployment was in response to Typhoon Haiyan in 2015. In its deployment, the AHA Centre suffered from public "visibility damage" because it focused efforts on working to support the Philippines NDMO and was not seen as an active player in the field (Said 2014). It has since built a stronger public presence in subsequent natural disaster responses. In its first five years, the AHA Centre focused on natural disasters with the justification given that once the AHA Centre capacity is established and its team has gained the necessary experience, then it will be better positioned to respond to manmade disasters as identified in the AADMER. Signatory countries also agreed to

involve all stakeholders including local communities, non-governmental organizations and private enterprises and to use community-based disaster preparedness and early response approaches. This subsequently led to the establishment of the AADMER Partnership Group (APG) to work with the ACDM and the AHA Centre to pursue a people-centered approach. At present, the APG currently remains a consortium of seven NGOs – Child Fund, HelpAge International, Mercy Malaysia, Oxfam, Plan International, Save the Children and World Vision. While large International Non-Governmental Organizations (INGOs) dominate the list of founders there is a commitment to expand the APG to include local civil society organizations by 2025.

In advancing the drive towards including more local organizations, national chapters are under development in some member states to bring together local organizations into a network to represent their inputs at the regional level through the APG at ACDM and the AHA Centre. This is a significant development to facilitate the multi-stakeholder environment that characterizes disaster response and should be assisted throughout all ASEAN member states.

Within ASEAN, the political-security community and the economic community join the socio-cultural community to form the overarching ASEAN Community. It is important to recognize the multi-sectoral dimension to disaster response, which engages line ministries covering areas such as disaster management, health, the economy and defense. In late July, 2017 regional health officials utilized the AHA Centre as a study and reference point to assist in the establishment of an ASEAN Emergency Operations Center. Further, the establishment in 2016 of the ASEAN Center for Military Medicine in Bangkok and the agreement of the terms of reference for the ASEAN Militaries Ready Group demonstrate a trend towards a sectoral approach to disaster response. This highlights a challenge that will be to bridge the activated sectors to ensure an effective humanitarian response.

While these developments fall within the ASEAN framework, if we cast our eyes outside it we can see other activities covering Southeast Asia. The Asia Pacific Economic Cooperation Emergency Preparedness Working Group (EPWG) was established in 2005 to enhance human security and reduce the threat of disruptions to business and trade in the Indo-Asia-Pacific Region. The EPWG seeks to build capacity in the region so that APEC member economies can better mitigate, prepare for, respond to and recover from emergencies and natural disasters. This is achieved by building business and community resilience; fostering private-public partnerships to protect communities and businesses from disruption; and by sharing information, knowledge and technology (APEC 2017). However, as the respective members fund it its impact is limited, due to the budgetary constraints of the grouping. Nonetheless, creating linkages between APEC and ASEAN on disasters remains underexplored.

More recently, the establishment of the Changi Regional HADR Coordination Center (RHCC) in Singapore in 2014 focuses on supporting a disaster affected state's military in coordinating assistance provided by foreign militaries (MINDEF 2017). The RHCC focuses on the Indo-Asia-Pacific more broadly with a network of international liaison officers and linkages with operations centers of regional militaries including Australia, Brunei, France, India, Laos, New Zealand, Philippines, Russia, Thailand, United Kingdom and Vietnam. With the multiple avenues of sectoral cooperation, there is a need to recognize

the increasingly complex community of actors and institutions that constitute the entire regional disaster response architecture. It is therefore important to develop a networked approach to facilitate a more effective humanitarian system in Southeast Asia. Indeed, the ASEAN Vision 2025 on disaster management calls for such an approach to be developed (ASEAN 2016). However, this is no small feat, given the changing and diverse nature of the communities of actors, which often times have competing mandates, if we are to move towards a more people-centered approach and more malleable model of regional disaster response architecture in Southeast Asia by 2025. As the recent involvement of the AHA Centre in a new disaster setting in Marawi, Philippines in July 2017 demonstrates, there is political confidence being built in the AHA Centre being the point institution for humanitarian assistance within the region. It places the AHA Centre well to further develop its role as the lynchpin of the regional disaster response architectures, as a global leader in disaster response, share its expertise with other regional organizations, and ultimately to coordinate humanitarian assistance outside Southeast Asia.

Last year, at the 28th ASEAN Summit in Vientiane, Lao PDR, the Leaders signed the Declaration on One ASEAN One Response: ASEAN Responding to Disaster as One in the Region and Outside the Region. The declaration affirms the principle to harness the individual and collective strengths of different sectors and stakeholders in ASEAN to effectively respond to disasters inside and outside the region. The declaration confirms the AADMER as the central disaster response mechanism in Southeast Asia (ASEAN 2016). Over the past five years, Southeast Asia has witnessed increased interaction between ASEAN and the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) to strengthen regional disaster management capacity and interoperability. At the end of 2016, the annual ASEAN Regional Disaster Emergency Response Simulation Exercise (ARDEX) was held in Brunei Darussalam and tested the Joint Operations and Coordination Center of ASEAN (JOCCA) and the On-Site Operations Coordination Center (OSOCC) to coordinate a large-scale humanitarian response in an ASEAN Member State (OCHA 2017). After ARDEX 16, Brunei Darussalam's NDMO announced earlier this year its own National Disaster Exercise based on its ARDEX participation to institutionalize lessons learnt.

As the regional disaster response architectures develop capacity to respond to natural hazards, it is also important to horizon scan new scenarios that may generate humanitarian emergencies. As the effects of El Nino 2015 show, it adversely affected eleven countries in the region. These effects continued into 2016 including extended dry spells or drought, prolonged lean seasons and food shortages, with the humanitarian consequences seen throughout the year. The consequences highlighted significant challenges to the humanitarian system, which struggled to cope with unforeseen scenarios, often in contrast to the usual responses provided in the region. Vietnam experienced severe drought and saltwater intrusion that affected more than 2 million people. A further 1.1 million people required food assistance alongside an increase in water-related diseases and severe acute malnutrition (OCHA 2017).

Likewise, drought affected communities across Indonesia contributed to more forest and land fires, with 2.6 million hectares of forest and agricultural land damaged. An estimated 1.2 million people are suffering from harvest failures and reduced incomes and continue to need humanitarian assistance particularly in the eastern provinces of Indonesia. Prolonged and severe drought also affected 400,000 people in Timor-Leste, with 120,000 people severely at risk of food insecurity, and a further 1.5 million people were affected by prolonged

drought and frost in high altitude areas of Papua New Guinea impacting their food security and livelihoods (OCHA 2017). Beyond the impacts of El Nino, Cambodia experienced flooding in 2013, which dislodged unexploded ordnances and posed a secondary threat to communities. With the establishment of the ASEAN Regional Mine Action Center in Phnom Penh, Cambodia, there is an opportunity to facilitate learning for those mobilized in disaster response to be prepared for this new scenario. As new scenarios present themselves it will be of utmost importance that interoperability between stakeholders in the region increases, particularly across the line ministries activated for different types of disaster.

Over the next eight years as the region moves towards realizing the ASEAN Vision 2025 on disaster management, it will face multiple challenges. States and societies in Southeast Asia have demonstrated a commitment to build up their regional disaster response capacity so that they can respond themselves to natural disasters. The next steps will be to reflect on the strengths of the different actors in the regional disaster response architecture; determine how transferable the skills developed by humanitarian responders in the region are and adapt them to new scenarios; strengthen relationships across the diverse humanitarian community; and be better prepared for complex humanitarian emergencies in all their forms.

References

APEC, 2017, "Strategic Planning 2017 – 2020," Emergency Preparedness Working Group.

ASEAN, 2016, Declaration on One ASEAN One Response: ASEAN responding to disaster as one in the region and outside the region, Vientiane, Lao PDR, Sept. 6, 2016.

ASEAN, 2016, ASEAN vision 2025 on Disaster Management.

ASEAN, 2011, Agreement on the establishment of the ASEAN Coordinating Center for Humanitarian Assistance on Disaster Management, Nov. 17, 2011.

ASEAN, 2009, ASEAN Agreement on Disaster Management and Emergency Response, Vientiane, Lao PDR, July 26, 2009.

ASEAN, 2003, Declaration of ASEAN Concord II (Bali Concord II), Bali, Indonesia, Oct. 7, 2003.

ASEAN, 1976, Declaration of ASEAN Concord, Bali, Indonesia, Feb. 24, 1976.

MINDEF, 2017, "Fact Sheet: Changi Regional HADR Coordination Center," Official Releases, Singapore: MINDEF Press Room.

OCHA, 2017, 2016 Year in Review: OCHA Regional Office for Asia and the Pacific (OCHA: Bangkok).

Said, F. 2014. "An ASEAN perspective on disaster relief operations," In building civil-military capacity for disaster relief operations conference, Sept. 11–12, Singapore: MINDEF.

South Asia

David Shanahan

Encompassing close to one fourth of the world's population, South Asia is one of the most disaster prone regions in the world and experiences (in order of impact) floods, cyclones, earthquakes, landslides and droughts. In 2015, member states of the SAARC suffered 54 percent of the world's total disaster related deaths (UNISDR 2016). Despite its vulnerability, regional cooperation in South Asia has long struggled owing to a range of factors. Historical tensions and conflict stemming from the partition of India in 1947 linger, producing political sensitivities and a deficit of trust between states. Together with the large differences in geographic size and wealth, these issues have made substantial trans-boundary cooperation difficult to achieve. The challenges the region faces coordinating regional cooperative efforts, such as the 2015 Nepal Earthquake, highlight this continuing struggle.

Although SAARC's 1985 charter included the principles of "collective self-reliance," "active collaboration," and "mutual assistance," tangible efforts to apply these principles toward regional cooperation in disaster management only began following the 2004 Indian Ocean tsunami and the 2005 Pakistan earthquake (SAARC 1985). In 2005, SAARC developed a Comprehensive Framework on Disaster Management (SCFDM) in line with the International Hyogo Framework for Action (SAARC 2005). Since the adoption of the SCFDM, most countries in the region have passed or updated their disaster management legislation and have created national disaster management authorities (NDMAs). Currently, Pakistan, India, Maldives, Sri Lanka, Bangladesh and Afghanistan all have NDMAs or National Disaster Management Centers with accompanying National Disaster Acts. The government of Nepal, despite or perhaps because of the experience of the 2015 Earthquake still is struggling to streamline its complex disaster response architecture that flows from over a dozen different acts. This situation causes confusion, creates gaps, and cedes ownership to multiple government entities, further challenging policy implementation. Confidence among Nepal officials is high; however, that they will soon pass comprehensive legislation to replace their 1982 Natural Calamities Relief Act and other disaster response related laws (Teplitz 2017).

Three regional centers were formed to implement the framework. Among these was the New Delhi based SAARC Disaster Management Center (SDMC) inaugurated in October 2006. The others established in support of the framework were the SAARC Meteorological Center in Dhaka, Bangladesh, and the SAARC Coastal Management Center in Male, Maldives. To achieve cost efficiencies and to leverage India's disaster response capabilities and expertise to the benefit of other SAARC members, the SDMC operated on the premises of, and shared resources with, India's National Institute of Disaster Management (NIDM). The Director of the SMDC was also the Director of NIDM. Although conceived as a multi-national entity, the SDMC was largely unsuccessful in attracting seconded national experts into its workforce and therefore generally regarded as an extension of the Indian government's NIDM (White 2015).

The SDMC produced, and publicized, a variety of efforts and nominal successes. One such significant effort was producing ten guidelines or "Road Maps" on aspects of disaster risk management ranging from, "Mainstreaming Disaster Reduction in Development in South Asia" (2010), to "Drought Risk Management in South Asia" (SAARC Roadmaps 2012). As

well, SDMC developed the South Asia Disaster Knowledge Network (SADKN) to operate as an open platform and clearing house for information sharing on hazards, vulnerabilities, risks, and disasters. A network of networks, the SADKN is a regional portal that links National Portals maintained by the DM Focal Point entities in each member country. Training has also been a focal activity of the SDMC and though it does not create or conduct training activities itself, it has contracted with both technical and academic experts to conduct on average four to six training offerings a year. Topics for these span a wide range from geographic information systems (GIS) and remote sensing technology to incident command systems (ICS), and water resource management (SAARC Trainings 2017). Each of these products and efforts has provided incremental improvement to the region's overall capacity in disaster risk reduction (DRR); however, the gains have largely been focused on facilitating national capacity building and even in these, few practitioners at the state level, would acknowledge that the SDMC significantly impact their own day-to-day activities or planning (White 2015). Even less evident has been impact on the robustness of the capacity of SAARC members to coordinate response efforts transnationally.

To specifically address the challenge of transnational coordination and cooperation in disaster response, in 2008 SAARC announced that it would pursue a mechanism to enable member states to coordinate their approaches for disaster response assistance. In the wake of the devastating Pakistan floods of 2010, the SAARC Agreement on Rapid Response to Natural Disasters (SARRND) was signed by all member states in 2011. Significantly, although India ratified the agreement in 2012, India remains the only member country to do so. The SARRND promised the development of a Natural Disaster Rapid Response Mechanism (NDRRM). This mechanism, which was informed by the AADMER, outlines an expectation that member countries identify and nominate equipment, stores and capacities to be used for regional response efforts. These were to include specifically: emergency response and search and rescue; emergency stockpiles of emergency relief assets; and disaster management expertise and technologies (SAARC 2011). A feature of SARRDM was the promise of annual sub-regional disaster response exercises. The inaugural exercise held in 2015 has not been repeated and none are scheduled.

NDRRM expected to establish a Regional Emergency Operations Center (REOC) and planning included a SAARC delegation that visited Jakarta in Jan 2015 to learn how the AHA Centre became operational. The Nepal earthquake of 25 April 2015 however, cancelled plans to site the REOC in Kathmandu, and to this date, no published plan is in place to operationalize the REOC concept.

Even before the Nepal Earthquake of April 2015, SAARC members' experience with the limited influence of the SDMC diminished the cautious hopes they had for it at its inception. While SDMC had certainly produced some useful guidelines and conducted what seem like important technical disaster response training, it is evident that the Center lacked the requisite vision and political support of its members to fulfill its mandate. Rather than homing in on specific activities and seeing them through from start to finish, SAARC DMC dabbled in too many areas at once and devoted insufficient attention to defining what its comparative advantage was or should have been (White 2015). In response to these concerns, SAARC took the decision in November 2014 to consolidate disaster management related SAARC regionals centers. This led, in November 2016, to the merging under the SDMC of the SAARC Meteorological Center (Dhaka), the SAARC Forestry Center (Thimphu), and the SAARC Coastal Management Center (Male). SDMC itself separated from NIDM

and moved to India's westernmost state to co-locate with the Gujarat Institute of Disaster Management (GIDM) in May 2017. The impetus for this streamlining and relocation was to stimulate greater integration and alignment of programs and to invigorate regional support for the Center by detaching it from NIDM - and presumptive Indian government control. A SAARC *Blueprint 2016* outlined for the SDMC updated roles and functions that highlighted among its six roles and functions "Strengthen Regional Response Mechanisms… [to reduce impacts and aid] people affected by disasters." As well, the development of a "Regional Mechanism for Building Disaster Response and Recovery Capabilities" is one of five articulated programming pillars for the expanded role of the SDMC (DKI APCSS/RSIS, 2017).

Outside the SAARC framework, increasing DRR political buy-in is evident in India, which has hosted an increasing number of regional events as Prime Minister Narendra Modi puts an increasingly Asia-centric foreign policy on the country's agenda. Indications of this are evident in India's hosting of the 2nd ISDR Asian Partnership on Disaster Reduction (IAP) meeting of delegates in Nov 2015 and the forthcoming Asia Ministerial Conference on DRR (AMCDRR47) in New Delhi on 14-17 Nov 2017. India's interest and assertion of leadership in Asian DRR has not altered perceptions of other SAARC members concerning its inclination toward a hub-and-spoke sub-regional cooperation initiatives.

It is too early to assess anticipated improvements in coordination and integration that will flow from the consolidation of SAARC disaster management efforts over the past year. Previous slow progress should be viewed in the context of a sub-region where cooperative initiatives happen slowly. Irrespective of the difficulties, South Asian member states and the international donor community would like to see an effectively functioning SDMC, because the sub-region needs a trans-boundary approach to disaster management. Experience with scale and frequency of disasters in South Asia argues that the value of recent restructuring initiatives in enabling effective, coordinated response to such events will frequently be put to the test. Furthermore, both positive and negative lessons from ASEAN's collective response lessons should be examined for contextual utility in South Asia. Experience as well suggests that progress toward more efficient and reliable mechanisms for South Asia will continue to be a slow and uneven process and one that will constrain the capacity of regional countries to effectively render and receive aid in future crises in the region.

References

DKI APCSS/RSIS, 2017, "SAARC Disaster Management Center (SMDC)," Presentation to Workshop on Disaster Response Regional Architectures: Assessing Future Possibilities, Bangkok, Jul. 18-20.

SAARC, 2011, Agreement on Rapid Response to Natural Disasters, Male.

SAARC, 1985, SAARC Charter

SAARC, 2005, Comprehensive Framework on Disaster Management, New Delhi.

SDMC, 2012, Road Maps.

SDMC, 2017, Trainings

Teplitz A. B., 2017, "Setting the Standard," My Republica, Jan. 31, 2017.

UNISDR, 2015, "Disasters in Numbers," January 2016.

White S., 2015, *The role of SAARC in building the DRM capacities of South Asian Countries.* Washington, D.C: Brookings Institution.

24

Northeast Asia

Miemie Winn Byrd and Seongwon Han

Despite the existence of many serious obstacles for cooperation amongst the governments of Northeast Asia, it is ever more important for these states to come together to collectively address many of the emerging transnational non-traditional security challenges the region is facing today. The past several decades of increased economic relationship amongst these countries have not provided adequate incentives to break down the deep-rooted distrust with each other. To enable the region towards cooperation, it needs supplemental mechanisms for building trust and confidence among its members. Increased occurrence of catastrophic disasters in recent years such as the Fukushima Daiichi nuclear disaster triggered by the tsunami following the Tōhoku earthquake in 2011 have heightened the urgent need for regional cooperation. As such, disaster response and relief in Northeast Asia region have become a possible area to exercise regional cooperation.

Beginning in 2009, the governments of China, Japan and South Korea have been conducting trilateral ministerial meetings on disaster management bi-annually under the trilateral summit process. In 2011, a Trilateral Cooperation Secretariat (TCS), a permanent inter-governmental organization, was established in Seoul to promote continuous trilateral cooperation. The experience of the Fukushima Daiichi nuclear disaster also impelled the implementation of annual Trilateral Table Top Exercises (TTX) starting in 2013. Although in its embryonic stage, the emergence of the Northeast Asia Peace and Security Cooperation Initiative (NAPCI), catalyzed by South Korea and the Ulaanbaatar Dialogue on Northeast Asia Security (UB Dialogue) initiated by Mongolia since 2014 also demonstrated a positive move towards wider regional cooperation. Overall, the countries of the Northeast Asia region appeared to be making a concerted effort to develop a regional cooperation architecture to address collectively, pressing transnational security challenges they are facing today.

Barriers to Regional Cooperation

For decades, the Northeast Asia region has been mostly known for its members' geopolitical strategic calculations and gaming above all other issues. Governments from this region periodically have resorted to exaggeration of threats and conflicts with the neighbors and stirring up historical grievances with one another to maintain and garner domestic support for the ruling regime. Continued reference to history and memory of territorial disputes, military incursions and political tensions have impeded the member states' ability to develop trustworthy relationships for construction of collaborative and cohesive regionalism similar to that of ASEAN in Southeast Asia region today. While China's rise and its activities in the South China Sea generate much anxiety for the countries within the region, Japan and South Korea are unable to move beyond their historical grievances, despite a growing economic relationship. Added to all of this is the tension (unfinished war) between North and South Koreas. Therefore, it is not surprising that all of these conditions combined have created almost insurmountable barriers to building trust with each other in the Northeast Asia region for the past several decades.

> *"The region's frozen conflicts create acute competitive security dynamics that tend to dominate all else. In such an environment, the risk of conflict is high, and all players have strong incentives to demonstrate strength and resolve. Northeast Asia more closely resembles a realist security environment—in the classical, structural, and neoclassical sense—than perhaps any other sub-region in the world. It therefore comes as little surprise that Northeast Asia is bereft of institutions or regimes to manage regional cooperation…" (Jackson, 2015)*

A Framework for Regional Cooperation

Despite the existence of many obstacles for cooperation amongst the governments of Northeast Asia, it is important for these states to come together to address collectively the emerging transnational non-traditional security challenges faced by the region today. Although Mongolia, North Korea, Russia and Taiwan have stakes in this region, the key to building cooperation and regionalism lies in three core parties: China, Japan and South Korea. The barriers for cooperation are also the strongest amongst these three players. If these parties are able to come together, an effort could be made to include others over time. Three vital elements: necessity, inclusivity and habits of dialogue, are needed for transnational cooperation (Dewitt & Acharya, 1994). ASEAN cooperation is an example that illustrates Dewitt and Acharya's cooperation framework and it may be appropriately applied to Northeast Asia.

Necessity

The ASEAN regional organization was created exactly 50 years ago in August 1967. Four out of five founding members (Indonesia, Malaysia, Philippines, Singapore, and Thailand) were in active conflict with their neighbors at the time of the ASEAN inception. Most had little trust in their neighbors due to historical animosities and rivalries. However, the newly independent nations realized that they had to come together as a collective group to withstand interferences from external powers. They learned from history that a divided Southeast Asia region was vulnerable to interference from extra-regional power that threatened the nations' hard-won sovereignty and autonomy. Therefore, the ASEAN organization was established to achieve the main goal "to promote regional cooperation contributing toward peace, progress, and prosperity while being determined to ensure the members' stability free from external interference" (Weatherbee, 2009).

Inclusivity

The ASEAN organization has been the epitome of inclusivity. Today's centrality of ASEAN within the emerging regional cooperation architecture is a testament to the inclusive nature of ASEAN. In addition to ten core members of ASEAN, creation of the ASEAN Plus processes has enabled extra-regional states to be included in the dialogues for additional confidence building measures, to build trust among the communities of nations that have interests in the wider Indo-Asia-Pacific region. ASEAN's exercise of open regionalism shaped the establishment of the ASEAN Regional Forum (ARF) to "foster constructive dialogue and consultation on political and security issues of common interest and concern

and to make significant contributions towards confidence-building efforts and preventive diplomacy in the Indo-Asia-Pacific region" (ARF, 1994).

Habits of Dialogues

ASEAN's most defining feature – myriads of regularized and periodic summits, forums, meetings and dialogues - has created habits of dialogue for its members and many partners. The summits, forums, meetings and dialogues have served as confidence building measures and contributed towards building trust with each other.

Disasters Create a Need for Cooperation – Case for Necessity

Disaster response and relief in Northeast Asia region have become a possible area to exercise regional cooperation. Beginning in 2009, the governments of China, Japan and South Korea have been conducting trilateral ministerial meetings on Disaster Management bi-annually under the trilateral summit process. The trilateral joint statement in 2009 explicitly acknowledged the necessity for trilateral cooperation in the following passage:

> *"The three countries have always been under threats of natural disasters such as earthquakes, typhoons, floods and sediment related disasters. Moreover, the risk is expected to rise concerning water related disasters including typhoons, floods and sediment related disasters due to climate change as the result of global warming. However, we are convinced that the three countries have accumulated invaluable expertise to prevent and overcome the damages in the future. In the meeting today, we confirmed the necessity for the three countries to make continued efforts and to strengthen trilateral cooperation on disaster management"*
> *(Seiji, Pingfei, & Park, 2009).*

Each of the countries has taken turns hosting and serving as the chair for each of the meeting since its inception. Under this process, the three parties have held four successful and productive trilateral meetings on disaster management cooperation and China is scheduled to host the fifth meeting in 2017. The need for regional cooperation became even more evident and urgent after Japan's Fukushima Daiichi nuclear disaster triggered by the tsunami following the Tōhoku earthquake on 11 March 2011. The Fukushima Daiichi nuclear disaster underscored the glaring gaps for effective international and regional cooperation in time of catastrophic disaster within the region. The disaster response process revealed gaps in legal arrangements and partner agreements, human resources capacity and interoperability of equipment among the countries (Yoshitomi, 2017).

The experience of the Fukushima Daiichi nuclear disaster impelled the implementation of a Trilateral TTX in 2013 to start to close these gaps. Since then, the TTX has become an annual trilateral activity, creating an additional mechanism in the process of developing habits of dialogue amongst the three parties. The 2015 Trilateral Joint Statement on Disaster Management Cooperation explicitly stated:

> *"Recognizing the three countries are experiencing more frequent and catastrophic natural disasters such as earthquakes and typhoons, we reconfirmed the importance and significance of trilateral cooperation on disaster management, due to our geographical proximity."*
> *(Japan Minister of State for Disaster Management, 2015)*

Starting 2015, Mongolia, Russia and the United States as well as international organizations such as the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), United Nations Development Programme (UNDP), and the International Federation of the Red Cross (IFRC) have participated in the TTX as observers.

Increased Cooperation – Creating Habits of Dialogue

One of the most astounding outcomes has been the establishment of a permanent inter-governmental organization, TCS, in Seoul in 2011. This was an historical and unprecedented move by the governments of China, Japan and South Korea to commit to an establishment of such an inter-governmental organization.

> *"The objective of the Secretariat is to contribute to the further promotion of cooperative relations among the three countries by providing support for the operation and management of the trilateral consultative mechanisms among the Parties and by facilitating the exploration and implementation of cooperative projects."*
> *(TCS Secretariat, 2011)*

The establishment of the TCS is significant because it was established despite existing conflicts in the region. It also sent a message for future-oriented relationship of peace and mutual benefits (Shin 2014). This development could be viewed as a tangible shift towards the goal of regionalism and regional cooperation. The TCS has been credited for successfully facilitating the annual TTXs for joint disaster response and relief. The annual TTX program has been touted as the most concrete indicator for successful cooperation since the establishment of the TCS. With the support of the TCS, the parties are encouraged that they can make significant progress in the future of disaster management cooperation in the region.

In the 2015 Trilateral Joint Statement on Disaster Management Cooperation, the members explicitly pledged to cooperate on sharing information, experiences and technology associated with disaster management; to conduct joint education and training activities; and to implement the Sendai Framework for Disaster Risk Reduction (SFDRR) 2015 to 2030 within their respective countries. The members planned to utilize existing education and training institutes such as the Asian Disaster Reduction Center (ADRC) in Japan, the National Disaster Reduction Center of China (NDRCC) and the Global Education Training Institute (GETI) in Republic of Korea to achieve its goals (Japan (Japan Minister of State for Disaster Management, 2015).

Need for Inclusive Cooperation – Emergence of Wider Inclusivity

Although the region has made a good progress through trilateral cooperation to facilitate joint disaster management among the three core countries, there is currently no other mechanism (similar to that of the AHA Centre) dedicated to promotion and coordination of regional disaster management in the wider Northeast Asia. The AHA Centre serves as the regional hub for disaster monitoring and analysis, preparedness, response, and technical and scientific cooperation. However, there are signs of awakening for general regional cooperation. As such, 2014 was a remarkable year for Northeast Asia regional cooperation as South Korea and Mongolia independently introduced two cooperation mechanisms: the NAPCI and the UB Dialogue. These developments are encouraging, despite their embryonic stage and future uncertainty.

The NAPCI

The introduction of the NAPCI by South Korea in 2014 sends a positive signal despite its uncertain future. Since this initiative was the brainchild of Park Geun-hye, the former President of the Republic of Korea, her departure from office does not bode well for the continuation and sustainability of this initiative. At first glance, the NAPCI appeared to resemble the ASEAN Regional Forum (ARF) model from Southeast Asia. According to the Center for Strategic and International Studies (CSIS), "NAPCI would create a mutually beneficial synergy effect with trilateral cooperation among China, Japan and Korea, the Six Party Talks, the ARF and East Asia Summit (EAS). NAPCI will be a companion, not a contender, to present bilateral and multilateral efforts" (CSIS, 2016). It has the potential to become a systematic means of cooperatively addressing "low level" issues – the containment of pandemic diseases such as avian influenza and Severe Acute Respiratory Syndrome (SARS), cybersecurity, and disaster management (Jackson, 2015). Since its inception in 2014, the Initiative has been able to prompt and host three meetings. These forums provide opportunities for distinguished groups of policy makers, opinion leaders and experts across the Northeast Asia region to dialogue actively and discuss critical security issues to generate ideas for facilitating regional cooperation (Kim 2015).

UB Dialogue

The UB Dialogue is the Mongolia twin to the South Korea's NAPCI and both arose in 2014. It aims to "chip away at distrust among Northeast Asian countries and increase collaboration and cooperation through multi-layered activities, including mutually reinforcing Track 1, 1.5 and 2 gatherings" (Caprara et al, 2015). The UB Dialogue instituted by Tsakhiagiin Elbegdorj, the President of Mongolia, was much more successful in obtaining positive feedback from North Korea, in contrast to its negative reaction to the NAPCI. "The UB Dialogue most likely represents an easier path to increasing inter-Korean trust than bilateral efforts and even easier than the NAPCI" (Caprara et al, 2015). Therefore, it has the potential to serve as a complementary forum to NAPCI by attracting North Korea's participation and a reinforcing instrument for other regional cooperation mechanisms. Since its establishment in 2014, it has organized four dialogue events with various thematic focuses.

Optimism for the Future of Regional Cooperation in Northeast Asia

The instigation of the NAPCI initiative and the UB Dialogue with the sprouting of on-going successful trilateral summits and meetings clearly indicate that the Northeast Asia region has increased recognition of the necessity for regional cooperation and its benefits. As the frequency, intensity and complexity of natural disasters increase with global warming and climate change impacts, the region must be able to come together to withstand nature's borderless fury. Overall, the countries of this region appear to be making a concerted effort to develop a regional cooperation architecture to address collectively, pressing transnational security challenges they are facing today and tomorrow.

References

ARF, 1994, "About the ASEAN Regional Forum." ARF Website, July 25.

Byrd, M. W, 2017, Interview with Professor Yoshitomi, July.

Caprara, D. L., Moon, K. H., & Park, P., 2015, "Mongolia Potential Mediator between the Koreas and Proponent of Peace in Northeast Asia," Brookings East Asia Commentary. Washington, D.C: Brookings Institution

CSIS, 2016, Northeast Asia Peace and Cooperation Forum, Hawaii: CSIS, October 5.

Dewitt, D. B., & Acharya, A., 1994, "Cooperative Security and Developmental Assistance: The Relationship between Security and Development with Reference to Eastern Asia," Eastern Asian Policy Papers No. 16, Toronto: University of Toronto-York University Joint Center for Asia Pacific Studies.

Jackson, V., 2015, "Can South Korea fix Northeast Asia's cooperation deficit?" The Diplomat, September.

Japan Minister of State for Disaster Management, China Vice Minister of Civil Affairs, South Korea Vice Minister of Public Safety and Security, 2015, Trilateral Joint Statement on Disaster Management Cooperation. Tokyo: Government of Japan.

Kim, H., 2015, "Northeast Asia, Trust and NAPCI," The Diplomat, December.

Seiji, M., Pingfei, L., & Park, Y.-S., 2009, Trilateral Joint Statement on Disaster Management Cooperation. Kobe City: Government of Japan.

Shin, B.-k., 2014,. "Trilateral Cooperation Secretariat (TCS) of China, Japan and the ROK," Open Forum, Seoul: The Asan Forum, October.

TCS Secretariat, T. C., 2011, Trilateral Cooperation Library. Seoul: TCS-Asia

Weatherbee, D. E.,2009, International Relations in Southeast Asia: The Struggle for Autonomy, New York: Toemsn & Littlefield Publishers, Inc.

30

Oceania

Oiroa Kaihau and Deon V. Canyon

Oceania is notable for having the lowest population of all global regions while having the largest area. There has been a steady increase in the number of weather-related disasters in the region since 1999 and Pacific Island countries and territories (PICTs) on major fault lines, such as Vanuatu, Tonga, Papua New Guinea, Solomon Islands and Timor Leste, experience earthquakes and tsunamis at a higher frequency (EM-DAT 2017). Climate and disaster risks exacerbate the human, social, economic, cultural and environmental vulnerabilities to which PICTs are already exposed due to their small size, their geographical specificities and isolation. The United Nations identifies PICTs as Small Island Developing States (SIDS) and the heterogeneous nature of their inhabitants requires acknowledgement by foreign assisting countries and agencies (SPC 2015).

A large number of actors contributes both formally and informally in addressing disaster risk reduction and resilience against climate change. Many of these actors work in a cooperative manner as they connect through inter-governmental frameworks such as the Secretariat of the , the Secretariat of the Pacific Community (SPC) and the Secretariat of the Pacific Regional Environment Programme. The regional agencies improve coordination and integration while achieving synergy with varying degrees of success.

In addition to PICT institutions, there is the FRANZ agreement, a trilateral framework in which France, Australia and NZ have agreed to coordinate a combined response on request from affected countries, through the chair of the group (GoNZ 2014). These countries have considerable capacity and resources and are capable of conducting a national response on short notice. Such agreements have both advantages and disadvantages to the arrangement. This agreement does not rely on standard operating procedures or other protocols, which provides considerable flexibility to affected and assisting nations, while leaving the opportunity open for other foreign powers to provide assistance. In the case of Micronesia, the Marshall Islands, North Mariana Islands and Palau, the Federal Emergency Management Agency (FEMA), a domestic disaster response institution in the US, provides direct assistance.

Despite the challenges of working across borders and integrating a diverse range of actors, disaster response capacity is increasing and progress is enhancing disaster management practice. The considerable number of training and exercise initiatives undertaken across the region are driven by the need to prepare for regularly occurring natural disasters and the need to become more resilient against the growing effects of climate change. Given the ongoing specialist nature of disaster risk management and the competence expected of staff charged with specific roles and functions, it is important that disaster responders and managers receive the right professional development. There is an opportunity to professionalize the humanitarian occupation and inject civil-military cooperation into the curriculum (Walker et al 2016). No system functions well without the right mix of technical bureaucrats and practitioners working with good leadership.

The recent publication of the inter-government framework for the region is a watershed mark in terms of strengthening resilient development practices (PIF 2017). It supersedes

previous frameworks that dealt separately with disaster risk management and climate change. The new iteration combines these elements to provide a non-binding, disaster response architecture for the entire region.

The following features stand out in this new framework:

- The Pacific framework dovetails into a number of global frameworks that include sustainable development, climate change agreements (UN Framework Convention of Climate Change), the Sendai Framework for Disaster Risk Reduction 2015-2030, and the Small Islands Developing States Accelerated modalities of action pathway.
- PICTs are provided with strategic guidance to enable coherence to higher goals and objectives in a cascading fashion.
- The framework demonstrates unity of concern for the uniqueness of region in terms of the real challenges it faces.
- It enables the freedom for individual PICTs to determine their own priorities with respect to disaster risk management and climate change with partners, donors and international organizations.
- It empowers communities to develop their own smart and sustainable initiatives

The framework provides structures to guide how implementation is undertaken, and its success is dependent on a number of factors that include the need for:

- All actors to continuously buy in and make commitments to the goals stated, noting of course that the framework is guidance only and is nonbinding.
- Good leadership practices across the entire spectrum regardless of level of engagement, because this creates and sustains momentum and commitment.
- A shared understanding, identified needs and cooperative work alongside multiple stakeholders to engender higher levels of trust and confidence (Comfort 2007).
- People to possess technical expertise in the roles and functions they perform.

Disaster risk management is a human endeavor and the lack of effective communication networks, structures and processes makes the task almost impossible. Furthermore, it is not always possible to have the right people with the right skills in the right place at the right time. Limitations in resourcing, training inconsistencies, availability of education and ability to retain staff all impact on human resources (Connors and Ayobi 2016). To make matters more complicated in the Pacific, disconnects exist across research, practice and capacity building providers, which limit opportunities for partnerships, sharing of resources and coordination of capacity building programs.

On a positive note, the Compendium of Case Studies is a testimony to the level of commitment and engagement occurring in the region focused on developing preparedness and resilience strategies to account for the possibility of future disaster and climate change adaptation (SPC 2015). A number of features within the case studies standout and many attempt to address some of the challenges mentioned earlier. These include but are not limited to:

- A greater insistence to take a whole of society approach to disaster risk management and climate change where the perspectives and needs of women, children, the disabled and elderly have now been better incorporated into plans, engagement strategy and resilience development.
- Communities are taking ownership of their own livelihood and well-being through empowerment where bottom up initiatives are being resourced to make large differences in the potential for communities to withstand future shocks.
- Traditional practices are being revisited and reinvigorated where appropriate.
- Embracing technological solutions to reduce carbon emissions was common while there were signs others were seeking to reduce an over-reliance on niche but highly skilled people to make solutions more affordable and sustainable.
- Simulating and testing disaster response plans to identify gaps and vulnerabilities while giving confidence to communities is becoming an increasing practice.
- Making honest attempts to strengthen leadership capacity, technical expertise among officials and better develop communication structures was a key enabler across many initiatives.

Empowering communities by supporting and reinvigorating traditional resilience practices must be actively encouraged given that the need to cope with disasters is not a recent phenomenon. Indigenous communities in the Pacific have been living with disasters since their establishment and all have developed resilience behaviors, processes and practices that promote survival during disasters. There is a strong need to exploit these where appropriate and couple them to community and regional governance structures that already exist (Fletcher et al 2013).

In conclusion, the disaster-related challenges facing the region are undeniable and with the effects of climate change, they will continue to grow and pose a greater burden to the limited resources that exist within the region. PIF's development of the pacific resilience development framework is a positive step forward as it represents a unified voice of concern on major security challenges, while balancing the essentials of sovereignty and self-determination. However, more needs to be done in smarter ways to ensure that attitudes and practices are internalized (Hollis 2017).

The Compendium of Case Studies demonstrates the diversity of needs that will strengthen practice, institutions, leadership, governance and inclusivity at all levels. More importantly, there are plenty ideas worthy of pursuit that address PICT development and resilience needs, which will continue to outstrip available internal and external resources. PICTs currently present their cases individually to assisting foreign nations. Without a regional assistance model in place, this competition for scarce resources has the potential to be piecemeal and undermine a more holistic and synergistic approach. Furthermore, a regional disaster agency would prioritize and scrutinize submissions, and select sustainable low-tech, low-cost, low-logistics options that provided the best outcomes to the greatest number of people for the level of investment.

References

Comfort, L.K, 2007, "Crisis management in hindsight: cognition, communication, coordination, and control," Public Administration Review, 67,189-197.

Connors P, Ayobi Y., 2013, Humanitarian & Disaster Management Capacity Development in the Pacific, Burwood, Australia: Center for Humanitarian Leadership.

Fletcher SM, Thiessen J, Gero A, Rumsey M, Kuruppu N, and J. Willetts, 2013, "Traditional coping strategies and disaster response: examples from the South Pacific region," Journal of Environmental and Public Health.

GoNZ., 2014, FRANZ Arrangement Booklet, Wellington: MFAT New Zealand Government.

Hollis S., 2017, "Localized development gaps in global governance: the case of disaster risk reduction in Oceania," Global Governance, 23,1,121-139.

PIF., 2017, Framework for Resilient Development in the Pacific: An integrated approach to address climate change and disaster risk management 2017-2030. Fiji: Secretariat of the Pacific Islands Forum, Fiji.

SPC., 2015, Compendium of case studies on climate and disaster resilient development in the Pacific, Noumea, New Caledonia: Secretariat of Pacific Communities.

Walker P., Hein K., Russ C., Bertleff , G., and D. Caspersz D., 2016, "A blueprint for professionalizing humanitarian assistance," Health Affairs,35,6, 2223-2230.

34

Insights on Response Architectures Development

Jessica Ear

As the most disaster prone region of the world, the Indo-Asia-Pacific region cannot afford to be ineffective and inefficient in its regional management of disasters. While the sub-regions of Southeast Asia, Northeast Asia, South Asia and Oceania have separately evolved and are at differing disaster response developmental stages, all four sub-regions share common thematic issues, trends and challenges for improved response cooperation. Constrained by financial and human resources, varying degrees of political leadership and will, and unequal national capacities, all sub-regions face a future complex humanitarian landscape with a proliferation of actors and response mechanisms, and are thus challenged to find innovative ways to address common and contextually driven solutions. The evolving humanitarian landscape's increasing complexities challenge states and organizations to seek new ways to elevate national and regional response capabilities throughout the region.

Integration and National Capacity Building

Among the four sub-regions, Southeast Asia is considered the most advanced in regional disaster management cooperation. Over the last five years, the centrality of the AHA Centre enabled clear political will and leadership with a more focused approach towards collective disaster management in the region. Last year's One ASEAN, One Response Declaration made widely acceptable the AHA Centre's operational capacity to respond to in-region disasters. Coupled with the newly proposed stand-by the ASEAN Military Ready Group (AMRG) for operational development this year, ASEAN is demonstrating greater regional solidarity and progress towards greater self-reliance. International partners and donors welcome and support these developments that signal strong ASEAN self-determination and empowerment. However, the emergence of sectoral and other response-focused efforts such as the ASEAN Center for Military Medicine and the Changi Regional HADR Coordination Center raises synchronicity questions and highlights the need to complement the existing regional response framework. Bridging the emerging sectoral approaches, whether originating from member states or external actors, will prove to be a challenging responsibility for ASEAN and its AHA Centre. In addition to advancing the One ASEAN, One Response capability, the AHA Centre also benefits from its efforts to integrate new contributions and independently developed mechanisms to serve the overall Southeast Asia response regional architecture.

Although the ASEAN Vision 2025 on Disaster Management recognizes other priority needs beyond collective response, actionable steps to enable collaboration and implement efforts to minimize member states' capacity gaps are required. Currently however, the thinly stretched AHA Centre human and resource bandwidth cannot accommodate simultaneous promotion of operational response capability with significant progress in other areas of capacity development. Without concrete plans to achieve these other important goals and until AHA Centre addresses its bandwidth limitations, a primary push to operationalize a collective response will serve to monopolize resources to the disadvantage of other priority areas. Potential partnership links will be under-developed, facilitating a multi-stakeholder

contributing environment, and plans for a people-centered approach via non-governmental networks will develop slowly.

Prioritize by Resource Optimization

Similarly in part, South Asia disaster management activities, as observed through SAARC and its DMC, are also slow to progress regional cooperation. The region, with lingering political sensitivities, varying states' population sizes, and consensus requirement for collective authority to respond within the SAARC regional architecture received criticism of passiveness and inactivity during mega disasters such as the Nepal Earthquake. Currently, SAARC does not have legal agreement or capacity to respond in a disaster. Therefore, individual states such as India have bilaterally responded to assist Nepal during the recent earthquakes. While some consider the lack of collective response and organizational inability to act as a shortfall to the regional cooperation architecture, SAARC has made progress in the realm of risk reduction. Proactive efforts to increase effectiveness of the SAARC DMC response capability will boost South Asia's regional cooperation but the organization's support to increase national capacities should not be underestimated. Given the region and SAARC's limitations, gains in national capability building and response preparations may prove be a more efficient approach to resource management when compared to the high cost required for collective regional response capabilities. It is widely accepted that response operations are expensive endeavors and more lives and cost savings occur during the pre-disaster mitigation and preparedness stages in the disaster management cycle.

As SAARC's DMC efforts looks to the ASEAN example to advance their regional response framework, the questions of resource efficiencies and life-saving effectiveness should drive future regional response developments. For South Asia, addressing issues of leadership centrality through integration of disaster centers and limiting mediocrity of focus via prioritized areas of efforts contribute to a more deliberate and strategic approach for greater disaster regional cooperation. Challenged by the need for consensus to act, lack of human and financial resources and disparate leadership and regional will, South Asia's main stay to promote greater disaster response may remain in the pre-disaster and response preparedness phases. ASEAN's achievements in Southeast Asia may not be appropriate to replicate in the South Asia region due to its differing regional dynamic, history and context. While improvements in centrality of effort and authority can help streamline effectiveness, program emphasis on preparedness and response should not be in competition to prove or measure regional organizational success, abilities or effectiveness.

Progress towards Greater Regional Cooperation

In Northeast Asia, despite the existence of many serious obstacles for cooperation amongst the governments in the region, the nations are increasingly recognizing the importance of addressing many of their current and emerging transnational non-traditional security challenges collectively. Through the year, the increased economic relationship amongst these countries has fallen short in building trust within the region, despite recognition that trust and confidence building are principle requirements for sustainable regional cooperation. However, the more frequent occurrences of catastrophic disasters such as the 2011 Tōhoku Earthquake, tsunami and the Daiichi Fukushima nuclear meltdown, have heightened the

urgent need for increased regional disaster response cooperation. As such, disaster response and relief in Northeast Asia region have become an optimal area to exercise regional cooperation.

From China, Japan and South Korea conducting trilateral ministerial meetings on disaster management under the trilateral summit process that began in 2009 to the TCS, a permanent inter-governmental organization established in 2011 to promote continuous trilateral cooperation, the region is moving towards greater disaster response cooperation, to include annual Trilateral TTX. The emergence of the NAPCI and the UB Dialogue also demonstrated a positive move towards wider regional cooperation to include disaster management and response. Although still lacking a regional organization or body to centralize these efforts, the countries of Northeast Asia appear to be making a concerted effort to develop a regional cooperation architecture to address current and future transnational security challenges collectively, to include disaster management.

Policy and Other Considerations

Compared to other sub-regions, Oceania is still in early maturation with regard to a robust disaster management regional architecture. While organizations exist to promote greater regional cooperation in Oceania, much like Southeast Asia the challenge again is integrating collaboration among the existing bodies to avoid duplication of responsibilities and oversight. Oceania has achieved varying degrees of success in this endeavor. Additionally, in the realm of disaster response, the FRANZ agreement has been in effect for France, Australia and New Zealand to offer response assistance to nations in disaster need. Therefore, Oceania, unlike Northeast Asia, is not devoid of a regional framework for disaster relief and cooperation.

Much like the other sub-regions, Oceania shares the common challenges of limited financial and human resource, political will and leadership as translated into continuous commitments or buy-ins of the island states to a common regional disaster management approach. Unique to Oceania however, is the challenges of geographical distances and perhaps most differing of all are environmental threats such as climate change and sea level rise that exacerbate disaster and humanitarian needs in the future. Recent signing of the inter-governmental Pacific framework is a positive achievement and dovetails into many other global frameworks to incorporate climate change and environment impacts as part of the disaster management landscape. The Pacific framework provides common guidelines to address strategic direction and unity of concerns but also offers each state the freedom to determine its own disaster management priorities and approaches to empowering its indigenous communities. The trend in Oceania is to localize disaster management for the communities to increase ownership and culturally appropriate solutions and approaches. However future successful developments of the Pacific Framework hinge on good leadership practices, shared understanding, the connection between capacity building, practice and research and development of technical expertise. Analogous to the other sub-regional challenges, it is not always a problem of lack of resources, but it is often an issue of how the region manages these limited resources.

The Indo-Asia Pacific region is as diverse as it is similar. Geographical, political, economic, cultural and historical contexts present complex and challenging landscapes from which regional disaster response cooperation occur. Issues, trends and challenges as experienced individually or commonly shared should be assessed in the context of each region's dynamic to be appropriately prioritized and addressed. Whether each sub-region's architecture develops in parts or in whole however, states and organizations should aim to measure cooperation impact by the number of saved lives before, during and in the aftermath of disasters.

SECTION 2: CASE STUDIES OF COORDINATION AND COOPERATION: BEST PRACTICES AND OPPORTUNITIES

Although each sub-region shares similar and regionally unique trends, issues and challenges, best practices and opportunities are commonly and contextually diverse per each sub-regions as well. Therefore, workshop participants collectively discussed best practices that befit all regions for greater preparedness and response capacity. They also noted caveats for each sub-region, as illustrated by case studies of nations providing and receiving disaster humanitarian aid and assistance. The Philippines case of Haiyan and the Nepal Earthquake emphasized that important best practices were under-utilized opportunities for greater collaboration among recipient nations, whereas the Japan case study highlighted the dual capacity or perspectives for a provider and a recipient nation to benefit mutually from any improvements and leveraging. Lastly, the Fijian Hurricane Winston case study illustrated areas for cultural, sectoral and contextual understanding to better facilitate responses.

Among findings particular to these case studies, there is a recognition among disaster management participants that building strong capabilities in information and knowledge sharing, promotion of best practices and models, and transparent and exercised policies, plans and system remain the foundation for effective capacity building. These initiatives contribute to resilient and accessible frameworks at the national and regional level from which to promote capacity development. Strong and adaptable frameworks enable new innovative approaches such as technology use, non-traditional partnership and demographic contributions to be included for greater resources and capabilities gains overall. Section 2 examines these case studies in detail and concludes with a summary and analysis of current best practices and future opportunities as identified by our workshop participants.

Philippines Typhoons Haiyan and Hagupit

Lloyd Puckett

The Republic of the Philippines is one of the most disaster prone countries in the world. Natural disaster threats include torrential rains, typhoons, flooding, landslides volcanic eruptions, earthquakes and droughts. Additionally, man-made events such as industrial emergencies and human induced conflicts represent an ever-present vulnerability (Padilla, 2017). On November 6, 2013, Typhoon Haiyan (known locally as Yolanda) became one of the strongest storms on record to make landfall. It included winds up to 200 MPH and gusts up to 225 MPH. The typhoon overwhelmed regional capacity and affected nine out of the 17 regions in the Philippines. In its wake, Haiyan left over 6000 fatalities, 28,000 injured and over four million displaced (Carroll, et. al, 2015).

The Philippine National Disaster Risk Reduction and Management Council (NDRRMC), which serves as the National Disaster Management Agency for the Philippines, led the response and recovery effort. Located at the Armed Forces of the Philippines (AFP) military headquarters at Camp Aguinaldo, the NDRRMC hosts the MNCC. The MNCC's purpose is to provide common situational awareness between the AFP and assisting foreign militaries, and facilitates overall military support among assisting states (Carroll, et. al 2015). The Secretary of the Department of National Defense (DND) chairs the NDRRMC while the DND Office of Civil Defense administrator serves as executive director (Bueza, 2013).

Lessons Learned

After the humanitarian response phase concluded, there were many reflections for improved operation response and recovery in the future. Overall, the multi-level response was disjointed as the influx of arrival teams overwhelmed airport authorities with the various coordination bodies creating confusion. Delays in setting up the MNCC negatively affected multilateral actions on the ground. There were multiple logistics challenges during the Haiyan response therefore a coordination cell within the MNCC was needed to synchronize operations. This coordination need further highlighted the evolving role of the military in HADR. Militaries' unique capabilities can complement efforts conducted by the humanitarian community; therefore, it is essential to strengthen knowledge and understanding of civil-military coordination concepts, principles and applicable guidelines in future operations. While the MNCC was effective, civil-military relationships could be enhanced by institutionalizing a broader coordination mechanism to further improve bilateral and multilateral cooperation, standard operating procedures (SOPs) and agreements.

For effective disaster responses, emergency preparedness and resource mobilization and coordination are essential components. The timely declaration of the state of calamity enhances multi-national responses. Therefore, it is incumbent on local leaders to provide accurate, timely, relevant and understandable public warnings. In turn, the local population must understand how to put this knowledge into action. Preparations for disasters should be on worst-case assumptions to include the possibility that responders are also victims (Padilla, 2017). Additionally, when considering the different agencies inside government, the use of centralized planning and decentralized execution approach where localized

centers facilitated coordination in a hub and spoke fashion was effective. The primary hub was at Villamor Air base, Manila. Civil-military coordination efforts primarily focused on airlifting supplies to affected areas for onward distribution. The hub and spoke system avoided burdening affected areas in the Visayas region with internal logistics needs and provided for humanitarian space to operate in these locations (Carroll, et. al, 2015).

During Haiyan, the lack of a common operating framework and agreement on assessment resulted in duplication of efforts and hindered optimum civilian use of defense assets. Complicating matters, there was also a lack of common standards, procedures, principles and terminologies to enable efficient and effective coordination. Although an ICS was used during Haiyan, an assessment of how ICS can best complement existing response structures needs to be made (Padilla, 2017). The experience of providing humanitarian assistance in the wake of Typhoon Haiyan demonstrated several areas in need of attention, policy design and execution by government and non-government agencies providing relief.

Best Practices

One year after Typhoon Haiyan, the Republic of Philippines experienced Typhoon Hagupit (known locally as Typhoon Ruby) in December 2014. The response to Typhoon Hagupit saw and put into practice the lessons learned and newly designed benchmarks from the Haiyan response. Furthermore, preventive measures implemented during the one-year period between the two super typhoons made positive impacts. This section documents these best practices. A commonly understood "end-to-end warning system" prepared the Republic of Philippines for incoming crisis. The storm surge warnings combined with accounting for the variability of coastal landscape accurately estimated the extent of Hagupit's flood zone. Additionally, hazard warnings came with their corresponding information of potential impacts on the ground. The early warning system with impact information for Typhoon Hagupit allowed for suitable preparation when the storm hit the islands. As in past operations, both state and non-state actors provided humanitarian assistance in the aftermath of the disaster impact, which brought its own set of challenges. When closely coordinated with the government, the private sector can multiply a nation's surge capacity to meet the life-saving needs of the affected population. The dual use of business assets provided an underlying capability for response surges and augmented disaster relief capabilities without significant capital expenditures (Banatin, et. al, 2015). Typhoon Hagupit's operation demonstrated the effective engagement of the private sector in relief and response with adequate oversight by the government.

Further to these best practices, work began on the design of the Philippine International Humanitarian Assistance Guidelines (PIHAG), which established a coordination mechanism with insight into what was required from international responders in a response. Early acceptance and request for international assistance by affected states allows assisting states the necessary time to determine and match the needed capacities in the affected areas. The use of the PIHAG facilitated effective coordination mechanisms, and the Philippine International Humanitarian Assistance Reception Center (PIHAC, also known as the "one-stop shop") effectively processed incoming relief agencies' contributions and support. Bilateral commitments executed multilaterally on the ground through the MNCC also promoted optimal use of foreign defense assets. The deployment of military liaison officers trained in civil-military coordination (CMCoord) further enhanced response efforts. This success

further highlighted that joint CMCoord training of humanitarians and military personnel is essential (Padilla, 2017) to any joint response operations.

In addition to the aforementioned best practices, civil-military coordination is enhanced when there is multilateral cooperation across a range of factors. Firstly, gaining consensus in the operating environment paves the way for unity of effort. Secondly, an inclusive multi-sectoral approach streamlines dissimilar efforts on emergency response preparedness. Thirdly, a convergence in concepts, frameworks, protocols, and procedures maintains clear distinction of responsibilities and national sovereignty. Lastly, institutionalized internal and external partnerships augment a country's underlying ability to surge (ASEAN Joint Disaster Response Plan, 2016). These four thematic areas offer a best practice checklist to assist in delivering a more effective humanitarian response in the future.

Conclusion and Way Ahead

The lessons learned and best practices developed from the experience of Typhoon Haiyan and as implemented in Typhoon Hagupit formed the foundation for improved responses in future disasters. Specifically, these lessons can aid planning for what many deem to be the worst-case scenario, a 7.2M earthquake in Metro manila. Experts estimate that there could be as many as 37,000 fatalities and 140,000 injuries with total economic losses of 2.5 trillion Philippine Pesos (US$52 Billion) should such an earthquake occur (ASEAN Joint Disaster Response Plan, 2016). The impacts to food, economic, and regional security would be devastating. This worst-case scenario offers another example where multilateral cooperation is essential to response and recover. It is therefore also important to consider these types of disaster scenarios as part of emergency preparedness training and exercises in the region. Since the humanitarian response to Typhoon Haiyan, the Republic of Philippines has undergone significant policy changes in preparation for future disasters, which were put into practice during the humanitarian response to Typhoon Hagupit. While the Philippine International Humanitarian Assistance Guidelines takes root in the country, it is important for other countries across the region to take stock of these lessons learned and best practices to invest time and financial resources in developing similar guidelines contextualized to their local contexts. This in turn will generate momentum for regional standard setting when it comes to disaster response in the years ahead.

References

ASEAN, 2016, Joint Disaster Response Plan, Jakarta: ASEAN Secretariat.

Banatin C. Bharania R. Beckman L. et al., 2015, Advances in civil-military coordination in catastrophes: How the Philippines turned lessons learned from Super Typhoon Haiyan (Yolanda) into best practices for Disaster Preparedness and Response, Hawaii: CFE-DM.

Bueza M., 2013, "Fast Facts: The NDRRMC," Rappler, November 16.

Carroll S., Chiu I., King J, Parker W. Sanders G., 2015, An Inside Look into USPACOM Response to Super Typhoon Haiyan, Hawaii: CFE-DM.

Padilla R., 2017, Response coordination and best practices and cooperation opportunities: Philippines case study, PLOS: Current Disasters, September.

42

Nepal Gorkha Earthquake

David Shanahan

The Nepal 2015 Gorkha earthquake was a major disaster that had been anticipated for some time, but for which national, regional and international response capability was tested and found wanting in significant ways. On 26 April 2015, an earthquake struck with a magnitude of 7.8 with epicenter 81 km north-west of Kathmandu. Dozens of aftershocks were reported, including another earthquake with a magnitude of 6.7 later the same day and another on 12 April with a magnitude of 7.3 some 50 miles east north-east of Kathmandu. Official data puts the total loss of lives at 8,969, with 22,321 injured and 602,592 homes fully destroyed. The disaster also left over 60,000 people displaced and resulted in economic losses of over US$ 9 billion. The Nepal Gorkha earthquake was recorded as the most significant disaster to affect Nepal since the earthquake of 1934 (Cook, Shrestha and Htet 2016).

Overwhelming international response to the earthquake quickly proceeded and included immediate search and rescue teams and equipment, medical teams and emergency relief items, as well as goods and services geared for the recovery and rehabilitation phases. Much of the international support also came in the form of assets, from aircraft to deliver aid, to other equipment and machinery to help in the post-disaster relief effort. Due to their proximity, India and other SAARC nations as well as China were first able to render assistance in the international response effort. The initial flow of Search and Rescue (SAR) personnel and equipment Teams from 14 countries (a total of 1966 personnel) arrived in Nepal within the first 72 hours, with remaining teams arriving within the first week (De Annuntiis 2015). India, China and the U.S. provided critical air assets totaling 23 dedicated vertical lift and intermittent cargo aircraft (UNDAC 2015). This immediate response aid together with other humanitarian assistance was rendered largely in an ad hoc fashion outside the framework of in-place bilateral or multilateral agreements or SOPs.

On 29 April, the Humanitarian Country Team launched a Flash Appeal to provide critical life-saving services to millions of people affected by the earthquake. One month later, the Nepal Earthquake Flash Appeal was revised to US$422 million in order to meet the protection and humanitarian needs of 2.8 million people. By September 2015, donors contributed a total of US$241 million against the appeal (57 percent funded) including US$18 million from the UN Central Emergency Response Fund. Outside of the appeal, an additional US$232 million was provided for the response. Private individuals and organizations gave most of the donations. To complement the contributions, aid agencies also mobilized resources from their own internal funding systems. In addition to the immediate Flash Appeal Aid, in June 2015 international partners pledged US$4.4 billion in grants and loans for reconstruction of the affected areas (OCHA Sep 2015).

Many academic, think tank, and disaster management organizations and bodies assessed in the earthquake's aftermath the response effort's successes and failures. Observed lessons from the earthquake and its response aftermath generally fell into four categories: Strategic Planning, Aid Delivery, Aid Provision, and Aid Distribution.

Strategic Planning (SOPs, Exercises and Trust)

Many responders, both within and outside the Nepal government, observed that effective humanitarian response requires deep and broad investments in vulnerability assessment to ensure that plans enable timely and needs-appropriate responses (Cook, Shrestha and Htet 2015). A key deficit exposed by the earthquake relief effort was a lack of pre-established and exercised SOPs or specific bilateral agreements for disaster relief operations-both for which trust is requisite. The often-cited maxim, "you cannot surge trust," applies critically in the area of creating the basis for effective cross-border HADR response effectiveness. Deliberately building trust requires the hard work of creating bilateral plans and SOPs as well as frequently using exercises at all levels from local, national, bilateral, and multinational. These can range from tabletop games to ones where physical assets of manpower and material are moved and put into play. Such exercises serve to bare the kind of issues that require context specific guidelines. They also show where SOPs and agreements need updating to ensure their currency and effectiveness. SAARC's commitment to a series of annual disaster response exercises (ADREX) is a welcome measure to address the deficit in testing the efficacy of strategic plans. However, the fact that the first exercise in 2015 has not been repeated nor one publically announced for the future reduces optimism that such multilateral exercises will soon significantly affect this deficit. Exercises have the promise of revealing and thereafter fixing problems in planning of the kind identified in the case of the Gorkha Earthquake. These include such varied needs as increasing the shared awareness of the UN, partner nation, nationals and local entities processes. As well are such needs as: effectively prioritizing human resources and assets to local need; training to sensitize rescue and relief responders to cultural values in areas such as medicine and end of life customs/beliefs/norms; and the necessity to provide processes to institutionalize transparency and accountability (Cook, Shrestha and Htet 2016).

Aid Delivery

Other notable practices that significantly enhance aid delivery from international humanitarian actors were the adoption and use of UNOCHA's Model Customs Facilitation Agreement, opening the immigration offices on a 24-hour basis and blanket waiver of visa fees (Nepal MoF 2015). In the Nepal response, many areas in need of improvement concerned the efficient and effective delivery of aid. Among these areas of improvements, two issues stood out as the wellspring for a host of consequent issues. The first was the need to establish effective communication channels with affected authorities prior to aid delivery, which is a critical task that reduces or eliminates a host of potential problems. The second was that the Nepal Earthquake response efforts suffered confusion and delays from wrong and unnecessary items transported, together with shipment duplication. Resultant confusion unnecessarily stressed inadequate landing site infrastructure and storage facilities. Robust ongoing communications with relevant authorities on what type and kind of goods are needed where, is necessary and can minimize potential delays or temporary diversions (Cook, Shrestha and Htet 2016). The utility of developing an aid registration system was a second significant recommendation from response assessments. Such a system, had it been in place would have classified the availability of stocked and pledged relief goods and items. These items could have been deployed once in line with the local stakeholder's consulted needs assessment and would have assisted in minimizing wastage and limit supply chain disruption to save more lives. (Cook, Shrestha and Htet 2016).

Aid Provision

The capacity for the prompt provision of aid by international actors is a key pillar for disaster response operations success. Although accounts of the near immediate surge of assets from adjacent countries, most of all India, were a source of promise for future cooperative response efforts, the Nepal case revealed several areas that need improvement. The first area for improvement was the need to develop inclusive response teams drawing from wide cross-sectoral support including civilian government, military and civil society. Women trained in SAR, were particularly effective in the Nepal relief effort. Where this diversity was absent, challenges were harder to overcome.

The second area in need of improvement was the design of relief priorities. The objectives were to save lives as a priority through maximum use of all available resources. Coordinating with local authorities ensures maximum effectiveness of rescue and relief operations via reach down to the village development level in affected districts, and by establishing effective cooperation and coordination with all government, non-government organizations, humanitarian organizations and foreign military teams involved in rescue and relief. To ensure prompt and effective search, rescue and relief operations, the Nepali Army surged troops into the most affected areas to immediately launch search, rescue and relief operations to save lives (Nepal Army Headquarters 2016). While most international response focused on providing SAR and medical services, other aspects of response can be left without attention. This may be in terms of immediate restoration of power and internet for communications, clearing of or opening up supply chains and routes for aid delivery and provision, or the creation of a safe space for children and other vulnerable members of society. These areas of immediate need, although often over looked or secondarily prioritized, are also extremely vital in post disaster settings. Through a calibrated approach, international responders could develop niche response capabilities for disaster settings to ensure comprehensive coverage of needs in any disaster settings (Cook, Shrestha and Htet 2016).

Aid Distribution

The capacity of aid actors to get the right relief workers and supplies to the precise place at the time when they will be most effective is critical to the success of the response effort. Among the many issues observed in this area during the Gorkha earthquake response, three broad policy relevant considerations stand out: the need to calibrate UN prioritization; increase awareness of local networks in the affected country; and the need to assess direct cash distribution to scale response effectiveness (Cook, Shrestha and Htet 2016). The first consideration is the need to calibrate UN prioritization, a key area left wanting in the Nepal response effort that contributed to the overweighting of top-level items such as shelter, food, and search and rescue equipment. Although all necessary and important, focus on these type items caused imbalance that starved the supply lines of other lower priority Water, Sanitation and Hygiene (Wash) items and education materials. Thinking through and creating a system by which a more calibrated flow of aid can be achieved will be useful and necessary in the future.

The second consideration is to leverage local networks and organizations in an affected country, which is a key ingredient to success or struggle. Among these networks are the local chapters of NGOs (e.g. OXFAM, MSF and National Red Cross/Crescent) as well as

non-NGO service organizations like (e.g. Rotary and Lions Clubs). These types of relationships take considerable time and effort to develop, but the efforts are well worth it by their ability to provide better access and knowledge of on the ground realities (Cook, Shrestha and Htet 2016).

The third consideration is to assess direct cash distribution. Nepal's experience suggests that direct cash payments to aid recipients in lieu of relief items and goods can be a more effective method of relief distribution (American Red Cross 2016). This reduces transport costs for aid providers and the disruption caused by external providers is minimized by stimulating local economies and national transportation networks. The international aid community will no doubt refine the processes by which this shift could best be implemented (Cook, Shrestha and Htet 2016).

Even after the 2015 earthquake, Nepal's disaster management structures – legislation, intra-governmental and international coordination, and disaster management capacity – have not addressed immanent disaster risks. Nepal's disaster legislation includes more than a dozen different acts, is terribly complicated, contains gaps, and cedes ownership to multiple government entities, further challenging policy implementation (Teplitz 2017). Though the 2015 earthquake was a severe test, the residual stored energy in the fault line most affecting the populous valley is still high. The next earthquake may be larger and even more damaging (Petley 2016). The unexpectedly low losses that occurred in the 2015 Nepal Earthquake are unlikely to repeat next time and should be cause for urgency on the part of national and regional disaster response practitioners to enact plans and processes to better respond *when* the big one hits. It is therefore important for state and non-state actors to initiate policy changes to ensure that regional disaster response is fit for purpose in the coming years.

References

Cook ADB, Shrestha M, and Z.B. Htet, 2016, The 2015 Nepal Earthquake: Implications for Future International Relief Efforts, RSIS Policy Brief, Singapore: RSIS Center for Non-Traditional Security Studies.

De Annuntiis, Viviana, 2015, "Humanitarian Civil-Military Coordination in the Nepal Earthquake Response," Presented at the Regional Consultative Group on Humanitarian Civil-Military Coordination for Asia and the Pacific, Bangkok, Thailand, Dec. 3–4.

Nepal Army Headquarters, 2016, "Mission First & People Always: The Nepal Army's AAR on Operation Sankat Mochan", Liaison Journal, 8, 13-17

Nepal Ministry of Finance, 2015, Study report on facilitating customs clearance for relief consignment, June.

Office for the Coordination of Humanitarian Affairs (OCHA), 2015, Nepal: Earthquake Humanitarian Response Report, April-September, Kathmandu: OCHA.

Office for the Coordination of Humanitarian Affairs (OCHA), 2015 Nepal: Earthquake 2015 Situation Report No. 18., Kathmandu: OCHA.

Petley, D., 2016, "The Nepal Earthquake: a warning for the future?" Geographical, January.

SAARC Disaster Management Center (SDMC), 2015, Conference Proceedings Lessons Learnt Conference-Nepal Earthquake, Dec. 14-16.

Teplitz, A., 2017, "Setting the Standard," My Republica, January.

UN OCHA Model Agreement, 2011

UNDAC, 2015, Nepal Earthquake: National and Foreign Military Deployed Air Assets, Reliefweb, May.

UNISDR, 2015, Gorkha Earthquake Disaster Risk Reduction Situation Report, April 25.

46

Fiji's Cyclone Winston

Deon V. Canyon

On February 20, 2016, after a few days of heavy swells, gale force winds and flooding, Cyclone Winston was upgraded to Category 5 and started on a path that would take it directly through the heart of Fiji. Skeleton crews staffed Emergency Operation Centers (EOC) and critical agencies were on standby. Air and shipping traffic were suspended and evacuation centers were prepared. That evening, the nation experienced a power blackout and parts of the main hospital had flooded. The following morning, District level EOCs mobilized and reported six deaths and 150 destroyed houses. The Fiji government (GoF) declared a 30-day State of Natural Disaster and government workers were ordered back to work on February 22. Given the lack of power and communications, limited information was available on populations living on other islands. Thus, the GoF immediately accepted an offer by the New Zealand Defence Force (NZDF) to conduct surveillance using a P3 Orion aircraft.

The Honorable Inia Seruiratu was Minister of Agriculture, Rural and Maritime Development and Natural Disaster Management. He had ensured that the NDMO, headed by Mr. Akapusi Tui Fagalele, was infused with ex-RFMF (Republic of Fiji Military Force) personnel who were experienced crisis managers and coordinators. The NDMO tracked the storm and produced regular situational reports. The United Nations Office for the Coordination of Humanitarian Assistance (OCHA) reported that while no official request had been received from the GoF, it had been agreed that OCHA would link the NDMO to all humanitarian partners and manage all requests for assistance and requests to assist.

By February 22, GoF had received sufficient intelligence to warrant a request for international assistance. All security sectors were on standby and the National EOC operationalized cells for planning and logistics, and established an administrative cell to manage human resources and transportation. Relief teams led by RFMF forces mobilized and began deploying to provide assistance to accessible areas. Sixty-two evacuation centers, primarily schools, housed over 8,000 displaced people. The death toll had risen to 24 and 323 houses were reported destroyed.

At this time, New Zealand donated a BKK helicopter and C130 aircraft began daily aid flights. The U.S. and China each donated US$100,000 and the Australian government put together a US$5 million package. Other offers of assistance came from the French USAR group and Greenpeace. The United Nations Disaster Assessment and Coordination (UNDAC) team then arrived with the intention of coordinating incoming international assistance from civilian and military actors.

All district and divisional EOCs activated on February 23 and evacuation centers jumped to 274 with 14,000 evacuees. An Australian C17 Globemaster began daily aid flights and NZ increased aid to US$1.8 mil. The following day, 424 evacuation centers housed 35,000 people with 36 reported dead and 97 schools damaged. Communications were down in many areas, but most airports were open. All disaster clusters and the Red Cross were active and began conducting needs assessments and the Police Command Coordinating Center began to verify casualties. However, three days post cyclone, coordination issues began to

surface and the NDMO reacted quickly. Steps were taken to improve information flows from all agencies and the monitoring of deployed government teams to affected areas.

By February 25, many countries sent or pledged funds with Australia, New Zealand, India and the Asian Development Bank leading donations. Most notably, Nauru and Tonga had contributed to the aid effort with funds, assets and rations in the first signs of sub-regional support.

Further coordination issues were addressed a week after the cyclone. The national EOC identified a need to verify information, coming from district and divisional EOCs, on the number of families receiving assistance. Moves were then taken to strengthen the process of ration distribution by foreign military forces. When the aid entering the country began to congest the main airport, a dedicated Civil-Military Coordinating Function (CMCF) was created under the NDMO in favor of using the OCHA solution. This entity was tasked with improving information sharing, allocating responsibilities to aiding parties, operational planning, and coordination of available military capacity. OCHA attempted to insert their Request for Assistance protocol, which was accepted, but not used. This system would have required decisions of support to be vetted by a UN-CMCoord Officer, which was unacceptable to the Fijians. This could have been viewed as a sign of defiance against OCHA, but in reality, it was a positive indication that the Fijians were confident they had the situation under control using their own resources.

February 29 witnessed over 1000 evacuation centers housing 55,000 evacuees and 43 deaths. A landmark civilian-to-military coordination event occurred when Col. Vosaicake met with Division Teams, the Tongan Navy, NZDF and Embassy staff. The topic was how to improve teamwork and coordination. Ultimately, more frequent dialogue was mandated and information was directed to flow through the military headquarters before it was disseminated to regional commissioners and the NDMO. This vetting process ensured that the decision makers only received vetted and accurate information.

Two months after the cyclone, the relief effort transitioned from response to recovery with LTCOL Hill from the Australian Defense Force (ADF) saying, "We have seen significant cooperation between ADF and Fiji Military… not just at the personal level… but in terms of interoperability" (Defence Media 2016). Australia donated US$20 million for critical infrastructure and the European Union, China, U.S., and India, made further contributions. The Fijian private sector donated US$2.4 million and the GoF provided a large assistance package to assist those on welfare, those requiring psychological aid and home rebuilders.

The UN Flash Appeal for US$38.6 mil was only 51 percent funded at this time and did not support local response and recovery entities (OCHA 2016). For instance, the Fiji Council of Social Services (FCOSS), tasked under the Fiji Disaster Management Act with coordinating the civil response and assistance, received no funds from the appeal. Regardless, FCOSS performed admirably by conducting partner meetings that connected civil society actors with the agencies of the cluster system (Gounder 2016).

Coordination of domestic and international assistance was excellent with the following highlights. The strong local response included a high degree of political support, efficient civil-military relations, the medical clinics opened rapidly, temporary learning spaces for schooling were established quickly and all were agreed on the need to build-back-better. A

strong international response included quick food ration distribution, a new cash voucher model, rapid crop replants, funded protection projects and collection of phone data to improve ongoing needs assessments and damage surveillance.

Three key response challenges were as follows. Firstly, it is hard to operationalize a response when a third of a nation is affected by a disaster. Many response personnel were affected which had a large effect on response speed and size. Secondly, it is difficult to assess needs and distribute aid to remote island populations that are only accessible by boat or plane. Lastly, many GoF agencies participated in the response without the required knowledge and skills. Future trainings should enhance the capability of these agencies so that they can play an effective role in future disaster responses.

Three information issues emerged during the response. Firstly, the lack of baseline information was a significant initial issue for responding and foreign agencies. This is a common concern regardless of resource availability. Secondly, despite several agencies and militaries conducting needs assessments, the lack of reliable assessment data was an ever-present problem. The lack of baseline and assessment data is a common problem that requires a systematic approach for resolution. Finally, the local affected population was increasingly dissatisfied with the amount of information they could access.

Military involvement in humanitarian assistance and disaster response is increasing in Oceania as disasters increasingly stretch civilian entities beyond capacity. Many capacity-building programs and exercises are conducted in the region and significant experience in dealing with disasters exists. In recognition of this, foreign entities need to accompany Pacific nations in their development without pulling or pushing. Assistance must enhance local capacity and resilience while avoiding the trap of creating dependence. A sustainable level of service is required and the private sector requires support.

Future resilience activities should include: training and exercising EOCs, crisis leaders, and responders; developing capacity in all areas of the disaster cycle; establishing standard operating practices and agreements to facilitate assistance and aid flow; and more regular interactions with foreign partners. Cyclone Winston was a fascinating case because it demonstrated that a Pacific Island nation had the capacity, knowledge and skills to manage a large disaster and the attendant flood of international aid with a professional and mature level of confidence and expertise. The Fijian response serves as an example of best practice to other Pacific nations, and no doubt their capacity will continue to improve.

References

This case derived from 110 Fiji National Emergency Operation Center situation reports from 11 Feb to 24 Mar 2016; 20 UN OCHA situation reports from Feb. 21 to Mar. 31, 2016; and conversations with senior local and foreign officials who were present during the response.

Department of Defence, 2016, Fiji farewells Australian troops, Defence News and Media, April. https://news.defence.gov.au/media/media-releases/fiji-farewells-australian-troops

Gounder, N., 2016, "Assessing the damage post-Cyclone TC Winston", East Asia Forum, May 6.

OCHA,2016, Tropical Cyclone Winston response & flash appeal final summary, Suva, Fiji Islands: UNOCHA Regional Office for the Pacific.

Japan's Disasters

Nozomu Yoshitomi

Japan has been an active provider in international cooperation for disaster response since 1987. However, the Japanese government and civil society never thought that they would be a recipient of international disaster response before the Tōhoku Earthquake occurred in March 2011. Therefore, they were not prepared to accept foreign assistance. Looking at the Northeast Asia region, governments and civil societies of China, South Korea and Taiwan have been increasingly active in joining foreign disaster relief efforts, and the same development is occurring in Japan. Northeast Asia is also a disaster prone region, therefore governments and civil societies in Northeast Asia should anticipate that they would not only be providers of aid but recipients of aid as well. A study of Japan's lessons from the Tōhoku Earthquake will be helpful to identify best practices and future opportunities for others.

As Japan's experience demonstrates, international cooperation for disaster response requires understanding of both provider and recipient perspectives. Response is just one phase or perspective in the disaster management timeframe and disaster response to meet requirements of affected people cannot occur without adequate preparedness. However, resources for disaster response are limited. Therefore, using resources effectively and efficiently to cover all phases of disaster management is a challenge for governments and civil societies in the Northeast Asia. Strategic decisions to allocate resources to the appropriate disaster phases will affect a country's ability to be effective aid providers or recipients.

From Aid Provider to Aid Recipient

Since 1987, the government of Japan (GOJ) has been cooperating in international disaster responses as an assisting country under the provisions of the Law Concerning Dispatch of Japan Disaster Relief. Sending Japan Disaster Relief Teams, provision of emergency relief goods, and emergency grant aid are recognized pillars of GOJ's disaster responses. The Japanese civilian sector has also played important roles in foreign disaster response as providers of aid. The Japanese Red Cross Society, NGOs and private companies have provided physical support, relief supplies and grant aid, among other assistance. Japan's rapid and large-scale disaster response operations were observed in serious natural disasters in Indo-Asia-Pacific region such as the Indian Ocean Tsunami in 2004, Typhoon Haiyan in the Philippines in 2013, and the 2015 Gorkha Earthquake in Nepal.

The Tōhoku Earthquake was the turning point for Japan to shift perspectives from an aid-providing nation to a recipient one. In the afternoon of March 11, 2011, a magnitude-9 earthquake occurred. Following the quake huge tsunami waves, over 10 meters tall hit the east coast of Japan. About 20,000 people were killed and more were missing. Just after this mega disaster, the GOJ accepted emergency response teams, relief supplies, and financial aid from 95 nations, regions, and international organizations (Ministry of Foreign Affairs of Japan, 2012). The Japanese civilian sector also accepted physical support, relief supplies and grant aid from civilian organization all over the world (International Development Center of Japan, 2014). At the same time, Japan's Self Defense Forces closely cooperated with the

U.S. Forces and the Royal Australian Air Force. This was the first case of international military-to-military cooperation in Japan's domestic disaster response history.

Japan's Lessons of "Double Use Capability"

Japan has learned many lessons as a recipient nation in disaster response with the most remarkable being a lack of willingness to accept international assistance. This lesson included a lack of relevant basic policy, institutions, SOPs, legal arrangements, partner agreements, human resources, hardware, accountability and information dissemination mechanisms.

The GOJ and Japanese civil society realized that their rich experience as an aid provider abroad was not necessarily useful when it came to effective and efficient acceptance of international disaster response aid in Japan (Study Group on the Great East Japan Earthquake & International Humanitarian Assistance, 2015). From this experience, the GOJ realized that Japan needed to become versed in not just providing, but also receiving aid. Although Japan will continue to have a large role in disaster response to help others in the region, Japan will likely continue to experience disasters domestically. Therefore, Japan needs to consider how to enable international disaster responses to be more effective and efficient as both provider and recipient of limited resources. Establishing a "Double Use Capability" for both provider and recipient will be one of the solutions. "Double Use Capability" needs adaptability to cover both abilities to be providers and recipients in terms of organization, people and hardware. This means legal arrangements/partner agreements, human resources and equipment are the basis of "Double Use Capability." In the near future, experts are predicting that Japan will experience a disastrous earthquake stronger than the quake of 2011, estimated to kill over 300,000 people (Minoru Matsutani, 2012). Japan will need to accept foreign assistance while providing massive domestic relief. As China, South Korea, and Taiwan face similar challenges, developing the means for international disaster cooperation as providers and recipients of assistance is required by those countries as well.

Legal Arrangements and partner agreements

Legal Arrangements and partner agreements are an feature of Double Use Capability since they are necessary to provide and accept support smoothly and mutually. For example, Status of Forces Agreements (SOFA) as well as Acquisition and Cross-Servicing Agreements (ACSA) are helpful for militaries to support each other as both disaster response providers and recipients. Partner agreements are also effective between ministries/agencies, militaries, and NGOs. These frameworks will be useful not only for real disaster response but also for preparedness of responses. Partner agreements between civilian sectors can precede possible efforts developed by governments since current challenges in international relations in Northeast Asia are slow to advance cooperation instruments.

Human Resources

Human Resources are the core of Double Use Capability since skills and assets can be used to provide as well as receive assistance. Personnel and professionals who can adapt to acting both roles will be most helpful to disaster response operations. Merging domestic and foreign disaster responses experience will be necessary to create greater efficiency and operational effectiveness. After the Tōhoku Earthquake, for example, some Japanese

international NGOs, Association for Aid and Relief (AAR Japan, 2012) that had good experiences overseas, started to join in domestic disaster responses. Civilian sectors in Northeast Asia have an important role and are well positioned to collaborate on Double Use Capability in disaster response.

Equipment

In Northeast Asia, Japan, China, South Korea, and Taiwan are separated by seas, therefore air and maritime transportation is inevitable to provide/accept emergency response teams and relief goods quickly to affected areas. Particularly, maritime transportation vehicles "double use" assets to provide response teams, relief goods and vehicles directly to domestically affected areas in coastal zones hit by tsunami and typhoons as well as sending overseas. Modern fast landing crafts are critical for both domestic disaster response and providing support to nearby countries (Nozomu Yoshitomi, 2016). It is therefore best practice to pre-identify double use capabilities in not just equipment, but also in legal arrangements and human resources via professional staff and skills.

The Future of "Double Use Capability" in the Indo-Asia-Pacific region

Generally, governments and civil society in Northeast Asia are more familiar with the role of providers over the role of recipients. However, as the Japan experience showed, governments need to be prepared to accept humanitarian assistance domestically as easily and readily as they are in providing aid overseas. While some countries in Southeast Asia are more versed in being recipients than providers of disaster aid, governments such as Indonesia, Singapore, Thailand, and the Philippines effectively dispatched emergency relief teams to Japan after the Tōhoku Earthquake (Ministry of Foreign Affairs of Japan, 2012). This ease of serving as recipient and provider of aid differentiates country capabilities of Northeast and Southeast Asia. Therefore, future opportunities exist for governments and organizations from both regions to learn from each other's experiences as providers and recipients. Through regional cooperation and best practices to develop Double Use Capability, disaster response cooperation will become increasingly more effective and efficient in the Indo-Asia-Pacific region.

References

Ministry of Foreign Affairs of Japan, 2011, "Great East Japan Earthquake", September.

International Development Center of Japan, 2014, "Comprehensive Review of Assistance from Overseas for the Great East Japan Earthquake", March, 19-48.

Study Group on the Great East Japan Earthquake & International Humanitarian Assistance, 2015, "Recommendations to prepare for future mega-disasters in Japan", February.

Minoru Matsutani, 2012, "Nankai quake projected toll radically raised" The Japan Times, August 30.

AAR Japan, 2012,"The Great East Japan Earthquake | Activity Report", April.

Nozomu Yoshitomi, 2016, "Okinawa's New Posture for Disaster Relief in Okinawa and from Okinawa" Journal of World Affairs, 64, 10, 51-63.

Ministry of Foreign Affairs of Japan, 2012, "Great East Japan Earthquake", September.

Insights on Best Practices and Future Opportunities

Lina Gong and Vishalini Suresh

Asian countries, many of which have accumulated rich experience in HADR due to the frequent incidents of major disasters in the region, have formulated their respective best practices regarding the issues that are of particular importance to the effectiveness and efficiency of disaster response. Apart from the efforts at the national level, sub-regions in the Asia Pacific vary in their capability in launching regional response. Learning from other countries and regions' best practices is conducive to improving HADR operations. The key issues can be categorized into the following four areas: clarity in roles and responsibilities, procedures of requesting, providing and receiving aid and assistance, coordination and emerging trends.

Clarity in roles and responsibilities

State taking the lead

Respect for sovereignty remains a principle that underpins HADR operations. This is reflected by the polling result that 56 percent of the participants found it important to preserve maximum sovereignty to make foreign assistance persist. The adherence to the sovereignty principles means that the national government should be the lead. Sovereignty can be the reason for declining humanitarian access as demonstrated by Cyclone Nargis in 2008. Consent from the national government therefore leads to quick response. Many countries have strengthened national capacity in disaster response and this has led to the reduced role of UN agencies and NGOs in some countries.

Foreign countries and organizations as supporters and facilitators

Participants agreed that support from external parties is crucial for effective response, particularly for countries with limited capacity. The Philippines received assistance from 57 countries and scores of international NGOs in responding to Haiyan. Foreign stakeholders however need permission from the national government of the country affected before proceeding to response.

Regional organizations can be the mobilizers in time of need, but only to support and complement the work of the affected country upon request for assistance, rather than replace them. Sub-regions in the Indo-Asia-Pacific stand at different levels in regional institutions for disaster response. ASEAN has made notable progress over the years since the Indian Ocean Tsunami. The AHA Centre provides a common platform for information exchange and updates among member states and partners. SAARC set up its Disaster Management Center in 2006 and is a dialogue partner of the AHA Centre. There is no standing framework in Northeast Asia, where regional countries rely on ad hoc cooperation in time of disaster. As Northeast Asian countries have strong capacity, the existing model of cooperation largely suffices the need; however, an appropriate regional architecture can enhance the effectiveness of cooperation.

Use of military assets

The military is usually the primary disaster responder as they command capabilities and equipment incomparable by other actors. However, the involvement of foreign militaries in HADR operation is a sensitive issue. Nearly 70 percent of the participants agreed that the role of the militaries should be limited to unique military capabilities like vertical lift.

Disaster relief has been listed as a regular mission of the military in many countries. For instance, it became a component of China's People's Liberation Army (PLA)'s missions in 2009. Similar development has been seen in the Armed Forces of the Philippines (AFP) after Typhoon Haiyan in 2013. In the post-Haiyan period, the three forces of the AFP each dedicate a battalion for HADR (Trajano, 2016). Military cycles in the Philippines are planned according to weather threats.

Importance of non-state actors

In time of disasters, the resources and capabilities of corporate actors can be of great contribution to the relief operation, like financial contribution. The Fiji private sector donated US$2.4 million after Cyclone Winston. During the Nepal earthquake, the private sector sent six helicopters, which was not insignificant given that the total number was 39. Communications teams were sent at the beginning of a response to fix faults in the communication lines. Humanitarian financing is another sector that businesses should incorporate in their strategies and planning as it is increasingly recognized as a corporate social responsibility and an integral part of business continuity planning.

Local communities and organizations play a crucial role as they are usually the first on scene and they are committed to long-term knowledge. Funding should be given to provide support to local communities and empower them to respond to their own disasters. However, the current humanitarian funding structure is centralized. The UN agencies receive most of the donations, while only a minimal portion goes to local and national governments and NGOs. Volunteers are another group that deserves attention as Asia has the highest youth population. There have been incidents where volunteers are isolated and not engaged.

Request, Provision and Receipt of Assistance and Aid

Understanding local context

Countries differ in their capacities in for receiving and requesting foreign assistance in disaster response. Culture and tradition further the extent of differences. Cultural differences, nuances in requesting for assistance, and ineffective communication can lead to mismatch of needs and assistance. It is therefore important to collaborate (if possible) with local networks and organizations in the affected country, especially with those that have good local knowledge and access at the local community level to ensure accessibility and match aid to needs (Cook, Shrestha and Htet, 2016).

Standard Operating Procedures (SOP) and guidelines

Clear SOPs help build international standards and ensure timely receipt of assistance. Guidelines for receipt of assistance will make it easier for the providers to identify how they can contribute to the response. During the 2011 East Japan earthquake, Japan's domestic laws prevented foreign medical teams from providing medical aid and psychological counselling. In recognition of the problem, the association of Japanese doctors and their Taiwan counterpart signed agreements to pave the way for each other to provide reciprocal medical services in time of disaster response.

Coordination and Cooperation

National and Regional Mechanisms

The participants agreed that a centralized national framework is needed for effective response, with one national entity doing the main coordination, between the civilian and the military, between national and foreign militaries and between the domestic and the international. The Philippines has established a cluster approach, and some of the major mechanisms include NDRRMC, MNCC, and CMCC. MNCC should be led by the armed forces. They report to the civilian operation center and provide direction. Then the civilian side advises the military on where they should be to help people. In practice, there are also other models of operation, but the MNCC in the Philippines has been effective. In the response to Cyclone Winston, OCHA was the conduit for communications between NDMO and civilian actors, but NDMO also had its own channels for coordination.

Bilateral Channels

Bilateral cooperation is a major component of disaster response, particularly for regions where the regional institution is weak or absent. Good bilateral connections are important to access a country and pursue any humanitarian operations. Especially if the country is not requesting aid but still needs some form of assistance, such as between Thailand and Myanmar during cyclone Nargis in 2008. Thailand was among the first few countries that sent in food and medicine immediately after the cyclone hit, and played an important role in the establishment of the Tripartite Core Group that consisted of Myanmar, the UN and ASEAN to coordinate post-Nargis assistance efforts. (Egreteau and Jagan, 2013:353). The strong relationship between the Japanese Self Defense Force (SDF) and the US military laid a solid foundation for the joint operation by the two forces in response to the Tōhoku Earthquake in 2011, known as Operation Tomodachi. Bilateral coordination centers were established at multiple locations to deal with the operational and tactical issues (Yoshizaki, 2012:85), and the Japanese-US bilateral mechanism constituted the basis for the coordination of the overall relief and assistance effort. Operation Tomodachi shows that good bilateral connections substantively benefit cooperation and coordination in disaster response.

Emerging Trends

Application of knowledge and technology

Workshop participants noted that there was the need to strengthen the knowledge base of officials on recent advancements and build their capacity to apply the knowledge in all phases of disaster management. Technology is playing increasingly important roles in disaster response. For instance, social media can be used as a platform to engage the public to facilitate HADR operations and to facilitate communication for people to stay in touch. Advanced technologies and equipment like digital mapping and unmanned aerial vehicle (UAV) have a growing role to play in disaster response. Application and promotion of technology for disaster response is of high value for the effectiveness and efficiency of operations.

Sustainable development

Developing countries are experiencing rapid urbanization, but unsustainable expansion of urban areas like slums increases the vulnerability of people living in these areas. According to the statistics of the UN Habitat, the global slum population grew by six million on a yearly basis. There are nearly 900 million people living in slums, which account for a third of the total urban population. It is of particular relevance to the Indo-Asia-Pacific region, which hosts half of the world's urban population. (UN-Habitat, 2016:8) The slum settlements are often poorly constructed and located in coastal or riparian areas or on hills that are prone to disasters. Safety planning and evacuation strategies barely exist. In such circumstances, people are at greater risk in time of disasters, and disaster response faces more challenges. It is therefore crucial that disaster response takes into account these vulnerable/under-privileged communities.

References

Cook, A. D.B., Shrestha, M., and Z. B. Htet, 2016, "International Response to 2015 Nepal Earthquake: Lessons and Observations", RSIS NTS Report No.5, Singapore: S. Rajaratnam School of International Studies.

Egreteau, R., and L. Jagan, 2013, *Soldiers and Diplomacy in Burma: Understanding the Foreign Relations of the Burmese Praetorian State*, Singapore: NUS Press.

Trajano, J. C. I., 2016, "Building Resilience from Within: Enhancing Humanitarian Civil-Military Coordination in Post-Haiyan Philippines", NTS Report No.6, Singapore: Center for Non-Traditional Security Studies (NTS), Singapore: S. Rajaratnam School of International Studies.

United Nations-Habitat, 2016, *Slum Almanac 2015/2016: Tracking Improvement in the Lives of Slums Dwellers*, Nairobi: United Nations-Habitat.

Yoshizaki, T., 2012, "The Military's Role in Disaster Relief Operations: A Japanese Perspective", in Boeicho Boei Kenkyujo (ed.), The Role of the Military in Disaster Relief Operations, Tokyo: The National Institute for Defense Studies, 71-89.

SECTION 3: TOWARDS A MORE COLLABORATIVE FUTURE: OPTIMIZING REGIONAL RESPONSES AND COOPERATION

Across the Indo-Asia-Pacific region, there have been varied levels of progress and challenges faced in each of the four sub-regions: South Asia, Southeast Asia, Northeast Asia and Oceania. In South Asia, the slow-paced regionalism of SAARC demonstrates the differing levels of commitment by the member states. Its absence as a structure to facilitate cooperation in the region in the aftermath of the Nepal Earthquake in 2015 highlighted its embryonic stage of development and the suspension of the establishment of the REOC in Kathmandu, Nepal further demonstrated the challenges to cooperation on disaster response in the region. Southeast Asia offers the most significant progress on the regional disaster response architecture captured in the One ASEAN, One Response declaration across the Indo-Asia-Pacific. The developments following Typhoon Haiyan in 2013 served as a catalyst for a stronger regional disaster response. In Northeast Asia, the absence of substantive regional cooperation mechanisms was witnessed in the disaster response to the Tōhoku Earthquake in 2011, which underscored the need for further work to be undertaken in this area. Finally, the responses to Cyclone Winston in 2016 underlined the need for greater regional cooperation on disaster response even with the successful response witnessed by the wider international community.

Considering the observations made in earlier chapters, it is now important to consider the collective lessons learnt and how they can inform the further development of regional mechanisms across the Indo-Asia-Pacific. In this section, in two separate chapters Alistair D. B. Cook and Deon V. Canyon consider areas in which further progress can and should be made going forward. In the first chapter, Alistair D. B. Cook investigates further deepening cooperation with ASEAN as an important link to other sub-regions and assesses the need for better emergency preparedness for potential disasters along with several developments to inform these plans. In the second chapter, Deon V. Canyon emphasizes the need for stronger civil-military relations particularly in the Indo-Asia-Pacific where militaries are commonplace in the aftermath of weather-related disasters. The development of functional cooperation in this realm is identified as needing greater attention. Collectively these two chapters offer food-for-thought in how the individual lessons learnt from disasters across the region can inform and offer insight into developing more effective disaster responses between those countries in the closest proximity to one another. In sum, while there are different speeds of regional integration on disaster response the experiences from each sub-region can inform the development of regional mechanisms in other sub-regions and hopefully contribute to future policy improvement in disaster response.

Lastly, this section summarized the findings of workshop participants by offering insights that strive to optimize sub-regional disaster response through achievable and important opportunities. Participants prioritized opportunities related to awareness, aid process and cooperation as important and highly achievable recommendations.

Comprehensive Regionalism in the Indo-Asia-Pacific

Alistair D. B. Cook

In the Indo-Asia-Pacific over the past fifty years, a multi-layered architecture for regional cooperation has emerged to respond to economic, political and security challenges. Most prominently, ASEAN was founded in 1967 to bring together Southeast Asian countries to ensure non-interference in the domestic affairs of member states supported by an initial collective decision-making process in the association. The region notably includes the Asia Pacific Economic Cooperation (APEC), the East Asian Summit (EAS), and the ASEAN Regional Forum (ARF). A common theme is ASEAN Member States membership, placing the regional association as an overlapping mechanism between the major multilateral fora in the region.

While ASEAN Centrality remains an overarching goal, the regional architecture remains a collection of individual line ministry initiatives across the region. Although there is an observable shift towards more regionalism, this has not concurrently led to a whole-of-government or a whole-of-society approach. As a result, the various fora for economic, socio-cultural, political and security discussions often remain in siloes. When considering disaster response, it is important to recognize its different story with a multi-stakeholder environment that necessitates the relief phase drawing on each stakeholder's comparative strengths. It has therefore been incumbent upon the NDMO to coordinate these stakeholders. This leaves the NDMO in a position of responsibility that will need to evolve with the emerging humanitarian landscape and challenges.

At the regional level, the implementation of AADMER from 2009 and the establishment of the AHA Centre in 2011 to operationally support the NDMOs was a significant development. As we look forward towards a more collaborative future in the Indo-Asia-Pacific there are several considerations to further advance an optimal disaster response in the region. The first is the layered pressures faced in the field where different vulnerabilities affect needed responses, and requires careful attention. The second is the proliferation of regional initiatives with implications on disaster response. As different countries identify their own niche areas, political capital is invested in developing regional initiatives. The third area to review is how we fund disaster response as traditional donors scale back their financial contributions and the Indo-Asia-Pacific seeks to take a global lead in disaster response. The fourth area to consider is the potential of future disasters, from the emergence of civilian nuclear power to climate-induced migration. Finally, the fifth area to reflect upon is the possible solutions but also challenges new technologies may pose for disaster response.

More than half the world now lives in urban areas, which is expected to increase to 66 percent by 2050. Projections show that combined with overall growth of the world's population we could add 2.5 billion people to the urban populations by 2050, with close to 90 percent of this increase in Asia and Africa. As Asia is home to 53 percent of the global urban population despite lower levels of urbanization, managing urban areas is one of the most important challenges of the 21st century (UN 2014). This is reflected in the ASEAN Regional Disaster Emergency Response Simulation Exercise (ARDEX) and ASEAN Regional Forum Disaster Relief Exercise, which have included urban scenarios in their exercises over the past decade. However, the Nepal Earthquake in 2015 affected both urban and rural

populations. The earthquake highlighted the need for a better-calibrated approach as the international disaster response in Nepal saw significant attention given to urban Search and Rescue to the detriment of rural areas (Cook, Shrestha and Htet 2016). It is therefore incumbent on strategic planners to ensure that a holistic response is developed to account for local variations on global and regional trends.

Since 2005, several initiatives have impacted the regional disaster response architecture. These include but are not limited to the establishment of the AHA Centre, APEC Emergency Preparedness Working Group, ASEAN Center for Military Medicine, ASEAN Regional Mine Action Center, Changi Regional HADR Coordination Center, SAARC Disaster Management Center, the publication of the EAS Rapid Disaster Response Tool Kit, and agreement on the terms of reference for the ASEAN Militaries Ready Group. With many ASEAN initiatives at the forefront of regional developments, it places ASEAN in a prime position to lead and serve as a lynchpin for not only disaster-related but also other regional cooperation initiatives as well. Rather than the disaster response being seen only as the low-hanging fruit it should instead offer insight into a more comprehensive and multi-sectoral approach to regional cooperation. As evidenced by its multi-stakeholder environment including line ministries from health to disaster management and defense, lessons from disaster response can advance the breakdown between traditional and non-traditional security towards a more holistic and whole-of-society approach. ASEAN leadership in disaster response has grown exponentially since the AHA Centre was established. However, this leadership needs to be consolidated within ASEAN in terms of capacity, coordination and budget first.

The AHA Centre's first executive director, Said Faisal, referred to this as AHA 2.0 where the AHA Centre is able to fully deliver its mandate within ASEAN. At present, the AHA Centre's core funding comes from equal member state contributions of US$30,000 each amounting to a US$300,000 per annum budget – less than one third of its annual operating budget to June 2016 (Tang 2015). The remainder of its budget is largely from traditional donors like Japan, Australia, USA and European countries. However, these donors have signaled their intention to encourage greater financial commitments from within the region to support disaster response. As a result, designing humanitarian financing mechanisms within the Indo-Asia-Pacific is an area that needs to be developed. Recent developments include the Pacific Disaster Risk Financing and Insurance Program offers regional risk insurance pooling that could be developed for other sub-regions like ASEAN. Drawing on the non-government sectors is another avenue worthy of further exploration, such as establishing a regional disaster endowment fund or diaspora development bonds similar to those used in India in the 1980s for development. Further, generating interest from the private sector with business continuity planning will be an important component to connect the regional disaster response architecture. With new mechanisms and actors, financing disaster response it will likely cause a change in the humanitarian system norms as it evolves and adapts to new scenarios. It will therefore be important to track these developments to ensure preparedness that is more effective for responders.

Across the region, there are several types of disasters that have become common like typhoons, cyclones, earthquakes, floods and droughts. Yet the human consequences of these disasters vary significantly from one disaster to another depending on local and national capacities. This can also be impacted by new and emerging development trends such as the uptake and renewed interest in the civilian use of nuclear power to plug the energy gap in national energy mixes. For the region to have a resilient disaster response architecture it will

need to be future-ready. This will necessarily include considerations for the humanitarian impact of a disaster like the Fukushima Daiichi nuclear disaster in Japan in 2011, which saw radiation and water leaks having consequences for the local population including forced relocation, shelter, food, water and sanitation issues. Within the ASEAN context, many countries have identified building nuclear power plants as an aim. It is important to consider its potential as a new and emerging issue and to explore collaborative links between the ASEAN Network of Regulatory Bodies on Atomic Energy (ASEANTOM) and the AHA Centre to share information and expertise, and include them in emergency exercises (Baker and Dall'Arche 2016). A second potential area of concern is the climate-induced migrants or those affected people taking to the seas to escape a disaster at home. The concern is notable in a region where islands in the Pacific and Indian Oceans are under threat from rising sea levels (IPCC 2014). However, a regional plan of action needs to be developed to respond to those affected to ensure the safety and security of those who migrate by sea and entire community migration.

The final area to consider is the role and impact of new technologies on disaster response. In a disaster, the overflow of information can be as paralyzing to humanitarian efforts as the lack of information. Computers, mobiles, social media, mainstream news, earth-based sensors, humanitarian drones and orbiting satellites generate vast amounts of data. Digital humanitarians and platforms have already demonstrated that social media can inform needs based assessments, mapping during disaster situations, and serve as an empowerment tool to engage the public such as in the aftermath of Typhoon Haiyan (Meier 2015). It is therefore important to understand how different types of technology can facilitate a humanitarian response while at the same time pose challenges. After Hurricane Sandy in 2012 more than 20 million tweets were generated, which would take one person about 60,000 hours or just over 6 years to read. Digital humanitarians used crowdsourcing and Artificial Intelligence to make sense of information quickly by training algorithms to automatically identify all relevant images and pictures (Meier 2015). The increase in information and the use of new technological hardware also raise important regulatory questions as only one quarter of the world currently regulates drones, and so far drone technology have been used in over fifty disaster deployments (CRASAR 2017).

As policymakers in the Indo-Asia-Pacific look forward, the region will likely advance a networked regionalism with ASEAN playing a leading role. It will be important to further develop regional institutions to facilitate disaster responses and cooperation. This multi-stakeholder environment offers an opportunity to further develop collaborative approaches between military and civilian agencies to disasters, and provide leadership for cooperation initiatives more broadly in this region. It will also be important to build bridges between the disconnected regional groupings in the Indo-Asia-Pacific to further increase the effectiveness of disaster response. Ultimately, the Indo-Asia-Pacific will need to be greater than the sum of its parts to realize a more collaborative future in disaster response.

References

Baker, C., and F. Dall'Arche, 2016, "Nuclear Governance in Asia after the Nuclear Security Summit Process," CSIS Issues & Insights 16:9.

Cook, A. D. B., Shrestha, M., and Z.B. Htet, 2016, "The 2015 Nepal Earthquake: Implications for future international relief efforts," RSIS Policy Brief, Singapore: RSIS Center for Non-Traditional Security Studies.

Center for Robot-Assisted Search and Rescue (CRASAR), 2017, homepage.

Intergovernmental Panel on Climate Change (IPCC), 2014, Climate Change 2014–Impacts, Adaptation and Vulnerability: Regional Aspects. Cambridge University Press.

Meier, P., 2015, Digital humanitarians: how big data is changing the face of humanitarian response, Abingdon: Routledge.

Tang, A., 2015, "South East Asia emergency response team takes on region's deluge of disasters," Reuters, September 18.

United Nations, Department of Economic and Social Affairs, Population Division, 2014, World Urbanization Prospects: The 2014 Revision, Highlights (ST/ESA/SER.A/352).

A Collaborative Future for Civil-Military Relations in HADR

Deon V. Canyon

The likelihood of experiencing a sudden-onset natural, weather-related disaster is at least twice as high today as it was in the late 1970s, especially in Oceania and Southeast Asia, which are experiencing a disproportionate increase in the number of weather-related disasters (EM-DAT 2017). Contrary to this trend, the frequency of weather-related disasters has been declining in the Americas, Africa and Europe over the past 15 years. According to the 2016 World Risk Report, the total number of people affected by disasters and associated costs continues to rise (Garschagen et al 2016). Increasing urban population density in Southeast Asia, India and China are certain to ensure that this trend continues. Hydrological events such as floods and landslides, and meteorological events such as storms and heat waves are responsible for the majority of adverse impacts on human populations (EM-DAT 2017). Accompanying disasters are annual global economic costs in the range of 80-100 billion, with around 37 percent of these costs occurring in Asia. Rapid unsustainable urbanization and the growing number of people moving onto land with a historically higher exposure to disasters are additional factors that ensure growth in the economic and human impact of disasters. For instance, rising seas may affect people who have moved to vulnerable exposed areas in the hope of finding work.

These changes in disaster frequency drive several associated challenges and opportunities that are fundamentally changing the way that international and national agencies manage HADR. The most obvious challenge relates to the inability of the current global HADR system to respond adequately to disasters, provide aid coordination and meet humanitarian demand. Calls for aid funding never meet targets and mega-disasters receive 95 percent of aid while less media-worthy disasters are often unfunded. For instance, in 2010, 95 percent of the accumulated international HADR aid funding was allocated to the Haiti earthquake and the Pakistan flood while only 5 percent was shared between 54 disasters and 317 disasters received no funding, or at least did not appear in the UN financial tracking database (Ferris and Petz 2011). On top of this, 90 percent of disasters cause fewer than 50 casualties and donors are ignoring cumulative eroding effects of smaller disasters on resilience and development (IFRC 2011). Developing countries experience this gap more keenly with those lacking the structures for dealing with disasters relying almost exclusively on international assistance (Malešič 2015).

One outcome has been a call for the decentralization of humanitarian assistance to improve aid delivery logistics and to put more funds directly in the hands of local responder organizations. The International Federation of the Red Cross trialed the decentralization of distribution logistics and demonstrated its effectiveness in their Yogyakarta relief operations. Their decentralized supply chain was operational in three days and provided faster, cheaper and better service to disaster victims over a longer period (Gatignon et al 2010).

More interestingly, the stresses imposed by the above challenges have resulted in the principles upon which the humanitarian system was founded being undermined by the very

organization that created them (TSC 2016, Spiegel 2017). International humanitarian law faces a crisis of legitimacy and the entire humanitarian system has been rendered ineffective by substantial repeated failings (HPG 2016). For instance, during the 2014 Ebola outbreak, the humanitarian system experienced overt pressure and demand quickly outstripped the capacity of responding civilian and humanitarian agencies. Given this desperate situation, foreign military forces deployed from the US (Liberia) and UK (Sierra Leone). The forces trained local health workers and constructed Ebola Treatment Units (ETU). Most likely, the Ebola outbreak would not have been contained as quickly without this support, which included the US Navy Seabees and other significant logistical capacities (Kamradt-Scott et al 2015).

In many countries, especially in the Indo-Asia-Pacific region, this gap between humanitarian capacity and demand has traditionally been resolved by using various security sectors professionals including police, border, immigration, coastguard and military, among primary responders in the event of a disaster. Domestic militaries are historically a vital and central part of disaster response, and in some countries represent the only source of disaster response (Gursky et al 2014). In fact, most militaries in this region, including those in North Asia, Southeast Asia, South Asia, Pacific Islands, and even those in Australia, New Zealand and France, are primary disaster responders. These nations have embraced a military intervention approach to disaster-related humanitarian challenges, which is very different from the European-African axis where suspicions of military forces run high.

Thus, the United Nations stipulation that "Foreign military and civil defense assets should be requested only where there is no comparable civilian alternative and only the use of military or civil defense assets can meet a critical humanitarian need," in responding to natural disasters. It is increasingly viewed by disaster managers in the Indo-Asia-Pacific region as a rule that should only apply in disaster situations that are made more complex due to the presence of conflict (IASC 2008, UN 2009).

There are legitimate concerns about political interference that stems from the use of military given experiences in high-profile contexts such as Kosovo, Iraq and Afghanistan, and in relation to UN integrated missions (Metcalfe et al 2012). Civilian humanitarians have concerns that the military are expensive political instruments asked to carry out humanitarian tasks for which they have no training or competence. Thus, many militaries encounter extreme discourse if they depict themselves as humanitarian actors (Svoboda 2014). However, no research has confirmed that the use of military in HADR is inappropriate and no link between military use and civilian or humanitarian staff safety has been evidentially confirmed (GHA 2016).

Affected communities and nations are increasingly asking national and foreign militaries to assist in diverse domestic and international civil environments. This is especially true in situations where militaries have developed a trusting relationship with civilian and humanitarian actors over time. For instance, components of the U.S. military responded to the 1991 Bangladesh cyclone, the 1998 Hurricane Mitch in Central America, the 2005 Hurricane Katrina in the U.S., the 2008 Szechuan earthquake in China, and the 2008 Cyclone Nargis in Myanmar. Additionally U.S. military responded to the 2009 Padang earthquake in Indonesia, the 2010 Pakistan floods, the 2011 Japanese earthquake, and the 2013 Typhoon Haiyan in the Philippines. While military in HADR operations remain relative low compared to annual civilian responses, the increasing trend of military HADR involvement

requires more supportive training on cooperative, integrative civil-military coordination and exercises to enable more effective and efficient responses.

There is an increasing global trend in military HADR and this trend may well persist in the immediate future (Kaplan 2005). HADR in non-conflict situations typically involves extensive collaboration and coordination between civilian and military responders who view the collaboration as an opportunity to develop cooperation. Indeed, senior personnel from the International Federation of the Red Cross/Red Crescent and the United Nations have said that the "battle to keep the military out of disaster response was lost long ago" and that civilian humanitarian agencies needed to work together with the military by proactively identifying complementary capacities (Ferris 2012).

More proactive militaries, such as those in the U.S., continually reassess what works and what does not work in humanitarian missions, with the result that much has been done to improve civil-military coordination. In any endeavor, effective action requires the existence of suitable legislation, lines of authority and resources that are ready for mobilization. ASEAN is a potent and highly relevant regional force that serves as a great example. It has developed several agreements and mechanisms to establish the legal and authoritative basis for effective civilian and military emergency response arrangements. These include the AADMER; AHA Centre; the Emergency Response and Assessment Team (ERAT); the ASEAN Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP) and the establishment of a Joint Task Force to Promote Synergy on HADR. These instruments seek to promote among others, civil-military coordination and coordinated HADR efforts in the ASEAN region. More recently, the ASEAN Defense Minister Meeting-Plus Expert Working Group (ADMM-Plus EWG) on HADR co-chaired by Lao PDR and Japan built on the previously developed MNCC with the ASEAN Member States developing the concept of an AMRG. This demonstrates ASEAN's eagerness to enhance its response resources and status as a global leader in the multinational coordination of military HADR. The AMRG represents a third step in the "One ASEAN, One Response" vision in that it establishes and operationalizes a standby mechanism for coordinating ASEAN militaries in a joint response to disasters in the ASEAN region.

The provision of military HADR generates significant goodwill towards the national military or foreign country, which can smooth the way for other non-humanitarian alliances, activities and interventions. These days, the phrase, "hearts and minds" is used disapprovingly, to describe the prominent use of U.S. military resources to influence public opinion in foreign countries. For instance, in the aftermath of Typhoon Haiyan, humanitarian aid to the Philippines by the U.S. government enhanced public opinion of the U.S. among Filipinos. In April 2014 within six months of the typhoon, President Obama and President Aquino signed the Enhanced Defense Cooperation Act allowing the U.S. military access to facilities in the Philippines, stationing of troops, and prepositioning of weaponry (Guinto et al 2014).

However, the use of military assets in HADR has always been strategic and while some argue that this is based on deception (Yamada 2017), this is not typically the case and military intentions are fairly transparent. Good relations are the foundation of soft power diplomacy and are essential for the accomplishment of domestic interventions and any bilateral or

multilateral endeavor. The provision of military assistance to people in desperate need is an effective method for generating goodwill and demonstrates that a nation's military is a righteous and good force (Fukushima et al 2014).

Excellent examples include the U.S. pacification campaign designed to win the populace over to the side of the South Vietnamese government following the invasion of Vietnam, and the effort to win Iraqi support following the U.S. invasion during the Gulf War (Yamada 2017). More recent examples highlight the U.S. military "goodness," confirm the usefulness of its presence and temper public perceptions. These examples include Operation Tomodachi (Friend) in Japan in 2011 and Operation Damayan in the Philippines in 2013. Expanding soft power diplomacy in this manner cannot be underestimated when it comes to countering a loss of influence to China in the region (Brattberg 2013).

Given the inadequacy of the global humanitarian system, the future of military involvement in HADR is of considerable interest. The options are a bifurcated disaster response system in which civilian and military each do their own thing, and a cooperative, integrated system that requires the integration of military modes of operation and assets into disaster management and humanitarian efforts.

Most disaster responses tend to be bifurcated and all currently circulating models promote a separate response. On the one side, civilian entities are coordinated by an On-Site Operations Coordination Center (OSOCC), which was originally developed by the UN-OCHA and the International Search and Rescue Advisory Group network. On the other side, the UNOCHA-developed Humanitarian-Military Operations Coordination Center (HuMOCC) provides civilian coordination of military entities. The HuMOCC concept is becoming more irrelevant in favor of the MNCC, which facilitates coordination and cooperation of foreign military forces under the affected nation's leadership to support disaster response.

Very few disasters are addressed by non-bifurcated, cooperative and integrated disaster responses. Fiji provides a good example since it integrated military modes of operation and assets into disaster management and humanitarian efforts against Cyclone Winston in 2016. This local response combined foreign military and civilian assistance in a collaborative manner. The approach was notable because the bilateral and multilateral (FRANZ) agreements in the region tend to be soft with no predefined standard operating procedures and set ways of structuring a disaster response. This approach recognizes the unique nature of every disaster and the need for flexibility and speed of response over formal protocols and structures that are invariably exercised in simplistic scenarios. The key to their success lies in well-established, long-term relationships and the building of trust over time.

In the Indo-Asia-Pacific region, HADR efforts tend to involve all relevant players in preparedness, response and recovery phases. Less emphasis is placed on humanitarian principles as the governments of the region favor military HADR involvement where there is no conflict. To support this approach more effectively, international agencies need to decentralize their authority and funding structures and provide more direct assistance to appropriate local agencies, such as those belonging to the International Federation of the Red Cross/Red Crescent movements. New cloud-based funding models, where funding is collected directly from the public via websites, are required to decentralize and close the gap between humanitarian need and available resources in a novel manner.

Good governance and consultation with many stakeholders are required to ensure that military provision of HADR develops smoothly in a non-bifurcated manner towards integration. Already some are recognizing that a more important question than, "What can we do?" is "What can you do with our assistance?" to foster local leadership and reduce risk (Burkle 2016). In the name of transparency, it is of vital importance that all parties get a very clear picture on exactly what assistance is available.

References

Brattberg, E., 2013, The case for US military response during international disasters.

Burkle, F.M., 2016, 'The World Health Organization global health emergency workforce: What role will the United States play?" Disaster Medicine and Public Health Preparedness, 10,4,531-5.

EM-DAT, 2017, The international disaster database.

Ferris, E, Petz D. 2011, A Year of Living Dangerously, Washington, D.C: Brookings Project on Internal Displacement.

Ferri,s E., 2012, Future directions in civil-military responses to natural disasters, Washington, D.C: Brookings Institution.

Fukushima, AI, Ginoza A, Hase M, Kirk G, Lee D, and T. Shefler, 2014, Disaster militarism: rethinking U.S. relief in the Indo-Asia-Pacific, Foreign Policy in Focus, Mar 11.

Garschagen, M, Hagenlocher M, Comes M, et al., 2016, World Risk Report 2016. Bündnis Entwicklung Hilft and UNU-EHS.

Gatignon A, Van Wassenhove L, and A. Charles, 2010. The Yogyakarta earthquake: Humanitarian relief through IFRC's decentralized supply chain, International Journal of Production Economics, 126, 1, 102-110.

GHA, 2016, Global humanitarian assistance report.

Guinto, J, Talev M, and P. Mattingly, 2014, U.S., Philippines sign defense pact amid China tensions. Bloomberg L.P., Apr 28.

Gursky EA, Burkle FM Jr, Hamon DW, Walker P, and G.C. Benjamin, 2014, The changing face of crises and aid in the Indo-Asia-Pacific, Biosecur Bioterror12,6,310-317.

HPG, 2016, Time to let go: remaking humanitarian action for the modern era, London: ODI Humanitarian Policy Group

IFRC, 2011, "Out of sight, out of mind", Red Cross Red Crescent Magazine, 2,20.

IASC, 2008, Civil–Military Guidelines and Reference for Complex Emergencies, Inter-Agency Standing Committee, October.

Kamradt-Scott, A, Harman S, Wenham C, and F. Smith III, 2015, "Saving lives: the civil-military response to the 2014 Ebola outbreak in West Africa," The University of Sydney.

Malešič, M, 2015,. "The impact of military engagement in disaster management on civil–military relations," Current Sociology, 63, 7, 980-998.

Metcalfe, V, Haysom S, and S. Gordon, 2012, "Trends and challenges in humanitarian civil–military coordination: A review of the literature", London: ODI Humanitarian Policy Group.

Kaplan, R., 2005, US forces: the world's best relief group. New York Times, October 12.

Spiegel, P., 2017, "The humanitarian system is not just broke, but broken: recommendations for future humanitarian action", The Lancet, June 8.

Svoboda, E. 2014, The interaction between humanitarian and military actors: where do we go from here? HPG Policy Brief 58, April, London: ODI Humanitarian Policy Group

TSC., 2016, "Taking sides: the United Nations' loss of impartiality, independence and neutrality in Syria," Report, St. Ives: The Voices Project.

UN, 2007, Oslo Guidelines: Guidelines on the Use of Military and Civil Defence Assets to Support United Nations Humanitarian Activities in Complex Emergencies.

UNISDR, 2015, Sendai Framework for Disaster Risk Reduction 2015-2030. Sendai, Japan: UNSIDR.

Walker P, Hein K, Russ C, Bertleff G, and D. Caspersz, 2016, A blueprint for professionalizing humanitarian assistance, Health Affairs, 35,6, 2223-2230.

Yamada S., 2017, "Hearts and minds: Typhoon Yolanda/Haiyan and the use of humanitarian assistance/disaster relief to further strategic ends", Social Medicine 11, 2, May, 76 – 82.

Insights on Optimizing Sub-Regional Disaster Response

Deon V. Canyon

Participants in the disaster response workshop reflected on what they had learned from approaches and activities in other sub-regions. Their intention was to identify opportunities and insights that would lead to improved cooperation in their sub-region's regional and international response. Three groups conducted an analysis of the opportunities identified on Day 2 of the workshop and prioritized them based on importance and achievability (Table 1).

Table 1: Categorized and prioritized (1 highest) opportunities for improving regional disaster response architecture according to summed importance and achievability scores.

Prioritized Opportunities from Highest to Lowest	**Category**
1. Participation in multi-lateral dialogues	Awareness
2. Participation in multinational exercises and training courses	Awareness
3. Increase skills in conducting disaster assessments	Awareness
4. Systematic integration and exercising of civil-gov-mi; coordination	Cooperation
5. Each nation develops national policies for disaster response	Aid Process
6. Regular networking with regional governments and organizations	Awareness
7. Increase high level regional and international dialogue on humanitarianism	Awareness
8. Establish/exercise a new Indo-Asia-Pacific regional info sharing platform	Cooperation
9. Each nation develops national policies that facilitate humanitarian aid	Aid Process
10. All nations adopt a minimum generic SOP on how to receive aid	Aid Process
11. Increase use of MNCC and exercise military-military coordination	Cooperation
12. Each nation has a One Stop Shop + (e.g. PIHAC) to process foreign aid	Aid Process
13. All nations adopt a minimum generic SOP on how to provide aid	Aid Process
14. Increase interoperability between UN and regional organizations	Cooperation
15. Operationalize SAARC	Cooperation
16. Prepare ASEAN to provide disaster response aid to other sub-regions	Cooperation
17. Create more regional cooperation structures (e.g. ASEAN's ACMM & AMRG)	Cooperation

Overall, participants were more generous with importance ratings and more cautious with achievability ratings. When the importance and achievability factors were plotted in a scatter diagram, opportunities clearly ranged from low to mid and high value (Figure 1).

The circled group consisted of those opportunities that were higher than 70 percent in both importance and achievability to merit priority consideration. Four of five specific Awareness raising opportunities efforts were highly rated in terms of achievability and importance, while only one of seven Coordination opportunities and one of five Aid Process opportunities made similar rankings. In general, most Aid Process opportunities rated midway and participants considered many coordination opportunities too difficult to pursue.

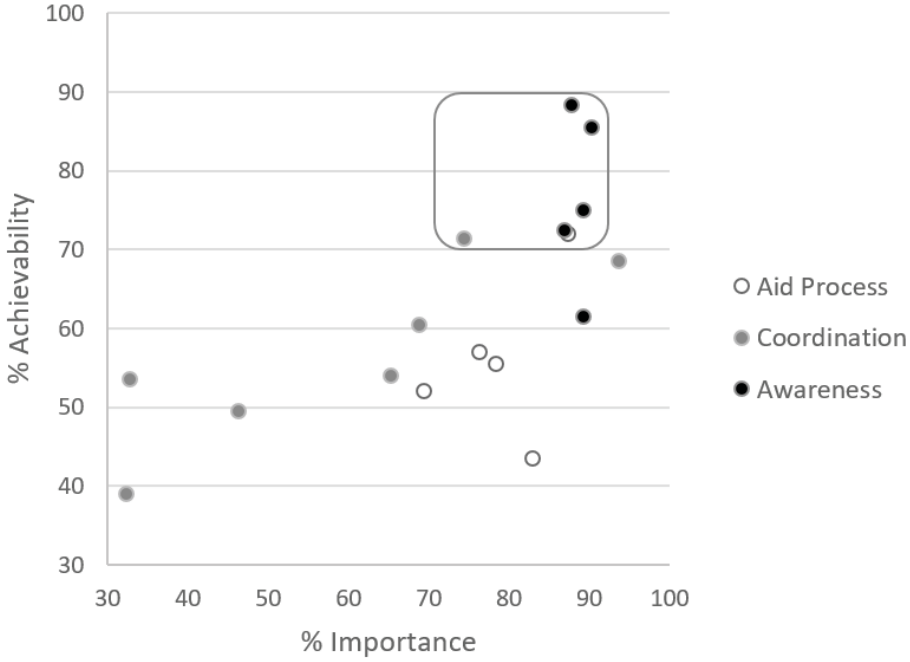

Figure 1: Correlation between importance and achievability of identified opportunities for improving regional disaster response architecture with high value grouping circled.

Since each workshop group prioritized the list of opportunities in different ways, extensive discussion in groups and then in plenary followed to validate the results. Subsequent discussion in both these forums focused on how to institutionalize the seven highest priority opportunities (Table 2).

Table 2: Recommendations for institutionalizing high rated opportunities.

1. Increase skills in conducting disaster assessments (Awareness)	• Assessment skills are needed for all disaster phases • Professionalize the disaster response occupation • Create national agreement on what assessments need to be done, how to do them and who does them • Ask a regional center or university to teach these skills • Partner with NDMOs, UNDP, UNOCHA, ADB and World Bank
2. Systematic integration and exercising of civil-gov-military coordination (Cooperation)	• At national level, there is civ-mil coordination, but this does not exist at regional level • Study the Philippine's model of corporate consortium • Compare best practices and create awareness • Integrate into governance systems (political decision) • Exercise civ-mil coordination through AMRG, ARF and ADMM-Plus forums

3. Regular networking with regional governments and organizations (Awareness)	• Strengthen AMS, ASEAN Plus intra-learnings/relationships through:
	  • Improved co-ordination via exercises of framework E.g. INSARAG exercise
	  • Knowledge-sharing and dissemination E.g. AHA Centre partner with private sector, NGOs or universities (ICT program, PIHAC, EWS from Japan/ROP)

4. Each nation develops national policies for disaster response (Aid Process)	• Awareness and refreshing political focus, commitment, political will and legislation • Carefully considered authority structures • Dedicated institutions and resources
5. Establish/exercise a new Indo-Asia-Pacific regional info sharing platform (Cooperation)	• Existing systems (Virtual OSOCC, WebEOC, APAN and OPERA CIS) all have deficiencies and a new system specially designed for the entire region is required • Ownership issues must be resolved by seating the resource in a regional center • New system must integrate with existing systems to the maximum extent possible to smooth transition

Insights from Non-Southeast Asian countries

Northeast Asian participants noted the lack of a sub-regional mechanism and described the existence of informal loose relationships to facilitate disaster response cooperation. Northeast Asian participants expressed the desire to have a network of warehouses ready for deployment throughout the sub-region since timing in disaster response is critical. This thought matured into the idea of a humanitarian hub in the sub-region instead of national warehouses, however, participants deemed political tension a challenge for implementation. After seeing what other sub-regions were doing during the workshop, Northeast Asian participants identified an emerging need for a formal, sub-regional disaster response structure. They expressed interest in embracing the cluster system and noted that inter-regional civil response options, including the use of military assets, were expanding.

South Asian participants stated that all opportunities for future disaster response development were relevant and under consideration. They recognized the need for better integration between national and regional bodies and noted that SAARC countries had agreed to setup a regional disaster center. However, they faced challenges relating to securing funding for regional center and activities and needed to generate support and commitment from member states to enable a regional center. The participants indicated that South Asia had much to learn from what the AHA Centre had accomplished and was very interested in how Southeast Asia organized its warehousing. The priority was to identify what was not working with SAARC and fix it. Part of this was the need to hold a forum in which all national NDMOs of the sub-region could meet to plan the future of disaster management cooperation in South Asia.

Oceania participants had witnessed a greater level of exercising by external powers and they continue to build capacity and gain experience. Their primary interest was in developing a whole of society approach involving tripartite relationships between government, civil society and private partners. This was seen as essential to address climate resilience, development, security and disaster response and many international organizations focus on building resilience. Participants recognized that an abundance of regional governance structures already exist in the Pacific, however, yet few have the required commitment from sufficient nations to be effective. The tyranny of distance and frequency of cyclones coupled with limited material and human resources are the largest obstacles to creating, sustaining and operating a sub-regional disaster response infrastructure.

These three non-Southeast Asian regions lack effective and well-functioning sub-regional disaster-response architecture, but the reasons are very different. These nations range from powerful to weak and well-resourced to poor. They are alike, however, in their preference for bilateral arrangements and flexibility to create *ad hoc* structures in response to disasters.

CONCLUSION

Across the Indo-Asia-Pacific, the four sub-regions of South Asia, Southeast Asia, Northeast Asia and Oceania will continue to evolve at different speeds and face divergent local contexts and associated challenges. However, when considering that the region is greatly affected by weather-related disasters there is a level of urgency that has spurred several significant developments both at the regional and technical level, as witnessed by the disaster response developments in ASEAN and from the various lessons learnt by responders after each disaster.

In Section One, Alistair D. B. Cook maps the developments within the ASEAN context from its establishment in 1967 to the present in the first chapter. The regional grouping responded to the Indian Ocean Tsunami and Earthquake with the experience being a catalyst for change in how ASEAN member states cooperate in disaster response. This subsequently saw significant developments over the next twelve years until the pronouncement of the One ASEAN, One Response declaration in 2016. While Southeast Asia is undeniably the sub-region with the most significant progress made on regional disaster response cooperation it is by no means alone. In the second chapter, David Shanahan assesses the challenges to progress in South Asia where a nascent regional disaster response architecture remains unable to respond to natural disasters like the Nepal Gorkha Earthquake. While there is some hope for developments on disaster response in SAARC, the current suspension of discussion on disaster response or disaster management more generally makes the situation difficult. In the third chapter, Miemie Winn Byrd and Seongwon Han wove together the difficulties faced in Northeast Asia, which remains the sub-region with significant challenges to regional developments in disaster response or indeed other security issues. In the fourth chapter, Deon V. Canyon assesses the underdevelopment of a Pacific regional disaster response architecture in favor of each nation state presenting their particular cases to the international community during periods of weather-related disasters. Finally, Jessica Ear draws together the regional issues and challenges to provide a conclusion.

In the second section, four authors cover significant case studies from across the Indo-Asia-Pacific. In chapter one, Lloyd Puckett develops the lessons learnt by experience of the humanitarian impact of Typhoon Haiyan and Hagupit with the subsequent development of national policy responses and regional implications. In the second chapter, David Shanahan highlights that rather than the experience of the Nepal Earthquake being a catalyst, the aftermath saw significant blockages and duplication in the process of humanitarian assistance. In the third chapter, Deon V. Canyon identifies the individual approaches that each Pacific Island government undertakes and the challenges faced following the impact of Cyclone Winston. In the fourth chapter, Nozomu Yoshitomi identifies the lack of preparedness in Japan, which led to the limited ability to receive foreign assistance. He proposes developing abilities to provide and receive aid or "Double Use Capability," as a best practice to be shared among countries and sub-regions. Finally, Lina Gong and Vishalini Suresh

analyses and concludes the broad trends seen across the different sub-regions recognizing the importance of national sovereignty, the need for more consolidated cooperation mechanisms between the affected and donor states, and the impact of humanitarian technology on the humanitarian landscape.

In the final section, in two separate chapters Alistair D. B. Cook and Deon V. Canyon look forwards to assess what the Indo-Asia-Pacific needs to consider when improving the different sub-regional disaster response architectures. Alistair D. B. Cook looks at the importance of emerging issue areas like increased urbanization, emergence of the civilian use of nuclear power plants or climate-induced displacement on current disaster response architectures. Further, he identifies the need to tackle current and new issue areas with a more comprehensive approach that draws the different sectors together in disaster response. Subsequently, Deon V. Canyon highlights the importance of civil-military relations in disaster response and identifies why this has emerged as a key avenue to advance effective humanitarian assistance.

The publication concludes with insights on optimizing sub-regional disaster response. Workshop participants ranked recommendations based on importance and achievability rankings to improve awareness, aid process and cooperation. Throughout this report, the participants and authors have identified both strategic and technical areas for improvements that can serve each sub-region well in setting a policy agenda. These findings and conclusions emphasized the potential benefits of sharing experiences between the different Indo-Asia-Pacific sub-region to develop more effective and efficient regional disaster response architectures.

CONTRIBUTORS

Dr. Miemie Winn Byrd is a Professor at the Daniel K. Inouye Asia-Pacific Center for Security Studies, Hawaii

Dr. Deon V. Canyon is an Associate Professor at the Daniel K. Inouye Asia-Pacific Center for Security Studies, Hawaii.

Dr. Alistair D. B. Cook is the coordinator of the Humanitarian Assistance and Disaster Relief Programme and Research Fellow at the Centre for Non-Traditional Security Studies, S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore.

Jessica Ear is a lawyer and Professor at the Daniel K. Inouye Asia-Pacific Center for Security Studies, Hawaii.

Dr. Lina Gong is a Research Fellow at the Centre for Non-Traditional Security Studies, S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore.

Seongwon Han is a Visiting Scholar from the Ministry of Public Safety and Security for the Republic of Korea at the Daniel K. Inouye Asia-Pacific Center for Security Studies, Hawaii.

Oiroa Kaihau is a retired Lieutenant Colonel of the New Zealand Army and the External Relationships Manager at the Centre for Defence and Security Studies, Massey University, Australia.

Lloyd Puckett is a Regional Disaster Management and Humanitarian Advisor at the Center for Excellence in Disaster Management & Humanitarian Assistance, Hawaii.

Vishalini Suresh is a Senior Analyst at the Centre for Non-Traditional Security Studies, S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore.

David Shanahan is a Professor at the Daniel K. Inouye Asia-Pacific Center for Security Studies, Hawaii.

Nozomu Yoshitomi is a retired Major General of the Japan Ground Self-Defense Force and Professor at the College of Risk Management, Nihon University, Japan.

The humanitarian assistance and disaster relief (HADR) cooperation landscape in the Indo-Asia-Pacific is becoming more complex as the growth of frameworks and mechanisms are often developed in isolation from other existing coordination efforts. These areas of potential duplication can hamper effective and efficient life-saving assistance. Recognizing these challenges, the Daniel K. Inouye Indo-Asia-Pacific Center for Security Studies (DKI APCSS) and the S. Rajaratnam School of International Studies (RSIS) at Nanyang Technological University, Singapore organized a blended practitioner and academic workshop focused on the future development of disaster response regional architectures.

From July 18 to 20, 2017, DKI APCSS and RSIS convened 43 participants from 14 Indo-Asia-Pacific states and Taiwan to assess future possibilities associated with improved disaster response regional architectures. The intent of the workshop was to identify and provide prioritized focal areas for improved regional disaster response coordination and cooperation. The result was a candid, collaborative, strategic conversation about what practitioners and academics of HADR see as their region's primary challenges and major opportunity areas for improved regional responses. This report provides guidance and fosters ongoing dialogue to inform and assist leaders to achieve greater disaster response collaboration through improved regional architectures and cooperation.

ISBN 978-0-9719416-8-7
90000>
9 780971 941687