

THE ABILITY OF THE ASEAN MILITARY READY GROUP TO
PROVIDE EFFECTIVE HUMANITARIAN ASSISTANCE
AND DISASTER RELIEF OPERATIONS

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General Studies

by

NGUYEN THANH TRUNG, CAPTAIN, VIETNAM PEOPLE'S ARMY
B.S., Signal Officers' Training School, Khanh Hoa, 2012

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Name of Candidate: Captain Thanh Trung Nguyen

Thesis Title: The Ability of the ASEAN Military Ready Group to Provide Effective Humanitarian Assistance and Disaster Relief Operations

Approved by:

_____, Thesis Committee Chair
David B. Roeder, M.A.

_____, Member
John H. Modinger, Ph.D.

_____, Member
Lieutenant Colonel James R. Johnson, M.A.

Accepted this 12th day of June 2020 by:

_____, Acting Director, Office of Degree Programs
Prisco R. Hernandez, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

THE ABILITY OF THE ASEAN MILITARY READY GROUP TO PROVIDE EFFECTIVE HUMANITARIAN ASSISTANCE AND DISASTER RELIEF OPERATIONS, by Captain Nguyen Thanh Trung, 121 pages.

Natural disasters and humanitarian crises have become nontraditional threats that have been challenging ASEAN member states and urging for a collaborative response of the region. ASEAN has had several efforts throughout its history to strengthen its disaster response capability even though there have been obstacles to overcome. While civilian disaster response seems to be insufficient and quickly overwhelmed, the military is having an increasingly important role in HADR. ASEAN adopted the AMRG on HADR as a promising tool that possibly promotes regional military cooperation to leverage ASEAN's disaster response capability. In 2016, ASEAN adopted the Term of Reference of the AMRG on HADR and had developed it since then towards its operationalization in 2020. This thesis answers the question; what gaps exist in the AMRG TOR to be effectively operationalized. To address the question, this thesis examined three case studies: Earthquake Pakistan 2005, Hurricane Katrina USA 2005, and Earthquake Haiti 2010 against five criteria: readiness; command and control; decision-making process; civil-military coordination; and funding and equipping. This study also suggests developments to the AMRG and areas for further research.

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ACRONYMS

AADMER	ASEAN Agreement on Disaster Management and Emergency Response
ADMM	ASEAN Defense Minister's Meeting
AHA Centre	ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management
AJDRP	ASEAN Joint Disaster Response Plan
AMRG	ASEAN Military Ready Group
AMS	ASEAN Member State
ASEAN	Association of South East Asian Nations
CFE-DMHA	Center for Excellence in Disaster Management & Humanitarian Assistance
EADRCC	Euro-Atlantic Disaster Response Coordination Centre
ERAT	Emergency Response and Assessment Team
HADR	Humanitarian Assistance and Disaster Relief
JTF-Haiti	Joint Task Force - Haiti
NATO	North Atlantic Treaty Organization
NDMO	National Disaster Management Office
NFP	National Focal Point
SASOP	Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations
SEA	South East Asia
SOP	Standard Operating Procedure
TOR	Term of Reference
UN	United Nations
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs

US	United States
USNORTHCOM	United States Northern Command
USSOUTHCOM	United States Southern Command
USAID	United States Agency for International Development
USCENTCOM	United States Central Command

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CHAPTER 1

INTRODUCTION

Sometimes, the enormity of the disaster is such that a nation, however powerful, finds it difficult to manage the disaster on its own, thus warranting the need for external assistance and, more often than not, involvement of military. Why then the military? By nature of its structure, organization, assets and capability, militaries are seen as suited for immediate response to any disaster relief operations.

—Dato' Seri Dr Ahmad Zahid Hamidi, Minister of Defence, Malaysia
Shangri-La Dialogue 2010, Fourth Plenary Session, June 6, 2010

The Association of Southeast Asian Nations (ASEAN) is facing many unconventional security issues of which humanitarian crises and natural disasters are of the most concerning challenges. Every year, Southeast Asia (SEA) suffers from several disasters that significantly damage the social and economy of the affected states, cause a large number of fatalities, and leave many people in poverty. Throughout the history of ASEAN, since it was established, the association had improved its humanitarian assistance and disaster relief (HADR) capabilities to manage the issues and enhance the resilience of the region. Leaders of ASEAN and its member states realize that the militaries, with the unique capacity they can provide, play a significant role in HADR. While ASEAN member states (AMS) have involved their militaries in national disaster relief operations, there is also a need for regional military cooperation to improve the HADR capabilities of the ASEAN collectively. Therefore, in 2015, the AMS Defence Ministers adopted the concept of the ASEAN Military Ready Group on Humanitarian Assistance and Disaster Relief (AMRG on HADR) as a tool that will provide the critical military capabilities to enhance the resilience of ASEAN. The AMRG on HADR is also a promising initiation to enhance the mutual trust among AMS through collective

operations that potentially be the foundation for further regional security cooperation. However, although ASEAN has adopted the AMRG's Term of Reference (TOR), the capability of the AMRG, as outlined in the TOR, appears to be insufficient and will result in an ineffective HADR force without operational adjustments.

The study examines the current capability of the AMRG on HADR by comparing it to the requirements for a multinational military force to provide effective HADR operations. The requirements are obtained from the analysis of three case studies of HADR operations conducted by different countries in the world. This study is going to identify any gaps existing in the AMRG TOR, which has been adopted by ASEAN, and give recommendations for improvements. The purpose of the study is to contribute to an effective operationalization of the AMRG on HADR and a more capable ASEAN in addressing unconventional security issues.

Background

ASEAN's History, Geography, and Vulnerability to Natural Disasters

The Association of Southeast Asian Nations was formed on August 8, 1967, that reflected the desire of five Southeast Asian countries (Indonesia, Malaysia, Singapore, Thailand, and the Philippines) of building a regional association for peace, cooperation, and development. The birth of ASEAN was also the result of the "Cold War" between great powers, primarily the United States and the Soviet Union, for their influence in the SEA. After the end of the "Cold War", the collapse of the Soviet Union and the shift of focus of both the United States and China away from the region set the condition for SEA to grow. Since then, ASEAN has witnessed considerable development in terms of scale, social, economy, and cooperation. From 1984 to 1999, the number of AMS doubled to

ten countries with the adhesion of Brunei in 1984, Vietnam in 1995, Laos and Myanmar in 1997, and Cambodia in 1999.

The distinguished geographical location has been a significant factor to contribute to the development of ASEAN. Occupying the world's most extensive trade route and granary and being considered as a buffer zone between China and India, as well as between China and Japan, ASEAN has become one of the most important actors in the SEA in terms of international relations. Throughout nearly 53 years of construction and development, from an association of undeveloped countries, ASEAN has evolved and become a dynamic economic development region with a population of almost 600 million, an area of 4.5 million square kilometers, the scale of GDP reached nearly 900 billion, and the total trade value of about 800 billion USD.¹ ASEAN's economy, with its dramatic development, is expected to be the fourth-largest in the world by 2050.²

Nevertheless, besides the mentioned advantages, ASEAN has to suffer from numerous disasters every year, which has brought significant challenges to the AMS in terms of fatalities and social and economic damages. During the last two decades, the region has been suffered from several disaster events of various types, ranging from typhoons, floods, drought, earthquakes, and volcanic eruptions, with a higher level of

¹ Huyen Thanh Tran, "Sự Hình Thành Cộng Đồng ASEAN," "The Formation of ASEAN Community," ASEAN Connectivity, accessed October 15, 2019, <http://asean.hcmussh.edu.vn/?ArticleId=27228505-72a3-478a-a658-01737588c8bc>.

² ASEAN Coordination Centre for Humanitarian Assistance (AHA Centre), *Operationalising: One ASEAN One Response: Speed, Scale, Solidarity* (Jakarta: Indonesia: AHA Centre, March 2018), accessed October 7, 2019, <https://ahacentre.org/wp-content/uploads/2018/03/AHA-GDE-One-ASEAN-One-Response-FINAL-1810318-1.pdf>.

severity, more in frequency, and less of predictability than before. Some of the most severe disaster events were the Indian Ocean Tsunami (2004), Cyclone Nargis (2008), and Typhoon Haiyan (2013). In 2018 alone, the region was affected by over 1500 disasters.³ Figure 1 shows the impact of natural disasters in the ASEAN region in 2018.

³ Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DMHA), *ASEAN Disaster Management Reference Handbook* (Hickam, HI: CFE-DM, March 2019), 12, accessed October 25, 2019, <https://www.cfe-dmha.org/DMHA-Resources/Disaster-Management-Reference-Handbooks>.



Figure 1. The Impact of Natural Disasters in the ASEAN Region, 2018

Source: Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DMHA), *ASEAN Disaster Management Reference Handbook* (Hickam, HI: CFE-DM, March 2019), 12, accessed October 25, 2019, <https://www.cfe-dmha.org/DMHA-Resources/Disaster-Management-Reference-Handbooks>.

According to the Global Climate Risk Index 2020, Myanmar, Philippines, Vietnam, and Thailand are among the ten countries that had suffered the most from

natural disasters in the world within the 20 years period from 1999 to 2018 (See Table 1).⁴

Table 1. The Long-Term Climate Risk Index (CRI): The 10 Countries Most Affected, 1999-2018 (Annual Averages).							
CRI 1999-2008 (1998-2007)	Country	CRI score	Death toll	Deaths per 100.000 inhabitants	Total losses in million US\$ PPP	Losses per unit GDP in %	Number of events (total 1999-2018)
1 (1)	Puerto Rico	6.67	149.90	4.09	4 567.06	3.76	25
2 (3)	Myanmar	10.33	7 052.40	14.29	1 630.06	0.83	55
3 (4)	Haiti	13.83	274.15	2.81	388.93	2.38	78
4 (5)	Philippines	17.67	869.80	0.96	3 118.68	0.57	317
5 (8)	Pakistan	28.83	499.45	0.30	3 792.52	0.53	152
6 (9)	Vietnam	29.83	285.80	0.33	2 018.77	0.47	226
7 (7)	Bangladesh	30.00	577.45	0.39	1 686.33	0.41	191
8 (13)	Thailand	31.00	140.00	0.21	7 764.06	0.87	147
9 (11)	Nepal	31.50	228.00	0.87	225.86	0.40	180
10 (10)	Dominica	32.33	3.35	4.72	133.02	20.80	8

Source: Created by author using data from David Eckstein, Vera Künzel, Laura Schäfer, and Maik Winges, *Global Climate Risk Index: Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events from 2018 and 1999 to 2018* (Briefing Paper, Germanwatch, December 2019), accessed October 25, 2019, https://www.germanwatch.org/sites/germanwatch.org/files/20-2-01e%20Global%20Climate%20Risk%20Index%202020_14.pdf.

The occurrence and considerable damages of natural disasters in ASEAN have originated from both nature and human factors. According to the ASEAN Disaster Information Network (ADInet) for regional disaster monitoring by the AHA Centre, hydro-meteorological hazards have been the reason for most of disasters in the region (85

⁴ David Eckstein, Vera Künzel, Laura Schäfer, and Maik Winges, *Global Climate Risk Index: Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events from 2018 and 1999 to 2018* (Briefing Paper, Germanwatch, December 2019), 5-6, accessed October 25, 2019, https://www.germanwatch.org/sites/germanwatch.org/files/20-2-01e%20Global%20Climate%20Risk%20Index%202020_14.pdf.

percent of the catastrophe caused by this). Among various types of disasters that ASEAN has to suffer, flooding has occurred with the highest frequency. There were 633 floods counted in the region from mid-2012 to early 2018. Together with storms and wind, they have had the most effects on the population of AMS. Meanwhile, wind-related disasters and earthquakes, though less frequent, were recognized as more lethal to humans and caused severe damages to the economy, infrastructure, and environment.⁵ Besides, the rapid urbanization that has led to significant environmental changes have also extended the risk and vulnerability of the AMS population to disasters. Additionally, the effectiveness of regional cooperation in responding to crises is limited due to the affected states' "sovereignty" policy.⁶

Natural disasters have had great impacts on ASEAN not only in terms of mortalities but also in economic damages. During the ten years from 2003 to 2013, according to the International Disaster Database, almost one-third of global disaster-caused mortalities were in SEA. Throughout this term, natural disasters also cost the AMS 4.4 billion dollars annually.⁷ From July 2012 to February 2018, the record of

⁵ AHA Centre, *Operationalising: One ASEAN One Response Speed Scale Solidarity*, 10.

⁶ Allen Lai, Alex Jingwei He, Teck Boon Tan, and Kai Hong Phua, "A Proposed ASEAN Disaster Response, Training and Logistic Centre Enhancing Regional Governance in Disaster Management," *Transition Studies Review* 16, no. 2 (June 2009): 299, accessed January 28, 2020, https://www.researchgate.net/publication/227129466_A_Proposed_ASEAN_Disaster_Response_Training_and_Logistic_Centre_Enhancing_Regional_Governance_in_Disaster_Management.

⁷ Shane D. Hughes, "ASEAN's Role in Regional Natural Disaster Response," (Paper, Chulalongkorn University, Bangkok, Thailand, December 25, 2015), 4, accessed October 07, 2019, <https://www.cfe-dmha.org/LinkClick.aspx?fileticket=XWuTQVbNm2E%3D&portalid=0>.

ADInet has observed over 1200 disasters, which caused total economic damage of 15.91 billion USD to AMS.⁸ Among thousands of disasters that occurred in SEA, the 2004 Indian Ocean tsunami, the 2008 Cyclone Nargis, and the 2013 Typhoon Haiyan have brought the most fatalities and damages to the ASEAN region. In 2004, 200,000 people in different countries in South and Southeast Asia died as the consequence of the Indian Ocean tsunami.⁹ The disastrous Cyclone Nargis that destroyed part of Myanmar in 2008 resulted in over 84,500 fatalities, 19,300 injured, 55,500 missing, and left about 800,000 people displaced. The cyclone seriously affected 2.4 million people across 37 townships that it went through and left the property damage of four billion dollars.¹⁰ Considerable live loss and economic damage were also recorded after the Typhoon Haiyan struck the Philippines in 2013. The typhoon left a total of 16 million people under impact and over four million people displaced, as reported in the last update of the Philippine National Disaster Risk Reduction and Management Council (NDRRMC). The number of fatalities in Haiyan was up to 6300, and the estimated economic cost was more than 142 million USD.¹¹

⁸ AHA Centre, *Operationalising: One ASEAN One Response Speed Scale Solidarity*, 10.

⁹ Hughes, “ASEAN’s Role in Regional Natural Disaster Response,” 4.

¹⁰ CAPT Martin A. Sebastian, RMN (R) and Mohd Ikmal Hisyam Abu, *Humanitarian Assistance and Disaster Relief (HADR) from the Sea* (Kuala Lumpur: Maritime Institute of Malaysia, January 30, 2016), accessed November 20, 2019, http://www.mima.gov.my/images/page/research/Capt._Martin_A._Sebastian_RMN_R_-_HUMANITARIAN_ASSISTANCE_AND_DISASTER_RELIEF.pdf.

¹¹ The ASEAN Secretariat and ASEAN Coordination Centre for Humanitarian Assistance (AHA Centre), *Weathering the Perfect Storm: Lessons Learnt from ASEAN’s Response to The Aftermath of Typhoon Haiyan* (Jakarta, Indonesia: ASEAN Secretariat,

History of ASEAN's Disaster Response Capability

The first significant effort of ASEAN in assuming its role in regional disaster response was the 1976 Declaration on Mutual Assistance on Natural Disasters. The intra-ASEAN cooperation aimed at developing ASEAN's regional capability in responding to natural disasters. Nevertheless, the subsequently formed working groups could not implement the primary object to influence at the national level. After the Cold War ended, ASEAN grew significantly in terms of scale, social, economy, and cooperation. ASEAN then paid more attention to dealing with regional security issues, especially towards non-traditional threats. The 1998 Hanoi Plan of Action showed the region's attempt to enhance civil-military and international cooperation in disaster response by introducing the ASEAN guidelines for collaboration between AMS and dialogue partners of the ASEAN Regional Forum (ARF), as well as several other international and regional mechanisms, including the UN system, East Asia Summit (EAS), Asia-Pacific Economic Cooperation (APEC), Asia-Europe Meeting (ASEM), and Asia-Pacific Conference on Military Assistance to Disaster Relief Operations (APC-MADRO).¹²

The vulnerability of ASEAN under natural disasters' damages emphasized the importance of having a regional mechanism to improve AMS's HADR capability. The 2004 catastrophic Indian Ocean tsunami served as a tipping point that urged the action of ASEAN, which resulted in the draft of the ASEAN Agreement on Disaster Management and Emergency Response (AADMER). Regardless of the emerging need for a regional

2014), accessed January 06, 2020, <https://www.rcrc-resilience-southeastasia.org/wp-content/uploads/2016/02/Weathering-the-Perfect-Storm-lowres.pdf>.

¹² CFE-DMHA, *ASEAN Disaster Management Reference Handbook*, 54.

mechanism on HADR, it took the AMS a long time to adopt the agreement. Figure 2 illustrates the development of ASEAN's efforts in HADR.

Table 2. Chronology of ASEAN Relevant HADR Capacity Development	
YEAR	TITLE
1976	Bali Concord I (BCI)
1976	ASEAN Declaration on Mutual Assistance on Natural Disasters
1976	Treaty of Amity and Cooperation in Southeast Asia (TAC)
1998	Hanoi Plan of Action (HPA)
2003	Declaration of ASEAN Concord II (Bali Concord II or BCII)
2004	Vientiane Action Program (VAP)
2007	ASEAN Economic Community Blueprint
2007	Guidelines on the Use of Foreign Military and Civil Defense Assets (MCDA) in Disaster Relief – “Oslo Guidelines”
2009	ASEAN Agreement of Disaster Management and Emergency Response (AADMER)
2009	Standard Operating Procedure of Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP)
2009	ASEAN Regional Forum (ARF) Work Plan for Disaster Relief
2009	Cha-am Hua Hin Declaration on the Roadmap for an ASEAN Community
2009	Initiative for ASEAN Integration (IAI) Strategic Framework and IAI Work Plan 2
2009	ASEAN Political-Security Community Blueprint
2009	ASEAN Social-Cultural Community Blueprint
2010	Bandar Seri Begawan (Brunei) Plan of Action to Strengthen the ASEAN-EU Enhanced Partnership
2010	ASEAN-United Nation Strategic Plan for Cooperation on Disaster Management
2011	Bali Declaration on ASEAN Community in a Global Community of Nations, Bali Concord III (BCIII)
2011	South Asian Association for Regional Cooperation Agreement on Rapid Response for Natural Disasters
2012	Joint Statement of the 4th ASEAN-US Leaders Meeting
2013	Disaster Response in Asia and the Pacific: A Guide to International Tools and Services
2014	Asia-Pacific Regional Guidelines on the Use of Foreign Military Assets (FMA) in Natural Disaster Response Operations

Source: Created by author using data from Shane D. Hughes, “ASEAN’s Role in Regional Natural Disaster Response,” (Paper, Chulalongkorn University, Bangkok, Thailand, December 25, 2015), 5, accessed October 07, 2019, <https://www.cfdmha.org/LinkClick.aspx?fileticket=XWuTQVbNm2E%3D&portalid=0>.

In 2008, the Cyclone Nargis struck Myanmar and killed 130,000 people. The devastating impact of Cyclone Nargis, together with the rejection of Myanmar towards any international support due to their political limitations, urged for ASEAN's role to lead the response. ASEAN then overcame the existing political barriers to allow supporting aids and personnel from international actors to enter the country.¹³ Although AMS had not approved the AADMER, its objectives and spirit were confirmed in ASEAN's response to Cyclone Nargis.¹⁴ The relief also demonstrated the initial results of ASEAN's efforts to improve regional cooperation on HADR since the 2004 Indian Ocean tsunami.

On December 24, 2009, ASEAN was successful in having the AADMER endorsed by all AMS, which marked significant progress in the region in responding to natural disaster threats.¹⁵ The purpose of the ADMMER is to collectively combine AMS's efforts to leverage the capability and resilience of ASEAN in HADR. By the time it was approved, the AADMER was unique since it encourages the involvement of military facilities and personnel in cooperation with civilians in relief operations instead

¹³ Alanna Jorde, ed., *A Humanitarian Call: The ASEAN Response to Cyclone Nargis* (Indonesia, Jakarta: ASEAN Secretariat, 2010), 14, accessed January 28, 2020, <https://www.asean.org/wp-content/uploads/images/2012/publications/A%20Humanitarian%20Call%20The%20ASEAN%20Response%20to%20Cyclone%20Nargis.pdf>.

¹⁴ The Tripartite Core Group, *Post-Nargis Joint Assessment*, July 2008, 46.

¹⁵ Jorde, *A Humanitarian Call: The ASEAN Response to Cyclone Nargis*, 17.

of limiting the use of the military as a last resort. The AADMER, therefore, significantly promoted the role of the military in HADR in the SEA.¹⁶

Beside intra-regional HADR capacity development, extra-regional HADR capacity building is also a subject that interested ASEAN and AMS. Both ASEAN supported states and international contributors are benefited from this process either in terms of the recipients' HADR capacity development provided by extra-regional donors or in terms of the extra-regional states' strategic foreign policy achievements acquired by actively interacting with ASEAN and its member states. Although this is considered to be a win-win exchange, there remain potential conflicts between extra-regional states regarding their national interests, which must be carefully considered by ASEAN and each AMS.¹⁷

In 2011, following the endorsement of the AADMER, the ASEAN Coordinating Center for Humanitarian Assistance (AHA Centre) was established and operationalized. Although the purpose of the AHA Centre is to serve as a central point for implementing AADMER all over ASEAN, limited human resources and funding of the AHA Centre challenged the objectives of AADMER, which also narrowed the capability of the Centre to prioritizing disaster monitoring and information management.¹⁸

¹⁶ The ASEAN Secretariat, "*ASEAN Agreement on Disaster Management and Emergency Response* (Indonesia, Jakarta: ASEAN Secretariat, December 2010), 14-16, accessed January 19, 2020, <https://ahacentre.org/wp-content/uploads/2017/05/AADMER.pdf>.

¹⁷ Hughes, "ASEAN's Role in Regional Natural Disaster Response," 6-7.

¹⁸ CFE-DMHA, *ASEAN Disaster Management Reference Handbook*, 27.

On September 13, 2016, at the 28th ASEAN Summit in Vientiane, the leaders of ASEAN signed the “ASEAN Declaration on One ASEAN One Response: ASEAN Responding to Disasters as One in the Region and Outside the Region.” The declaration aims at efficiently responding to natural disasters that may occur inside or outside the region by utilizing the capabilities of different actors in ASEAN.¹⁹ According to H.E. Le Luong Minh, Secretary-General of ASEAN, “The declaration is a major step for the ASEAN Community as it reaffirms ASEAN’s readiness to achieve faster and collective response to disasters.”²⁰ The declaration indicates that ASEAN implemented One ASEAN One Response in accordance with the AADMER and that the AHA Centre is the main coordination agency of ASEAN for disaster management and emergency response inside and outside the region.

In short, the HADR capability of ASEAN and its member states significantly developed since 1976. The 2004 Indian Ocean tsunami and the 2008 Cyclone Nargis were milestones that shifted ASEAN’s approach to disaster relief and humanitarian assistance. The endorsement of the AADMER, the establishment of the AHA Centre, and the declaration of One ASEAN One Response are the evidence of ASEAN’s success in strengthening regional cooperation in HADR. Nevertheless, despite the success achieved, ASEAN’s HADR resources are still limited, which requires the commitment of AMS to achieve further development.

¹⁹ The ASEAN Secretariat, “One ASEAN One Response: Faster and Collective Response to Disasters in and Outside the Region,” ASEAN, September 13, 2016, accessed March 20, 2020, <https://asean.org/one-asean-one-response-faster-and-collective-response-to-disasters-in-and-outside-the-region/>.

²⁰ Ibid.

The ASEAN Military Ready Group

The ASEAN Militaries Ready Group (AMRG) is one of ASEAN's mechanisms for disaster response. The Concept Paper on AMRG was adopted by the AMS Defence Ministers on March 16, 2015, during the 9th ASEAN Defence Ministers Meeting (ADMM) in Langkawi, Malaysia.²¹ On May 25, 2016, the 10th ADMM held in Vientiane, Laos, adopted the Terms of Reference on the ASEAN Militaries Ready Group on Humanitarian Assistance and Disaster Relief (AMRG TOR).²² According to the 11th ADMM Joint Declaration of The ASEAN Defence Ministers on Partnering for Change, Engaging the World, the purpose of operationalizing the AMRG on HADR is "to prepare an ASEAN team for quick deployment to areas of crises in a coordinated manner," and provide support to the application of One ASEAN One Response, which enhances civil-military cooperation in HADR and leverages the collective efforts of AMS.²³

The Purpose of the Study

The purpose of this study is to examine the capacity of the AMRG in disaster response to identify gaps that are preventing it from successful operationalization. This

²¹ Association of Southeast Asian Nations (ASEAN) Defence Ministers, "Terms of Reference ASEAN Militaries Ready Group on Humanitarian Assistance and Disaster Relief (AMRG on HADR)," ASEAN Defence Ministers' Meeting, April 22, 2016, accessed October 25, 2019, <https://admm.asean.org/dmdocuments/TOR%20on%20AMRG,%20Final,%20as%20adopted%20by%20the%2010th%20ADMM.pdf>.

²² Ibid.

²³ Association of Southeast Asian Nations (ASEAN) Defence Ministers, "Joint Declaration of The ASEAN Defence Ministers on Partnering for Change, Engaging the World," ASEAN, October 23, 2017, accessed October 25, 2019, <https://asean.org/joint-declaration-of-the-asean-defence-ministers-on-partnering-for-change-engaging-the-world/>.

study identifies the criteria of success on HADR operations through analyzing three case studies: Earthquake 2005-Pakistan, Hurricane Katrina 2005-USA, and Earthquake 2010–Haiti. The study uses five criteria of success to assess the current capacity of the AMRG as mandated in the AMRG TOR and suggest the capability that the AMRG should have. Being a new and small military HADR cooperation mechanism in ASEAN with limited resources and command and control, the AMRG, therefore, must seek for solutions to develop its capability to enhance regional HADR response.

The study consists of five chapters. Chapter One introduces the research and set the foundation by discussing the background, the purpose of the study, the problem, significance of the study, research questions, assumptions, definitions of terms, limitations, delimitations, and scope and considerations of the study. Chapter Two consists of three main parts, which together present the literature review. The purpose of Chapter Two is to look for the answers to the following questions: (1) What are the roles of the military in HADR? (2) What contributes to military effectiveness in HADR operations? And (3) What are the roles of the AMRG in HADR and what is its mandated capacity in the AMRG TOR? Chapter Three discusses the research methodology and is broken down into four main parts. Chapter Four consists of five main parts, which analyzes the case studies and answers the research questions. Chapter five is the final chapter, which concludes the study and gives recommendations for further study and improvement.

Case Studies

Earthquake 2010: Haiti

A major earthquake of 7.0 magnitude ravaged Haiti's capital city, Port-au-Prince, on January 12, 2010. The disaster lasted for 35 seconds, caused 230,000 fatalities, 300,000 injured people, and 1,6 million others displaced. Among the people killed by the earthquake, there are hundreds of government officials, the UN's head of mission and deputy, acting police commissioners, and 102 peacekeepers, which seriously challenged the response capability of the government of Haiti and the United Nations.

The next day, U.S. President Barack Obama called for a response in a whole-of-government manner, also known as Operation Unified Response. The U.S. Department of Defense participated in disaster relief under the leadership of the Office of Foreign Disaster Assistance (OFDA), which is a component of the U.S. Agency for International Development (USAID). There was a total of more than 22,000 U.S. armed force personnel participated in the disaster relief operation.²⁴

Hurricane Katrina 2005: The United States of America

Hurricane Katrina struck the U.S. on August 25, 2005, caused severe damages along much of the north-central Gulf Coast and became the most destructive natural disaster in American history.²⁵ The hurricane killed 1,330 people and displaced 770,000

²⁴ Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM), "Case Study 6: A Review of Operation Unified Response, the U.S. Military's Effort in Support of Haiti Following the January 2010 Earthquake" (CFE-DM, Hickham, HI), accessed January 26, 2020, <https://www.cfe-dmha.org/LinkClick.aspx?fileticket=9cgKUFnJh7E%3D&portalid=0>.

²⁵ U.S. Congress, House, *Statement before the Committee on Government Reform House of Representatives*, by Dr. James Carafano, Senior Research Fellow, The Heritage

others. The estimated property damage was over 96 billion USD. A total of 300,000 homes were destroyed, and 118 million cubic yards of debris were produced. Among the mortalities caused by Hurricane Katrina, 80 percent were in the New Orleans metropolitan area, and 231 others were in Mississippi.²⁶

In the efforts of responding to the disaster, about 22,000 active-duty personnel of the Joint Task Force Katrina at Camp Shelby, Mississippi, established by the United States Northern Command, were involved in the HADR operations in Mississippi and Louisiana. The relief also witnessed the participation of approximately 50,000 National Guard personnel from all over the country.²⁷

Earthquake 2005: Pakistan

A severe earthquake occurred on the Kashmir region (a border disputed territory area between India and Pakistan) on October 8, 2005, and caused massive damages over three countries, India, Pakistan, and Afghanistan. Among the affected areas, the Kashmir area under the control of Pakistan was devastated. The disaster left 80,000 people killed,

Foundation, September 15, 2005, accessed June 27, 2020, <https://www.heritage.org/testimony/improving-the-national-response-catastrophic-disaster>.

²⁶ U.S. President, *The Federal Response to Hurricane Katrina: Lessons Learned* (Washington, DC: The White House, February 2006), 5-8, accessed February 20, 2020, <http://library.stmarytx.edu/acadlib/edocs/katrinawh.pdf>.

²⁷ Dr. William G. Robertson, "Foreword," in James A. Wombwell, *Army Support During the Hurricane Katrina Disaster*, The Long War Series Occasional Paper 29 (Fort Leavenworth, KS: U.S. Army Combined Arms Center, Combat Studies Institute Press, 2009), iii, accessed January 26, 2020, <https://www.armyupress.army.mil/Portals/7/combat-studies-institute/csi-books/wombwell.pdf>.

70,000 injuries, and 2.5 million displaced. Additionally, there were approximately 2.3 million people had a minimum or even no access to basic needs.

Together, 17 different NATO countries sent about 12,000 military personnel to the disaster relief operation in Pakistan. Besides, there were contributions from the armed forces of the U.S. and Australia to support Pakistan. The NATO HADR operation, associated with the Pakistani government and the United Nations, lasted for three months.²⁸

The Problem

Natural disasters have been an increasing challenge to countries in the SEA. The significant environmental changes have extended the risk and vulnerability of the AMS population to disasters. Additionally, the effectiveness of regional cooperation in responding to crises is hindered due to AMS's "sovereignty" policy. The most devastating incidents can be listed as the Indonesian earthquake and tsunami in 2004 and the Haiyan typhoon to the Philippines in 2013. ASEAN has had many efforts to urge for regional cooperation on dealing with such problems. Such efforts resulted in the AADMER in 2005, the establishment and operation of the AHA Centre in Singapore in 2011, and the declaration of One ASEAN, One Response in 2016. ASEAN also realized the critical role of military cooperation in HADR operations and applied several military-related mechanisms. Currently, the AMRG TOR was adopted in 2015 as a tool under the

²⁸ Britta Weijers, "NATO Disaster Relief Operations: An Analysis of an Underexposed Field of Activity of the Alliance" (Ph.D. diss., Catholic University of Portugal, Lisbon, Portugal, 2015), 56, accessed October 25, 2019, <https://repositorio.ucp.pt/bitstream/10400.14/18819/1/Britta%20Weijers%20Dissertation-all%20chapters%20%28black%20%26%20white%29.pdf>.

AHA Centre that potentially contributes to HADR operations and enhance trust among AMS. ASEAN has been developing the AMRG's organization and Standard Operating Procedure (SOP) since then and is planning to operationalize the group in 2020.

The problem is, although the ASEAN has adopted the AMRG's Term of Reference, the AMRG, as outlined in the TOR, will result in an ineffective HADR force without operational adjustments. Considering the AMRG TOR, the possible challenges could be listed as follows:

1. The commitment of AMRG partners, since there is no obligation for states to support in disaster relief;
2. The lack of unified command and multilateral cooperation during HADR operation, since each state will exercise command and control over their forces;
3. The capability of the AMRG to sustain for long-lasting HADR operations, since each country will fund their own operational expense instead of having a common logistical supply system to facilitate the operations of the AMRG as a whole; and
4. The political constraint of "sovereignty" among AMS may impede the capability of the AMRG to provide HADR supports during the disaster events.

Significance of Study

This study is significant to the military profession and other scholars as it contributes to the research on the establishment of the AMRG, which potentially provides critical supports to ASEAN's HADR operations. The study also contributes to the capability of ASEAN and its member states on HADR, especially for the military aspect, which potentially helps save lives in case of natural disasters that occur in the future. Additionally, the study also contributes to strengthening the connection among AMS on

HADR, especially in the military aspect, which potentially set the stage for further development on not only HADR but also further regional military cooperation.

Research Questions

Primary Question

What gaps exist in the AMRG TOR to be effectively operationalized?

Secondary Questions

1. What are the lessons learned from the case studies?
2. What requirements constitute sufficient capability of a military response force in HADR operations?
3. What is the role of the AMRG in HADR operations?
4. How well can the AMRG corporate with civil organizations and relevant mechanisms of ASEAN in HADR?

Assumptions

This research makes two main assumptions. Firstly, there always remains a role for the military in HADR, whether significant or not. The military may not be and even will not become the first and the primary responder to HADR; however, with all its available workforce and assets, it must be ready to provide supports where civilian efforts reach their culmination. Secondly, the ASEAN regional HADR mechanism, as composed in the ASEAN Joint Disaster Response Plan (AJDRP), will not change. This consistency ensures that the AMRG will operate in coordination with the AHA Centre to enhance the coordination and collaboration of AMS's joint services under a single banner of ASEAN.

Definition of Terms

Association of South East Asian Nations (ASEAN): “The Association of Southeast Asian Nations, or ASEAN, was established on August 8, 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (Bangkok Declaration) by the Founding Fathers of ASEAN, namely Indonesia, Malaysia, Philippines, Singapore and Thailand. Brunei Darussalam then joined on January 7, 1984, Viet Nam on July 28, 1995, Lao PDR and Myanmar on July 23, 1997, and Cambodia on April 30, 1999, making up what is today the ten Member States of ASEAN.”²⁹

ASEAN Agreement on Disaster Management (AADMER): “The Agreement was signed by the ASEAN Foreign Ministers on July 26, 2005 in Vientiane, Lao PDR. AADMER is a legally binding framework for regional cooperation in all aspects of disaster management. The Agreement guides the development of operational procedures to respond collectively and promptly to disasters... It also calls for the utilisation of civilian and military assets and capacities in disaster relief operations... The ASEAN Committee for Disaster Management (ACDM) serves as the main ASEAN sectoral body that oversees the operational implementation of AADMER, and reports to a ministerial-level Conference of the Parties for AADMER. AADMER took effect on December 24, 2009 after its ratification by the ten ASEAN Member States.”³⁰

²⁹ Association of Southeast Asian Nations (ASEAN), “About ASEAN,” accessed October 25, 2019, <https://asean.org/asean/about-asean/>.

³⁰ AHA Centre, *Operationalising: One ASEAN One Response Speed Scale Solidarity*, 12.

One ASEAN, One Response: “The “One ASEAN, One Response” vision was developed to build upon the collective ASEAN community during the ASEAN Ministerial Meeting on Disaster Management (AMMDM) in December 2015. ASEAN Member States endorsed the draft “Declaration on One ASEAN, One Response: ASEAN Responding to Disasters as One in the Region and Outside the Region”. This declaration was fully adopted in September 2016. The vision of “One ASEAN, One Response” is for ASEAN Member States to coordinate a collective effort in mobilizing resources for an ASEAN response, as part of international assistance from assisting Member States, the private sector, Civil Society Organisations (CSOs), and the Red Cross and Red Crescent Movement.”³¹

Standby Arrangements and Standard Operating Procedures (SASOP): “To ensure preparedness for effective response, the Agreement (ADMMER) requires for the establishment of the ASEAN Standby Arrangements for Disaster Relief and Emergency Response where Parties, on a voluntary basis, shall identify and earmark assets and capacities which may be made available and mobilised for disaster relief and emergency response... This Standard Operating Procedure (SOP) provides (i) the guides and templates to initiate the establishment of the ASEAN Standby Arrangements for Disaster Relief and Emergency Response, (ii) the procedures for joint disaster relief and emergency response operations, (iii) the procedures for the facilitation and utilisation of military and civilian assets and capacities, and (iv) the methodology for the periodic

³¹ Association of Southeast Asian Nations (ASEAN), *ASEAN Joint Disaster Plan (AJDRP): Speed, Scale, Solidarity for a Collective ASEAN Response* (Jakarta, Indonesia: AHA Centre, September 2017), 20, accessed October 07, 2019, <https://ahacentre.org/files/AJDRP.pdf>.

conduct of the ASEAN Regional Disaster Emergency Response Simulation Exercises (ARDEX) which shall test the effectiveness of this procedure.”³²

AHA Centre: “The ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre) was established in 2011 as a leading entity for facilitating cooperation and coordination within ASEAN Member States. It also liaises with important agencies such as the United Nations and other international organizations to promote regional collaboration. The governing body of the AHA Centre is composed of National Disaster Management Organizations (NDMO) representatives from all Member States. During a disaster, the AHA Centre is the first point of contact for all ASEAN Member States.”³³

Disaster: “Uncontrollable events that are coordinated in time or space, in which a society undergoes severe danger and incurs such losses that the social structure is disrupted and the fulfilment of all of the essential functions is prevented.”³⁴

Humanitarian Assistant (HA): “Humanitarian assistance is aid to an affected population that seeks, as its primary purpose, to save lives and alleviate suffering of a

³² ASEAN Coordination Centre for Humanitarian Assistance (AHA Centre), *Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP)*, version 2 (Jakarta, Indonesia: AHA Centre, April 2018), 9, accessed November 10, 2019, <https://ahacentre.org/wp-content/uploads/SASOP/2.-SASOP-Revision-V2.0-April2018.pdf>.

³³ ASEAN, AJDRP, 13.

³⁴ Gary P. Ramsden, “Managing the Humanitarian Supply Chain - a Collaborative Approach?” (Ph.D. diss., University of Lincoln, Lincoln, England, 2014), 18, accessed February 10, 2020, http://eprints.lincoln.ac.uk/id/eprint/14694/1/_ddat02_staffhome_jpartridge_Ramsden-Gary-Supply-Chain-Management-June-2014.pdf/

crisis-affected population. Humanitarian assistance must be provided in accordance with the basic humanitarian principles of humanity, impartiality and neutrality.”³⁵

ASEAN Military Ready Group on Humanitarian Assistance and Disaster Relief (AMRG on HADR): “During the 9th ASEAN Defence Ministers Meeting (ADMM) held in Langkawi on March 16, 2015, the Defence Ministers adopted the Concept Paper on the AMRG on HADR. The AMRG on HADR is established to prepare an ASEAN military team for quick deployment to areas of crisis in a coordinated manner. The AMRG aims to strengthen the coordination of joint services at the national level under a single ASEAN banner, and at a multilateral level, taking into account the existing regional response mechanism as coordinated by the AHA Centre.”³⁶

Limitations

Although the AMRG TOR has been adopted since 2016, the group had not been in any practical exercise until the ASEAN ADMM-Plus COMMEX/STAFFEX in August 2019. It results in limited records and assessments on the force’s practical capability. Besides, the AMRG has not yet been operationalized. The author just analyzes its capability based on its TOR and SOP to vision its potential performance in actual HADR operations. Finally, the nature of the AMRG is a standby force, which is not the case in other organizations such as NATO. As a result, when analyzing the NATO case study,

³⁵ UN Office for the Coordination of Humanitarian Affairs (UNOCHA), *Oslo Guidelines: Guidelines on the Use of Foreign Military and Civil Defence Assets in Disaster Relief*, revision 1 (Geneva: United Nations, November 1, 2007), 7, accessed November 15, 2019, <http://www.alnap.org/resource/9307>.

³⁶ ASEAN, AJDRP, 69.

the author focuses on variables that less associated with the standby versus standing characteristic of the force.

Scope and Delimitations

This study was delimited to focus on the AMRG's capability to perform disaster relief in coordination with other HADR tools of ASEAN to fulfill its role in regional operations. There is, however, understanding that AMRG capability, once developed, can be cooperated with international support from countries outside of SEA.

Considerations

The research solely aims to leverage the disaster responding capability of the AMRG on HADR in particular and the ASEAN in general. The purpose of the AMRG on HADR's successful operationalization is to reduce the effects of natural disasters in the region, which benefits AMS's sustainable development as well as contributes to the friendship and cohesion among ASEAN. The operationalization of the AMRG on HADR will focus solely on HADR. Its goal is neither escalating the existing tensions within the region nor establishing military cooperation against a third party.

CHAPTER 2

LITERATURE REVIEW

Introduction

Chapter two consists of three major parts. Firstly, this chapter reviews different perspectives on what role should the militaries play in HADR in general and whether there is a need for having militaries involved in HADR in South East Asia. Secondly, the author reviews previous scholarship about critical requirements that contribute to the effectiveness of the militaries in HADR operations. Finally, the author examines the AMRG's role in HADR as well as its current capabilities by studying relevant official documents of ASEAN. The study in chapter two provides the foundation for analysis in the next chapters.

The Role of the Military in HADR Operations

Regarding the roles of the military in HADR, there are two main schools of thought. While one identifies military utilization as restricted to be the first responder, the other supports the idea of the military's involvement in disaster response operations due to its unique assets and capacities, which can meet HADR requirements. In the Guidelines for the Use of Military and Civil Defence Assets in Disaster Relief (also known as Oslo Guidelines, introduced in 1994), the United Nations Office for Coordination of Humanitarian Affairs (UNOCHA) mentioned the utilization of either domestic or foreign military capacities and assets in responding to HADR as "last resort." The involvement of military assets is justified in case other civil efforts reach their

culmination, and no organization can provide an equivalent capability for alternation.³⁷

The intrusion of the military on humanitarian operations is also not welcomed by the humanitarian community itself. Opponents argue that possessing the capability to conduct the operations does not ensure the military to be the most pertinent actor for HADR. Such type of activity also requires skills and practices in terms of humanitarian affairs on which military personnel normally do not have sufficient training.³⁸ Although the Oslo guidelines have been introduced since 1994, the UN and humanitarian community currently still consider the involvement of the militaries in HADR as “last resort.” This is justifiable since the presence of military forces and assets often appears to be politically controversial, especially in disputed areas or during politically sensitive periods. The perspective that the Oslo Guidelines provide about the role of militaries in HADR is to avoid political constraints that may hinder the efforts of the HADR operations. This also explains why the humanitarians often have resistance towards the coordination with military forces. However, this may not be true for every case, especially in parts of the world where there are fewer disputes or political conflicts, and countries can come together and establish strong cooperation.

³⁷ Sharon Wiharta, Hassan Ahmad, Jean Yves Haine, Josefina Löfgren, and Tim Randall, *The Effectiveness of Foreign Military Assets in Natural Disaster Response* (Stockholm: Stockholm International Peace Research Institute, 2008), 11, accessed October 07, 2019, https://reliefweb.int/sites/reliefweb.int/files/resources/236476AD3257088DC125741000474F20-sipri_mar2008.pdf.

³⁸ Tay Kwang Leong, “Humanitarian Assistance Disaster Relief as a Core Military Competency” (EWS Contemporary Issues Paper, U.S. Marine Corps Command and Staff College, Marine Corps University, Quantico, VA, February 19, 2008), 3, accessed January 28, 2020, <https://www.hsdl.org/?view&did=713266>.

The other school of thought is to support the presence of militaries in HADR operations. It is reinforced firstly by literature mentioning the long history of militaries' involvement in humanitarian affairs, whose original purpose possibly was to gain the support of people.³⁹ Furthermore, the role of the military in HADR had increasingly emerged during the reconstruction process of different nations, following the institution of the United Nations (UN) post-Cold War. Operation other than war, especially peacekeeping operations, has witnessed an increasing appearance of the military as a humanitarian provider and disaster responder. Not only has the military played the role of an actor in humanitarian crises, but its involvement has promoted the concept of civil-military coordination in HADR, which is essential for effective disaster response efforts.⁴⁰

Besides recognizing the necessity of militaries' presence in HADR as an essential responding factor, there is also literature affirming that militaries should recognize HADR as an important capability to develop. Leong insisted that "the military should consider HADR as one of its core competencies and expand its HADR capabilities."⁴¹ According to Leong, the military has been playing an increasingly important role as the first "on-scene" responder to disasters, given the role of the U.S. military during

³⁹ Mohamed Jiyad, "HADR and Military Diplomacy" (Paper, Nepal Army Command and Staff College, Kathmandu, Nepal, August 2018), 14, accessed January 28, 2020, http://library.nepalarmy.mil.np:8080/jspui/bitstream/123456789/280/2/IRP_Final.pdf.

⁴⁰ Ibid., 12.

⁴¹ Leong, "Humanitarian Assistance Disaster Relief as a Core Military Competency," 3.

Operation Sea Angel, Operation Unified Assistance, and Hurricane Katrina Relief. To explain, he mentioned the unique capacity of the military to provide quick response and high mobility under severe conditions of catastrophic disasters. Additionally, Leong argues that HADR operations lie in the sphere of Stability Operations, an “unconventional form of war,” which is the responsibility of the military. Therefore, HADR operations are no longer “someone else’s job” but fall under core military competency.⁴² This perspective is also shared by high-level military leaders. For instance, according to Fischer, New Zealand’s Defence Minister Wayne Mapp recommended that militaries should consider HADR as their primary task, especially in the Asia-Pacific region.⁴³

The necessity of the military in HADR is explained by the unique capabilities that it can provide in HADR operations, which civilian humanitarian forces may not possess. Mr. Mapp’s observation is that although humanitarian and disaster response fall under civil organizations’ responsibility, their capability quickly reaches its culmination once catastrophic disasters occur. Meanwhile, the military is able to respond to disastrous conditions given its possession of trained personnel, necessary assets, and disciplined command structure.⁴⁴ This is essential due to the nature of militaries, which is highly organized with strict discipline, powerful command relationships, and high standards of

⁴² Leong, “Humanitarian Assistance Disaster Relief as a Core Military Competency,” 7-33.

⁴³ Elisabeth Fischer, “Disaster Response: The Role of a Humanitarian Military,” *Army Technology*, July 25, 2011, accessed November 5, 2019, <http://www.army-technology.com/features/feature125223/>.

⁴⁴ Ibid.

performance. Besides, literature also points out that the military has critical assets and sets of skills that are valuable to HADR. Kapucu emphasized that in “The Role of the Military in Disaster Response in the U.S.,” published in the *European Journal of Economic and Political Studies*, as he mentioned the unique capabilities of the military with its possession of technology and skilled personnel. The military can provide workforce, experts, high mobility, and necessary equipment of which airborne assets, vehicles, communication systems and devices, power and lighting equipment, and water production devices are essential. Kapucu also mentions the advantages of the military regarding their command structure, workforce controlling capacity, authority, and discipline, which favor effective emergency response operations under difficult conditions.⁴⁵

Although the capabilities that the military can contribute to HADR operations are important and unique, it is the fact that the military’s involvement is still considered as the “last resort” when authorities plan for disaster relief missions. Mr. Mapp insists that the global community should consider military utilization in HADR as a last resort due to the fact that HADR remains to be a principle function of civil organizations.⁴⁶ The resistance to utilize military capacity in HADR can be seen in several natural disasters that had occurred in different parts of the world, of which Hurricane Katrina in the U.S. in 2005 is an example. During the responding efforts, the affected state’s authorities did

⁴⁵ Naim Kapucu, “The Role of the Military in Disaster Response in the U.S.,” *European Journal of Economic and Political Studies* 4, no. 2 (2011): 7-33.

⁴⁶ Fischer, “Disaster Response: The Role of a Humanitarian Military.”

not ask for the involvement of the active-duty military until the civil organizations and the National Guards appeared to be incapable of managing the situation.⁴⁷

Nevertheless, the role of the military in HADR is evaluated differently in Jiyad's study. He argues that the military's readiness and preparation for humanitarian assistance and disaster response are identified as the first priority. The vital role of the military in emergency response is reflected upon the following sectors:

1. The military's first issue is to help civilians caught in conflict zones and creating safe conditions for humanitarian operations;
2. The military is well equipped to organize and provide humanitarian aid during the crises; and
3. The military has powerful tools and expertise and can provide first responder service in dangerous situations.⁴⁸

Although Jiyad recognizes the critical role of the military and significant capabilities that it can provide in HADR, identifying the preparation for such capabilities to be the first priority may not be true in every case. Responders and HADR planners must carefully consider different factors that affect the conduct of the relief operations, especially political constraints, before determining the role of the military in specific HADR operations.

Although there are different perspectives on what role the military should perform during HADR operations, the unique capabilities of the military are recognized

⁴⁷ U.S. President, *The Federal Response to Hurricane Katrina: Lessons Learned*, 54.

⁴⁸ Jiyad, "HADR and Military Diplomacy," 14.

significantly in literature. It explains why there is an emerging need for the presence of them in disaster relief missions all over the world. The important role of the military has also been reinforced through evidence of more involvement in practical HADR operations. Nevertheless, since HADR is broadly considered as the principal function of civil organizations, most of the literature indicates that the military should be the last resort of utilization.

Regarding Southeast Asia, literature shows that the role of the military in HADR, especially in civil-military coordination on disaster response, has been increasingly developed. ASEAN leaders and AMS authorities share the viewpoint of how important the military would be in contributing to national and regional HADR capabilities. It is reinforced through official recognitions and documents regarding the function of militaries in national and regional disaster relief. The 9th ADMM meeting held on March 16, 2015, in Langkawi, Malaysia, witnessed the Joint Declaration on Maintaining Regional Security and Stability for and by the People signed by all AMS Defence Ministers. The Ministers also approved the Standard Operating Procedure (SOP) for the Utilization of Military Assets for HADR under the Framework of AADMER, which then contributed to the existing Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP) regarding military's involvement in HADR operations.⁴⁹ Besides, according to the AJDRP, AMS has promoted civil-military coordination by establishing the two mechanisms of Joint Task Force on Humanitarian Assistance and Disaster Relief

⁴⁹ Sebastian and Abu, *Humanitarian Assistance and Disaster Relief (HADR) from the Sea*, 24.

(JTF-HADR) and the Technical Working Group on Civil-Military Coordination (TWG CIMIC). Moreover, in October 2016, the 29th Meeting of the ASEAN Committee on Disaster Management (ACDM) also witnessed the ACDM's adoption of the civil-military coordination section under SASOP (SASOP Chapter VI), which was endorsed previously at the 9th ADMM Meeting in March 2015. ASEAN also adopted the two other military-related mechanisms in responding to humanitarian crises and natural disasters: the ASEAN Militaries Ready Group (AMRG) and the ASEAN Centre for Military Medicine (ACMM).⁵⁰

Having experienced several political constraints and distrust among the region, AMS are now able to get close to each other to discuss for developing a collective effort to deal with the ongoing security threats caused by natural disasters. The Track II Network of ASEAN Defence and Security Institutions (NADI) Workshop on “The Role of Military in Enhancing Human Security” is a significant step forward of ASEAN not only to develop the cohesiveness in the region but also to emphasize the role of collective military response to natural disasters and humanitarian crises. The report of the workshop, organized by Strategic Studies Center, National Defence Security Institution, at Chiang Mai, Thailand, from 26 to July 29, 2015, recorded discussions and recommendations of representatives from ten ASEAN states on emphasizing military's role on disaster responding. Among the recommendations, AMS representative proposed that “ASEAN member states individually have the capacity to carry out HADR work. However, the current coordination and cooperation with other governmental and non-

⁵⁰ ASEAN, AJDRP, 32.

governmental agencies are not sufficient and efficient... There is a need to integrate all ASEAN efforts toward a cohesive approach in providing humanitarian assistance;” and that “The military is an indispensable component of HADR.”⁵¹

During session two of the workshop, participating countries also highlighted the role of the military by sharing their experience in responding to HADR. Discussing the lesson learned from the 2011 floods, Mr. Chawalit insisted that “The Army played an important role in enhancing the disaster-relief assistance” due to the capabilities and facilities it was able to provide during the relief. Additionally, Group Captain Poomjai Leksuntarakorn, Director of Regional Studies Division, Strategic Studies Center, National Defence Studies Institute, pointed out that the Royal Thai Armed Forces were one of the four primary sectors that provided relief supports during the disaster event. In his presentation, Col. Afrizal Hendra (AF), Head of Academic Cooperation of Indonesia Defence University, claimed that militaries in disaster-affected countries must consider HADR as their important duties and provide relief support as guided in UNOCHA’s 1994 Oslo Guidelines. He also affirmed that the role of the military in HADR lies under the national structure.⁵² Discussing the earthquake occurred in Sabah, Malaysia, Lt. Col. Assoc. Prof. Ajaya Kumar (Retired), Center for Defence and International Security

⁵¹ Chairman, The Track II Network of ASEAN Defence and Security Institutions, “The Role of Military in Enhancing ASEAN HADR Cooperation in Responding to Crisis’,” (Chairman’s Report, Workshop, Chiang Mai, Thailand, July 26-29, 2015), 12, accessed October 7, 2019, <https://www.rsis.edu.sg/nadi/pdfs/HADR2/1.%20Chairman's%20Report%20-%20The%20NADI%20Workshop%20on%20The%20Role%20of%20Military%20in%20Enhancing%20ASEAN%20HADR%20Cooperation%20in%20Responding%20to%20Crisis'.pdf>.

⁵² Ibid., 7.

Studies, National Defence University of Malaysia, shared his observation of the military's significant role in training Community Emergency Response Teams (CERTs) to react over disaster events.⁵³ In his presentation on The Role of Military in Enhancing ASEAN HADR Cooperation in Responding to Crisis, Maj. Nay Hein, Department of Strategic Studies, also shared the Myanmar Armed Forces' efforts on enhancing short-term and long-term readiness to emergency response, including education, synchronization, preparation, planning, and training exercises.⁵⁴ Regarding the Philippines, Col. Francis D. Alaurin (INF) (GSC) PA, Assistant Chief, Office for Strategic Studies and Strategy Management, Armed Forces of the Philippines, shared his experience and lessons learned from the Super Typhoon Haiyan. He insisted that the disaster relief operation was a "whole-nation effort," and the use of the armed force "made an exponential difference." In the case of Singapore, given the country's limited facilities and workforce, Mr. Henrick Z. Tsjeng, Associate Research Fellow, Institute of Defence and Strategic Studies, S. Rajaratnam School of International Studies emphasized the "whole-of-government approach" in responding to disasters, of which the Singapore Armed Forces (SAF) is the primary support actor. He also mentioned the significant role of the military in regional humanitarian and disaster relief with its utilization of means and capacities.⁵⁵ Discussing the case of Vietnam, Lt. Gen., Dr. Nguyen Duc Hai,

⁵³ Chairman, The Track II Network of ASEAN Defence and Security Institutions, "The Role of Military in Enhancing ASEAN HADR Cooperation in Responding to Crisis," 8.

⁵⁴ Ibid., 9.

⁵⁵ Ibid., 10.

Director General, the Institute for Defense Strategy, MOD of Vietnam asserted the vital role of the Vietnam People's Army (VPA) and its successes in coordinating with State agencies in conducting disaster relief and humanitarian assistance. He also shared the VPA's efforts to improve international HADR partnership AMS's militaries under ADMM and ADMM+ frameworks.⁵⁶

Regional and international organizations, throughout their practical studies, also emphasize the importance of regional military capabilities in HADR operations. The Regional Consultative Group (RCG) on Humanitarian Civil-Military Coordination for Asia and the Pacific, collaborated with the Australian Civil-Military Centre (ACMC) and the UNOCHA, Regional Office for Asia and the Pacific (ROAP), conducted the research on humanitarian civil-military coordination in emergencies to propose a model on such topic for Asia and Pacific region. The research emphasized the role of the military of five Asia-Pacific countries, Bangladesh, Indonesia, Myanmar, Nepal, and the Philippines, in disaster response by revealing the key capabilities and responsibilities of each military in disasters. The research also pointed out the necessity of “[developing] a common understanding and [enhancing] the predictability of the civil-military coordination mechanisms, and their respective functions, during a response.”⁵⁷

⁵⁶ Chairman, The Track II Network of ASEAN Defence and Security Institutions, “The Role of Military in Enhancing ASEAN HADR Cooperation in Responding to Crisis,” 11-12.

⁵⁷ Josie Flint, *Humanitarian Civil-Military Coordination in Emergencies: Towards A Predictable Model* (Regional Consultative Group (RCG) on Humanitarian Civil-Military Coordination for Asia and the Pacific, 2017), ii, accessed October 15, 2019, https://www.unocha.org/sites/dms/ROAP/CivilMilitaryCoordination/images/RCG_05042017_Final_electronic.pdf.

What contributes to military effectiveness in HADR operations?

Military Effectiveness in HADR Operations

There are several factors that contribute to the effectiveness of military operations in response to disasters and humanitarian crises. Literature examines HADR operations from different aspects, during different phases of the response, show various factors of HADR operational effectiveness. Considering the significance of the initial response during the first phase of the relief, the United Nations OCHA points out the critical elements of a successful response to natural disasters within the first three days since the event occurs. UN OCHA identified readiness, skilled personnel deployment, understanding of the situation, understanding of national and regional response capacity, and quick funding decision and sound operational plan as the “5 essentials for the first 72 hours of disaster response”. When a disaster strikes a state, “chaos will reign, and coordination is key.” UN OCHA insists that “The first 72 hours after a disaster are crucial; response must begin during that time to save lives.” The preparations prior to emergency events are essential since they will leverage the effectiveness of the response. The first three days are vital, and it takes efforts for the affected countries as well as international supports to be able to react efficiently within the period. The before-hand preparations to achieve such a level of effectiveness can be developing inter-agency coordination and international relationship, acquiring disaster-related data and humanitarian impact estimation, maintaining a capable and ready-to-deploy workforce, and developing early warning systems.⁵⁸

⁵⁸ United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), “5 Essentials for the First 72 Hours of Disaster Response,” *Medium*,

Equally important, personnel who will conduct disaster response must be well-trained and ready to deploy. Such a deployable workforce must have sufficient training in order to be capable of carrying out its missions under disastrous conditions of HADR operations. They must also be well-prepared physically and mentally to be deployed in short notice, having sufficient knowledge of the mission ahead as well as how to maintain their own health and safety. Understanding of the situation, as well as the response capacity of the affected country and international supports, are equally important. A big picture of the on-going situation contains necessary basic information of the crisis such as locations of most serious impacts, the quantity of affected population, the amount of critical need, and the affected country's capacities. It will be essential for assessing the scale of the disaster and decide how much efforts and assets need to be utilized as well as how the HADR operations will be conducted in coordinated with the affected country and region. Finally, quick funding decisions and sound operational plans are essential elements to ensure a prompt and efficient response. Typically, the UN's Central Emergency Response Fund release funding within 72 hours since a disaster event occurs. Governments, contributors, and other organizations must also make their decisions about releasing funding within hours to gain the initiative. Equally important is having a sound operational response plan, which guides the conduct of the HADR operations in the most efficient way.⁵⁹

February 10, 2017, accessed November 20, 2019, <https://medium.com/humanitarian-dispatches/5-essentials-for-the-first-72-hours-of-disaster-response-51746452bc88>.

⁵⁹ UNOCHA, "5 Essentials for the First 72 Hours of Disaster Response."

Meanwhile, Carwile III examines the HADR operations during the practical operations on the affected areas through his research on the U.S. state-federal response to the 2005 Hurricane Katrina and reveals another factor that contributes to the success of disaster response operations, which is the unity of command. He insisted that the unity of command, which is a principle of war and an essential characteristic that contribute to the success of military command and control, is applicable in disaster relief operations that involve military supports. While Carwile III discussed the disaster response in a domestic context, he mentioned the unique characteristics of civilian disaster response in which the operational environment is complex with the participation of different actors. They are liable for their own constituents, which is similar to the characteristics of multinational operations conditions. This complex operational environment, according to Carwile III, requires unity of command models that are “less hierarchical, directive organizational,” and “based on consensus building” instead of pure military unified command, which is strong and castigated. Carwile III also pointed out that Unified command must consist of “elected and appointed officials, consensus building, and a collaborative approach to problem solving” to effectively respond to disaster events.⁶⁰

Considering the HADR operations in a more extensive manner, Braithwaite identified six major elements that contributed to the success of the United States (US) Army’s humanitarian efforts in the 2005 Pakistan earthquake. He identified the elements of effectiveness as:

⁶⁰ William L. Carwile, “Unified Command and the State-Federal Response to Hurricane Katrina in Mississippi,” *Homeland Security Affairs* 1, no. 2 (2005): 1-14, accessed November 15, 2019, <https://www.hsaj.org/articles/689>.

1. Speed and effectiveness of the response;
2. Resourcefulness and flexibility including command and control;
3. The ability to coordinate the response to a dynamic and evolving situation, among vastly different military, civilian, and government entities in addition to international nongovernmental organizations (NGOs);
4. Creating a “semi-permissive” environment;
5. The prominence of strategic public affairs/public diplomacy and the way they enhanced U.S. goals in the U.S. Central Command (USCENTCOM) area of responsibility (AOR); and
6. A major factor in mission success was the relationship with the host nation’s military..⁶¹

Braithwaite’s six elements of success are more completed since his study covers the whole relief operation with different relationships among responding actors. Braithwaite emphasizes the importance of readiness, command and control, resourcing in contribution to the success of the operations. Additionally, he also mentioned the civil-military coordination and the political delimitation that occurred during the HADR operation as additional contributors to operational effectiveness since they helped empower the military capability. “In a complex humanitarian disaster like the South Asia earthquake, an empowered on-scene commander directing the evolving situation was

⁶¹ Kenneth J. Braithwaite, “U.S. Humanitarian Assistance/Disaster Relief: Keys to Success in Pakistan,” *Special Feature*, no. 44 (January 2007): 20, accessed January 28, 2020, <https://apps.dtic.mil/dtic/tr/fulltext/u2/a518195.pdf>.

critical. The portability and capacity of the military assets were vital to the timeliness of the response.”⁶²

The Role of the AMRG on HADR and its Mandated Capacity

AMRG Perceived Role in HADR

The concept of the AMRG on HADR was adopted at the 9th ADMM meeting in Langkawi on March 16, 2015, by the AMS Defence Ministers. Two years later, the Joint Declaration of The ASEAN Defence Ministers on Strengthening Cooperation, Building Resilience recorded the adoption of the AMRG TOR, “which elaborates the purpose, scope, mechanisms, and functions of the designated Military Representative, as well as to specify the Military Representative’s responsibilities at the AHA Centre.”⁶³ The adoption of the TOR demonstrated the determination of ASEAN to get together as one in responding to non-traditional security threats. The adoption also set the foundation for the establishment and operationalization of the AMRG on HADR in the near future. The purpose and roles of the AMRG in HADR was then indicated in official documents of ASEAN. According to the AJDRP, the purpose of the AMRG is “to strengthen the coordination of joint services at the national level under a single ASEAN banner, and at a multilateral level, taking into account the existing regional response mechanism as coordinated by the AHA Centre.” The AMRG will be ready to be rapidly deployed in a

⁶² Braithwaite, “U.S. Humanitarian Assistance/Disaster Relief: Keys to Success in Pakistan,” 20.

⁶³ Association of Southeast Asian Nations (ASEAN) Defence Ministers, “Joint Declaration of The ASEAN Defence Ministers on Strengthening Cooperation, Building Resilience,” ASEAN, October 19, 2018, accessed October 25, 2019, <https://asean.org/storage/2018/10/Final-12th-ADMM-JD.pdf>.

coordinated manner to states where disasters and humanitarian crises occur. In certain cases, the AMRG could also function as a preventive mechanism prior to a disaster event.⁶⁴

AMRG Capacity as Mandated in Its TOR

The AMRG TOR is the official document adopted by ASEAN that contains the purpose, principles, and definition of capabilities of the AMRG on HADR. The Term of Reference insisted that the AMRG “serves as a collective and solid intent to establish an ASEAN military team for quick deployment to support humanitarian assistance and disaster relief (HADR) in a coordinated manner.”⁶⁵ The AMRG TOR’s principles point out that “The AMRG shall be guided by the principles of sovereignty, territorial integrity and national unity of the Affected States in accordance with the ASEAN Charter, Charter of the United Nations, the Treaty of Amity and Cooperation in Southeast Asia, ASEAN Agreement on Disaster Management and Emergency Response (AADMER), The Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP).”⁶⁶ The activation and deployment of the AMRG on HADR are approved once the agreement of all ten AMS is achieved, even though not all are contributors, and under the request of the affected state. The participation of AMS to operations of the AMRG is not obligated. The operations of the AMRG on HADR fall under the AADMER and existing policy

⁶⁴ ASEAN, AJDRP, 69.

⁶⁵ ASEAN Defence Ministers, “Terms of Reference AMRG on HADR.”

⁶⁶ Ibid.

determination in SEA regarding disaster management. The AMRG will operate under the coordination of the AHA Centre, through each state's National Focal Point (NFP), and cooperate with compatible HADR mechanisms and partners. Assisting states' facilities and workforce contributed to the HADR operation will rest under their own command and control. Assisting states have the right to decide on initiating and terminating their contribution at any time. AMRG personnel will not be armed or utilize assets that violate or conflict with the affected state's customs and rules of law. The AMRG, once deployed, will operate under the affected state's "overall direction, control, coordination, and supervision."⁶⁷

During operations, the AMRG on HADR will receive the assistance of the affected states on certain aspects. Besides, the AMRG itself will exercise assistance over, but not limited to, following sectors:

1. Search and rescue;
2. Emergency medical aids;
3. Distribution of goods;
4. Transportation and evacuations; and
5. Exchanging, sharing of expertise, experiences, and information.⁶⁸

Additionally, AMRG will be able to connect with the Affected State's military and compatible local governments via its nominated Liaison Officer. During the crisis, there may be two liaison officers; one works at the AHA Centre to support coordination

⁶⁷ ASEAN Defence Ministers, "Terms of Reference AMRG on HADR."

⁶⁸ Ibid.

amongst AMS militaries and another at the affected state to facilitate coordination of assisting states' resources. There can be liaison officers deployed to facilitate local-level operations if needed.⁶⁹

Regarding resources, each AMS will contribute its facilities and capacities in correspondence to designated templates in SASOP on a voluntary basis. In terms of finance, During the HADR operation, the donors will provide funding for their own operational consumption, including transport, fuel, food ration, water and sanitation, maintenance and communication, and military representatives. The assisting states do not have to provide more than the need of their own forces.

There are three different levels of deployment that are designated for the AMRG on HADR, consistent with the affected state's request and assisting states' capabilities as depicted in Table 2. The assisting states decide how much of their facilities and personnel will be contributed to certain operations.⁷⁰

⁶⁹ ASEAN, AJDRP, 33.

⁷⁰ ASEAN Defence Ministers, "Terms of Reference AMRG on HADR."

Table 3. AMRG on HADR's Three Levels of Deployment	
Urgent	Provide specialists for a needs-assessment team to complement ERAT
Immediate	Deploy among others relevant assets and resources such as carriers, mobile air movement, forklift and fuel, search and rescue team, temporary shelter and field kitchen
Middle and Long Term	Deploy among others damage assessment team, engineers and heavy machinery for long term recovery

Source: Created by the author using data from Association of Southeast Asian Nations (ASEAN) Defence Ministers, “Terms of Reference ASEAN Militaries Ready Group on Humanitarian Assistance and Disaster Relief (AMRG on HADR),” ASEAN Defence Ministers’ Meeting, April 22, 2016, accessed October 25, 2019, <https://admm.asean.org/dmdocuments/TOR%20on%20AMRG,%20Final,%20as%20adopted%20by%20the%2010th%20ADMM.pdf>.

Although ASEAN has adopted the AMRG’s Term of Reference, the capacity of the AMRG on HADR seems not to be completed and needs further studying to ensure its success in operationalization. Considering the AMRG TOR, there possibly be challenges regarding the commitment of AMRG partners since there is no obligation for states to support disaster relief. The separated command and control system in which each state will exercise command and control over their own forces may also cause difficulties in synchronizing the efforts of all responders. Likewise, a separated funding mechanism may impact the capability of the AMRG to sustain long-lasting HADR operations as well as the commitment of supporting states to the common HADR operations.

AMRG Coordinating with Civil Organizations and Relevant Mechanisms of ASEAN

The ability of the AMRG on HADR to coordinate with relevant mechanisms of ASEAN is mentioned in the AJDRP and the AMRG TOR. According to the AJDRP, “the AMRG is building on and complementing existing arrangements under AADMER and

works under the coordination of AHA Centre, and in cooperation with other relevant regional and international HADR partners. The AMRG will have representatives at the AHA Centre, which will serve as the process owner of the AMRG. The AMRG will assist the AHA Centre to facilitate in deploying the group in timely manner”.⁷¹

Regarding the cooperation with the Emergency Response and Assessment Team (ERAT), the AMRG TOR mentions that AMRG personnel can be involved in ERAT to facilitate the early response efforts towards the affected state’s National Disaster Management Offices (NDMO) which enhance civil-military operation.⁷² Besides, The AMRG on HADR can coordinate its HADR operations with the Affected State’s NFP through its respective NFP.⁷³ The coordination between the AMRG on HADR and the AHA Centre and Affected State is facilitated by the designated military representative, who is an officer from the ASEAN Chairman country. The coordination of the AMRG to civil organizations of ASEAN, such as the AHA Centre and the ERAT, as well as to the affected country in the documents mentioned above are clear with designated personnel and methods of coordinating. However, there is limited literature that shows the coordination of the AMRG with existing HADR mechanisms of ASEAN. While the ASEAN’s SASOP has not updated to integrate the capabilities of the AMRG on HADR among other HADR tools of ASEAN, the ASEAN Response Procedures, within the

⁷¹ ASEAN, AJDRP, 69.

⁷² ASEAN Defence Ministers, “Terms of Reference AMRG on HADR.”

⁷³ Ibid.

AJDRP, does indicate some of the AMRG's responsibilities during response phases, yet still very limited and did not include the operations of forces on the affected areas.

Summary and Conclusions

The literature review has shown that there are two main schools of thought regarding the roles of the military in HADR. While one supports the restriction of the military's involvement in HADR as the first responder, the other justified the role of armed forces in contributing to disaster relief given their unique capabilities and possession of necessary assets. Nevertheless, literature broadly indicates that the military plays a vital role in providing supports to HADR operations.

The success of HADR operations is measured to ascertain whether the disaster response is effective or whether there are gaps to be improved. Literature that examines the HADR operations from different perspectives, through different phases of operations shows various factors that contribute to the effectiveness. In general, the critical requirements for effective HADR operations include readiness, capabilities of the workforce, understanding of the situation, understanding of national and regional response capacity, unity of command, funding and resourcing, civil-military cooperation, and political limitations.

In Southeast Asia, ASEAN and AMS leaders share the perspective of the necessity to have militaries involved in regional and national HADR operations. Members of ASEAN are now able to get together to seek for a collective effort to enhance regional HADR capabilities by establishing regional military cooperation, the AMRG on HADR. Although the roles, purposes, and capabilities of the AMRG on HADR have been indicated in ASEAN's official documents, especially the AMRG TOR,

the capabilities of the AMRG appears not to be sufficient to ensure an effective operationalization. Similarly, literature provides limited information on the AMRG on HADR's coordination with relevant HADR mechanisms of ASEAN.

CHAPTER 3

RESEARCH METHODOLOGY

Introduction

Chapter three consists of three major parts. Firstly, the author discusses the research methodology that is chosen to conduct this study. Secondly, the author describes the research design. Finally, the author demonstrates how the research data is managed by clarifying the data assembling with the use of a qualitative data analysis methodology.

Methodology

This study is conducted using a case study methodology in which the author uses five criteria to analyze three case studies and compare the result with the capabilities of the AMRG as mandated in its TOR to answer research questions. The selected methodology is a subjectivist and social constructionist analysis towards information collected from reality, which “seeks to understand the different realities of the customers in order to be able to make sense of and understand their motives, actions, and intentions in a way that is meaningful.”⁷⁴ Thus, the design of this study is based on a functionalist paradigm that enables the researcher to seek for reasons of existing organizational problems and identify solutions to address..⁷⁵ To identify existing gaps in the AMRG TOR towards its effective operationalization as well as determine where improvements can be applied, the author compares the analysis of case studies with the mandated

⁷⁴ Mark Saunders, Philip Lewis, and Adrian Thornhill, *Research Methods for Business Students*, 7th ed. (Essex: Pearson Education Limited, 2016), 130-131.

⁷⁵ Ibid., 132-134.

capability of the AMRG. The lessons learned from case studies and identification of gaps will suggest improvements to the AMRG TOR.

Research Design

The author designs the study using a deductive and positivist approach. The perspective of the study is given, as the author considers the essence of research problems through the research design. The attainment of research data is conducted after the questions and proposals are defined. Accordingly, the researcher is able to have a solid foundation of the research problem, to structure data collection, and to manage issues of uncertainty should they happen during the research process. It paves the way for the researcher to conduct the study.⁷⁶

This study examines three case studies of past natural disasters: Earthquake 2005-Pakistan, Hurricane Katrina 2005-USA, and Earthquake 2010-Haiti. The first and third cases are relevant since Pakistan and Haiti have geographical similarities to countries in SEA. The hurricane in the second case, albeit occurred in the USA, impacted several states with the similar type of weather and scale of impact to disasters that have struck AMS, so that it is also relevant. The disaster relief in researched case studies requires supports of either international civil-military cooperation or inter-agency efforts in which the U.S. military contributed multiple types of armed forces conducting the same operation. Such operational environments possess characteristics of complexity that are applicable to the AMRG's multilateral operations on HADR once it is operationalized.

⁷⁶ Jennifer Rowley, "Using Case Studies in Research," *Management Research News* 25, no. 1 (2002): 18, accessed January 20, 2017, <https://pdfs.semanticscholar.org/4e18/426cc8767b4141c924236612aafae75fa75.pdf>.

During the disaster relief mentioned in the case studies, the primary actors to be researched were NATO and the U.S. military forces, which ensures sufficient access to published literature to be analyzed.

Sources of Data

The author analyzes primary and secondary data, as well as resources from other writers, to seek for information that answers the research questions. The study uses research data retrieved from online searches and through Combined Arms Research Library. Resources includes scholar books, magazine articles, journal articles, UN reports, ASEAN documents, and other U.S. Government and NATO sources.

Data Analysis

This research paper uses a qualitative data analysis methodology. The selected case studies are those that appear to best answer the research questions. Each case study provides relevant data regarding the context of military response to HADR and the lessons learned. The research examines the case studies to identify commonalities regarding factors that contribute to the effectiveness of military responding forces during their HADR operations. The similarity not only reinforces the validity and reliability of the measures but also suggests gaps regarding the AMRG's current capabilities and necessary improvements to meet the requirements of effectiveness.

Chapter two provides several requirements to ensure the effectiveness of the militaries in HADR operations. Considering the whole process of a military force providing HADR supports, the author proposes the five most critical elements that significantly impact different phases of a disaster relief operation. These include: (1)

readiness, (2) command and control, (3) decision-making process, (4) coordination with civil organizations, and (5) funding and equipping.⁷⁷

The first element is the readiness of the response forces. It includes the status of the forces when they are called up for the mission, how well they are prepared in terms of personnel, equipment, HADR skills, and operational procedures, as well as how fast and effective their reaction would be, especially in their initial response. They are critical because disasters often occur unexpectedly and cause devastating damages and terrible crises in the affected state, which requires quick reactions of responders. A highly ready HADR force can provide supports effectively in a short period that helps save lives and reduce the damages and crises where disasters happen.

The second element is command and control. It is among the unique capabilities that the militaries, rather than civilian organizations, can provide to HADR operations. A strong and effective command and control system facilitates the unify of efforts from different levels of responding units and leverage the performance of the responding forces. The element of command and control is critical, especially during the operation of the affected areas.

The third element is decision-making process, which facilitates both the readiness and command and control. A reasonable decision-making process not only enables the quick deployment and response of forces to the disasters but also provide military commanders with the ability to effectively manage the operations through the chain of

⁷⁷ Derived by the author from the literature review.

command. Therefore, the decision-making process is critical throughout the relief operations.

The fourth element is civil-military coordination. Both civil organizations and military forces possess capabilities that are unique to the other, which they can contribute to HADR missions. That is the reason why the involvement of both civilian and military personnel in HADR is so important. The civil-military coordination element synchronizes such capabilities of both responders to facilitate the unity of civil-military efforts and leverage the effectiveness of the relief operations.

Finally, a HADR operation will not be able to conduct without necessary resources and assets. Therefore, funding and equipment are essential. While proper funding allows the military to carry out their relief supports and maintain it until they complete their mission, appropriate and sufficient equipment facilitates their readiness and performance during the operations.

This study uses the elements of effectiveness mentioned above as the five criteria to examine the effectiveness of military relief forces in three case studies (See table 2). While the case studies may not possess the operating environment, which is similar to that of the AMRG when it is operationalized, the common examined factors allow extrapolation outputs. Besides, the parameters of this research have been limited to the investigation of the three examined cases against five identified criteria to make the study manageable.

Table 4. Elements of Effectiveness				
Item No.	Critical variables	2005 Pakistan Earthquake	2010 Haiti Earthquake	2005 Hurricane Katrina
1	Readiness			
2	Command and control			
3	Decision-making process			
4	Coordination with civil organizations			
5	Funding and equipping			

Source: Created by author.

The data obtained from the three cases across the five criteria is used to reveal common trends and similarities, which indicate areas of commonality amongst the three cases of military disaster response. These similarities in military disaster response extrapolate into possible adjustments in AMRG TOR for more effective AMRG operationalization on disaster response. The data obtained from the cases will be used to answer primary and the secondary questions of this study, to identify the gaps in the mandated capabilities of the AMRG in its TOR in comparison to the capability it must have for effective operationalization.

Summary and Conclusion

The author uses a case study methodology, which is broadly proved for its validation, to conduct the research. The study examines three selected case studies of HADR operations from different countries in the world to seek for requirements of HADR operational effectiveness. Case studies are selected to be relevant to future

operations of the AMRG on HADR and best to answer the research questions. The author also developed a set of five criteria of HADR effectiveness to examine against the case studies, which are (1) readiness, (2) command and control, (3) decision-making process, (4) coordination with civil organizations, and (5) funding and equipping. The identified requirements will then be compared to the current capabilities of the AMRG on HADR to answer the primary question. The research uses a qualitative data analysis method to analyze the information. The research methodology and the research design identified in chapter three is the framework for analysis in chapter four and chapter five of this study.

CHAPTER 4

ANALYSIS

Introduction

Chapter four consists of five main parts, which, in turn, will answer the secondary and primary questions of the study. Firstly, this chapter analyzes three case studies, the Pakistan earthquake in 2005, the USA Hurricane Katrina in 2005, and the Haiti earthquake in 2010, using the five criteria identified in chapter three. The analysis aims to reveal the lessons learned and identifies the requirements that constitute sufficient capabilities of a military response force in HADR operations. Then, the chapter seeks for the roles of the AMRG on HADR and how it coordinates with relevant HADR and civil organizations based on the existing literature. Finally, given the answers to the secondary questions, the author identifies the gaps exist in the AMRG TOR that need to be addressed to ensure the effective operationalization of the AMRG on HADR.

Lessons Learned from Case Studies

Pakistan Earthquake, 2005

After the earthquake hit the country on October 8, 2005, the Pakistani military had immediate reactions; however, it seemed to be incapable of dealing with the enormous damages and humanitarian needs. Therefore, two days after that, on October 10, 2005, the Pakistani authorities had to request the Euro-Atlantic Disaster Response Coordination Centre (EADRCC) for HADR supports.⁷⁸ Later on, NATO answered

⁷⁸ Wiharta et al., *The Effectiveness of Foreign Military Assets in Natural Disaster Response*, 109.

Pakistan with a two-phased disaster relief operation, which lasted for over three months.

The timeline of the NATO Pakistan Earthquake Operation can be seen in the table below.

Table 5. Timeline NATO Pakistan Earthquake Relief Operation	
October 8	Earthquake hit Pakistan
October 10	Request for assistance by Pakistani authorities
October 11	NAC approves airlift
October 21	Approval deployment ground forces
October 24	Deployment DJTF HQ Deployment air component
October 29	Deployment land component
November 6	First NATO helicopters
November 9	NATO Hospital (NMH) starts activities
November 10	First engineering support
February 1	End of the mission

Source: Created by author using data from Britta Weijers, “NATO Disaster Relief Operations: An Analysis of an Underexposed Field of Activity of the Alliance” (Ph.D. diss., Catholic University of Portugal, Lisbon, Portugal, 2015), 52, accessed October 25, 2019, <https://repositorio.ucp.pt/bitstream/10400.14/18819/1/Britta%20Weijers%20Dissertation-all%20chapters%20%28black%20%26%20white%29.pdf>.

The first stage of the operation was the NATO’s air bridges which were conducted the day after the request and three days after the earthquake. The primary objective of this stage was to set up two air bridges for delivering aid supplies donated by NATO and other partner countries as well as from UN High Commissioner for Refugees (UNHCR) to Pakistan. Germany and Turkey provided the airlift.⁷⁹

⁷⁹ Weijers, “NATO Disaster Relief Operations: An Analysis of an Underexposed Field of Activity of the Alliance,” 52.

The second stage of the operation of which the NATO military will touch Pakistani soil was not conducted until October 29, 2005. During this stage, NATO deployed NATO Response Force (NRF) specialist units to conduct disaster relief missions on the ground.⁸⁰ The relief operation had its own determined strategic mission, operational mission, and end state. The Supreme Headquarters Allied Powers Europe (SHAPE) identified strategic mission was to “help victims of the earthquake in accordance with the necessities requested by Pakistan.”⁸¹ The operation mission, directed by JC Lisbon, was “to maintain air bridge, repair the roads, establish air transport within Pakistan (helicopters), and guarantee medical and engineering support.”⁸² The operational mission was purely disaster relief and did not involve humanitarian activities. The end state of the operation on the ground was “to stabilize and protect the population that survived in the affected area in order to help them prepare for the coming winter.”⁸³ It is interesting to note that the NATO Pakistan earthquake relief operation was the first time for NATO to conduct a major relief operation outside the Euro-Atlantic and also the first time for the NRF to be involved in a humanitarian mission.⁸⁴

⁸⁰ Weijers, “NATO Disaster Relief Operations: An Analysis of an Underexposed Field of Activity of the Alliance,” 53.

⁸¹ Ibid.

⁸² Ibid.

⁸³ Ibid.

⁸⁴ Wiharta et al., *The Effectiveness of Foreign Military Assets in Natural Disaster Response*, 107.

Since the Pakistani authorities requested for NATO's disaster relief supports on October 10, it took almost two weeks for the North Atlantic Council (NAC) to approve the deployment of the ground forces. The Deployed Joint Task Force Headquarter (DJTF HQ) was deployed on October 24, and five days after that was the land component landed on Pakistani soil. The name of the operation was the "NATO Disaster Relief Team." Joint Force Command Lisbon (JCL), given its commanding period from July 2015 to June 2016 over the NRF five and six, was in charge of commanding the deployment of the NRF in Pakistan.⁸⁵ The JCL sent the DJTF HQ as an available command component under the Headquarters. The NRF was mostly involved in medical treatment and construction works, given their medical and engineer units. While the DJTF HQ was able to enable the coordination among forces, the specialist medical and engineer units were necessary for the relief operation to address the destruction of a large amount of Pakistani health centers and the emerging healthcare needs of the population.

The Dutch were in charge of medical supports by establishing two field hospitals that started services one month after the earthquake. By the time the field hospitals were set up, acute medical was not the necessity anymore. Instead, the hospitals provided stationary basic healthcare while their mobile medical teams delivered medical assistance and aids to people in affected areas who had limited access to the healthcare systems. The

⁸⁵ Weijers, "NATO Disaster Relief Operations: An Analysis of an Underexposed Field of Activity of the Alliance," 46, 47.

medical teams proved effectiveness by performing 8,000 consults, 2,300 vaccinations, and 9,700 medical treatments throughout the operations.⁸⁶

The engineering efforts, led by the Spanish, consisted of three main works: building construction, road system restoration, and water treatment. The engineer team constructed several health facilities and shelters, which it was prepared to conduct before arrival to the mission. However, as they started their operation in Pakistan, they were requested to build schools to prevent the potential abduction of the Taliban over Pakistani children, especially girls, through religious education. The road construction also had difficulties due to the damage of the disaster on road conditions as well as the delay caused by limited access of NATO forces to certain routes, which also hindered the effectiveness and the pace of the overall operation. The earthquake also left a severe health threat caused by lacking clean water. This was mitigated by the Lithuanian water purification teams as they were able to distribute drinking water to people and “updated a permanent spring water distribution and storage system to serve up to 8,400 persons a day”.⁸⁷

The operation, overall, was largely supported by air assets. They are key military advantage because the air lift provided by the military would not impact the flow of civil and commercial aircrafts. Beside the first stage of airlift operation, the air bridges were

⁸⁶ Lieutenant Colonel Lemos Pires, interview by Britta Weijers, April 7, 2015, in Weijers, “NATO Disaster Relief Operations: An Analysis of an Underexposed Field of Activity of the Alliance,” 55.

⁸⁷ North Atlantic Treaty Organization (NATO), “Pakistan Earthquake Relief Operation,” last modified October 27, 2010, para. 3, accessed January 10, 2020, http://www.nato.int/cps/nl/natohq/topics_50070.htm?selectedLocale=ru.

maintained with the added deployment of helicopters to not only deliver supplies from contributors to Pakistan but also extend the access of forces to remote areas. In order to enable the air capability, it is important to note that there were several airbases established in affected areas as well as the fuel farm set up by French in Abbottabad.⁸⁸ Additionally, the close cooperation of NATO disaster relief forces with the Pakistani authorities and the UN also contributed significantly to the operations.

The lessons learned from the case study is broken down into the following five categories: readiness, command and control, decision-making process, civil-military coordination, and funding and equipping.

Readiness

Regarding the timeline of the response, the deployment of the air bridges was timely as it took only one day to start the airlift operations since the Pakistani authorities sent the request for support. The NAC was able to quickly identify the role of NATO as “coordinating the transportation of the aid supplies that were offered by the Euro-Atlantic Partnership Council (EAPC) countries” and expedite the approval of air asset deployment.⁸⁹ It was crucial to the effectiveness of the operation as it allowed the initial support as well as essential supplies and aids from supporting countries to arrive early on the scene. However, it took too much time for the land component to be sent to Pakistan. The approval of the request to send troops on the ground was granted two weeks after the

⁸⁸ Wiharta et al., *The Effectiveness of Foreign Military Assets in Natural Disaster Response*, 114-115.

⁸⁹ Pires interview, 55.

request. It then took another week to get them deployed, and the first field hospital was not set up until one month had passed. The primary reason for this was the combination of the existing decision-making process that took time to complete and the political constraints that decision-makers had to consider before approve the deployment request.

Besides, the NATO response forces were not well-prepared for the mission in terms of policy and guidance, training, and understanding of the operational environment. Firstly, it is noteworthy that the Pakistan earthquake relief was a new mission to NATO and the first major deployment of the NRF. Therefore, there was not a NATO doctrine on humanitarian to provide guidance for the operations.⁹⁰ Secondly, prior to the response, the NATO forces were trained and designed for fighting rather than for humanitarian responding.⁹¹ Therefore, their capabilities and assets did not perfectly meet the requirements for the mission, and components among the force did not achieve appropriate cooperation and coordination. Finally, the lack of operational environment understanding slowed down the pace of the operations. The NATO response forces did not have sufficient understandings of Pakistani culture, which resulted in delays in the reconstruction of girl's schools, area cleaning, and construction of the field hospitals. Also, the lack of female doctors limited the access of Pakistani women to healthcare.⁹²

⁹⁰ Weijers, "NATO Disaster Relief Operations: An Analysis of an Underexposed Field of Activity of the Alliance," 59.

⁹¹ Ibid.

⁹² Ibid., 55, 63.

Command and Control

The most significant lesson regarding command and control was the absence of a leading nation during the operations. Forces coming from different supporting states arrived at Pakistan with their own national flags on their uniforms and with their own pride and excitement of showing that they are the best. It allowed competitions among units to occur and reduce the cohesion among them as units planned and execute missions independently in their own ways. According to Col. Lemos Pires, transfer of authority (TOA) must be done prior to Joint Operation Area (JOA). NATO forces need to enhance the cohesiveness by giving up their “national pride.”⁹³

Decision-making Process

Disaster response always asks for quick reactions. However, it takes time for politicians to make their decisions. In this case, the deployment of NATO land forces to Pakistan was not approved until the third week after the request, and it took one more week for them to touch Pakistani soil. This means that too much time was lost in the decision-making process. In missions like HADR, as the time of response is crucial, such delay significantly hindered the effectiveness of the whole operation. Nevertheless, it is necessary to consider obstacles that challenged politicians as they were giving the decision of deployment. Firstly, the affected area was sensitive since Pakistan was an ally of the U.S. in the war in Afghanistan and the Kashmir region was in dispute and war among different parties some of whom owned nuclear weapons. Furthermore, the

⁹³ Weijers, “NATO Disaster Relief Operations: An Analysis of an Underexposed Field of Activity of the Alliance,” 60.

involvement of NATO could be considered as relating to “War on Terror” and increasing impacts in the region. Secondly, at the time to give the decision, not all NATO members consented to the mission while there were also obstacles from outside of NATO as Iran did not allow NATO forces to fly over their territory. Finally, the negative attitude of Pakistani against NATO forces due to the existing anti-Western sentiment would potentially impact the safety of personnel once they were deployed. Therefore, it took time for the NAC to consider the deployment decision.⁹⁴

Civil-military Coordination

An emerging lesson learned from the case study was the resistance of cooperation between humanitarian organizations and military forces. During the operations, there always exists a reluctance of the humanitarians to work closely with military forces since they believed that the involvement of the military would not only negatively impact humanitarian’s image but also damage humanitarian principles. Humanitarians did not even want to cooperate with the Pakistani military. The reason was, at the beginning of the operations, there were insufficient understandings between humanitarians and military forces regarding civil-military cooperation and each other’s limitation and capabilities. Furthermore, the lack of civil-military coordination education also prevented the two forces from eliminating their existing biases of each other. Both actors did not pay enough awareness of the content of the Oslo Guidelines, which supposed to be the

⁹⁴ Weijers, “NATO Disaster Relief Operations: An Analysis of an Underexposed Field of Activity of the Alliance,” 59-61.

major framework they needed to reference during the mission. Thus, it took time throughout the operations to build up good coordination between them.⁹⁵

Funding and Equipping

In terms of funding, each supporting state had to fund their own contribution to the mission instead of having a common account of NATO to fund the whole operations. According to Weijers, this was a hindrance to the effectiveness of the mission since the countries that contributed more to the operations automatically faced a higher paycheck, which caused challenges to supporters whose defense budget was limited.⁹⁶ Regarding equipping, the case study showed that the air assets were critical for the mission, especially for the effectiveness of the initial response. NATO's air capabilities were crucial since they were able to deploy rapidly after the approval of the request. The two air bridges conducted 168 flights and delivered about 3,500 tons of supplies and aids that were significant to immediately address the urgent needs of the affected population in Pakistan.⁹⁷ However, since the NRF was not well-prepared for the mission, their available assets were not quite suitable for mission requirements. This made the coordination between actors difficult, especially during the first phase of the operations.

⁹⁵ Weijers, "NATO Disaster Relief Operations: An Analysis of an Underexposed Field of Activity of the Alliance," 64-65.

⁹⁶ Ibid., 48.

⁹⁷ NATO, "Pakistan Earthquake Relief Operation."

Table 6. Lessons Learned from the Pakistani Earthquake, 2005		
Item No.	Critical Variables	Pakistan Earthquake 2005
1	Readiness	- Three days to establish air bridges, two weeks to get land forces deployment approved, three weeks to get land component deployed, one month to get the first field hospital established. - New mission to NATO and NRF, lack of policy and guidance. - Forces were not well-prepared for humanitarian assistance. - Lack of understanding about the operational environment
2	Command and control	- Absence of a leading nation: separate units from different nations, units showed their own flags, competitions arose. - No transfer of authority (TOA) before Joint Operation Area (JOA)
3	Decision-making process	- Time-consuming decision-making process with impacts of political constraints - The exchange of diplomatic letter also caused some delays
4	Coordination with civil organizations	- Misunderstanding and reluctance between humanitarian and military - Lack of common guidelines and structures
5	Funding and equipping	- Contributors were self-funded - Supply-driven approach: there were military assets sent to the affected area that did not match with the requirements. - Air assets were crucial to the effectiveness of the operations.

Source: Created by author.

USA Hurricane Katrina, 2005

On August 23, 2005, the National Hurricane Center warned that the tropical depression 12 appeared to the southeastern of Bahamas. This enabled the preparedness of several organizations, including the Department of Defense (DoD), the Federal Emergency Management Agency (FEMA), and the U.S. Northern Command

(NORTHCOM) as they were expecting to deal with a natural disaster. On August 26, when the hurricane was moving towards New Orleans, the governors of Louisiana and Mississippi declared states of emergency. When Hurricane Katrina caused landfall on the coast of Louisiana, it was a category three storm. The storm caused 1,330 fatalities, displaced over 770,000 people, destroyed 300,000 homes, and left the property damage of \$96 billion..⁹⁸

As the hurricane arrived, both Louisiana and Mississippi activated their National Guards, and NORTHCOM issued an execute order that set the conditions for DoD relief efforts to be ready, which was followed by the deployment of the FEMA teams the next day. The disastrous hurricane quickly overwhelmed the local responders with its extensive devastation. As the two affected states requested for declaring states of emergency, President Bush approved and then released the federal aid under the Stafford Act for funding relief efforts. On August 29, when the hurricane breached the levees surrounding New Orleans coast and caused the threat of flash flood, President Bush declared federal disaster areas over Louisiana, Mississippi, and Alabama..⁹⁹

Given the inability of state and federal organizations to control the situation, as well as the magnitude of the floods, the fatalities, and the lawlessness, occurred in affected states, the Joint Task Force Katrina (JTF-Katrina) was formed on August 30 under the command of LTG Russel Honoré, commander of the U.S. First Army in order

⁹⁸ Davis et al., *Hurricane Katrina: Lessons for Army Planning and Operations*, 1, 16, 17.

⁹⁹ Ibid.

to provide federal military supports to the relief operation..¹⁰⁰ By September 12, 2005, over 22,000 Title 10 forces of both military and civilians were deployed to affected states under the command and control of JTF-Katrina. The Defense Logistics Agency and the U.S. Army Materiel Command effectively supported the operation by providing significant logistics, commodities, and equipment..¹⁰¹ The National Guards, with a total of 50,000 personnel coming from 50 states, the District of Columbia, and three U.S. Territories by September 5, 2005, also provided considerable supports of saving lives, assisting law enforcement, reducing human suffering and property damage, and providing important equipment to the operations. Besides the US. Army Corps of Engineer also contributed 2,800 personnel to conduct relief operations in the joint operations area by September 30 and remained for recovery and reconstruction activities in April 2006..¹⁰²

Overall, the military had contributed to the Hurricane Katrina relief operations with speedy, efficient, and crucial supports, which was invaluable..¹⁰³ The involvement of the military was able to increase the number of saved lives as well as leveraged the performance of the overall operations by filling the gaps of disaster relief capability.

¹⁰⁰ Louisiana Office of the Governor, “Overview of Governor Kathleen Babineaux Blanco’s Actions, in Davis et al., *Hurricane Katrina: Lessons for Army Planning and Operations*, 32.

¹⁰¹ Department of Defense (DoD), Office of Inspector General (IG), *Logistics: Use of DoD Resources Supporting Hurricane Katrina Disaster* (Arlington, VA: Department of Defense Inspector General, October 2006), 6, accessed February 20, 2020, <https://www.hsdl.org/?abstract&did=486353>.

¹⁰² *Ibid.*, 7.

¹⁰³ Kapucu, “The Role of the Military in Disaster Response in the U.S.,” 2-20.

According to Kapucu, during the Hurricane Katrina relief operation, the military had provided the following services:

1. Search and rescue;
2. Evacuation;
3. Transportation and material delivery;
4. Levees repair and debris removal;
5. Providing meal, water, and ice supply;
6. Medical treatment and mosquito spraying operations; and
7. Damage assessments of affected areas by using reconnaissance aircrafts and satellite imagery.

However, besides the successes of military supports to the Hurricane Katrina relief operations, there were also several challenges that hindered the effectiveness of the response and also lessons to be learned. The analysis of lessons learned from the case study of Hurricane Katrina 2005 is broken down into five categories: readiness, command and control, decision-making process, civil-military coordination, and funding and equipping.

Readiness

Firstly, the U.S. had an excellent ability to identify potential disaster threats that significantly contributed to the readiness of response forces. As the National Hurricane Center was able to detect the Hurricane on August 23, the governors of Louisiana and Mississippi had enough time to mobilize their Army and Air National Guard prior to the

land-fall.¹⁰⁴ As a result, by the time the land-fall occurred, Louisiana got most of its available National Guards called up to state active duty.¹⁰⁵

Secondly, having well-trained forces with well-rehearsed plans as well as being able to skip unnecessary processes contributed to the ability of states and federal to activate and deploy a large number of National Guards and active-duty forces in a short time. Facing the urgent need for supports from affected states, LTG H. Steven Blum, Director of NGB, decided to short-circuit the processes for requesting and approving the deployment of the National Guard and expedite the flow of forces to the mission.¹⁰⁶ Besides, the National Guards and active-duty units were trained and ready for being called up to state active duty and deployment. Therefore, General Blum decided to deploy National Guard units within 24 to 72 hours “to save human life, prevent immediate human suffering, or lessen major property damage or destruction.”¹⁰⁷ According to the Center for Army Lessons Learned report, units that had well-rehearsed plans just needed 24 hours to deploy while there were some delays for others to build up units before deployment.¹⁰⁸

¹⁰⁴ U.S. President, *The Federal Response to Hurricane Katrina: Lessons Learned*, 24.

¹⁰⁵ Davis et al., *Hurricane Katrina Lesson for Army Planning and Operations*, 21.

¹⁰⁶ Ibid., 24.

¹⁰⁷ National Guard Bureau, Cable to State Adjutants General, U.S. Department of Defense Press Briefing, August 31, 2005, in Davis et al., *Hurricane Katrina Lesson for Army Planning and Operations*, 24.

¹⁰⁸ U.S. Army, Center for Army Lessons Learned (CALL), *Disaster Response Hurricanes Katrina and Rita Initial Impressions Report* (Fort Leavenworth, KS: CALL,

Nevertheless, the deployment of some National Guard units and the active-duty land forces experienced delays. Regarding the National Guards, not every state had 100 percent of personnel available to contribute to the relief due to the federalization under Title 10 and involvement in domestic operations under Title 32. Besides, most of the National Guards from participating states were volunteers, and it took time to find such volunteers, form units, get them ready, and deploy to specific relief operations.¹⁰⁹ Regarding the active-duty land forces, although Army and Marine ground units were ready for the response, they were not deployed until September 3, five days after the land-fall.¹¹⁰ The delay was caused by the time-consuming decision-making process and initial assessment of affected state authorities that will be explained further in the “Decision-making Process” element below.

Command and Control

Regarding command and control, the most significant lesson during the Hurricane Katrina relief operation was the lack of coordination between responders of which the separation in terms of command structure between National Guards and active-duty

2005), 15, in Davis et al., *Hurricane Katrina Lesson for Army Planning and Operations*, 27.

¹⁰⁹ Davis et al., *Hurricane Katrina Lesson for Army Planning and Operations*, 26, 27.

¹¹⁰ George W. Bush, “President Addresses Nation, Discusses Hurricane Katrina Relief Efforts,” The White House, September 3, 2005, accessed February 15, 2020, <https://georgewbush-whitehouse.archives.gov/news/releases/2005/09/20050903.html>.

forces hindered the effectiveness of the operations..¹¹¹ Although multiple forces, including the U.S. Coast Guard, Air Force, National Guard, Army, Navy, and some civilian helicopters involved in the initial response, there were not a unified command and control system put in place..¹¹² This resulted in different forces operated in the same areas, while other affected areas were abandoned. It was even worse as evacuees were left suffered for days after being rescued as there was no coordination for forces to pick them up and move them to shelters..¹¹³ During the operations, units operated independently, and there was insufficient coordination between the state TAGs and JTF-Katrina.

The reason for such separation in command and control structure was that Governor Blanco refused to give up her command of National Guard forces. She believed in the capability of the Guards to achieve success and that the involvement of the active-duty will complement the National Guard's efforts. According to the U.S. Senate, "many leaders agree that we must establish mechanisms now to ensure unity of effort between the Guard and active-duty forces the next time they are called for such a common cause.." ¹¹⁴ Overall, if the responders, especially the National Guards and active-duty

¹¹¹ U.S. President, *The Federal Response to Hurricane Katrina: Lessons Learned*, 43, 55.

¹¹² U.S. Congress, House, Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, *A Failure of Initiative*, Final Report (Washington, DC: U.S. Government Printing Office, 2006), 221, 231, accessed February 20, 2020, <https://www.nrc.gov/docs/ML1209/ML12093A081.pdf>.

¹¹³ U.S. President, *The Federal Response to Hurricane Katrina: Lessons Learned*, 57.

¹¹⁴ U.S. Congress, Senate, Committee on Homeland Security and Governmental Affairs, *Hurricane Katrina: A Nation Still Unprepared* (Washington, DC: U.S.

forces, were able to operate under a single unified command and control structure since the beginning, the effectiveness of the operations would have been leveraged.

Decision-making Process

It is noteworthy that the decision-making process significantly impacts the effectiveness of disaster response. As the land-fall occurred on New Orleans coast and the need for supports emerged in affected states, the NGB was able to short-circuit the paperwork authorization processes. The shortened process helped expedite the flow of National Guard forces from contributing states to be deployed to Mississippi and Louisiana as soon as they could to perform the initial response. As a result of this, the number of National Guards operating in Louisiana and Mississippi grew from 4,700 and 2,700 personnel on the day of the landfall to 15,000 and 11,000 personnel by the end of the first week, respectively..¹¹⁵

While the NGB was able to simplify the processes, the deployment speed of the active-duty land forces was delayed by the poor initial assessment of affected state authorities and the time-consuming deployment authorization processes. Prior to the arrival of Hurricane Katrina, governors of both Louisiana and Mississippi proposed requests for federal assistance, which did not involve the request for military supports. At that time, civilian and military decisionmakers shared the judgment that the involvement of active-duty forces was not necessary and that the National Guards are capable of

Government Printing Office, 2006), ch. 26, accessed February 20, 2020, <https://www.congress.gov/109/crpt/srpt322/CRPT-109srpt322.pdf>.

¹¹⁵ Davis et al., *Hurricane Katrina Lesson for Army Planning and Operations*, 21.

controlling the situation..¹¹⁶ However, as the National Guard's efforts were not enough given the scale of the damages and the loss of lives, affected states had to call for the involvement of the active-duty military. Here is where more delays were added as requests for active-duty forces deployment had to go through several processes of authorization, from state to federal levels. The White House report found the processes to be "slow and bureaucratic," which resulted in "critical needs not being met."¹¹⁷ Such poor initial assessment and the slow decision-making process resulted in the deployment of the active-duty land forces on the fifth day after the landfall even though units were ready for missions prior to that..¹¹⁸

Civil-military Cooperation

Regarding civil-military cooperation, according to the Senate report, there were no efforts of either FEMA or Department of Homeland Security (DHS) authorities to coordinate with DoD for identifying what capabilities the military can provide or for requesting their supports before the landfall..¹¹⁹ Besides, there were also recommendations from the DoD Office of the Inspector General for improving the coordination between the NORTHCOM and civil authorities in responding to natural disasters:

¹¹⁶ Davis et al., *Hurricane Katrina Lesson for Army Planning and Operations*, 36.

¹¹⁷ U.S. President, *The Federal Response to Hurricane Katrina: Lessons Learned*, 54.

¹¹⁸ Davis et al., *Hurricane Katrina Lesson for Army Planning and Operations*, 30.

¹¹⁹ U.S. Congress, Senate, Committee on Homeland Security and Governmental Affairs, *Hurricane Katrina: A Nation Still Unprepared*, ch. 12-24.

1. Planning and coordinating military support to civil authorities;
2. Developing a plan for the joint reception, staging, onward movement and integration of military forces;
3. Standardizing interoperable communication architectures;
4. Coordinating DoD logistics commodity support to the Federal Emergency Management Agency; and
5. Training and exercising DoD Components and Federal agencies in support of the National Response Plan.¹²⁰

Funding and Equipping

Regarding funding, it is very important to ensure that the operations have sufficient funding to be executed and sustained. The ability of the DoD to approve the Title 32 funds to support affected states in responding to the Hurricane Katrina leveraged states' response capabilities.¹²¹ In terms of equipping, air assets are crucial for ensuring the readiness and effectiveness of the initial response. It is noticeable that the initial response of active forces consisted of helicopter operations. Very early on the scene, helicopters of the Coast Guard, National Guard, Air Force, and then Marine and active-duty Army were deployed and performed timely and efficiently in initial search and rescue operation.¹²²

¹²⁰ DoD, IG, *Logistics: Use of DoD Resources Supporting Hurricane Katrina Disaster*, ii.

¹²¹ Davis et al., *Hurricane Katrina Lesson for Army Planning and Operations*, 17.

¹²² Ibid., 29.

Table 7. Lessons Learned from Case Study Hurricane Katrina, 2005		
Item No.	Critical Variables	Hurricane Katrina 2005
1	Readiness	- Good ability to identify potential disaster threats - Having well-trained forces with well-rehearsed plan as well as being able to skip unnecessary processes expedites the response. - The initial assessment of the situation and the decision-making process has great impacts on the speed of response.
2	Command and control	- The separate command and control structure between National Guards and active-duty forces hindered the effectiveness of the operations.
3	Decision making process	- The NGB simplified the authorization processes to expedite the initial response of the National Guard forces. - Affected state authorities' initial assessment of the situation and judgement on the capability of forces impaired the speed and effectiveness of the operation. - Slow and bureaucratic processes added delay to force deployment.
4	Coordination with civil organizations	- There was the lack of efforts of either civil or military organizations to understand each other's limitations and capabilities for coordination.
5	Funding and Equipping	- Timely and sufficient funding was provided under Title 32. - Air assets are important to the initial response and the operation as a whole.

Source: Created by author.

Haiti Earthquake, 2010

A major earthquake of 7.0 magnitude ravaged Haiti's capital city, Port-au-Prince, on January 12, 2010. The disaster lasted for 35 seconds, caused 230,000 fatalities, 300,000 injured people, and 1.6 million others displaced.¹²³ Just hours after the

¹²³ CFE-DMHA, "Case Study 6: A Review of Operation Unified Response, the U.S. Military's Effort in Support of Haiti Following the January 2010 Earthquake," 1.

earthquake and the receiving of Haiti authorities' request for support, the United States Southern Command (SOUTHCOM) and other organizations received a warning order (WARNORD) from the DoD that urged for the preparation of forces to support USAID in conducting HADR operations in Haiti. The WARNORD activated several actions of SOUTHCOM and other military units to immediately prepare for the mission, such as requests for forces and situational assessments.¹²⁴ Following the President's direction for a "swift and aggressive effort to save lives and support the recovery," SOUTHCOM established a joint force headquarters (JFHQ) in Port-au-Prince.¹²⁵ The next day, the JTF-Haiti was formed under the command of SOUTHCOM deputy commander General Keen to lead the military efforts of the Operation Unified Response. The JTF-Haiti, under the operational control of the SOUTHCOM, assumed responsibility for all U.S. forces, including both active and reserve personnel. The establishment of the JTF-Haiti provided the command and control element for the increasing forces involved in the operation.¹²⁶ The organizational structure of the JTF-Haiti is illustrated in the Figure below.

¹²⁴ Gary Cecchine, Forrest E. Morgan, Michael A. Wermuth, Timothy Jackson, Agnes Gereben Schaefer, and Matthew Stafford, *The U.S. Military Response to the 2010 Haiti Earthquake: Considerations for Army Leaders* (Santa Monica, CA: RAND Corporation, 2013), 32, accessed January 10, 2020, https://www.rand.org/content/dam/rand/pubs/research_reports/RR300/RR304/RAND_RR304.pdf.

¹²⁵ Ibid.

¹²⁶ Ibid.

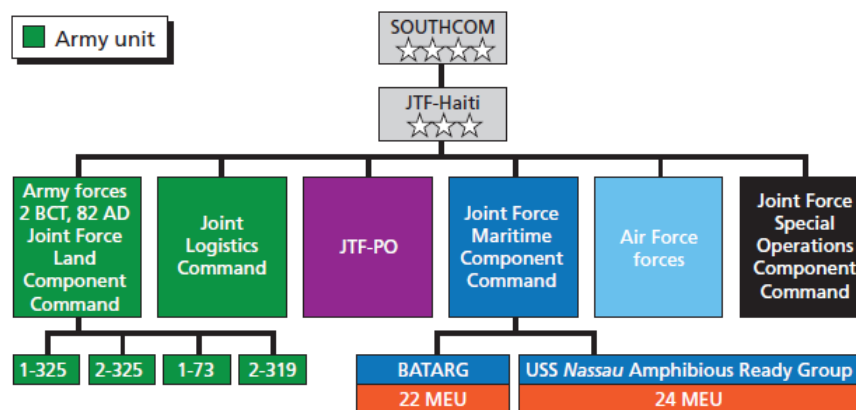


Figure 2. Organizational Structure of the JTF-Haiti

Source: Gary Cecchine, Forrest E. Morgan, Michael A. Wermuth, Timothy Jackson, Agnes Gereben Schaefer, and Matthew Stafford, *The U.S. Military Response to the 2010 Haiti Earthquake: Considerations for Army Leaders* (Santa Monica, CA: RAND Corporation, 2013), 32, accessed January 10, 2020, https://www.rand.org/content/dam/rand/pubs/research_reports/RR300/RR304/RAND_RR304.pdf.

The response that the JTF-Haiti provided since the beginning of the operation was quick and effective. Although the JTF-Haiti was established on January 14, the first elements of the DoD were sent to Haiti the day before to provide timely initial supports to the Government of Haiti (GoH) and the U.S. Embassy. It took only 26 hours for the 1st Special Operation Wings to arrive at Haiti and 28 more minutes to be able to reestablish flight operations of the Toussaint Louverture international airport at Port-au-Prince.¹²⁷ Meanwhile, the U.S. Coast Guard Cutter Higgins and military aircrafts performed the supply and aid delivery and evacuation prior to the Operation Unified Response.¹²⁸ On

¹²⁷ Cecchine et al., *The U.S. Military Response to the 2010 Haiti Earthquake: Considerations for Army Leaders*, 34.

¹²⁸ Ken Keen, Matthew G. Elledge, Charles W. Nolan, and Jennifer L. Kimmey, "Foreign Disaster Response Joint Task Force-Haiti Observations," *Military Review* (November-December 2010): 86, accessed March 10, 2020,

January 20, the hospital ship USNS Comfort arrived at the coast of Haiti to provide significant medical capabilities to the relief.¹²⁹

By February 01, there were 22,000 military personnel on the ground and offshore, 58 aircraft, and 23 ships operating under the command of JTF-Haiti. Food, water, and medical care were distributed at sixteen distribution points.¹³⁰ In order to enhance the coordination between actors, JTF-Haiti planners and leaders worked closely with the authorities of the United Nations Stabilization Mission in Haiti (MINUSTAH), USAID, and nongovernmental organizations (NGOs). The Operation Unified Response lasted on June 01, for almost five months, and became the longest and largest foreign disaster relief effort that involved the U.S. military.¹³¹ The operation left several lessons to be learned in terms of effectiveness. The lessons learned from the case study are broken down into five categories, readiness, command and control, decision-making process, civil-military coordination, and funding and equipping, as follows:

Readiness

Regarding the readiness, the U.S. military was able to assess the situation, deploy its relief forces, and provide initial relief operations in less than 48 hours since the disaster occurred. The quick and effective response was the result of having well-trained

https://www.armyupress.army.mil/Portals/7/military-review/Archives/English/MilitaryReview_20101231_art015.pdf.

¹²⁹ Keen et al., “Foreign Disaster Response Joint Task Force-Haiti Observations,” 86.

¹³⁰ Ibid.

¹³¹ Ibid., 85.

forces, possession of critical assets, and a good decision-making process. As response forces were well-trained and in ready-status prior to the earthquake, once the units were noticed of the mission, they were ready to deploy with a matter of hours. When responders reached the operational area, they were able to conduct their mission right away, of which the 1st Special Operation Wings' reestablishment of flight control at the Toussaint Louverture international airport was an example.¹³² Besides, the quick reaction of the response forces was enabled by critical assets that they possessed, especially air and sea transportation means. It is noticeable that the first units to arrive at the affected area to provide initial supports before Operation Unified Response were airborne and seaborne. Finally, the flexible decision-making process also significantly contributed to the robust deployment of personnel and assets to Haiti. General Keen's ability to simplify the formal process of request for forces expedited the initial response of the U.S. military to the disaster, which leveraged the overall readiness of the forces and helped to immediately and effectively address the ongoing crisis in the affected area.¹³³

Command and Control

Regarding command and control, the U.S. military supporting efforts were led by a unified command structure, which was the JTF-Haiti being in charge, under the operational control of the SOUTHCOM.¹³⁴ The role of the SOUTHCOM and JTF-Haiti

¹³² Cecchine et al., *The U.S. Military Response to the 2010 Haiti Earthquake: Considerations for Army Leaders*, 34.

¹³³ Ibid., 64.

¹³⁴ Ibid., 35-37.

to lead the HADR operation was critical since the earthquake heavily damaged the Haitian government and the country's disaster response capability along with the MINUSTAH.¹³⁵ The unified command structure provided not only the ability to plan for the whole operation but also the synchronization of efforts among JTF's response forces. Furthermore, throughout the operation, the JTF-Haiti stood out as a single point of coordination at the operational level to coordinate the efforts of the JTF with that of other organizations within the operational environment. The unified command, in this case, was able to enable the unified civil-military efforts to leverage the effectiveness of the HADR operation of which the JTF-Haiti was a participant.

Decision-making Process

Regarding the decision-making process, the flexibility of the process was able to expedite the initial response and enhance the effectiveness of the operations. Operation Unified Response supposed to follow the existing formal process of the DoD for requesting forces. The process involves several requests, assessments, reports, and approvals of the USAID, SecDef, and COCOM commander.¹³⁶ More importantly, the formal process takes time to be completed. Due to the urgent need of support and the ongoing crisis in Haiti after the earthquake, General Keen decided not to employ the process at the beginning of the Operation Unified Response as well as using informal methods and procedures to communicate and coordinate with supporting actors and Haiti

¹³⁵ CFE-DMHA, "Case Study 6: A Review of Operation Unified Response, the U.S. Military's Effort in Support of Haiti Following the January 2010 Earthquake," 4-5.

¹³⁶ Cecchine et al., *The U.S. Military Response to the 2010 Haiti Earthquake: Considerations for Army Leaders*, 33.

government.¹³⁷ The simplified decision-making process and General Keen's leadership significantly expedited the force deployment and supply delivery, which helped provide hopes to Haitian populations and save lives early on the scene. However, the employment of the informal process might also hinder the effectiveness of the operation as the robust pushing of resources forward impaired the ability to plan the operations in detail. The consequence was that while some areas received more resources than they actually needed, other areas experienced insufficient supplies.¹³⁸

Civil-military Coordination

Regarding civil-military coordination, the JTF performed well at both operational and tactical levels. Operating along with many other actors, including the GoH, UN, USAID, and several NGOs, the ability to establish civil-military coordination and cooperation was the key to the success of the JTF-Haiti. During the operation, the establishment of the JTF-Haiti's humanitarian assistance coordination cell at the operational level was significant. The cell was able to interface with different contributors, including all Joint interagency, intergovernmental, and multinational organizations, to synchronize their efforts.¹³⁹ Another factor that contributed to the success of coordination and cooperation was the transparency of information. The JTF-Haiti operated on unclassified and commercial systems that allowed it to share

¹³⁷ Cecchine et al., *The U.S. Military Response to the 2010 Haiti Earthquake: Considerations for Army Leaders*, xiv.

¹³⁸ Ibid., 65.

¹³⁹ Keen et al., "Foreign Disaster Response Joint Task Force-Haiti Observations," 90-91.

information and communicate with other responders quickly and effectively.¹⁴⁰ The common understanding of the operational environment and the big picture of the crisis enables the cohesiveness of operations among different participants. At the tactical level, the daily participation and association of unit leaders with MINUSTAH military forces and NGOs reduce the possibility of different organizations stepping over each other due to the overlaps of operational function and geography. It also enabled common understandings of the operational environment, mission requirements, and situational awareness to support the affected population effectively.¹⁴¹

Funding and Equipping

Regarding funding and equipping, it is noticeable that the air and sea capabilities of the JTF-Haiti had significantly contributed to the effectiveness of Operation Unified Response. During the initial response early on the scene, air assets, including unmanned aerial vehicle Global Hawk, were used for air traffic control, situational assessment, supply delivery, and evacuation. During the first twelve days after the disaster, there were 4,000 takeoffs and landings at the Toussaint Louverture international airport. After the Port-au-Prince was repaired ten days after the earthquake, the ships under the command of the JTF-Haiti were able to deliver over 8,000 shipping containers worth of supplies.¹⁴²

¹⁴⁰ Keen et al., “Foreign Disaster Response Joint Task Force-Haiti Observations,” 91.

¹⁴¹ Ibid.

¹⁴² Seth Robson, “Rebuilding Haiti's Demolished Port Is No Small Task for U.S.,” *Stars and Stripes*, February 28, 2010, accessed March 10, 2020, <https://www.stripes.com/news/rebuilding-haiti-s-demolished-port-is-no-small-task-for-u-s-1.99687>.

The hospital ship USSN Comfort also provided significant medical treatments for Haitian since its arrival on January 19.¹⁴³ Besides, the SOUTHCOM and the JTF's units possessed the capability of situational assessment, which enables them to send teams to affected areas to identify what forces and assets they would need to conduct their mission. This allowed units to be well-prepared prior to deployment and arrive at the operational areas with appropriate equipment to conduct the operations effectively.

Table 8. Lessons Learned from Case Study Haiti Earthquake, 2010		
Item No.	Critical Variables	Haiti Earthquake 2010
1	Readiness	- Forces were able to assess the situation, deploy its relief forces, and provide initial relief operations in less than 48 hours since the disaster occurred. - The quick and effective response was the result of having well-trained forces, possession of critical assets, and a good decision-making process.
2	Command and control	- The unified command structure provided the ability of unified planning for the operations, synchronizing efforts among response forces, and enhance the ability to coordinate with other actors in the operational areas.
3	Decision making process	- Simplified decision-making process was able to expedite the initial response and enhance the effectiveness of the operations. - To some extent, the rapid decision-making process impaired the ability to plan for the operations in detail.
4	Coordination with civil organizations	- The JTF-Haiti coordinated and cooperated closely with the GoH, UN, USAID, and NGOs at both operational and tactical levels.
5	Funding and Equipping	- Units were able to conduct assessment and identify appropriate capabilities and assets for missions. - Air and sea capability significantly contributed to the effectiveness of the operations.

Source: Created by author.

¹⁴³ CFE-DMHA, "Case Study 6: A Review of Operation Unified Response, the U.S. Military's Effort in Support of Haiti Following the January 2010 Earthquake," 10.

What requirements constitute sufficient capability
of a military response force in HADR?

The three case studies were examined using five criteria of effectiveness, as identified in chapter three. This examination showed similarities in factors that impact the quality of the military responses to HADR. In all cases, especially the Haiti earthquake, the affected states were damaged significantly by the disasters with large numbers of fatalities and sufferers. There were also emerging needs of supplies and humanitarian assistance in affected areas. The earlier the supports arrive, the more lives will be saved, and the less of suffering the affected population have to experience. Therefore, a quick and effective initial response is crucial and valuable. The U.S. military, more specifically, SOUTHCOM and the JTF-Haiti, were able to provide robust responses to the Haiti earthquake since they had available access to critical air and sea capabilities, well-trained forces, and flexible decision-making processes. In the case of the Pakistani earthquake, the ability of quick response was impeded due to the unpreparedness of NATO forces, the lack of policy and guidance, and the time-consuming decision-making process. The impact of the decision-making process over the speed and effectiveness of the initial response can also be seen in the Hurricane Katrina relief operation where the National Guards' deployment was expedited under simplified processes, yet the approval for the active-duty land force took too long to be granted.

While the readiness and, therefore, the decision-making process significantly impact the beginning phase of the HADR operations, the command and control structure and the civil-military coordination contribute to the effectiveness of the following phases where all the response forces are on the operational areas and providing supports to the affected state. Firstly, a unified command and control structure is necessary to ensure the

cohesiveness of response forces, the synchronization and unity of efforts, and better coordination with other actors during the operations. In the case studies of the Pakistan earthquake and the Hurricane Katrina, the military response forces employed separate command and control systems which allowed military forces from different countries (NATO response forces – Pakistan earthquake) or different types of responders (National Guard and active-duty) to command their own personnel and assets and, therefore, operate in their own ways. The consequence of not having a unified command and control system, showed in the two mentioned cases, was the inability to have a unified plan for all military forces, units come from different nations or types of responders stepping on each other functionally and/or geographically, and coordination and cooperation either among military forces or between military and civilian organizations become too complicated. The analysis of the two cases provided the vision of how separated command and control structure hindered the effectiveness of the operations. To the contrary, in the case of Haiti earthquake, the JTF Haiti, under the operational control of the SOUTHCOM, was able to lead and synchronize all U.S. military's efforts by employing a single unified command and control system. The JTF was not only able to provide centralized planning for the operation and synchronize HADR efforts of its units but also effectively coordinated and cooperated with the GoH, UN peacekeeping forces, USAID, and other NGOs to promote the unity of efforts and enhance the effectiveness of the whole operation. In order to provide such capability, having a central planning staff and a designated humanitarian assistance coordination staff, as the JTF-H's humanitarian assistance coordination cell, is necessary.

Finally, in order to conduct and maintain the operations, timely and sufficient funding and appropriate equipping are required. Regarding funding, while the U.S. response forces in both case studies of Hurricane Katrina and Haiti earthquake was central funded, the NATO forces in the case of the Pakistan earthquake was funded separately by each contributing nation. Although there was not a clear assessment or measurement of whether and how central funding would be better than separated funding, it is noticeable that, under separate funding, supporting countries with tight defense budgets may not be able to contribute and maintain their contribution as much as it desires to. In terms of equipping, having the appropriate equipment is very important as it enables forces to have exactly what they need and save money with what is not necessary before deployment. Hence, once they arrive in the affected areas, they are able to operate immediately and efficiently. In order for response forces to provide this capability, the initial assessment is crucial. Military forces must have the ability to assess the situation by themselves or to have access to accurate assessment information. In addition, having sufficient and capable air (and sea, if possible) assets is critical as it helps expedite the initial response, facilitate quick deployment of forces, and leverage the effectiveness of search and rescue operations.

Considering the factors that impact the effectiveness of the military response to natural disasters and humanitarian crises in the three examined case studies, the author proposes the following list of requirements that constitute sufficient capability of a military response force to provide effective HADR operations. The list is developed based on the analysis of the three examined case studies using the five criteria developed in chapter three of this research. There may be other factors off this list that are able to

contribute to the effectiveness of HADR operations, which requires further study to find out. The list of requirements is as followed:

1. Forces are well-trained and well-prepared for HADR;
2. Having sufficient policy and guidance for conducting HADR operations;
3. Decision-making process is simple and flexible to allow quick response;
4. Having a clear and unified command and control structure;
5. Having a planning staff to provide centralized planning at operational level;
6. Having a civil-military coordination mechanism at different levels of operation;
7. Central funding (preferred) or separated funding with solutions to encourage contribution from supporting states;
8. Having situational assessment capability; and
9. Having access to sufficient air (and sea – if possible) capabilities.

The mentioned requirements are to ensure the effectiveness of military response in HADR. They also ensure the unique capability that military forces can provide where civil and local responders are incapable. Therefore, military forces need to fulfill such requirements and maintain their unique capability to be ready when being called-up for responding.

What is the role of the AMRG in HADR operations?

The terms of reference of the ASEAN Militaries Ready Group on Humanitarian Assistance and Disaster Relief states that the AMRG on HADR's role in supporting the affected state including but not limited to the following response effort:

1. Search and Rescue;

2. Emergency Medical Aids;
3. Distribution of goods;
4. Transportation and Evacuations; and
5. Exchanging, sharing of expertise, experiences, and information.¹⁴⁴

The Term of Reference also states that the AMRG may assign liaison officers to be stationed at the AHA Centre to facilitate the coordination with AMS militaries, and another military liaison officer at the affected state to coordinate military resources from supporting AMS.¹⁴⁵ In the ASEAN Response Procedures, the most significant role of the AMRG is shown in the Active Response Phase (Red), that is supporting the AHA Centre to “Assess potential needs for using foreign Military and Civil Defence assets” and, if warranted, supporting the AHA Centre to “coordinate with the affected Member State’s coordination mechanisms for military assets (e.g., Multinational Coordination Centre or MNCC and Humanitarian-Military Operations Coordinating Centre or HuMOCC).”¹⁴⁶ It is noticeable that while the AMRG TOR lists several services that the AMRG will be able to provide during the deployment of its forces in the affected state, the ASEAN Response Procedures under the AJDRP just mentioned the roles of the AMRG as to support the AHA Centre in coordinating different responding actors and most of the works would be conducted at the AHA Emergency Operations Centre (EOC) in Jakarta. Since the AMRG TOR is the official document that defines the capabilities and

¹⁴⁴ ASEAN Defence Ministers, “Terms of Reference AMRG on HADR.”

¹⁴⁵ ASEAN, AJDRP, 33.

¹⁴⁶ Ibid., 44.

supporting roles of the AMRG (which was approved and adopted by the Defence Ministers of ASEAN Member States), and the AMRG has not been established (therefore, its capabilities and roles may not be updated in all ASEAN's HADR documents), the research will evaluate the AMRG based on its term of reference.

How well can the AMRG coordinate with civil organizations
and relevant mechanisms of ASEAN in HADR?

The ability of the AMRG to coordinate with civil organizations and relevant mechanisms of ASEAN in HADR mostly relies on the AHA Centre, AMS's National Focal Points (NFPs), and the AMRG's designated representative and liaison officers. According to the AMRG TOR, the AMRG on HADR will establish coordination with other relevant regional and international HADR actors through each AMS's NFP and under the coordination of the AHA Centre. Besides, The AMRG on HADR will also coordinate its HADR operations with the Affected State's NFP through its respective NFP.¹⁴⁷ The coordination between the AMRG on HADR and the AHA Centre and Affected State is facilitated by the designated military representative, who is an officer from the ASEAN Chairman country. The military representative has the following functions:

1. Retain updated information related to AMRG's military assets, capabilities and capacities in providing assistance;
2. Establish and maintain liaison with respective NFP of AMS;
3. Collate reports amongst AMRG; and

¹⁴⁷ ASEAN Defence Ministers, "Terms of Reference AMRG on HADR."

4. Facilitate AMRG on HADR operations in the Affected State.¹⁴⁸

In short, the AMRG has its own designated personnel and mechanism to coordinate with relevant regional and international HADR organizations and partners as well as the affected states. However, the coordination with the affected state will be “multi-bilateral,” conducted by each contributing state’s NFP and the affected state’s NFP. This separate coordination can be the result of the separate command and control structure of the AMRG. It may become complicated since this “multi-bilateral” coordination requires significant efforts of the affected country to synchronize operations of different responders. It would be even worse if the capability of the affected state is limited due to the damage of the disaster, as in the case study of the Haiti earthquake.

What gaps exist in the AMRG TOR to be effectively operationalized?

Considering the current capabilities of the AMRG on HADR as stated in its TOR, and the analysis that answered the secondary questions, the research identifies the gaps in the AMRG TOR that need to be filled to ensure that the AMRG on HADR will be operationalized effectively. The identified gaps are as follows:

1. The AMRG employs a separate command and control structure. Although AMRG personnel are able to have the ASEAN flag on their uniforms in operations, the command and control authority resigns in commanders of each AMS’s contributed forces.

2. There’s not a collective process for force requesting. Force deployment requests and approval are based on the mutual consent between the supporting and

¹⁴⁸ ASEAN Defence Ministers, “Terms of Reference AMRG on HADR.”

affected states. There better be available mechanism that is updated regularly with AMS's consent and ready to be employed once needed in order to ensure quick reaction and less reliance on the affected state. It is necessary to consider that the affected state, once the disaster occurred, will suffer from devastating damages, which may significantly impact their ability to follow the whole process and, therefore, slow down the speed of reaction.

3. There's not a central planning staff within the AMRG. This means that there has not been a defined planning process for the AMRG's operations once the incident occurs. Therefore, each AMS's contributed force will plan for its own operation under the ASEAN response procedures and in accordance with the affected state's national disaster plan and other directions and coordination..¹⁴⁹

4. The AMRG on HADR applies a "multi-bilateral" coordination approach to coordinate and cooperate with relevant HADR and civil organizations (as mentioned in the answer for the fourth secondary question).

5. The AMRG on HADR's operations relies on supporting states' contributed assets. Since the AMRG, as determined in the TOR, will employ a separated funding system, not every country may be able to or may want to contribute their air (and sea) assets as they are costly and takes more efforts to be operated. Therefore, the AMRG on HADR's access to air (and sea) capabilities may be limited, which will consequently impact the readiness and the speed of the initial response to disasters.

¹⁴⁹ ASEAN Defence Ministers, "Terms of Reference AMRG on HADR."

6. The AMRG TOR does not provide a clear understanding of how supporting states will identify which capabilities to contribute to the HADR operations. There are no indications of when the contributing forces and assets will be reported to the AHA Centre and the AMRG, how such capabilities will be synchronized for planning, and how they will be assigned to match with different services that the AMRG will provide on the affected areas. This is important because it impacts the planning process, the command and control structure, and the sustainment of the HADR operations.

In addition to the identified gaps, there are other potential hindrances of the AMRG on HADR's operational effectiveness. Firstly, since the HADR operations require specific skills and capabilities that can only be gained through training, it is important for supporting states to maintain the readiness and capability of their contributed response forces. However, this will be a challenge as AMS's contribution to the AMRG's operations is voluntary-based, and there have not been guidance of the AHA Centre or the AMRG on HADR on how to conduct exercises and training to maintain the readiness of forces. Besides, the AMRG operates using a separate funding system. Although it is not identified as an ineffective funding system, it potentially impacts AMS whose defense budget is limited, yet they want to contribute more to the operations. In order to provide effective HADR operations once it is operationalized, the AMRG on HADR needs to address the above-mentioned gaps and potential hindrances.

Conclusion

The chapter addressed problems given in secondary and primary research questions. Firstly, the lessons learned from three case studies provide understandings of factors that constitute the sufficient capabilities for military forces to conduct effective

HADR operations. Secondly, the role of the AMRG on HADR is not only to assist the AHA Centre in establishing coordination among responders but also to provide significant HADR capabilities once its military response forces are deployed. Thirdly, although the AMRG on HADR has its own identified mechanism and personnel for conducting civil-military coordination, the “multi-bilateral” coordination approach seems not to be effective as it requires significant efforts of the affected state, who expects to suffer from devastated damages once the disaster occurs. Finally, the gaps existing in the AMRG TOR were identified for improvements in order to ensure the effective operationalization of the AMRG on HADR. The recommendations for improvement, for further study, and for implementation will be given in chapter five.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study sought to answer the primary question: what gaps exist in the AMRG TOR to be effectively operationalized? To identify the gaps, this study analyzed existing literature and three case studies: Pakistan earthquake 2005, USA Hurricane Katrina 2005, and Haiti earthquake 2010 and find out the answers for four secondary questions: (1) what are the lessons learned from the case studies; (2) what requirements constitutes sufficient capability of a military response force in HADR operations; (3) what is the role of the AMRG in HADR operations; and (4) How well can the AMRG coordinate with civil organizations and relevant mechanism of ASEAN in HADR? If the current capability of the AMRG on HADR as indicated in its TOR, which is associated with its roles and coordination ability, does not match the determined requirements, gaps will be identified. Then, the study will suggest recommendations where areas of improvement exist.

First, the study analyzes the case studies using the identified five elements of effectiveness, which are readiness, command and control, decision-making process, civil-military coordination, and funding and equipping. The analysis reveals several lessons on HADR operational effectiveness. It points out the importance of getting the HADR forces ready before the disasters occur with sufficient training and education as well as the necessity of having adequate guidance and policies to manage the operations. The case studies also show the impact that the decision-making process has over the readiness of response forces. A simple and flexible decision-making process allows the response to be

conducted rapidly to immediately address the emerging crisis in the affected state. Besides, the unified command and control system is also essential to ensure the effectiveness of HADR operations. Not only does it facilitate the command and control process and enable the unity of efforts but also benefit the civil-military coordination and reduce the burden of the affected state. The case studies also indicate the importance of air capabilities towards the readiness and the effectiveness of the initial response as well as the HADR operations in general. The last lesson learned to be mentioned is that central-funding seems to be a favorable method to fund multinational HADR operation since separated-funding may limit the commitment of contributing states.

Second, the above-mentioned lessons suggest several requirements that HADR forces need to fulfill in order to provide effective supports to disaster relief operations. The study identifies the requirements based on the similarities from lessons learned from case studies; therefore, the requirements are common and should be able to be applicable for the AMRG. The list of requirements is as followed:

1. Forces are well-trained and well-prepared for HADR;
2. Having sufficient policy and guidance for conducting HADR operations;
3. Decision-making process is simple and flexible to allow quick response;
4. Having a clear and unified command and control structure;
5. Having a planning staff to provide centralized planning at operational level;
6. Having a civil-military coordination mechanism at different levels of operation;
7. Central funding (preferred) or separated funding with solutions to encourage contribution from supporting states;

8. Having situational assessment capability; and
9. Having access to sufficient air (and sea – if possible) capabilities.

Such requirements are to ensure the effectiveness of military response in HADR. They also ensure the unique capabilities that military forces can provide where the that of civil and local responders are limited. Therefore, military forces need to fulfill such requirements and maintain their unique capabilities to be ready for HADR missions.

Third, although there are different opinions regarding the role of the military in HADR, the militaries are often considered as the last resort in responding to disasters. Although it is usually not the primary responder, the military is able to provide unique capabilities that are critical to HADR missions, and that the civilian organizations may not possess. Therefore, there is an emerging need for militaries' involvement in HADR, and Southeast Asia is not an exception. The AMRG is a promising cooperation that is able to provide military capabilities to ASEAN's HADR operations. Its roles in contributing to ASEAN HADR is identified as follows:

1. Search and Rescue;
2. Emergency Medical Aids;
3. Distribution of goods;
4. Transportation and Evacuations; and
5. Exchanging, sharing of expertise, experiences, and information.

Fourth, the study found that there are identified personnel and mechanism of the AMRG to facilitate the coordination with the affected states as well as relevant HADR organizations and partners. Nevertheless, the coordination with the affected state is not effective since it is “multi-bilateral,” which means that once the disaster occurs, each

contributing state's NFP will try to coordinate with the affected state's NFP instead of having an element of the AMRG to conduct collective coordination. This “multi-bilateral” of coordination potentially put more burden on the affected state, which is often damaged significantly by the disasters. Hence, this kind of coordination will hinder the effectiveness of HADR operations.

Lastly, AMRG TOR has been adopted by ASEAN to be a potentially effective tool to strengthen the HADR capability of the region. However, while comparing the current AMRG TOR and the current role and civil-military coordination capabilities of the AMRG with identified requirements for effective HADR operations, the study identified gaps that may hinder the effectiveness that the AMRG can provide when it is operationalized. The gaps are found as follows:

1. The AMRG on HADR employs a separate command and control structure.
2. There's not a collective process for force requesting.
3. There's not a central planning staff within the AMRG.
4. The AMRG on HADR applies a “multi-bilateral” coordination approach to coordinate and cooperate with relevant HADR and civil organizations.
5. The AMRG on HADR's operations relies on supporting states' contributed assets.
6. The AMRG TOR does not provide a clear understanding of how supporting states will identify which capabilities to contribute to the HADR operations.

The study also pointed out potential hindrances that may impair the operational effectiveness of the AMRG on HADR. Firstly, it is the voluntary-based contribution of the AMS to the AMRG. Secondly, it is the absence of guidance of the AHA Centre or the

AMRG on how to conduct exercises and training to maintain the readiness of forces. Finally, the separated-funding system may have negative effects on the commitment of AMS in contributing to regional HADR. By addressing such gaps and issues, the performance of the AMRG on HADR will be improved, which, as a result, will enhance the HADR capabilities of ASEAN.

Recommendations

For Improvement

According to the ASEAN Disaster Management Handbook, the AMRG “works to strengthen the coordination of joint services of the various Member States working under ASEAN at a multilateral level.”¹⁵⁰ However, as defined in its TOR, for the most part, the AMRG’s HADR operations are more like multi-bilateral operations between each supporting state and the affected state. The AMRG is somehow like a bridge to link the supporting states to the affected state instead of being a collaborated and collective response force to provide joint services. This kind of cooperation can be conducted by supporting states individually to reduce the time-consuming linking process via the AMRG. Besides, ASEAN does not play a significant role in the AMRG’s operations. Instead, responsibilities are delivered to supporting and supported states to coordinate, fund, and maintain the operation. Considering the case of the Haiti earthquake, too much reliance on the affected state contains risks if the affected state is damaged by the disaster so seriously that it cannot perform its role properly following the processes. ASEAN should stand out and show its leading role more clearly in HADR to, firstly, enhance the

¹⁵⁰ CFE-DMHA, *ASEAN Disaster Management Reference Handbook*, 29.

HADR capability of the region by effectively employing a new tool - the AMRG, which is also the purpose of the AMRG's establishment and what the ASEAN is aiming at to sustain the development of countries in the region. Furthermore, if ASEAN can coordinate the military response efforts of its member states, it would be able to build up mutual trust and cooperation within the region to overcome political constraints and achieve further successes in HADR. Therefore, in order to improve the effectiveness of the AMRG once it is operationalized, it is important to make the AMRG's operations multilateral instead of "multi-bilateral" and promote the role of ASEAN in leading and organizing the AMRG on HADR. The following are recommendations to enhance the capabilities of the AMRG for its more effective operationalization.

Regarding improving the readiness of the AMRG forces, since the contributions of supported states are voluntary-based and contributors also decide whether or not they will contribute to a specific incident as well as how much their contribution would be, it is necessary for ASEAN to ensure the commitment of the supporting states prior to the disasters in order to be proactive in planning and coordinating. Therefore, AMS should sign up for their contributed forces and assets to the AHA Centre prior to disasters and update it regularly. The coordinating can be done by the military representative officer at the AHA Centre. Besides, as countries dedicate their commitment of forces and assets to the AMRG, ASEAN should develop a training plan that includes the guidance of how to conduct training and exercises nationally and regionally in order to maintain the readiness and capabilities of contributed forces that will be utilized during HADR operations. Along with the training plan, ASEAN should also develop a set of standards to evaluate the readiness of each contributing state.

Lessons learned from case studies showed that a separate command and control system would not be effective. Therefore, the AMRG should establish a unified command and control system to plan and conduct its HADR operations. Since it is difficult to assign a nation to be in charge of leading every operation, a possible option is to assign the leading role in an annually rotating manner, of which the leading country will be the ASEAN Chairman country of the year. It is also the country where the military representative comes from. A unified command and control system will also benefit the AMRG's coordination with civil organizations as well as relevant mechanisms of ASEAN in HADR, which, in turn, will promote the responsibility of the command element and reduce the reliance on the affected state in terms of coordinating. Besides, to ensure the cohesiveness of forces and unity of efforts during HADR operations, it is necessary for the AMRG to establish its planning staff. The staff may involve personnel from all AMS, who are dedicated to HADR missions and conduct planning throughout national and regional training and exercises.

Currently, the standard operation process (SOP) of the AMRG has not been integrated into ASEAN's Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations. It has been integrated into the AJDRP, yet very limited. In order to benefit the command and control, the decision-making process, and the readiness of forces in accordance with the effectiveness of the whole HADR missions of ASEAN, it is necessary to publish official guidance and policies on the AMRG's SOP as well as integrate them with SASOP and the ASEAN Response Procedures within the AJDRP. ASEAN should also consider the option of central funding to facilitate the AMRG's

HADR operations in order to ensure the commitment of AMS once the incidents occurs.

The AMRG common fund can be managed independently by the AMRG or be integrated into the AADMER fund. As a result of this, there must also be rules and policies regarding managing and utilizing the fund.

Finally, since there are specific types of assets that are vital for HADR operations, especially aircraft, the AMRG should also consider having a certain amount of available assets that belong to the AMRG as a whole and are ready to be used at any time. This means that such critical assets are always available so that the AMRG will be proactive in using them without relying too much on the contribution of AMS. This is essential because, as it is indicated in the AMRG TOR, supporting countries can decide whether or not to take part in the HADR operation as well as to contribute all of their signed-up assets before the disasters, which means that even the forces and assets showed on the latest update of contribution list provided to the AMRG may not be one hundred percent available once the incident occurs. Such critical assets can also be used during regional exercises for enhancing and maintaining the capabilities and performance of the AMRG. The storing and maintenance can be integrated into the existing logistical inventory system that has been dedicatedly designated by ASEAN for HADR.

For Future Study

The author identified gaps that are existing in the AMRG TOR and gave recommendations to fill such gaps to ensure the effective operationalization of the AMRG. However, as the AMRG has not conducted any HADR operation, its practical performance is still questionable. Besides, the AMRG is the first regional military cooperation of ASEAN. Although it currently is joint cooperation on HADR, it promises

the improvement in trust-building among AMS, which is able to leverage the military cooperation in the region to a new level to collectively overcome political constraints and deal with on-going security threats other than HADR. Therefore, it requires further study to improve the capabilities of the AMRG as well as to understand the potential benefits to regional cooperation that the AMRG can bring about. The author recommends the following for further study:

1. Assessment of the AMRG on HADR's performance in practical operations and areas of improvement.
2. ASEAN's potential trust-building mechanism developed from the establishment and operationalization of the AMRG.
3. Proposals of an ASEAN military cooperation on addressing regional security issues other than HADR.

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