



# Collaborative Disaster Preparedness

Vietnam, the United States, and Regional Experiences (Proceedings from Da Nang, Vietnam, August 18–20, 2015)

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## Preface

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Vietnam is vulnerable to disasters; the region is flood prone and often affected by weather events. Disaster preparation and response planning are important to lessen the impact of future disaster events. In August 2015, a workshop on collaborative disaster preparedness was held in Da Nang, Vietnam, where local and international actors discussed collaboration, preparedness and response mechanisms, and lessons learned from past disaster management.

This workshop should be of interest policymakers, government officials, nongovernmental organizations, militaries, and communities in disaster-prone areas concerned with effective disaster preparedness and response.

The workshop was sponsored by the Collaborative & Adaptive Security Initiative and conducted within the International Security and Defense Policy Center of the RAND National Defense Research Institute, a federally funded research and development center sponsored by the Office of the Secretary of Defense, the Joint Staff, the Unified Combatant Commands, the Navy, the Marine Corps, the defense agencies, and the defense Intelligence Community.

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## Abbreviations

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AHA Centre	ASEAN Coordinating Centre for Humanitarian Assistance
ASEAN	Association of Southeast Asian Nations
CASI	Collaborative & Adaptive Security Initiative
CBDRM	community-based disaster risk management
CBDRR	community-based disaster risk reduction
DART	Disaster Assistance Response Team
DoD	U.S. Department of Defense
DRR	disaster risk reduction
DSCA	Defense Support to Civil Authorities
EOC	Emergency Operations Center
ERC	emergency relief coordinator
FEMA	Federal Emergency Management Agency
HuMOCC	Humanitarian-Military Operations Coordination Center
IASC	Inter-Agency Standing Committee
ICS	incident command system
JOC	Joint Operations Center
MARD	Ministry of Agriculture and Rural Development
MNF-SOP	Multinational Force Standard Operating Procedures
MNMCC	multinational military coordination center
MONRE	Ministry of Natural Resources and Environment
NGO	nongovernmental organization
ORNG	Oregon National Guard
PDC	Pacific Disaster Center
SASOP	Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations
UN	United Nations

UN-CM	United Nations Civil-Military
UNDAC	United Nations Disaster Assessment and Coordination
UN OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNRC	United Nations Resident Coordinator
U.S.	United States
USAID/OFDA	United States Agency for International Development/U.S. Office of Foreign Disaster Assistance
USMC	U.S. Marine Corps
USPACOM	United States Pacific Command
VINASARCOM	Vietnam National Committee for Search and Rescue

## Introduction and Objectives

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Vietnam is one of the most natural disaster-prone countries in Southeast Asia. Densely populated flood-prone areas and increasing typhoon occurrence, duration, and strength compound Vietnam's disaster risk management challenges. The country's disaster preparedness and response capabilities will be shaped by an array of factors, which include infrastructure and population resilience, response capabilities, and geography. Robust preparedness planning that enables an integrated, civil-military multiagency response is essential and will define the trajectory of response and recovery.

The workshop on Collaborative Disaster Preparedness—held August 18–20, 2015, in Da Nang, Vietnam—was designed to bring members of various Vietnamese organizations together with U.S. officials and international/regional representatives for discussions on disaster preparedness and response. These interactions facilitated relationship building among members of the U.S. and Vietnamese armed forces, government civilian agencies, nongovernmental organizations (NGOs), and intergovernmental organizations. The workshop enhanced understanding of national and international actors' roles and responsibilities to improve combined disaster response in the future.

Workshop objectives included the following:

- Enhance understanding of disaster preparedness and response communities globally and locally, and build professional networks across communities.
- Review and discuss lessons learned and best practices from the greater Asia-Pacific region on past response efforts to natural disasters.
- Discuss how the international community, regional organizations, and the U.S. government operate in support of host nations during disaster response.

Forty individuals attended the workshop. More than one-half of the participants were from Vietnam; the others were from the United States, Italy, and Sweden. Table 1.1 shows the range of organizations represented.

**Table 1.1**  
**Collaborative Disaster Preparedness Workshop Participants and Presenters**

Vietnamese Organizations	Intergovernmental Organization	Nongovernmental Organizations	U.S. Government Civilian Agency	U.S. Military
Vietnam National Committee for Search and Rescue (VINASARCOM)	United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA)	Plan International	United States Agency for International Development/ Office of U.S. Foreign Disaster Assistance (USAID/OFDA)	Oregon National Guard State Partnership Program (ORNG SPP)—2 (military)
Da Nang Agriculture and Rural Development Department (DARD)		RAND Corporation		III Marine Expeditionary Force (III MEF)
Da Nang City Military Commanding Committee				Marine Forces Pacific (MARFORPAC)
Da Nang Disaster Prevention and Search and Rescue Committee				Office of Defense Cooperation (ODC Hanoi)
Da Nang Climate Change Coordination Office				Pacific Fleet (PACFLEET)
City Border Guard Commanding Committee				Naval Postgraduate School
Da Nang Fire Fighter Police				United States Pacific Command (USPACOM): Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DMHA)
Da Nang Maritime Rescue Coordination Center				
Da Nang Disaster Prevention and Mitigation Center				
Son Tra District People's Committee				
Da Nang City People's Committee				
Regional Navy No. 3				

## Key Workshop Themes

Throughout this workshop, discussions emphasized a few crucial themes:

- Disaster preparedness—through training, planning, and mitigation—can significantly lessen damage and loss caused by disasters.
- Information and data sharing are critical in the first few days of a disaster, but also extremely important during preparedness and throughout response.
- Disasters highlight the importance and necessity of collaboration among government agencies and officials, militaries, local and international NGOs, and local community actors.
- Outside/international assistance should only be requested if the affected nation does not have sufficient capacity to respond.
- Foreign military assistance is considered a last resort.
- Understanding emergency response guidelines, protocols, and regulations will make response more efficient.
- Community preparedness for disasters can significantly decrease the impact.
- Every disaster has unique political, physical, and socioeconomic environments that will influence the response.



## Day One

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### Introduction of Participants and Emergency and Disaster Management and Response

Matthew Vaccaro, program manager of Collaborative & Adaptive Security Initiative (CASI) for the U.S. Naval Postgraduate School in Monterey, California, led the workshop. He introduced CASI, which focuses on engagement and teaching activities for mixed groups of practitioners who deploy or live in fragile and insecure environments. Sponsored by the U.S. Office of the Secretary of Defense for Personnel and Readiness, CASI values dialogue, participatory learning, innovation, and unconventional approaches to disaster preparedness, response activities, and other challenging situations. The vision for the CASI programs comes from Frank DiGiovanni, director for Force Readiness and Training, Office of the Secretary of Defense.<sup>1</sup>

Vaccaro led participants and presenters in a discussion in which individuals introduced themselves and talked more about their roles in disaster management.

### Emergency Management and Response Fundamentals

After the introductions, Vaccaro delivered a thorough overview of emergency management.<sup>2</sup> The session provided foundational definitions of the workshop's main themes: emergency management and priorities, the preparedness cycle, and integrating outside assistance.

### Emergency Management and Priorities

In order to have a successful discussion about collaborative disaster preparedness, it is important to comprehend the larger field of emergency management. To this end, definitions from the U.S. Federal Emergency Management Agency (FEMA) and the United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) are useful.

According to FEMA, emergency management “seeks to promote safer, less vulnerable communities with the capacity to cope with hazards and disasters.”<sup>3</sup> FEMA and UN OCHA

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<sup>1</sup> Naval Postgraduate School “The Collaborative & Adaptive Security Initiative (CASI),” undated.

<sup>2</sup> Matthew Vaccaro, “Overview of Emergency Management: Setting the Stage,” presentation delivered in Da Nang, Vietnam, August 18, 2015.

<sup>3</sup> B. Wayne Blanchard, “Guide to Emergency Management and Related Terms, Definitions, Concepts, Acronyms, Organizations, Programs, Guidance, Executive Orders, and Legislation: A Tutorial on Emergency Management, Broadly

define emergency preparedness, respectively, as “a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response”<sup>4</sup> and “the knowledge and capacity developed by governments, recovery organizations, communities, and individuals to anticipate, respond to, and recover from the impact of potential, imminent, or current hazard events, or emergency situations that call for a humanitarian response.”<sup>5</sup>

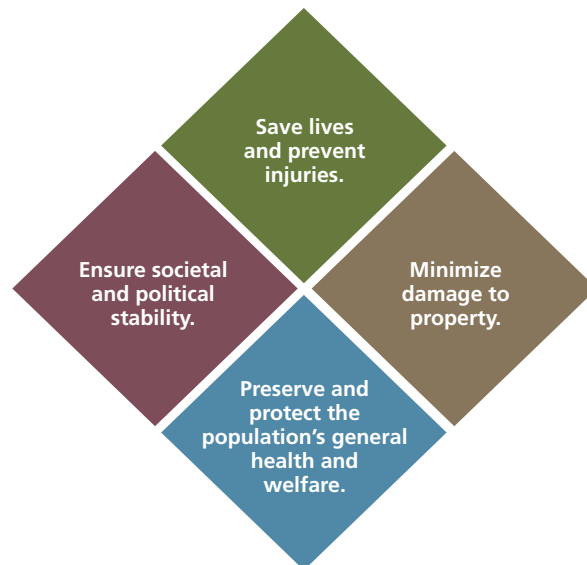
Four emergency-management priorities attempt to reduce the overall risk to a population. Figure 2.1 lists these priorities.

### Preparedness Cycle

There are five basic phases within the emergency preparedness and response cycle, as illustrated in Figure 2.2.

1. *Analysis* involves understanding the threat(s), vulnerabilities, and capabilities. The analysis phase seeks to identify all potential threats and provide an understanding of their impact on society by using information and technology to project possible disaster effects. Since it looks at all threats—whether natural, man-made (e.g., technological), or some other type of disaster—this is considered an all-hazards approach.
2. *Planning* strategically will assist in reducing risk in the long term. In this planning phase, stakeholders should develop general operational response plans that identify roles and relationships based on possible mission requirements as well as the basic concepts

**Figure 2.1**  
**Emergency Management Priorities**



SOURCE: Courtesy of FEMA.

RAND CF337-2.1

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Defined, Past and Present,” October 22, 2008, p. 361.

<sup>4</sup> Blanchard, 2008.

<sup>5</sup> United Nations Office for the Coordination of Humanitarian Affairs, “Preparedness,” undated.



**Figure 2.2**  
Preparedness Cycle Steps



SOURCE: Courtesy of FEMA.  
RAND CF337-2.2

- of operation. Advance strategic planning should also include developing recovery plans to restore society after an incident.
3. *Mitigation* focuses on preventing threats or minimizing consequences before the incident occurs. Types of mitigation activities include:
    - physical, such as structural, infrastructure-strengthening activities
    - economic, such as insurance and capital reserves to fund emergency-response efforts
    - legal, such as laws and regulations
    - social or human behavior, such as training and education.
  4. *Response* to an emergency is most successful with a targeted application of resources to contain and control the damaging effects of an incident. The response typically involves a wide range of agencies and disciplines in a coordinated effort. The command-and-control organization must be flexible and adaptable. The response phase may last weeks or even months and may be dependent on logistical support. The response phase is usually the step of the cycle that gets most attention. Sophisticated actors realize that emphasis on the steps before response usually produces a greater return.
  5. During the *recovery* phase, the focus is on restoring the affected portions of society and damaged facilities after a disaster. Stakeholders involved in recovery need to plan for the short-, mid-, and long-term recovery phases; full recovery may take many years. Recovery activities include physical, economic, and social activities.<sup>6</sup>

### Integrating Outside Assistance

The theme of integrating outside assistance—from the United Nations (UN) and regional organizations, other governments, NGOs, and military forces—was regularly examined during the workshop. Most commonly, discussions on this theme emphasized the response portion of the

<sup>6</sup> Vaccaro, 2015.

cycle. The presentation, however, made clear that outside assistance can be an integral part of each section in the cycle. Similar to the importance of incorporating national efforts in every aspect of the cycle, integrating outside support into the various segments of the cycle will only enhance the efficiency of the response phase.

## **International Assistance to Host Nations During Disasters**

The first speakers' panel dug deeper into international assistance. Panelists Brian Heidel and Scott Aronson, both of the United States Agency for International Development, U.S. Office of Foreign Disaster Assistance (USAID/OFDA), provided insight into how U.S. government civilian agencies and intergovernmental organizations assist countries affected by disaster. As the regional advisor for East Asia and the Pacific region of USAID/OFDA with over 24 years of experience working in Asia, Heidel shared valuable insights on USAID/OFDA. His presentation was complemented by Aronson's expertise as the lead humanitarian assistant advisor to United States Pacific Command (USPACOM). They shared the history of USAID/OFDA, the office's main functions in foreign disaster response, and how the office interacts with civilian and military stakeholders in disaster events.

USAID/OFDA is the U.S. government's lead agency for foreign disaster response. It is responsible for organizing and coordinating all activities and support provided by the U.S. government during disaster response abroad. USAID/OFDA is headquartered in Washington, D.C., with representatives in many U.S. embassies around the world. Its overall mandate includes the following goals:

- save lives
- reduce human suffering
- reduce the social and economic impact of disasters.<sup>7</sup>

### **Disaster Declarations**

USAID/OFDA has a formal process to manage the U.S. government response. First, the U.S. ambassador in the affected country—based on advice from the staff and consultation with the host government—will declare a disaster when the following criteria are met:

- Disaster effects are significant enough to surpass the host nation's capacity for response.
- The host nation requests, or host nation is willing to accept, U.S. assistance.
- Responding is in the interest of the U.S. government.<sup>8</sup>

### **Large-Scale Responses**

In a large-scale disaster response, USAID/OFDA will deploy a Disaster Assistance Response Team (DART). There are some equivalent types of teams in the UN's system and the Association of Southeast Asian Nations (ASEAN) with its rapid response teams, which were described in other presentations in this workshop. USAID/OFDA provides immediate funding to agen-

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<sup>7</sup> Office of U.S. Foreign Disaster Assistance (USAID/OFDA), "USAID/OFDA Briefing Collaborative Disaster Preparedness workshop," presentation delivered in Da Nang, Vietnam, August 18, 2015.

<sup>8</sup> Office of U.S. Foreign Disaster Assistance (USAID/OFDA), 2015.

cies and NGOs already in the affected areas to provide immediate relief as the primary method of assisting countries.

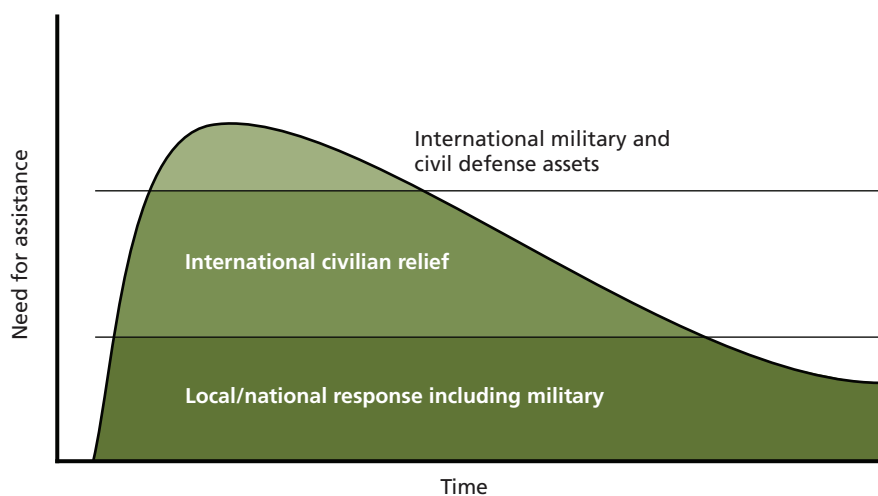
Participants asked if USAID/OFDA maintains stockpiles of goods for delivery in disasters and what types of goods the organization might provide to Vietnam. USAID/OFDA has three warehouses throughout the world, and it would distribute warehoused items as needed in a large disaster. Emphasis was put on the number-one rule after any disaster: supplies are distributed based on a clear understanding of needs. The USAID/OFDA speakers emphasized, “We encourage everyone around the world to understand the needs and then respond based on needs.” Typical supplies that might be provided to a local partner in a Vietnamese province hit by a typhoon could include blankets and mosquito nets. USAID/OFDA strongly prefers, however, to provide cash assistance, as this has been demonstrated to be more beneficial and can help stimulate local economic recovery.

### How USAID/OFDA Works with the U.S. Department of Defense

Aronson discussed how USAID/ODFA works with the U.S. Department of Defense (DoD). Figure 2.3 depicts the well-accepted global strategy for response. Local and national capabilities, such as national armed forces, are the responsible parties and are used first. If more assistance is needed, international civilian capabilities, such as international nongovernmental humanitarian organizations and the UN family of organizations, get involved. Finally, if the level of need is extremely high, international military and civil defense assets are used as a last resort.

USAID/OFDA responds to an average of about 70 international disasters annually, but the U.S. military is not needed in the vast majority of cases. Comparatively, the U.S. military participates in only an average of five international disaster responses per year. U.S. policy requires the following criteria be met before involving the military:

**Figure 2.3**  
**Assistance Over Time**



SOURCE: Courtesy of USAID/OFDA.

RAND CF337-2.3

- The U.S. military provides a unique service that cannot be found in country or within the civilian international community.
- Civilian capacity is overwhelmed.
- Most importantly, USAID/OFDA requests this assistance from the U.S. military.
- Further, any military effort must meet three principles: (1) the military mission is clearly defined, (2) there is minimal risk, and (3) DoD's core mission is not affected by the response.<sup>9</sup>

### USAID/OFDA Operations in Vietnam

Vietnam has many disasters of varying scales annually. The U.S. government's last disaster declaration in Vietnam was the Mekong Delta floods: a small-scale response with limited funding channeled to international NGO relief efforts. Typhoon Ketsana in 2009 was the last large-scale U.S. response in Vietnam. Yet, even this response did not warrant requesting or using the U.S. military.

Most of USAID/OFDA's annual Vietnam funding is allocated for disaster risk reduction (DRR) for common disasters, such as strong storms and floods. USAID/OFDA emphasizes DRR to assist countries in being better prepared and more resilient. According to the USAID/OFDA, it is critical to prepare for these disasters ahead of time. The four categories of DRR described by USAID/OFDA are

1. *early warning systems* (Pacific Disaster Center [PDC])—VinAWARE flood monitoring and early warning pilot projects
2. *private-sector participation*, such as the collaboration between the Asia Foundation/Vietnam Chamber of Commerce and Peace Winds America to improve disaster preparation and response of local businesses
3. *community-based disaster risk management (CBDRM)*, in which organizations such as the American Red Cross Society, Plan International, Save the Children, and Catholic Relief Services work to build capacity for communities to respond to disasters
4. *incident command system (ICS)* (U.S. Forest Service)—training Vietnamese government disaster-management staff and Vietnam Red Cross staff on ICS and adaptation to the Vietnam context.<sup>10</sup>

For CBDRM, USAID/OFDA has supported many different agencies to form a consortium to scale up their assistance and will increase support for disaster risk management. The Vietnamese government has a priority list of communes they would like to prepare for disaster. USAID/OFDA is helping with this effort. USAID/OFDA is also collaborating with the PDC in Hawaii, which works alongside Vietnam's Ministry of Agriculture and Rural Development (MARD) and the Ministry of Natural Resources and Environment (MONRE) to improve the disaster management capabilities of these two agencies. MARD has disaster-response responsibilities, and MONRE has responsibilities for forecasting. The PDC is trying to ensure that MARD and MONRE professionals have real-time information and can make better decisions when a disaster is approaching. USAID/OFDA also works with the Asia Foundation on private-sector resilience and with Vietnam National Committee for Search and Rescue (VINA-

<sup>9</sup> Office of U.S. Foreign Disaster Assistance (USAID/OFDA), 2015.

<sup>10</sup> Adapted from Office of U.S. Foreign Disaster Assistance (USAID/OFDA), 2015.

SARCOM) and MARD to develop a plan for training on ICS,<sup>11</sup> a training used in many Asian countries, including the Philippines, Brunei, and Thailand, that have already adapted it.

Panelists concluded the session by reiterating the persistent challenge in disaster response: understanding the needs of those affected (i.e., a *needs assessment*). In disasters, there is a rush to provide information and assistance, and everyone wants to help immediately, but it is difficult to gather information quickly. This needs-assessment phase—during which information is unknown—is called the *fog of disaster*. During the fog, usually in the first days of a disaster, responders are not sure how many people are affected, the level of impact, or how to respond. There is also a *fog of relief*, when there are a large number of humanitarian actors responding. These actors need someone in charge of coordination, which is difficult.

### **Intergovernmental Organizations Assistance During Response**

Following the USAID/OFDA presentation, Viviana De Annunziis, civil-military coordination officer for Asia and the Pacific, UN OCHA, presented UN OCHA's challenges, which mirror those discussed by the preceding panelists.

### **United Nations Office for the Coordination of Humanitarian Affairs Mechanisms for Offering Assistance**

UN OCHA is the part of the UN secretariat responsible for bringing together humanitarian actors to ensure a coherent response to emergencies. As such, UN OCHA is part of the international civilian relief effort that supports local/national disaster response (see Figure 2.3). In the context of the UN system, UN OCHA is a smaller organization, with about 1,900 staff distributed around the globe in small teams at nine regional and 28 field offices. During the preparedness phases in advance of a crisis, UN OCHA works with national governments, regional bodies, and other agencies to implement and test measures that will help save lives in an emergency. UN OCHA also provides tools—such as contingency planning, hazard mapping, and early warning reports—to UN staff stations in at-risk countries and national governments.

Once an emergency has occurred, UN OCHA plays a key role in operational coordination in crisis situations. This includes assessing situations and needs; facilitating dialogue between governments and humanitarian actors; agreeing on common priorities; developing common strategies to address such issues as negotiating access, mobilizing funding, and other resources; clarifying consistent public messaging; and monitoring progress. Working through its regional and country offices, UN OCHA deploys staff on short notice to emergencies. It also supports rapid-response tools, such as the UN Disaster Assessment and Coordination (UNDAC) teams.<sup>12</sup>

<sup>11</sup> According to FEMA (“Incident Command System Resources,” March 19, 2015), ICS is

a management system designed to enable effective and efficient domestic incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure. ICS is normally structured to facilitate activities in five major functional areas: command, operations, planning, logistics, Intelligence & Investigations, finance and administration. It is a fundamental form of management, with the purpose of enabling incident managers to identify the key concerns associated with the incident—often under urgent conditions—without sacrificing attention to any component of the command system.

<sup>12</sup> This paragraph references language included on the UN OCHA website. United Nations Office for the Coordination of Humanitarian Affairs, “Coordination,” undated.

De Annuntiis discussed two case studies as examples of collaboration among a disaster-affected government, international and domestic humanitarian actors, and foreign military forces.

### **Vanuatu Cyclone Pam 2015**

Cyclone Pam, a Category 5 Hurricane, struck the Oceanic island of Vanuatu in March 2015. The devastating storm caused extensive damage throughout the archipelago nation: Nearly all buildings were damaged or destroyed and communications, electricity, and potable water infrastructure were significantly damaged. Nearly 200,000 people were affected—about 80 percent of the population. It was clear from the onset that needs would exceed national capacity. UN OCHA suggested the deployment of an UNDAC team; the government of Vanuatu accepted the offer. These teams include trained civil-military coordination officers, which was useful in this instance because several countries (including Australia, Fiji, France, New Zealand, and the United Kingdom) offered military support to the government's response. The civilian-humanitarian community made good use of several specialized military capabilities. Military aerial reconnaissance was used to identify and prioritize locations to first send the assessment teams. Combined civil-military planning and logistical expertise was used to develop transportation plans to move the assessment teams with military aircraft throughout the affected area (spread across the archipelago in this remote part of the world). This overall case illustrated civil-military innovation and collegial engagement with one another, emphasizing the need for civilian and military response communities to come together during the preparedness phase.

The use of military aerial reconnaissance and management of the resulting imagery was a big topic of discussion among the workshop participants, indicating that this is an area where more discussion and greater comfort among all actors is needed. It is important in the preparedness phase that governments discuss this capability and how to regulate its use in disaster response. UN OCHA noted that drone and other aerial imagery is not currently addressed in the guidelines at the global and regional levels, but it is an emerging area of important discussion.

### **Nepal 7.8 Magnitude Earthquake 2015**

On April 25, 2015, a 7.8 magnitude earthquake struck Nepal, 70 kilometers west of the capital of Kathmandu. Nepal had preparedness plans in place, therefore the government was able to quickly establish a national emergency operation center to connect with the affected regions, which were primarily outside of the capital. The government identified several areas of specific need from the international community, e.g., an UNDAC team, urban search-and-rescue teams, medical teams, and heavy-lifting equipment. The needs were conveyed through multiple channels, from embassies and UN OCHA to potential responding countries and relief organizations. The government and international players agreed to establish a Humanitarian-Military Operations Coordination Center (HuMOCC), which had government civilian representatives, humanitarian actors, national military and police representatives, and foreign military liaison officers to discuss how to use foreign military assets in the relief effort. The government also established a multinational military coordination center (MNMCC) to coordinate the Nepal Army and all foreign military forces working in the disaster zone.

### Civil-Military Roles and Responsibilities Within Disaster Response

This session explored how the U.S. military and NGOs assist during response and was presented by CDR (ret.) Joyce Blanchard, U.S. Navy, Center for Excellence in Disaster Management and Humanitarian Assistance. The center serves as a think tank on disaster management within USPACOM. Commander Blanchard is the disaster management and humanitarian assistance advisor—she specializes in the Asia-Pacific region and civil-military coordination. Aronson also joined in this presentation.

Commander Blanchard explained that about 80 percent of annual global disasters occur in the Asia-Pacific region—the operational area of USPACOM. She emphasized a common theme mentioned in preceding presentations: the U.S. military does not get involved unless the disaster is large in scale and catastrophic. Further, she differentiated direct assistance, for example, providing medical care and food directly to victims, from indirect assistance, such as repairing infrastructure or providing logistical support. U.S. policy is to try to use its military assets for indirect assistance only. The United States follows international guidelines on civil-military coordination as described in the next section.

### International Guidelines on Civil-Military Coordination

There are several international guidelines that the United States follows for its military support of disaster relief. They are outlined below.

1. *Oslo Guidelines*<sup>13</sup> on the Use of Foreign Military and Civil Defense Assets in Disaster Relief, which provide the foundation for subsequent civil-military interaction guidelines, even for insecure environments
2. *APC-MADRO*, the Asia-Pacific Regional Guidelines for the Use of Foreign Military Assets in Natural Disaster Response Operations
3. *UN Civil-Military Coordination Officer Field Handbook*,<sup>14</sup> which helps UN-Humanitarian Civil-Military Coordination officers deployed by UN OCHA to coordinate between military and civilian partners
4. *Multinational Force Standard Operating Procedures (MNF SOP) Humanitarian Assistance/Disaster Relief Annex*,<sup>15</sup> an agreed framework among most armed forces in the Asia-Pacific region that establishes standard procedures for disaster response.<sup>16</sup>

### U.S. Military Guidance on Disaster Relief

The U.S. military has significant capabilities to support disaster response given its size, ability to operate in an expeditionary manner, and global reach.

The U.S. military may be involved in disaster response when

<sup>13</sup> “Guidelines on the Use of Foreign Military and Civil Defence Assets in Disaster Relief—‘Oslo Guidelines,’” updated November 2006, revision 1.1, November 2007.

<sup>14</sup> United Nations Humanitarian Civil-Military Coordination, *UN-CMCoord Field Handbook*, version 1.0, Geneva, Switzerland, undated.

<sup>15</sup> “Multinational Force Standing Operating Procedures (MNF SOP), MNF SOP, Humanitarian Assistance Disaster Relief (HA/DR) Extract,” version 2.6, October 2010.

<sup>16</sup> Joyce Blanchard, “U.S. Military Foreign Humanitarian Assistance Architecture,” presentation delivered in Da Nang, Vietnam, August 20, 2015.

- a unique capability is needed or civilian response capacity is overwhelmed
- civilian authorities request assistance
- providing support will not adversely affect the ability of the military to conduct its other operations or responsibilities.<sup>17</sup>

The process for the U.S. military to become involved in a particular disaster response is well established within the U.S. interagency system. Either the affected-country government requests U.S. government military support, or it accepts a U.S. government submitted proposal of support. In both cases, the proposed response is reviewed and validated by USAID/OFDA, the lead U.S. agency. Once it is agreed, the mission is passed from the U.S. Secretary of State to the U.S. Secretary of Defense for the military to execute. This is a highly consultative process, with ongoing discussions among all the agencies as soon as a disaster has occurred—and sometimes, even once a potential disaster is forecasted. In the U.S. system, the military gets financially reimbursed by the civilian agencies for any support provided.

When the U.S. military is called into action, its services are intended to be used for the shortest amount of time possible. As soon as response is requested, military planners start thinking about transitioning the duties to the affected state, the humanitarian community, or another body beyond the U.S. military.

### **Nongovernmental Organization Roles in Disaster Preparedness and Response**

Following the session about U.S. military support in disaster response, the conversation shifted to the role of another important group of stakeholders—NGOs—in disaster preparedness and response. This session was presented by Olle Castell, regional manager for disaster risk management for Plan International (Plan) in Asia, which covers risk reduction, preparedness, and response in the region. Plan conducts projects in 50 countries globally, including 14 countries in Asia. The NGO originates in development work, and their core mission is not disaster response, though DRR recently became an important area for the organization. In Vietnam, Plan has numerous efforts in collaboration with the UN and other NGOs. Castell used this session to describe the perspectives of NGOs and to share how NGOs cooperate for disaster preparedness and response.

### **Plan International’s Disaster Preparedness and Response Systems**

Plan provides a tailored response for each situation based on the needs. For example, after the Nepal earthquake, the capacity of the government to provide food was limited, and Plan engaged in that area. (After an earthquake in another country, Plan could focus on services such as child protection, which might be an unsatisfied need there.)

There are benefits to being a larger international NGO that is able to work across the spectrum, from development to preparedness to relief. Plan has broad expertise across staff and is able to invest in cross-training so that staff are able to work in a variety of fields. This provides a degree of flexibility in responding to a wider range of needs during a disaster response. Approximately 200 Plan staff are trained in emergency management. Should the need arise, Plan would immediately be able to send trained people from nearby countries to Vietnam to assist. Plan typically has offices dispersed throughout any given country, and all are equipped to share information with one another. This helps toward a common understanding of any

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<sup>17</sup> Blanchard, 2015.



situation, and the ability to share information with other organizations through networking and coordination. *Partnerships in networking and coordination are extraordinarily important.* Plan fully supports the humanitarian cluster systems for crisis coordination.

Plan has responded to several disasters in Vietnam in the past few years, including tropical storm Wutip in 2013, flash floods in 2010, Typhoon Ketsana 2009, and tropical storms Hagupit and Kammuri in 2008. When disaster strikes, Plan's priorities within the first 72 hours are to verify the safety of its staff and initiate a needs assessment. Based on this assessment, a response plan is developed. USAID/OFDA is one of many donors that may support Plan's efforts; for example, in Nepal, Plan identified a need for shelter; water purification; and items to carry water, food, and nonfood items. The USAID/OFDA DART team can provide money immediately to enable Plan to meet these needs. Castell reiterated what other presenters highlighted—rather than provide materials or goods, if the market is open, the humanitarian organizations are encouraged to provide cash, as locals know best what the needs are, and their purchasing power can help keep the economy afloat.

### **Plan International Disaster Preparedness Activities in Vietnam**

Plan not only assists in the response to disasters, but also reduces the vulnerability to future incidents. Plan has employees in Vietnam who work with local government authorities to implement community-based disaster risk reduction (CBDRR). CBDRR focuses on knowledge and awareness of private citizens to ensure the community understands what to do when a typhoon is approaching. Plan is also working on a safe-schools initiative based on three pillars: (1) make schools more safe in the case of an earthquake or typhoon, (2) stimulate the development of school-escape plans, and (3) use the education system to distribute information on disaster preparedness to children and their families. Based on the comments offered, the workshop participants indicated strong support for local disaster preparedness activities, such as those undertaken by Plan.

### **Summary: Workshop Day One**

After the four presentations that detailed how government agencies, NGOs, and military actors coordinate and determine response efforts in foreign disasters, the first day of the workshop concluded. While the presenters came from different types of organizations with varying goals and missions, they all highlighted a few key lessons learned or essential items to better prepare for and respond to future disasters in the region:

- A response to disaster should be dealt with locally first and, if external assistance is needed, the government can request it from outside actors.
- Understanding the emergency-preparedness cycle can improve the response of local and external officials and responders.
- To stimulate the local economy in a disaster, cash assistance instead of material provision is encouraged.
- Military assistance is a last resort, and the military should only offer assistance if it has a truly unique capability or a massive surge is needed.
- Knowing and following the existing civilian military and intergovernmental coordination guidelines greatly aids the provision of international support and saves lives.



## Day Two

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The second day focused on presentations by military personnel from the U.S. Marine Corps (USMC) and the Oregon National Guard (ORNG). Presenters provided firsthand accounts of how their respective organizations operate in disaster response. BGen. Paul Kennedy, Deputy Commanding General, III Marine Expeditionary Force in Okinawa, Japan, presented first. General Kennedy commands a multifunctional brigade prepared for combat and nontraditional missions, such as supporting host nations in disaster response. He also holds a number of decorations and has extensive experience in disaster response. In spring 2015, when workshop organizers initially asked General Kennedy to speak about the 2013 Typhoon Haiyan response in the Philippines, he did not know he would soon be deployed to Nepal for earthquake response. His presentation focused on his impressions from both responses.

### **Disaster Response Perspective from the U.S. Marine Corps**

General Kennedy described his military unit—the III Marine Expeditionary Force—as a forward-deployed, crisis-ready force. General Kennedy explained that, “We are on 24-hour alert every day of the year. What this organization allows us to do is operate in a wide spectrum of operations. We respond to not just disaster relief but other crises in the region. We are organized and equipped to handle more nasty affairs.” The command element is designed to respond within 12 hours, but typically it deploys within six hours to arrive at the crisis site. Within 48 hours, the force can have 300–400 Marines on the ground, ready to work. In addition, those Marines are backed up by an aviation component that provides options for disaster support. “We try to go as light as possible to get the job done, because you don’t want to become a tax on the logistical system during a relief operation. We should be self-sustaining. We should not be competing for resources for those who you are trying to help, and you should plan for an early exit.”<sup>1</sup>

The general spoke holistically about the U.S. military’s role in disaster response by looking at two case studies: the 2013 Typhoon Haiyan in the Philippines and the 2015 Nepal earthquake. He emphasized that the USMC does not believe it has all the right answers and that there are countries and organizations much more practiced in disaster response. He shared that the USMC can learn from Vietnam’s expertise in their annual response to flooding.

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<sup>1</sup> Paul Kennedy, presentation on lessons learned, delivered in Da Nang, Vietnam, August 19, 2015.

## Operation Damayan

General Kennedy presented a case study on the operations during Typhoon Haiyan in the Philippines. In October 2013, General Kennedy's headquarters participated in exercises in Okinawa to meet Philippine counterparts as a relationship-building exercise. A few weeks later they were notified of the storm developing and, on November 7, 2013, Typhoon Haiyan hit. The typhoon was 40-miles wide, hitting the Philippines with wind speeds of over 200 miles per hour. The storm also pushed a wall of water in front of it, which crested over 30 feet high. Unlike a tsunami, which comes in a wave, this wall of water pummeled the shore for over an hour and inundated a resort city with 20–25 feet of water. The Philippine government and its armed forces had pre-positioned their supplies and response equipment in that area, but they were overwhelmed. Most of the equipment and humanitarian supplies were washed out to sea. They had failed to develop a backup plan, one further from the danger zone. Hence, the government's response began with a major setback to executing a rapid assessment. General Kennedy explained that, "It is a key lesson; you have to have the means to assess and describe the opening hours of an event." It took USMC forces ten days to fully assess the affected regions using military reconnaissance techniques. These first days after the disaster were critical for the victims in the most isolated regions, since potable water and relief stocks were inaccessible.

In this operation, USMC did not deploy large numbers of responders, since organizations such as the UN were onsite in appropriate numbers. General Kennedy believes that the role of USMC is to support humanitarian organizations on the ground by providing unique capabilities and additional capacity to deliver lifesaving aid. The main lesson learned from the Typhoon Haiyan response was that the Philippine government should have created an MNMCC immediately. Though it was planned for and discussed as a necessity, an MNMCC did not start operating in the first ten days, which was a problem. In a disaster, an identified leader must sort out how military forces are to be employed. Evidence of improvement in this area was seen in December 2014, when a second typhoon hit the Philippines. Fortunately, the local government implemented the lessons learned from Typhoon Haiyan, and U.S. military support was not needed.

## Operation Sahayogi Haat

General Kennedy remarked, in regard to the 7.8 earthquake to the west of Kathmandu in April 2015, "What was not anticipated was that there would be a disaster within a disaster." On May 12, a massive 7.3 aftershock earthquake hit the same area, and responders had to shift back into rescue mode. USMC assisted by rescuing people in collapsed structures and in the mountains, where one helicopter used in this mission crashed. This incident became an unwelcome distraction—trying to locate the downed helicopter and recover it in the midst of providing a recovery operation to Nepal proved to be complicated. When first responders are victims in a disaster-response operation, politics enter into the equation; if responders are trying to save other responders while disaster victims do not have shelter or water, there will be criticism of efforts. Responders had to determine how not to detract from disaster-response effectiveness, while still attending to their losses.

As mentioned during the UN OCHA presentation, there were some significant achievements during the Nepal response. There were also lessons learned from past regional disasters

that could have been better used to execute the response to the 2015 Nepal earthquake. One key lesson is that, for better or for worse, geography and geopolitics matter. Nepal's landlocked geography and remote location from major transport routes slowed and reduced the international community's ability to respond quickly. Unlike in the Philippines, response by sea is not possible with Nepal. In addition, the country's location between two regional powers and their internal, ongoing power-sharing struggle allowed politics to seep into many issues that should have otherwise been humanitarian, apolitical matters.

General Kennedy emphasized that the most important lesson he took from both response cases was the importance of the relationships developed with people. In other words, trust building can be even more important than well-developed rules. He underscored that, "The more opportunities we have to talk about the potential to respond in a collaborative fashion in a crisis event, the more likely we are going to work together in the future. It is only achieved in robust dialogue and shared common experience."

General Kennedy noted that information sharing during response is one of the biggest challenges because the U.S. military typically operates on classified channels, which prevents foreign military from sharing information easily. Adequate procedures can be precoordinated through multilateral training exercises to overcome this challenge.

## Oregon National Guard U.S. Defense Support to Civil Authorities

The second session of the day was led by BG Jeffrey Silver, assistant adjutant general for domestic operations for the ORNG in Salem, Oregon. He is responsible for overseeing the ORNG's Defense Support to Civil Authorities (DSCA) operations. His presentation and discussion outlined DSCA and provided examples of the ORNG's support to its state government.

### Mission and Activities of the Oregon National Guard

General Silver opened the discussion by pointing out that Oregon has challenges similar to Vietnam, such as flooding, fires, strong storms, etc.

General Silver noted that the primary federal and state missions of the ORNG are as follows:

1. The *federal mission* of the ORNG is to train as an operational reserve to the active duty military and, if called upon by the President of the United States, to serve as regular federal forces. (In the United States, the term *federal government* refers to the central government of the whole country.)
2. The *state mission* of the ORNG is to serve under the command of the governor of the state of Oregon. The ORNG performs disaster-relief duties as directed by the governor and adjutant general with the following two tenets:
  - Tenet 1: The military is always subordinate to civil authorities.
  - Tenet 2: Federal (central government) military or civilian aid only flows to a state (the provincial level) if the governor asks for help.<sup>2</sup>

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<sup>2</sup> Jeffrey Silver, "National Guard Civil Support," presentation delivered in Da Nang, Vietnam, August 20, 2015.

The governor must request a “Major Disaster Declaration” from the President, then any federal aid is provided primarily through FEMA. Active-duty military personnel are prohibited from participating unless the governor grants permission.<sup>3</sup> Since civilian agencies of government are responsible for disaster management in the United States, the military is requested only if the civilian agencies are not able to provide enough assets to handle the emergency. Even in that case, civilian agencies will often hire companies from the private sector for support before relying on the ORNG. For example, for downed trees blocking roads, state government could hire a construction or forestry company to clear the road. If that option is exhausted or if a more-immediate response is needed, the governor may then choose to use the ORNG.

Should the ORNG be needed to support civilian authorities, they have significant capabilities. The ORNG’s role in disaster response is to protect lives, mitigate suffering, and protect property. The ORNG performs search and rescue and urban search and rescue in hazardous chemical environments (a highly specialized capability requiring hazmat suits and special training). Additionally, the ORNG has the capability to support law enforcement and provide area security. For example, when a disaster strikes, the ORNG has the capacity to provide security to orderly distribute goods to a community. The ORNG can also provide road-reconstruction services and assessment to identify where roads and bridges need more work, and they have small, unmanned aerial vehicles for aerial reconnaissance. The ORNG has significant logistical capability to move and distribute supplies or to evacuate a community at risk. In addition, they are able to validate airfield usability and provide for air operations management.

### **Cascadia Event Predictions**

The worst-case disaster predicted for Oregon is called the *Cascadia event*. The Oregon coast is a subduction zone that separates two tectonic plates. The pressure that builds as one plate slips under the other at the rate of 2 millimeters per year will, eventually, cause a massive earthquake. Scientists predict the earthquake to recur every 300–500 years. The last Cascadia event that occurred in Oregon was 315 years ago. The epicenter of the next Cascadia event is estimated to be 60 miles off the west coast of Oregon. It is expected to generate a 9.0 earthquake and last about five minutes; the fault line that will be the source of the event runs from western Canada to California. Given that the earthquake is off the coast, it will result in a tsunami about 20 minutes after the earthquake. The tsunami is expected to be 12–40 feet, with a possible extreme of 80 feet.

Emergency-management organizations throughout the Pacific Northwest predict many challenges associated with the Cascadia event. If the event were to happen in the winter, there could be widespread landslides due to rain-saturated soils; this scenario would cause immediate casualties and would destroy transportation infrastructure, hindering the response phase. Further, the cloudy skies that characterize Pacific Northwest winters would limit aviation traffic.

If the disaster happened during the workday, there would be tremendous family separation: children would be at school and parents would be at work. This would cause near panic, as parents would struggle to reunite with their families. Again, geography will pose a problem. In this case, the heavily populated coast is separated by a mountain range from the main transportation network. Unfortunately, the most damage is predicted to occur where most people live. It is estimated that about 4,000 people will die, with 15,000 additional who will suffer

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<sup>3</sup> Silver, 2015.

injuries. All electricity, water, and sewers will be unavailable for an extended period. FEMA predicts 500,000 people will need shelter, and 1.1 million people will need food support for as many as six weeks. Interestingly, FEMA has planned for pet sheltering, as many Americans will not enter shelter unless their pets are also provided care.

Civilian agencies most certainly will be overwhelmed immediately after the Cascadia event; therefore, the ORNG has developed plans to provide support, including security. Soldier preparedness and survivability will greatly affect the ORNG's capability to respond. The ORNG is also addressing the reality that its soldiers and their families, who live throughout the state, also will be victims of the disaster.

One of the greatest challenges anticipated during the response will be the coordination and deconfliction of the activities of hundreds of entities, including government offices from the municipal to federal levels, private industry, major utilities, numerous NGOs and other humanitarian actors, private volunteers, and potentially international actors.

## Planning and Preparedness

Given the challenges involved in disaster-response operations, the ORNG has spent considerable time developing plans. Since the ORNG is a supporting organization to the Oregon Office of Emergency Services (the lead civilian agency), it incorporates the guidance and framework of higher-level planning documents as it undertakes its military-support planning. For example, the ORNG uses the FEMA-developed *Cascadia Playbook*.<sup>4</sup> "Play 1" addresses getting all the parties ready for the disaster; "Play 2" focuses on life safety; subsequent plays deal with all aspects of response and recovery.

To prepare, headquarters staff train on topics such as the National Incident Management System, crisis leadership, and disaster management through in-person and online trainings and exercises. The staff also tests their preparedness via quarterly exercises and participation in other organizations' exercises. For example, planning is underway for a 2016 FEMA exercise, which will include all the state actors alongside both FEMA and the federal military command, U.S. Northern Command, on a possible large-scale disaster affecting the states of Oregon and Washington. A critical evaluation will be conducted as part of this exercise to identify strengths and weaknesses in the preparedness of all actors. Subsequent efforts can attempt to strengthen the weaknesses and retest to create a cycle of continuous improvement.

## U.S. Naval Ship *Mercy* Visit

Participants and speakers took a break from the meeting rooms to tour the U.S. Naval Ship (USNS) *Mercy* (T-AH-19),<sup>5</sup> a U.S. Navy hospital ship. The ship was docked for the week in Da Nang Bay as part of Pacific Partnership 2015, the U.S. Navy's major humanitarian assistance and disaster-response exercise. The Pacific Partnership is the largest annual multilateral humanitarian assistance and disaster-relief preparedness activity conducted in the Indo-Asia-

<sup>4</sup> State of Oregon Office of Emergency Management, "Cascadia Playbook Overview: Developing a Quick Reference Guide for the First 14 Days," version 1.0, Salem, Oreg., August 2014.

<sup>5</sup> "Welcome to the USNS *Mercy* Website!" homepage, undated.

Pacific Region. One of the mission commanders led the group through an overview of the ship and its remarkable capabilities. The U.S. Navy has two such ships that provide a significant, mobile medical capability, which can be, and have been, employed during disaster response.

During the tour, the presenter guided the group through the path a patient on the ship would take in a real-world situation. It was noted that the ship itself had been converted from an oil tanker to a hospital several decades ago. The ship is almost 900 feet long and can move at up to 17.5 knots. Though the ship is an older construction, the facilities within are state of the art and use the most-current technologies while performing hospital functions. The ship includes a pharmacy, emergency ward, blood laboratory, isolation ward, intensive-care unit, casualty reception, operating/surgical ward, radiological services, a main laboratory and a satellite lab, physical therapy and burn care, dental services, optometry lab, a morgue, and a children's hospital. The ship also has unique capabilities to produce oxygen and also store frozen blood for up to ten years.

During the ship's stay in Vietnam, the U.S. medical staff undertook collaborative activities and trainings with Vietnamese counterparts. Each day, the ship-based personnel would go ashore and work alongside Vietnamese counterparts. In addition, Vietnamese-U.S. medical teams conducted combined procedures onboard the USNS *Mercy*.

### **Summary: Workshop Day Two**

The second day of the workshop provided a great opportunity to improve trust and relationships among all the participants. The simple act of visiting the hospital ship and collectively experiencing something new allowed the mixed group to become closer. The day also provided an abundance of information about how the various U.S. military branches work in overseas and domestic disaster response. The case studies of recent U.S. military support to the Philippines and Nepal were particularly relevant, as were the detailed discussions of the trainings and activities of the military operations center in Oregon.

Key takeaways from the day include the following:

- Sharing information and important lessons learned from past disaster management in the region with all types of disaster responders is critical for effective preparation and response to future disasters. In order for responders to be successful, it is important for them to have opportunities to learn and use the same lexicon in disaster planning, training, and response.
- Disasters can be unpredictable, and local environments can make immediate response difficult, so it is important for foreign and local military and government responders to understand their roles and be flexible in their assistance activities to meet changing needs.
- Understanding local contexts and developing preparedness plans such as the *Cascadia Playbook* takes time, and those who may be first affected in a disaster should be trained with these plans because they are best placed to prepare and assist in a disaster.
- The USNS *Mercy* hospital ship activities facilitate detailed civil-military collaboration and medical training between U.S. and Vietnamese medical staff, which contributes to greater preparedness for disaster response.



## Day Three

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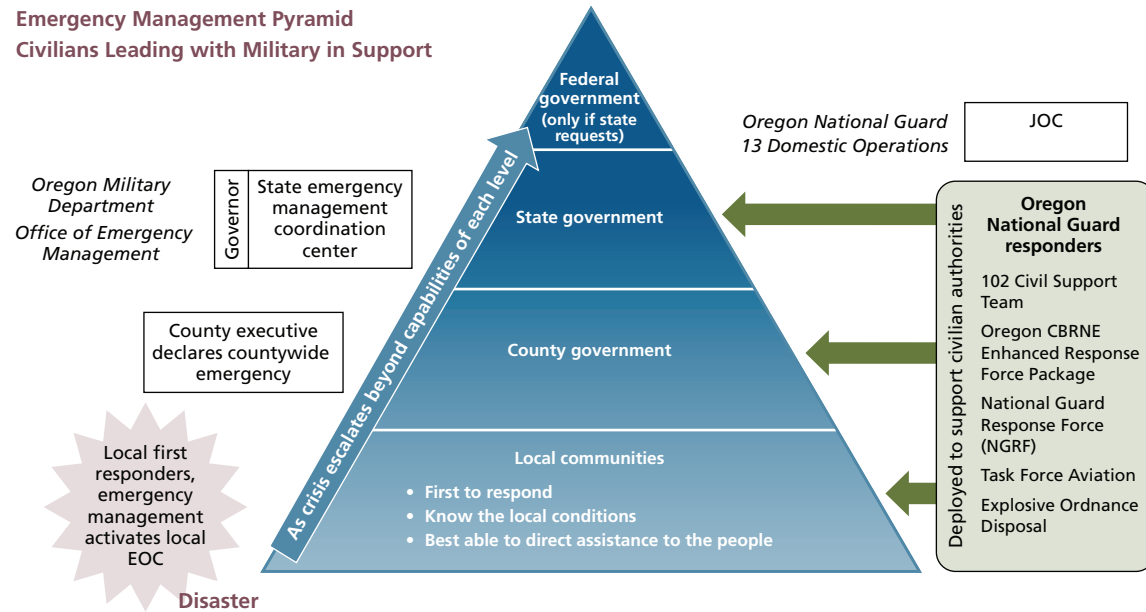
Day three of the workshop provided time for more detailed discussions and further examples of how the United States relies on military support for disaster operations at home and how external military support is coordinated through the assistance of the UN and the ASEAN Coordinating Centre for Humanitarian Assistance (AHA Centre) in the ASEAN region.

### **Integrating Civil and Defense Efforts Through a Joint Operations Center: The Oregon Example**

Presented by BG Jeffrey Silver from the ORNG, this presentation and discussion described how Oregon uses a Joint Operations Center (JOC) to integrate military activities into civilian-led response efforts during emergencies. JOC is the 24-hour military operations center, where command of the ORNG is exercised and where senior leaders convene to track and manage ongoing operations. The number of personnel working depends on the situation. At the time of the workshop, JOC was busy managing military support to civilian-led wildland firefighting and was staffed with eight to ten personnel; for a more catastrophic occasion, such as the Cascadia event, there would be 70–80 people working 24 hours a day. Importantly, the JOC is housed in the same building as the civilian-led Emergency Operations Center (EOC). To facilitate the integration of civilian and military efforts, the two centers exchange liaison officers. Further, the senior leads can simply walk over to the other center to conduct face-to-face consultations. JOC is equipped with a variety of communication, mission-tracking, and visualization/mapping tools to support management of military operations. The products from these tools can be shared with the civilian agencies and used to support joint decisionmaking. The civilian Office of Emergency Services has subordinate offices throughout the state in the counties. These county-level offices share a lot of information with the civilian EOC, which then shares with the JOC—helping to develop a common civil-military operating picture.

The emergency management pyramid in Figure 4.1 illustrates the parties expected to handle an emergency situation. Again, the concept of *local response first* is followed. If there are not enough resources at the local level, the county level is requested. If that is insufficient, the state level is requested for assistance. At the state level, the governor has both civilian and military capabilities that he or she can employ in response. The strategy is to use the civilian capabilities before using the military. When the civilian leaders have a mission they would like to pass to the military, it is sent from the EOC to the JOC. Once there, the mission is validated by military leaders and issued through the military command system to the appropriate staff or unit. This mission-assignment process is usually highly consultative between the senior

**Figure 4.1**  
**Emergency Management Pyramid**



SOURCE: Courtesy of the ORNG Joint Domestic Operations Command.

RAND CF337-4.1

staff members of the JOC and the EOC. If both the state civilian and military capabilities are insufficient or require reinforcement, the governor can then request support from the central (federal) government.

General Silver highlighted that, by using a common operating procedure, everyone is aware going into a response. The ORNG uses several Internet tools to establish a common operating procedure, including the OPS Center (a database that tracks missions), Real-Time Assessment and Planning Tool for the State of Oregon (a map display), and Mission Tracking (tracks units that are active and receives feedback). These tools are used for all events, but General Silver focused on the case of responding to wildfires. There were 16 fires in Oregon in 2014, and when the ORNG starts to use military assets for fire response, they track who and what is being used to fight fires. The Oregon Department of Forestry develops a plan of response with the ORNG every year and includes items known to be needed, such as helicopters and water buckets; the Office of Emergency Management provides feedback on the plan. Due to the long-standing relationship between the two organizations, this process moves smoothly.

### **Oregon Joint Operations Center Real-World Fire Update**

General Silver continued the discussion on JOC operations by presenting an update on current ORNG operations in support of civilian wildland firefighting. He passed around a variety of planning documents and military support-tracking products to help the participants gain a real-world sense of what happens inside a JOC. He described the “battle rhythm” of a day in the JOC and provided examples of collaborative meetings that occur between military and civilians. In a preparedness mode, members of the JOC participate in a collaborative meeting

that endeavors to forecast the risk of new fires by looking at weather forecasts, fuel loads, likelihood of ignition sources, etc. This group creates predictive visual aids to help senior leaders make decisions and allocate resources. The JOC also maintains fire statistics, including the size of the fires, the change in fire size (if it has grown or not), percentage of containment achieved or not, and a sum total of all acreage burned and the number of structures threatened. Mission tracking maintains an updated listing of military assets available for assignment and number of assets and people already engaged.

### **International Humanitarian Coordination Efforts**

Viviana De Annutiis of UN OCHA delivered a second presentation to provide additional information about UN procedures. She started by reminding participants that the UN has ongoing development and other activities in many countries that would potentially need outside support after a disaster. When UN staff are based in a country, the UN identifies a leader among them and designates that person as the UN Resident Coordinator (UNRC). When a disaster is forecasted, the relevant regional UN OCHA office would provide information and other staff support as requested by the UNRC (the leader of the UN Development Programme office in Hanoi, in the case of Vietnam). This support would be provided remotely from the regional office and other locations. If, after a disaster strikes, the national government requests international humanitarian coordination, the UNRC would call in a UN OCHA team. When there are also regional protocols and coordination capabilities, discussion between the UN and regional officials must occur to select the methods that will be used in the particular situation. Fortunately, there are few differences among the UN and regional coordination mechanisms—all rely on similar principles, structures, and processes.

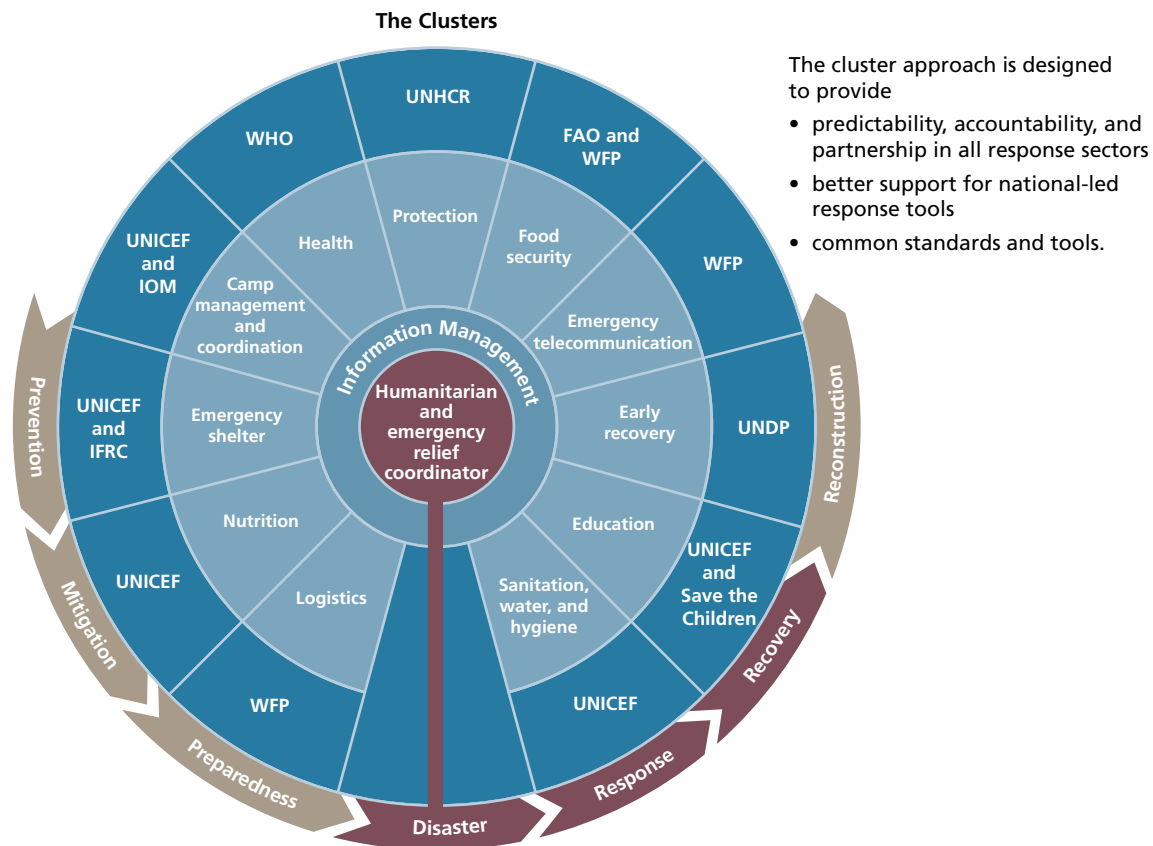
De Annutiis explained the broader organization of the UN system and how UN OCHA is part of the secretariat reporting directly through the UN emergency relief coordinator (ERC) to the secretary-general. The ERC chairs the global Inter-Agency Standing Committee (IASC), which includes various partners and NGOs that meet regularly to decide how to improve humanitarian support efforts through strategic guidance and frameworks.

The IASC also oversees the *cluster approach* that the UN and humanitarian system has adopted to organize coordination. The cluster system encompasses groups of organizations with similar expertise in one area that collaborates to improve ways of providing services in a disaster. Figure 4.2 illustrates the various clusters and the disaster management cycle adopted by the IASC.

If a logistics cluster is activated, all humanitarian actors that perform logistic functions would meet regularly to share information and use logistic assets to complement one another's activities. The larger the disaster, the more need for clusters. For example, all clusters were activated in Typhoon Haiyan due to the scale of the disaster. Before a cluster is activated, there is a dialogue between the corresponding line ministry in the government and UN OCHA or the cluster lead agency.

The cluster approach is designed to be adaptable to the local context and situation. For example, given that most damage occurred in rural areas away from the capital during the 2015 Nepal earthquake, the UNRC appointed provincial-level coordinators to manage the coordination closer in the regional areas. The cluster approach was set up both in the capital and at the regional levels.

**Figure 4.2**  
**UN Clusters Framework**



SOURCE: Courtesy of the UN.

NOTE: UNHCR: UN Refugee Agency; FAO: Food and Agriculture Organization; WFP: World Food Program; UNDP: UN Development Programme; UNICEF: UN Children's Rights and Emergency Relief Organization; IFRC: International Federation of Red Cross and Red Crescent Societies; IOM: International Organization for Migration; WHO: World Health Organization.

RAND CF337-4.2

### Regional Agreements, Products, and Activities

The UN OCHA presenter highlighted useful agreements and activities in the Asia-Pacific region that promote disaster preparedness, including:

1. ASEAN Agreement on Disaster Management and Emergency Response
2. SAARC Agreement on Rapid Response to Natural Disasters<sup>1</sup>
3. *Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP)*.<sup>2</sup>

<sup>1</sup> "SAARC Agreement on Rapid Response to Natural Disasters," May 25–26, 2011.

<sup>2</sup> Association of Southeast Asian Nations, *SASOP: Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations*, Jakarta, Indonesia, November 2009.

Further, ASEAN began a campaign in 2009 known as “One ASEAN, One Response.” In its vision for 2015–2020, ASEAN endeavors to develop one legal framework and standard operating procedure with a permanent regional coordinating center called the ASEAN Coordinating Centre for Humanitarian Assistance, or simply the AHA Centre,<sup>3</sup> located in Jakarta. Established in 2011, the AHA Centre envisions each member state identifying one point of contact that would collaborate with a single field-coordinating center during a regional response. The AHA Centre in Jakarta has early warning systems that can track tropical cyclones that are forming offshore, can provide assistance and information to member states about what might affect them, and can deploy technical and emergency response and assessment teams on the ground to an affected state. The AHA Centre maintains a mailing list to facilitate administrative and logistical assistance from other member states, whereby they communicate with the national disaster management office of the affected country. The newness of this ASEAN initiative requires further development of capacity to fulfill the vision.

## Foreign Military Coordination

CDR (ret) Joyce Blanchard from Center for Excellence Disaster Management and Humanitarian Assistance continued the discussion by describing the MNF-SOP in greater detail, namely its concept of an MNMCC.

## Multinational Force Standard Operating Procedures

The MNF-SOP was created after the 2004 Indian Ocean tsunami to enhance military collaboration in the Asia-Pacific region. It is a nonbinding, collectively developed set of military procedures built on informal relationships and annually reviewed and tested. MNF-SOP includes the concept of an MNMCC to assist countries in managing and coordinating all the foreign militaries providing assistance in a particular situation. An MNMCC is designed for information sharing and gathering to support disaster-response efforts. An MNMCC also handles the national command element.

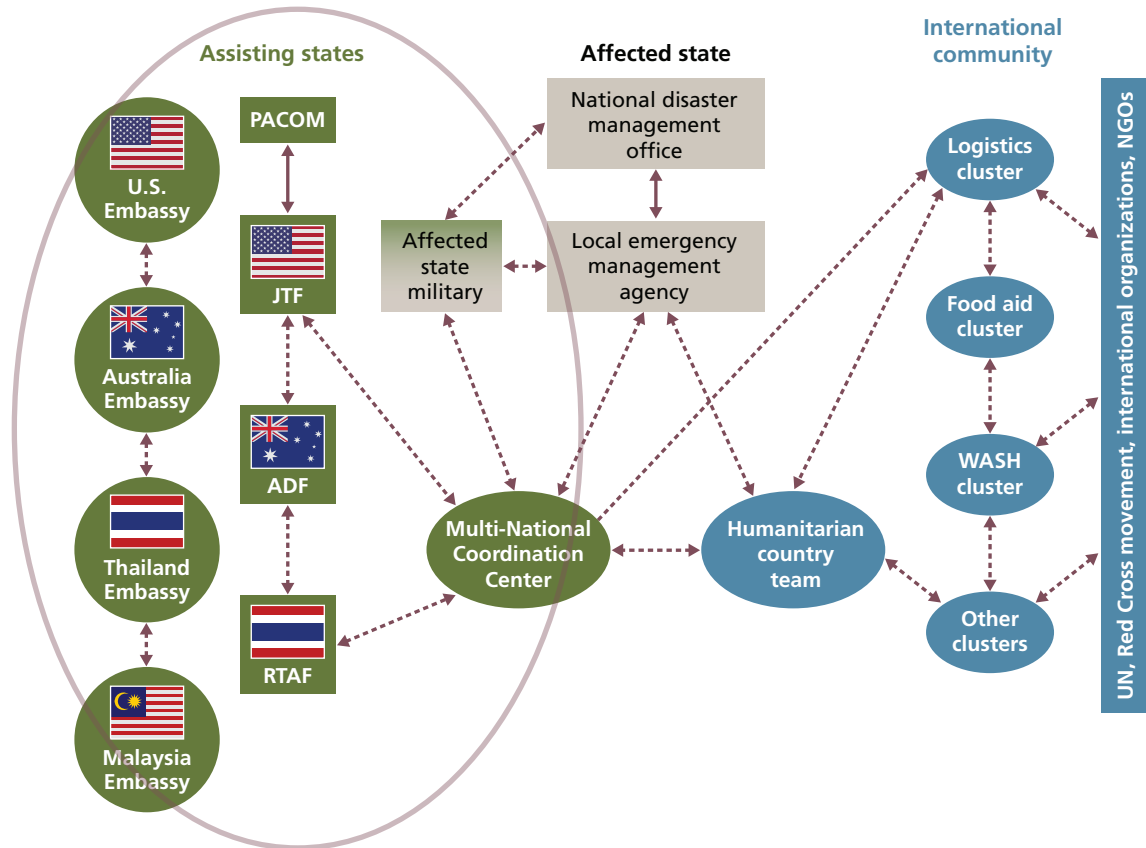
Figure 4.3 depicts a basic model of the coordination bodies, with the affected country and its national disaster management office at the center. All military matters would be coordinated among the various armed forces and host government at an MNMCC. The military and humanitarian actors would come together for their coordination at the HuMOCC. Ideally, these two entities would be collocated to work efficiently and effectively together.

Response to large-scale disasters is greatly facilitated by using an established process for the humanitarian agencies to request support from the collection of military forces in the region. For instance, in Haiti, the initial response was unorganized; there was no central system that outlined a common operating picture of the needs and support capabilities that were available. There was no process to prioritize and vet requests. Relief groups simply approached military forces and asked for help, and military forces responded however they wished. This was greatly

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<sup>3</sup> For more information on the AHA Centre, see AHA Centre, ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management, homepage, undated.

**Figure 4.3**  
**Generic Model of Civil-Military Coordination in Disaster Response**



SOURCE: Courtesy of the Center for Excellence in Disaster Management.  
 NOTE: JTF: Joint Task Force; ADF: Australian Defence Force; RTAF: Royal Thai Air Force.  
 RAND CF337-4.3

inefficient. These functions can be organized to occur within the HuMOCC or within a similar civil-military body deployed by the AHA Centre.

**Summary: Workshop Day Three**

The third day of the workshop featured presentations that expanded on common themes, activities, and coordination efforts organized in the disaster preparedness and response realm. General Silver presented information covering the civil and defense missions that are integrated in Oregon using real-world examples of wildfire coordination and response efforts. This discussion was followed by a detailed discussion about UN OCHA processes to support coordination during disaster response. International guidelines and frameworks were described: how they assist in making coordination efforts effective among government, military, and humanitarian organizations involved in disaster response.

The main lessons from presentations on day three include the following:

- Governments, response agencies, individuals, and militaries that conduct risk forecasting and modeling using real-time information, data, and early warning systems can better coordinate and assign available response assets for disaster preparedness and response.
- Coordination of response in complex systems is improved when countries are informed of, trained in, and follow pre-agreed regional guidelines, agreements, and activities.
- Strengthened and continuously developing relationships between humanitarian actors with similar expertise in a cluster approach creates a foundation for better disaster preparedness and response coordination efforts.





## Conclusion

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The workshop in Da Nang provided fruitful discussions about disaster preparedness and response between all stakeholders in disaster events. When natural disaster strikes a population, responding organizations and the local population have an important role to play. It is essential to prepare the locals who may be affected by a disaster to have a plan for self-aid. International military forces should be considered as a last resort. They may be able to fill gaps where the host nation cannot meet needs, but if preparations are adequately in place for disasters, the assistance of the military should not be needed except in exceptional situations. Successful preparedness and response requires implementing past lessons learned to communicate between humanitarian, government, and military actors and to collaborate and act in a disaster.

Common lessons in this workshop that are important for future scenarios on collaborative disaster preparedness and response include the following:

- Collaboration is necessary and important in a disaster between government agencies and officials, militaries, local and international NGOs, and local community actors.
- Foreign military assistance is considered a last resort.
- International assistance should be requested when the affected nation does not have the capacity to respond.
- Understanding emergency response guidelines, protocols, and regulations will make response more efficient.
- Community preparedness for disasters can significantly decrease the impact.
- Every disaster has unique political, physical, and socioeconomic environments that will influence the response.
- Preparations for disasters through mitigation, training, and planning for response can significantly alleviate the damage and losses from disasters.
- Sharing information and data on a disaster is critical in the first few days, but also extremely important in all phases of disaster preparedness and response.



## Participants, Facilitators, and Staff

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**Table A.1**  
**Participants, Facilitators, and Staff**

Participants	Name	Organization	Country
1	Tran Van Kim	VINASARCOM	Vietnam
2	Nguyen Anh Dung	VINASARCOM	Vietnam
3	Pham Hoai Giang	VINASARCOM	Vietnam
4	Nguyen Thi Thu Huong	VINASARCOM	Vietnam
5	Dang Thuy Linh	VINASARCOM	Vietnam
6	Hoang Thanh Hoa	Da Nang Agriculture and Rural Development	Vietnam
7	Ho Xuan Phong	Da Nang Maritime Rescue Coordination Center	Vietnam
8	Phan Thi Kim Loan	Da Nang Maritime Rescue Coordination Center	Vietnam
9	Duong Anh Tuan	Da Nang City Military Commanding Committee	Vietnam
10	Thai Thi Bich Van	Irrigation and Disaster Prevention Department	Vietnam
11	Kieu Van Luy	Da Nang Disaster Prevention and SAR Steering Committee	Vietnam
12	Le Duy Vong	Da Nang Disaster Prevention and SAR Steering Committee	Vietnam
13	Nguyen Quang Tuyen	City Border Guard Standing Committee	Vietnam
14	Vu Thi Mai Huong	Da Nang Climate Change Coordination Office	Vietnam
15	Phu Chi Thinh	Da Nang Climate Change Coordination Office	Vietnam
16	Doan Thanh Tuyen	Regional Navy No.3	Vietnam
17	Tran Van Thanh	Son Tra District People's Committee	Vietnam
18	Cao Nhu Tuan	Da Nang Maritime Rescue Coordination Center	Vietnam
19	Do Van Nhan	Da Nang Fire Fighter Police	Vietnam

**Table A.1—Continued**

<b>Participants</b>	<b>Name</b>	<b>Organization</b>	<b>Country</b>
20	Phan Van Dung	Da Nang Fire Fighter Police	Vietnam
21	Nguyen Anh Tuan	Da Nang Disaster Prevention and Mitigation Center	Vietnam
<b>Facilitators and Staff</b>			
1	Viviana De Annuntiis	UN OCHA	Italy
2	MAJ Kyle Akers	Office of Defense Cooperation, U.S. Embassy Hanoi	United States
3	CDR Joyce Blanchard	Center for Excellence	United States
4	Olle Castell	Plan International	Sweden
5	Glenn Gibney	Plan International	United States
6	BGen. Paul Kennedy	Marine Forces III	United States
7	MAJ Manuel Robledo	Oregon National Guard	United States
8	BG Jeffrey Silver	Oregon National Guard	United States
9	Matthew Vaccaro	Collaborative & Adaptive Security Initiative	United States
10	Sarah Weiland	RAND Corporation	United States
11	Ashley Woodson	Collaborative & Adaptive Security Initiative	United States

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