



BEING PREPARED TAKING ACTION



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FOREWORD

The Program for Enhancement of Emergency Response (PEER) is a regional program initiated by the United States Agency for International Development (USAID) Office of Foreign Disaster Assistance (OFDA) in 1998. The goal of PEER is to enhance local and regional disaster preparedness and response capacities of a number of countries within the Asia region through the institutionalization of sustainable disaster preparedness, by conducting training programs and creating emergency response systems.

The third stage of PEER (PEER-3) began in 2009 in nine countries (Bangladesh, India, Nepal, Pakistan, Indonesia, Philippines, Cambodia, Lao PDR and Vietnam). These countries were selected to participate in the program based on their significant vulnerability to hazards, their need to improve their disaster response capacities, and because their national governments were interested in participating in the program. A PEER Thailand component was added in January 2012. PEER-3 will run until August 2014. This phase aims to further develop the capacities of countries to implement a sustainable training program for CADRE and HOPE by developing qualified instructors, coordinators, monitors and building partnerships with institutions.

PEER aims to enhance local and regional disaster preparedness and build the response capacities of vulnerable Asian countries through two objectives: Community Action for Disaster Response (CADRE) and Hospital Preparedness for Emergencies (HOPE). Together, the programs reach a wide audience – from community leaders, National Red Cross and

Red Crescent Societies' volunteers, youth and university students to medical professionals and hospital management staff. In the current phase CADRE is partially supported by American Red Cross (ARC).

In the aftermath of a disaster, communities act as first responders during the first 48 - 72 hours. CADRE is a basic training that enables local residents to become "first responders" to unexpected incidents. Its goal is to establish a system for enhancing community-level first responder capacity in disaster-prone communities in the PEER countries. The training targets local non-professional emergency responders through a three-day course.

During the three-day training, CADRE participants learn emergency response and relief skills through eight lessons: common hazards and community response group, securing family and preparing for response, first aid and basic life support, incident command system and patient sorting system, dead body management, fire emergencies, basic search and rescue, and water emergencies.

Many CADRE graduates move on to volunteering with fire service and civil defense teams during emergency response, as was the case during the Rana Plaza building collapse in Bangladesh in April 2013.

HOPE is five-day training program that targets health professionals and hospital staff. The aim is to improve the capacity of hospitals and health care facilities in the PEER countries to be prepared for

mass casualty events.

The training program is designed for health care personnel – both administrative and medical – to prepare health care facilities and personnel to respond effectively to community emergencies involving large numbers of casualties.

Lessons learned from HOPE such as triage and dead body management have contributed towards the development of hospital emergency plans and simulation activities. Disaster preparedness in hospital management has enabled hospitals and health facilities to develop well designed, facility-specific plans to increase their ability to respond to emergencies and continue functioning to provide critical medical care.

In 2013, ADPC made an initiative to better understand the impact of PEER throughout the region by speaking with CADRE and HOPE trainees, community volunteers, emergency victims and officials. The following stories capture some of the very practical outcomes the program has had on its trainees from around the region.

Four thematic areas emerged during data collection for these case studies. These include supporting the learning environment; how CADRE and HOPE courses contribute towards improving coordination and communication in times of emergency; the strengthening of systems; and finally, stories of how participants are working towards sustaining the lessons learned for the future.

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SUPPORTING THE LEARNING ENVIRONMENT



All CADRE and HOPE courses use an inclusive, participatory learning style. A participatory classroom creates a proactive environment for participants, and encourages a proactive attitude towards community preparedness. From Bangladesh to Lao PDR and Indonesia, participants report that the CADRE and HOPE style of teaching has built the skills and confidence necessary to respond to disaster situations. The following case studies capture stories that demonstrate the impact of CADRE's and HOPE's participatory learning environment.

VIETNAM HOSPITAL SETS STANDARDS IN DISASTER PREPAREDNESS: TRAINING APPROACH REPORTEDLY ‘SUCCESSFUL’

HANOI, Vietnam – Thanh Nanh Hospital, located in the heart of Hanoi, is ready for the next large-scale emergency. Within moments, a parking lot, covered with an aluminium roof can transform into an emergency facility, multiplying the hospital's patient intake.

“Being prepared for mass casualty incidents means that we’re ready to double our emergency admissions, and create a hygienic space to treat patients on a moment’s notice,” Dr. Thanh Nguyen, Intensive Care Unit MD and Hospital Preparedness for Emergencies (HOPE) course instructor explained.

“It also means that we’re thinking ahead – constantly updating our emergency management planning as new threats emerge, and striving to improve pre-hospital paramedic care,” he continued.

On an average day, the 600-bed full service public hospital can admit approximately 20 - 30 patients into the emergency ward, which then will provide treatment in one of its 17 clinical departments. In a mass casualty incident, admissions may rise up to 40 or more patients admitted simultaneously, which exceeds the regular capacity. Exceeding capacity may lead to patients not receiving care in time which exacerbates injuries and in extreme cases, fatality.

“Mass casualty incidents could happen easily here in Hanoi – we’re at risk of extreme events such as earthquakes, multiple car accidents, and in the past, emerging infectious diseases were also a concern,” said Dr. Thanh.

Thanh Nanh, a hospital targeting middle-class and lower-income patients in central Hanoi, is taking appropriate actions to ensure that extreme cases are handled with ease. Their preparedness measures, which began with trainings through ADPC and USAID/OFDA’s HOPE program have dramatically improved since the course’s inception in 2011.

Knowing your audience: one reason why HOPE courses are successful in Vietnam

Hospital Preparedness for Emergencies (HOPE) courses are conducted in ten countries throughout South and Southeast Asia. From country to country, course content remains standardized to ensure that participants receive the same training and can achieve the same results once information is applied to their respective hospitals.

Whereas the content of the HOPE course may be standardized, instructors are encouraged to create a participatory environment for participants. The interactive environment of the HOPE classroom requires participants to work together and explore solutions that are practical to their everyday work.

Instructors from each country where the trainings take place, receive guidance on how to make the classroom conducive to learning.

“The HOPE course takes on a different approach. In a traditional classroom environment, there is less hands-on work. The HOPE course is practical and fun: This is one of the main reasons why it is successful in Vietnam,” Dr. Thanh Nguyen, Intensive Care Unit and HOPE course instructor explained.

Staff maintain on ‘high alert’

Over the past several years, Hanoi city public health authorities have emphasized the need for hospital preparedness. Their response to the need to improve hospital preparedness measures has ranged from planning to the understanding of how to adapt and coordinate with other medical facilities when a disaster occurs.

“Our disaster response plan has been updated annually since 2000. It is complete with protocol on whom to contact and how to coordinate effectively,” Dr. Thanh, Director of Thanh Nanh Hospital explained.

Keeping hospital’s planning divisions’ disaster management plans up-to-date is an extensive process. Coordination in this area is relatively new to public hospitals, such as Thanh Nanh; however, progress is impressive. HOPE is keeping staff on top of emergency management, and on high alert as extreme events often occur without notice.

“I had never heard of the HOPE course before I joined,” Dr. Thanh commented. “The first HOPE course I attended taught me how to prepare guidelines for disaster response plans, integration of staff, and how to improve coordination. The course was practical, hands-on and provided easy ways to apply it to our hospital’s needs.”

“Before the course, our disaster management planning was often based on assumptions. The HOPE course required us to assess and develop a plan that was very systematic and practical. This knowledge in our field is invaluable,” he continued.

After Dr. Thanh’s initial HOPE course, he started his Training for Instructor’s path. Today, he is a leading trainer for hospital preparedness in emergencies for Thanh Nanh Hospital among other medical professionals that participate in the course from around Hanoi.



Staff at Thanh Nanh Hospital discuss emergency management planning.

To date, twelve HOPE courses have taken place in Vietnam, and more are on the horizon. So far courses have been conducted in Vietnam's primary urban centers including Hanoi, Ho Chi Minh City and Da Nang.

Disasters are not natural, hazards are

In Hanoi's urban center, the number of disasters is lower than in other capital cities in the region. With this in mind, a challenge of the HOPE course and for course instructors such as Dr. Thanh is raising awareness of the fundamental concept of disaster risk management.

The HOPE course details how hazards can lead to disaster risks, which are inherent within societies. As reported by Dr. Thanh, for course success it is important for participants to understand the contexts in which the risks occur, and that people commonly understand their risk to be different from others'. The next step is to explore what systematic approaches are appropriate for the context to reduce the risk of disasters onset by natural hazards.

Preparedness momentum — keeping the HOPE up

"The HOPE course is opening minds of medical professionals in disaster preparedness," said Dr. Thanh.

Whereas the HOPE course is not the only measure for improving disaster preparedness in hospitals, it keeps the topic in the minds of planning professionals and medical staff. This leads to a preparedness momentum that encourages hospitals to continually stay up-to-date.

"It's all about the teaching method. The course is engaging, and is a safe place for professionals to discuss strengths and weaknesses. In our HOPE classroom everyone respects each other – there is no right and wrong," said Dr. Thanh, "this is what keeps the interest strong. Everyone wants to be a part of the course," he continued.

Taking preparedness seriously

Since Dr. Thanh's initial HOPE training in 2011, many changes have come about at Thanh Nanh Hospital to better prepare for disasters. Prior to 2010, the hospital's Emergency Department was divided into sub-departments, which delayed response time. Today, the Emergency Department admits all emergencies, drastically improving arrival to treatment time.

"In the past, a child for example with a head injury may be first admitted to emergency paediatrics. They may then find that the injury requires attention from the trauma ward. Within this time, the injury could advance endangering the patient's health."

"Today, we have one centralized emergency department,

which improves our emergency services tremendously," Dr. Thanh explained.

Dr. Thanh has gone on to train eighty HOPE participants since he became a trainer in 2011.

The understanding of how to improve Emergency Department planning is one of many practical skills that HOPE participants walk away with. Additionally, the course creates a high awareness of improving capacity for pre-hospital care.

Reportedly, Vietnam to date does not have an Integrated Emergency Medical Service (IEMS) System; however, "understanding how these systems operate is key for its future development," Dr. Thanh explained.

In lesson 15 of the HOPE course, participants discuss the principles of pre-hospital care and explore how IEMS systems can be established in their respective countries as cost-efficiently as possible. Participants explore what the challenges are to achieve such a system and identify what the first steps are to take action.

'No one can respond alone'

"The HOPE course is most definitely providing us with valuable skills, but it's not enough if we want to make sure our preparedness measures are up to par," Dr. Thanh said.

The HOPE course preaches the importance of stakeholder involvement and working together as a team.

"In order for medical professionals to advance our disaster response plans, we need to understand that no one can respond alone. Working together with all stakeholders is crucial," he said. ■

EMERGENCY RESPONSE COURSE HELPS BUILD COMMUNITY VOLUNTEERS' CONFIDENCE IN BANGLADESH

DHAKA, Bangladesh – In the Narinda community deep in Dhaka's historical area, Ms. Jubida Khanam, 23, works as a beautician in a local salon.

"I studied to become a beautician, but I also want to reach out to my community, and help them in times of disaster," Jubida said.

Jubida's interest to help her community led her to Bangladesh Red Crescent Society, where she subsequently signed up to become a youth volunteer. She was then nominated by the Red Crescent Society to undergo training for Community Action for Disaster Response (CADRE) with Asian Disaster Preparedness Center.

“ Before the training I honestly didn't know anything about emergency response. The course taught me, among many things, how to conduct first aid and how to extinguish fires, two practical skills for our community, ”

said Ms. Jubida Khanam, 23, who completed the Community Action for Disaster Response (CADRE) training course.

Confidence building life skills

It wasn't long after Jubaida's CADRE course when the first emergency occurred in her community.

"I was in my salon and a fire broke out in the apartment building next door, on the fifth floor I think," Jubida recalled. In Dhaka, fires are the cause of numerous houses and local

economies lost each year. With apartment buildings often less than two meters apart, fires spread quickly and can annihilate before emergency responders are able to arrive to the scene.

"I was ready. I ran next door, found the fire extinguisher, and rushed to the kitchen where the fire had started. The men in the house stopped me. They said to me, how could a girl know how to use an extinguisher?"

As a volunteer emergency responder, Jubida was prepared to extinguish a kitchen fire. On the other hand, she was not prepared to experience gender inequity during such a scenario.

"I ran home and went to my family. They had to return with me and convince the owner of the apartment that I knew what I was doing," she said.

"As soon as they gave me permission, I extinguished the fire. Luckily it did not spread while they [the house owners] were deciding if it was suitable, or not, for a girl to save their home."

Basic emergency response, such as fire extinguishing may have even longer-term impacts. It helps build confidence with young women volunteers.

Jubaida explained that once she received her parents' support, she was very proud to show her neighbors that she knew how to respond to the emergency. In return, her neighbors praised her for her help, and one gender stereotype in the urban community was, like the fire she put out that day, extinguished.

"I could feel that they would no longer outcast me in times of emergency, just because I am a woman," Jubaida said.

"It felt good," she continued, with a smile.

Husbands can volunteer, too

In Bangladesh, as in many societies throughout the world, a woman's responsibilities increase dramatically after marriage, and especially after having children. The Bangladesh Red Crescent Society reports that they often lose many of their talented female community volunteers once they are more obliged to stay at home to run the family.

"We experience this often. Young women are enthusiastic, but then in a time of an emergency they are no longer available once they're married. It's one of our challenges to keep our female community volunteers volunteering," Md. Ekram Elahi, Director of Disaster Response Management,



Ms. Jubida Khanam trains as a community responder.

Women's role in emergency response

In Bangladesh, women play a central role in every community. Often, women provide the family's primary source of income, alongside raising children and caring for the elderly.

However, as experienced through the eyes of Ms. Jubida Khanam, it is atypical for these same women to double their role as community emergency responders. Emergency response often requires not only trained skills, but physical ability to extinguish fires, rescue drowning victims, and assist with lifting stretchers, to name a few of the CADRE volunteers' roles in times of emergency.

In this case study, CADRE volunteer Jubida recounts a story where she was delayed with emergency response due to the fact the victims could not accept that she, the responder, was a woman – and more importantly, how she broke through this particular stereotype's glass ceiling.

Recommendations learned from this case study focus on integrating gender equity into CADRE course materials and strategizing on how to convince women volunteers to continue volunteering, even after marriage and having children.

Courses like CADRE reportedly empower women to take-on non-traditional roles in their community, promoting gender equity through emergency response.



CADRE encourages women to take a proactive stance in volunteering for community disaster response, even after marriage.

CADRE Focal Point for the Bangladesh Red Crescent Society in Dhaka, commented.

“Our challenge is not getting young women to become volunteers, it's to encourage them to continue volunteering once they marry and have children,” Mrs. Monowara Sharker, Acting Secretary General, Bangladesh Red Crescent Society, explained.

Jubaida's position is straightforward: When asked how she will cope with being an active emergency volunteer in her community after getting married she said, “It's no problem, I will teach my husband [the course] and we will volunteer together.”

Gender sensitivities a recommendation

In times of disaster, women often represent a very vulnerable group, which needs to be approached with necessary cultural and social sensitivity. In the case of the Rana Plaza building collapse in the Savar area of Dhaka, it was reported that many women, whose clothes were

ripped from their bodies during the disaster, refused rescue. Rescue squads were needed in some cases to sedate women to ensure timely rescue.

It was reported by rescue teams that, “a few women said they would rather die than face the humiliation of being rescued naked,” Dr. Tamjida Sohani Hanfi, BRAC Bangladesh's Senior Medical Officer of Health, Nutrition and Population Program explained. BRAC is an international development organization.

“Gender equity in emergency response is of utmost importance,” Mrs. Monowara Sarker, Acting Secretary General, Bangladesh Red Crescent Society said. “It's one of our missions at the Red Crescent Society to address these challenges,” she continued.

As Jubida recommended, “the CADRE course could [in the future] address these issues. In the course, we're all equal participants, so it's a good opportunity to learn how to overcome these challenges.” ■

HEALTH EMERGENCY TRAINING: 'KEY TO HOSPITAL PREPAREDNESS' IN CAMBODIA, DOCTORS SAY

KAMPOT, Cambodia – Hands with a microphone, Sourn Samith, of Cambodia's Koh Kong provincial hospital, is explaining how to manage large amounts of patients during emergencies and drill exercises to two dozen hospital staff from throughout the country. Filled with stationery, papers and powerpoint presentations, it seems like a usual workshop session. These exercises will provide the foundation for emergency preparedness.

"We don't know when disasters will happen. Having training will help us in being prepared at all times," said Dr. Samith, one of the trainers for the Hospital Preparedness for Emergency (HOPE) training program.

As a doctor-turned-trainer, he previously attended the similar basic course in 2010. Later he participated in the Training for Instructors (TFI) session also organized by HOPE program. The advanced training course equipped him with skills to conduct basic disaster preparedness courses for other hospital staff including doctors, nurses and health care technicians.

Prior to HOPE program, the provincial hospital had only an instruction manual for fire-related incidents. Exercises and drills for different disaster scenarios from earthquakes to floods and plane crashes delivered during the HOPE training were useful for not only other health staff, but also trainers like him, said Dr. Samith.

HOPE trainers respond to road accident influx

In a Thai-Cambodia border province of Koh Kong where Dr. Samith is based, road accidents have increased due to the growing population's access to vehicles combined with poor road conditions and a mountainous topography. Dr. Samith, an anesthesiologist, said he could adapt the skills from the training course for managing hospitals and dealing with an increasing number of emergency cases caused by road accidents sent to the hospital. The training also refreshed his hospital emergency management skills.



HOPE participant practices triage during a disaster simulation. Knowing how to prioritize different types injuries increases hospital efficiency in real mass casualty incidents.

The five-day basic training course comprises of six exercises: structural components, potential injury creating event, triage exercise, hospital incident command system, hospital internal disaster, and mass casualty incidents.

In Dr. Samith's view, it is essential for health care providers to understand each aspect of disaster preparedness through these six practical exercises, particularly the hospital incident command system (HICS), which will enable hospital directors and executives to organize hospital management and integrate each operation unit

including logistics and finance to work efficiently together during different types of emergencies.

As a trainer, Dr. Samith said he was lucky that he had an opportunity to brush up his skills when training other course participants. However, it is challenging how other participants will adopt skills from this one-time short training program to continuously prepare themselves and their health colleagues to any unexpected events amid financial constraint. Dr. Samith believed agencies like mitigation department should also be involved and get trained, so they would help the health sector to work systematically during emergencies.

Extending the course: a possibility

"Capacity building on disaster preparedness should be available for not only health care personnel but all involved government agencies. That way we will have a sufficient amount of trainers and trained staff across involved departments to be ready when disaster strikes," he said.

Chhouv Chhuon, a clinician at Takeo provincial hospital, said he would need at least two more training sessions to ensure that he could well understand the details essential for training his colleagues at the hospital.

Seoung Lyvann, a nurse at Sihanouk Province, also said she needed to discuss with her director how the training can be integrated into disaster preparation in the hospital in the long run. ■



(Clockwise from top right) HOPE instructors coordinate with hospital officials to devise a hospital preparedness strategy. Paramedics transfer a patient from a civilian vehicle to an ambulance.



IMPROVING COORDINATION AND COMMUNICATION



In times of emergency, coordination and communication are both key to successful response. Within moments, response teams need to be able to organize an incident command system; prepare hospital emergency departments for an influx of patients during a mass casualty incident; and volunteers must understand the protocol to support civil defence teams. It is reported that CADRE and HOPE courses improve coordination time and communication between disaster response teams. This chapter takes a look at cases where strong coordination and communication allowed volunteers to put their training to the test.

COORDINATION IMPROVED RESPONSE TIME AND INCREASED CONCENTRATION DURING EMERGENCY, VOLUNTEERS REPORT FROM BANGLADESH

DHAKA, Bangladesh – By 9 a.m. on 24 April 2013, every television channel was broadcasting what was later to be known as the worst disaster in the readymade garment (RMG) industry's history. On that morning, the details were not yet clear. The Rana Plaza building in Savar area near the capital city of Dhaka had, without notice, collapsed. Tens of thousands of people were, in an instant, trapped beneath the rubble of fallen concrete.

That morning, Mahamudul Amin, a 24-year-old Red Crescent Volunteer, sat with his family in front of their television, hypnotised. They watched the news in disbelief from their home in the urban Dhaka community of Narinda.

"My family urged me to rush to Savar to help. They wanted me to respond immediately since I am a Red Crescent Volunteer", Mahamudul Amin recalled.

In-line with his family's thinking, Amin's instincts also called for him to rush to the site as a first responder, "but I knew this was not in line with the [first responder] protocol," he explained.

Narinda community on the frontline

Just six months prior, Amin joined 23 other youth Red Crescent Society volunteers for a training facilitated by Asian Disaster Preparedness Center, 'Community Action for Disaster Response' (CADRE). The course taught participants such as Amin essential emergency response skills for emergency events. Six months ago, Amin had no idea his newly acquired skill set as a community disaster responder was going to be put to test. Now it was time.

Communities are the first to feel the effects of disasters, and for this reason, are increasingly being understood as essential components of disaster risk management. As the Narinda community team demonstrated, communities provide effective and efficient frontline response.

Communities are often the ones who best know the terrain; where to locate supplies for response; local access routes; and they are able to mobilize informal social networks.

One phone call away from response services

Amin said, "I picked up my mobile phone and, one-by-one, started to organize our community volunteers."

A chain of phone calls connected Narinda community volunteers, preparing them for their work ahead as first responders. Within moments, their mobile 'incident command center' was established and everyday people, such as Amin, transformed into volunteers ready to respond to the emergency.

As CADRE teaches, establishing an incident command center is one of the first steps to disaster response, as it lays the foundation for who's doing what and where.

"It didn't take long because we all followed the instructions that we learned on how to coordinate ourselves as responders in times of emergencies," Amin said.

During the onset of the Savar tragedy, Amin and the Narinda CADRE volunteers, worked alongside government-led response teams by providing crucial and immediate response services.



CADRE volunteers assist Bangladesh Red Crescent Society Disaster Management Team with dead body management and triage.

Managing people and resources during emergencies

Reportedly, Amin's decision to spark the incident command system plan among his fellow community volunteers is a result of CADRE training lesson five, 'Incident Command System and Triage'. Amin said, "before the CADRE course I really had no idea what the steps were for responding to an emergency."

Lesson five of the course focuses on the line of authority from incident commander to the quick organization of logistics, operations, planning, and administration.

“The course taught us how to quickly organize our community – to establish who was doing what and when. It was clear to us that we needed to respond as a community to this emergency, but first we needed to establish our incident command center,” said Amin.

Amin and his community team executed a localized version of an incident command center – one that took place on their mobile phones. As large-scale disasters such as the Savar building collapse are uncommon for Narinda, Amin’s community lacks a centralized command location. However, as they learned, having an organized execution plan is all one needs to have to be organized and ready to respond.

In times of emergency, logistics and planning must be in place. In this case, Amin’s call formally activated a pre-established system. These systems of alerts and monitoring for volunteers as reported, should be maintained through refresher courses.

One hour later, the community responders were organized and set off together to the scene of the Savar building collapse.

Clear protocols kept volunteers ‘focused’

“When we arrived, the situation was much worse than we thought. We had never seen such a horrible site before,” Amin recalls.

Despite the scene of the collapsed nine-storey structure on top of an estimated 6,000 people, the Narinda community volunteers remained collected. They reported to their on-site incident command team – the Bangladesh Army.

“We were so surprised to see how much the Army appreciated our arrival. They immediately assigned us to triage duty, to assist with sorting injured people and dead bodies,” he said.

“I had never even seen a dead body from a disaster before,” said Amin.

For the Narinda community volunteers, their ability to secure the incident scene, ensure their own safety, guide

those that could still walk to safety, and develop the tagging system for all other injured people were lessons learned from their CADRE training.

CADRE quick response sorting techniques provided the guidelines for Amin’s community to classify victims into colors: red, yellow, green, and black. Beginning with those that could walk from the scene, each person was systematically tagged according to severity of injury. The community team leader then collated the tags and reported the findings to their incident commander from the Army.

As Amin reported, obtaining familiarity with established protocols requires training and preparation. The community volunteers must be adequately trained in the overall response process, including key stages in emergency management.

“Keeping organized and focusing on our coordination, kept us calm and focused. It gave us confidence and we [the Narinda community volunteers], in that moment, felt very proud to be first responders,” Amin explained. ■

Supporting government-led response teams: The case of Dhaka’s Narinda community volunteers

In this case study, Amin and the Narinda community volunteers demonstrate their ability to support government-led response teams, within a very short notice. By following procedure, and understanding and complying with established protocols, community-led teams can easily operate alongside government-led and international response teams. This is essential because it allows the different teams to effectively and efficiently interact.

Coordination between community-led teams and government-led response action, such as the Bangladesh Army, is important for effective management, as each team contributes crucial services to the overall response effort.

Training and preparation: A must

As this case illustrates, community-led teams can take a lead in response efforts for disasters of international significance, as well as smaller and more local incidents.

The Savar incident is an example of both: beginning as a local incident, it has garnered considerable international media attention and led to wide-ranging changes in national and international policy for the readymade garment industry.

AMBULAN 118 FOUNDER USES LESSONS LEARNED IN HOPE TO PREP EMERGENCY RESPONDERS IN INDONESIA

JAKARTA, Indonesia – Prone to disasters from earthquakes to floods and tsunamis, Indonesia is one of the pioneer countries of the Program for Enhancement of Emergency Response (PEER) that started in 2002. Since then the training program has been highly recognized among medical professionals and health staff.

Ambulan 118 Foundation, a non-profit organization working on emergency services in Indonesia, has contributed their success to HOPE and CADRE courses under PEER.

Dr. Aryono Pusponogoro, the founder of Ambulan 118, reported that he promotes the coordination of many different levels in society from government authorities and hospital networks to community and religious groups in Indonesia to raise awareness on the benefits of emergency management through training activities.

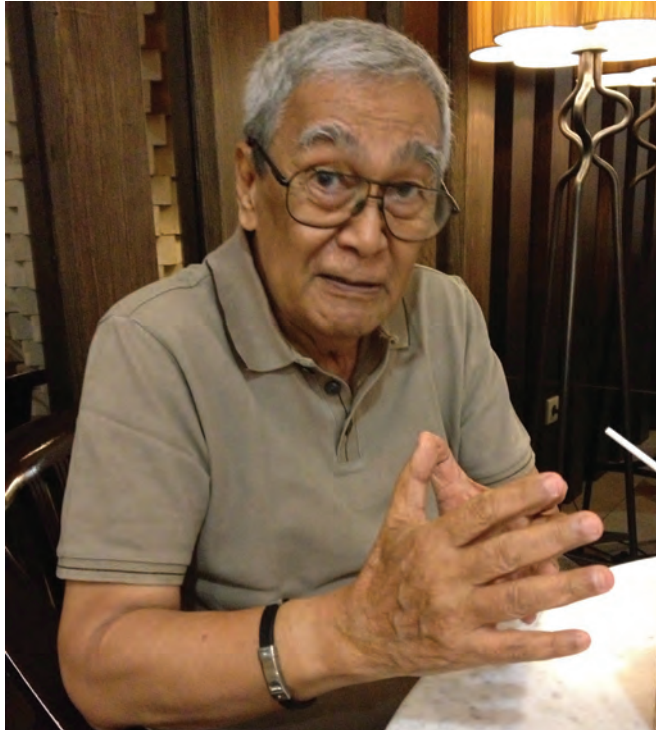
“I am a HOPE graduate and the coordination you learn in the course is essential when working together with command centers, such as Ambulan 118 here in Indonesia. It is invaluable,” he said.

Applying lessons learned

Dr. Aryono, as Ambulan 118’s founder, is applying lessons learned from HOPE on how to practice what is taught in the classroom. For him, a large extent of this focuses on communication between all stakeholders.

“Communications is a key to effective emergency preparedness. We have to know whom we are talking to. Then we can seek ways to help them understand technical skills and put lessons learned into practice for their own safety,” he said.

As a surgeon, Dr. Aryono is accustomed to health emergencies. However, he explained that not every medical doctor is capable of translating disaster management skills and knowledge to teach people with different backgrounds.



Dr. Aryono Pusponogoro is the founder of Ambulan 118, a non-profit organization working on emergency services in Indonesia.

Improving emergency response to meet local needs

The key member of the Indonesian College of Surgeons emphasized the importance of communications and networking among different groups of people in order to progress disaster management work at all levels.

Apart from connecting the disaster management bodies at different levels and helping them to realize the importance of having HOPE training, another example of effective communications is the ability to adapt details in CADRE lesson to meet local needs.

Learning different types of knots is one of the lessons during CADRE’s three-day training. Dr. Aryono said it was difficult to force local residents to memorize technical terms used in the lessons. He taught them to learn the process as if they were tying reef knots usual among local people who are fishermen.

It did not take long for the local residents to understand the concept of water rescue if we chose simple terms to explain and link with their daily lives, he said.

Dr. Aryono said it was impossible for remote communities prone to disasters to afford adequate emergency beds and that using local materials could be a good alternative. Therefore, he never hesitates to encourage local residents participating in CADRE courses to plant banana trees. Not only can they eat bananas, its leaves and poles could be used as emergency beds for transferring patients with fractures and other physical injuries, as specified in the CADRE guideline.

“CADRE and HOPE trainings are proven to be a unique platform for all stakeholders to learn about the importance of emergency communications. CADRE supports good teamwork and the systems essential when any emergency strikes,” he said. ■

A lifetime dedicated to emergency preparedness: lessons learned from Dr. Aryono Pusponogoro

Dr. Aryono Pusponogoro's passion towards disaster preparedness never fades out. At the age of 74, he is still very active in disaster management and travels all over Indonesia to give lectures on disaster preparedness to people from all levels from doctors, fire brigades, and police to local residents in remote areas.

"I will keep on working as long as disasters still threaten our lives. There are still many people here who want to protect themselves from damages and learn how to do so," he said.

Professor Aryono plays an important role in encouraging policymakers in Indonesia to realize the importance of disaster management and to successfully incorporate HOPE training into the national public health system. He is the co-author of *Hospital Preparedness for Emergencies and Disasters*, a manual for medical professionals and health staff working with disaster management in Indonesia.

The veteran surgeon is also the author of the book called *Silent Disasters* that raises public awareness on road traffic accidents, a major concern throughout Indonesia.



Dr. Corona Rintawan, Chief of Disaster Medical Committee at Lamongan Hospital of Muhammadiyah points out areas of flooding.

EXERCISING HOPE IN THE PHILIPPINES: SIMULATION ACTIVITIES ARE KEY TO EMERGENCY PREPAREDNESS

ILOILO CITY, Western Visayas – At eight o'clock in the morning an explosion erupted in the heart of Iloilo city business area. Hundreds of people were injured. Some were lying unconscious on city streets. The first rescue team arrived at the scene less than ten minutes later and immediately checked which patients were in the need for emergency treatment.

At Western Visayas Medical Center, dozens of staff at the emergency unit were at full capacity to take care of patients with the red-colored “immediate” tag. Some had head injuries and some were unconscious.

This time, the commotion was just a drill: a simulation activity that incorporated lessons learned from HOPE courses taught previously in Iloilo.

Had the chaotic situation been a real disaster, Iloilo City would have been on breaking news. In fact, the scenario was a simulation drill for all sectors from health care providers to the police, the army, relief agencies and the public in Iloilo City to work together as a team and test their skills in responding to emergency situations. The simulation, inspired by HOPE courses demonstrated that coordination and communication are essential, and require practice.

An everlasting process: capacity building after the course

“We would like to not only prepare ourselves but also build our capacity to effectively respond to and recover from emergencies and disasters,” said Dr. May Ann Sta. Lucia, Health Emergency Management Staff (HEMS) Regional Coordinator, majorly leading the mass casualty simulation.

How to cope with mass casualty incidents, as learned by HOPE participants, was key to the two-day disaster preparedness activities. Demonstrating mass casualty incident response not only prepared volunteers and authorities, but raised public awareness on the risk of

Exercising HOPE: Simulation activities are key to emergency preparedness

While the HOPE course begins with theory, the course focuses on exercises that test and train medical professionals and volunteers for emergency situations.

City-wide simulation activities, such as the one in Iloilo City, demonstrate that HOPE graduates understand how to implement their lessons and that they're ready to take on the emergency response challenge.

Organized by Health Emergency Management staff (HEMS), the two-day event included as many as 400 participants from all provinces in Region VI, comprising of Aklan, Antique, Negros Occidental, Capiz, Guimaras and Iloilo and 16 cities. It is the first region in the country to conduct the city-wide simulation.

Iloilo's simulation demonstrated the application of HOPE's lessons on Hospital Incident Command System (HICS), Mass Casualty Incident (MCI), Exercise Management, Triage and Potential Injury Creating Events. It also confirmed that communication and coordination are essential for emergency response preparation.

potential disasters.

The mass casualty simulation's objective of involving all sectors reflects not only strong coordination between different stakeholders but also a lesson learned from the past catastrophe.

In 2008, the unexpected flash flood and landslide caused by Typhoon Frank hit Western Visayas hard. According to the Department of Social Welfare and Development, up to 315 deaths, 226 missing and 2,555 injured were reported. The disaster affected an estimated 1.86 million people in six provinces and over 300,000 people had to be evacuated to safe ground during the worst flooding experienced in the region.

With the disaster still fresh in the minds of many, HOPE courses were conducted in 2011 in this area of the Philippines, contributing to public awareness and disaster preparedness.

“The Mass Casualty Incidental Simulation reflects strong coordination at different levels of state and private sectors in the Western Visayas in a bid to prepare ourselves for emergencies,” said Dr. Santa Lucia.

“Courses [such as HOPE] provide practical skills for volunteers and for medical professionals and help us to strengthen our coordination and communication skills – both equally important in times of disaster,” Dr. Santa Lucia commented.

Dr. Sta. Lucia reminisced she even had to climb up the hospital gate to get into her office since the water level rose from six to twelve feet in just less than twenty minutes with the high tide of 1.8 meters.

In spite of much damages and multi-billion-peso losses to infrastructure, agriculture, environment and education, the disaster caused by Typhoon Frank was a wake-up call for the Region VI and prompted every stakeholder to be more prepared for any unexpected emergency.

Institutionalizing disaster risk reduction into national system

In 2010, the Philippine Disaster Risk Reduction and Management Act was ratified. Lauded by all national and international emergency relief sectors involved, the Republic Act P10121 aims to incorporate internationally accepted principles of disaster risk management in the creation and implementation of national, regional and local sustainable development and poverty reduction strategies, policies and plans. In terms of funding, five percent of the annual budget will be allocated to a calamity fund. Of the total, 75 percent is reserved for disaster preparation including training and capacity building.

One of the aims of the act is to adopt and implement an integrated disaster risk reduction program in accordance with the principles of good governance.

Less than a year after the ratification of the act, the HOPE Basic Training course under the PEER program was introduced in the Philippines for health care personnel, both administrative and medical. The training sought to prepare facilities and staff for any unexpected mass casualty situation. A series of training courses were also organized during 2011 - 2013 in a bid to strengthen capacity of those in health care services and further train qualified graduates to become HOPE trainers for national and regional levels.

HOPE instructors take lead in city-wide simulation

Dr. Santa Lucia is one of the HOPE instructors. Other graduates working as HOPE trainers come from various fields of expertise from medical doctors, engineers, to fire brigade and police. They represent regions from all over the country from Manila to Mindanao.

These PEER-trained instructors also attended in the Iloilo-based mass casualty drill and passed on their expertise to the region by helping evaluate strengths and room for improvement after the simulation.

"Inadequate life-saving equipment such as emergency beds and number of people taking care of sorting the dead and the injured slowed down the process and should be taken into account in future simulations," said Dr. Edgar Posadas, PEER instructor and member of the evaluation team.

In terms of response management, proper color-coded outfits should also be available for responders, so they can easily identify the tasks of each team based on assignment.

"If you are responders, it's your responsibility to equip yourself first," Dr. Posadas said.

Communication begins with the incident commander: applying lessons learned

State and private hospitals in Iloilo city have already strengthened emergency response following the Republic Act 10121. Every hospital is equipped with a hospital emergency incident command system.

Central to lessons learned in HOPE courses, every hospital's incident command room is supplied with a chart that depicts how the hospital should be functioned and which responsibilities should be distributed within the incident management team during a mass casualty event. The incident commander is responsible for overall activities within the hospital. The commander may also appoint other command staff to assist.

Hospital Incident Command Systems (HICS), the heart of HOPE training, has been introduced in the Philippines and the other nine PEER countries comprising of Bangladesh, Cambodia, India, Indonesia, Lao PDR, Nepal, Pakistan, Thailand, and Vietnam.

Regarded as a region with the highest number of cities in the Philippines, Iloilo City Administration Office and hospitals have started putting disaster preparedness into practice. A total of approximately USD160 million has been allocated for the provincial rehabilitation program and related disaster preparedness activities including the citywide simulation drill, said Jerry Bionat, management officer of Iloilo City's provincial disaster risk reduction.

Mr. Bionat said the city council will also support activities and better coordination and protocol warning for different scenarios from floods, fires, and earthquakes among other hazards to ensure that Iloilo will be "immune" to disasters.

For disaster risk reduction sustainability, the office also plans to update search and rescue equipment of all local government units every two years. A proposal aimed at

incorporating disaster preparation training as part of the curriculum from elementary school level is also on the process, he said.

For the next citywide simulation drill, the organizing committee plans to involve Iloilo Airport Authority for better disaster preparation since the city will be among the major venues for the Asia-Pacific Economic Cooperation (APEC) Summit in 2015.

"If we don't prepare for the future, we will not be able to better cope with disasters and losses," he said. ■



GETTING SYSTEMS IN PLACE



For hospitals throughout the region, disaster preparedness often begins with getting systems in place and ready for response. The HOPE course prepares hospitals through practical actions that support management and medical teams during times of emergencies. Having a reliable system in place is the first step for many hospitals in preparing for mass casualty incidents and other unforeseen hazards. There are numerous cases of HOPE assisting hospitals throughout the region in strengthening their systems: this chapter presents a few of those.

AT-RISK COMMUNITIES BENEFIT FROM STRONG EMERGENCY NETWORK IN VIETNAM

QUANG NGAI, Vietnam – Lush green and golden paddy fields stretch out as far as the eyes can see in the central part of the country ranked among the world's leading rice producers and exporters.

"We have a good yield this year and will be soon harvesting since more typhoons and rainfall are coming and flooding is likely," said a local female resident of Mo Duc district.

During the monsoon season between May and September, however, neck-deep floods could sweep away the vast rice carpet at the district, situated about a twenty-minute drive outside Quang Ngai city center. A big bright blue concrete pole showing height measurements of recent floods still has marks as high as 1.7 meters.

Quang Ngai is among the 33 disaster-prone provinces, located in the four regions of Vietnam – the Northern Mountains, the Central, the Central Highlands and the Eastern South. Heavy rains and flooding occur regularly in these mountainous provinces, causing frequent destruction and damage.

"Vietnam is one of the most disaster-prone countries in the Asia-Pacific region, with 70 percent of the population exposed to hazards, particularly water-related emergencies," said Nguyen Huu Thang, Vice Director of the Vietnam Red Cross Society's Department of Disaster Management. "The southern and central regions, including the Quang Ngai province, are geographically vulnerable and experience severe flooding, causing losses to human life and damage to crops, livelihoods and infrastructure."

During the past ten years alone, disasters have resulted in the loss of more than 8,000 lives and cost 1.5 percent of USD141.7 billion gross domestic product per year according to a report by the Ministry of Agriculture and Rural Development.

To systematically deal these losses, the government of Vietnam has instituted a robust disaster preparedness and response structure, focusing on floods and water-

related emergencies. The Central Committee for Flood and Storm Control is assigned to steer the national disaster-management policy. Panel members come from several governmental and non-governmental agencies, including the Red Cross, and help strategize the framework and translate it into action.

Capacity building crucial for emergency response

Since community-based disaster risk management program (CBDRM) is among the activities under the Red Cross' responsibility, capacity building for Red Cross staff became an essential task.

"We need technical assistance to help us effectively run the community-based disaster risk management program at the local level," said Mr. Thang.

In 2010 the PEER program piloted the CADRE training course in Da Nang to the first batch of 24 staff coming from all over the country. The aim was to develop Red Cross staff into national instructors and localize CADRE training materials in Vietnam.

After studying details of the locally adapted CADRE materials, Mr. Thang realized the benefits Red Cross staff would receive from replicating training modules, and in 2012, these modules became the core training materials for community-based disaster risk management. Another four basic aid training for instructors courses were also carried out in a bid to develop national instructors essential for training first responders at local communities.

As part of the Regional program, a total of 77 Red Cross staff completed the CADRE-funded training and became national instructors by the end of 2012. These national instructors are working in twelve Vietnam Red Cross chapters throughout Southern and Central Vietnam including Quang Ngai.



Posters displayed in at-risk communities build awareness among community members and familiarize them with proper procedures to follow during an emergency.

The benefits of the Red Cross network

The policy on community-based management has been carried out comprehensively in Vietnam, thanks to a strong network of national societies in the country.

In Vietnam, International Federation of Red Cross and Red Crescent Societies (IFRC) assisted national societies with resources and promoted bilateral and regional partnerships. Following the so-called 'one-program approach', the IFRC together with Red Cross national societies working in Vietnam including Australia, France, Germany, Italy, Spain, Switzerland, the Netherlands, and the United States, worked together to translate the integrated framework of community-based disaster risk reduction into action.

These actions have resulted in successful activities such as the PEER CADRE intervention, vulnerability and capacity assessment project by the Netherlands Red Cross, and mangrove plantation by Japan Red Cross.

Of the total ten PEER CADRE countries in the regional program, Vietnam is a leader in terms of localizing the program and carrying out the training activities in partnership with American Red Cross and other national societies to extend capacity building activities at local communities.

As of 2012, 121 training courses for 121 commune-level emergency response teams, each with 24 participants, have resulted in a total of 2,904 emergency PEER CADRE-trained team members. This has been part of a joint effort between the American Red Cross and Vietnam Red Cross, delivered through the financial support of USAID/OFDA with additional funding and support from the network of international Red Cross Societies operating in Vietnam.

Empowering disaster preparedness and response network at community level

When disaster strikes, communities are frequently left to fend for themselves for the first 24 to 72 hours. With Community-Based Disaster Risk Management (CBDRM) training, however, many communities are better prepared.



Three Vietnamese school students study CADRE materials. Vietnam has distinguished itself by bringing CADRE training activities to a large variety of local communities.

"Funded by USAID/OFDA and the American Red Cross and implemented by Vietnam Red Cross Society, many disaster response and relief activities such as first aid and search and rescue trainings for key commune leaders, youth volunteers, primary teachers and students are carried out at the community-level," said Huynh Van Nhu, Vice Chairman of Duc Hiep commune's committee.

After learning skills from the local emergency response team, all communes within the program will organize a community mock drill based on a likely disaster scenario. These drills allow the PEER CADRE trained emergency response team members to test their skills on an annual basis.

For the Duc Hiep commune, the scenario involves floods and storms. Local authorities, Red Cross staff at provincial and commune levels, emergency response team and volunteers, village leaders, school teachers, students and community members all actively participate in the drill. It allows them to evaluate their skills to cooperate with others, and learn lessons for better coordination and teamwork, Mr. Nhu said.

"The community-based disaster risk management activities and the drills have contributed to raising community awareness regarding disaster response and relief procedures, enabling us to learn how to minimize the risk and possible impacts from the hazards," he added.

As part of this holistic program, primary school teachers are also trained on emergency response and passing their skills to their students. They prepare students between grades one and five on how to react before natural hazards occur.

"They have learned how to help themselves, their schoolmates and their parents," said Trinh Thu Hong, Duc Hiep primary school teacher and emergency response team member at the commune.

Under the climate change situation, mainstreaming of disaster preparedness and response into the school curriculum is also put into practice. Students at grades one through five of the Duc Hiep commune will be able to learn from an illustrated booklet teaching disaster skills specific to flooding, landslides and drought.

"If our future generations do not have disaster preparedness knowledge, awareness and response skills, it will lead to serious consequences. Strengthening skills for local people and children is important and should be carried out continuously. They will be confident and know what to do, and that will help minimize loss caused by disasters," said Nguyen Van Thao, secretary of Duc Hiep Commune's youth committee. ■

FORTIFYING EMERGENCY SUPPORT CRUCIAL FOR PHNOM PENH, CAMBODIA HOSPITAL

PHNOM PENH, Cambodia – A man in his twenties was injured from a road accident while driving on a busy street in Cambodia's capital city of Phnom Penh. He was immediately sent to Khmer Soviet Friendship Hospital located nearby. Upon arrival, Mr. Chieu Chin-Banoul, hospital's chief administrator rushed to evaluate the seriousness of the man's injuries and hurriedly took him to the emergency unit.

Cambodia's biggest hospital takes care of thousands of in-patients and out-patients including emergency cases on a daily basis. However, dealing with a large amount of patients, particularly during disasters, is still a major challenge. Mr. Chinbanaul and many health professionals would like to strengthen their capacity.

“ Although we have not experienced many disasters like tsunami, volcanoes, etc., it doesn't mean we do not have to prepare for anything. Training is part of the capacity building that we do not have sufficient resources for. But it can help us work more effectively, ”

said Mr. Chieu Chinbanaul, Khmer Soviet Friendship Hospital Chief Administrator.

Thanks to the HOPE program, hospital staff could learn how to systematically respond to emergencies involving large numbers of casualties. With focus on health care personnel, the five-day training program aims to build capacities essential for effective rapid response to emergencies such as earthquakes, floods, droughts, cyclones, and disease outbreaks. Such emergencies

could overwhelm emergency response at hospitals and communities without effective systems put in place.

Expect the unexpected

Dr. Prom Phanit, the hospital's Vice Chief of technical office, still reminisced the tragedy during the annual Water Festival in 2010. A total of 353 deaths and over 750 injuries were reported. Crammed with millions of revelers, the newly-built bridge across Bassac River in Phnom Penh fell down. Prime Minister Hun Sen even called the stampede as the biggest tragic incident since the Khmer rouge when more than 1.7 million Cambodians died.

Upon completion of the training last year, Dr. Phanit and his team including Mr. Chinbanaul came up with an idea to set up an ad-hoc committee comprising of up to thirty staff members from hospital director as team leader to heads of each department, as well as representatives from administration, finance and logistic units. The committee will be in charge of rapid response and management when emergency incident occurs.

The hospital's emergency team could well manage emergency victims based on the triage skills and other techniques learned from the HOPE training program.

Since an increasing number of emergency cases sent to hospitals involve road accidents, Dr. Phanit overseeing the hospital's emergency



Mr. Chieu Chin-Banoul, Chief Administrator of Khmer Soviet Friendship Hospital, is taking care of an injured patient. As Cambodia's largest hospital, the hospital takes care of hundreds of emergency cases on a daily basis.

committee said he planned to extend the committee to include other health staff like nurses and medical students as volunteers. He is also in the process of seeking donors who can support the hospital to set guidelines for responding to health emergencies. The guideline could become a tool for other provincial hospitals as part of their emergency preparedness.

“ Not only paramedic team, but all concerned staff should be involved in effectively preparing for disasters. We have learned a lesson that health emergencies may happen. That’s why we have to be more prepared for the unexpected, ”

said Mr. Chieu Chinbanaul, Khmer Soviet Friendship Hospital Chief Administrator.



Dr. Prom Phanit, Vice Chief of Technical Office at Khmer Soviet Friendship Hospital, believes disaster preparedness will enable the hospital to well manage emergency patients.

EMERGENCY MANAGEMENT IN LAO PDR: MITTAPHAB HOSPITAL'S PLAN

VIENTIANE, Lao PDR – In 2009, Lao PDR hosted the bi-annual Southeast Asian Games event in its capital city. The region's top athletes joined in Vientiane for the month-long multi-sport competition that drew thousands of visitors. The event ignited the city to be prepared, and encouraged the city's largest government hospital to develop their first comprehensive emergency response plan.

"SEA Games was our first large-scale event. Without thinking twice we knew it was time to begin the process of preparing an emergency response plan for mass casualty incidents," Dr. Phouthone Muongpak, Mittaphab Hospital Director said.

Mittaphab is a primary health service provider during disaster and emergency events. It is also the main referral hospital for provincial and district health facilities. However, despite the importance of the hospital, it lacked an adequate emergency management plan, relying only on protocols for fire hazard. Following a series of assessments, workshops and consultations with the hospital team, a multi-hazard emergency management plan based on disaster risk was developed.

"We approached the SEA Games as a timely opportunity for the Ministry of Health and our hospital's disaster committee to develop a multi-hazard emergency management plan based on disaster risk information," Dr. Phouthone explained.

Prior to 2009, Dr. Phouthone's team developed an emergency management plan, but this plan was exclusively for fire hazards. Additionally, Dr. Phouthone's team lacked skills on teaching others their role in emergency response, and a clear incident command system – components the new emergency response plan included.

Strong ministerial support aids emergency response development

Mittaphab Hospital's emergency management plan process was guided by the Ministry of Health.

To begin, the team assessed the structural, non-structural and functional aspects of the hospital, which provided the foundation for their emergency management plan. The base-line assessment evaluated the hazards that threaten the hospital site, facility and staff and can disrupt hospital operations.

The process was lead by the Ministry of Health using a standard checklist to assess the safety levels of 145 components of the hospital. For each component a score was assigned according to its relative importance in contributing to the hospital's capacity to withstand disaster and continue functioning.

The Ministry's role contributed greatly to this process as it added to the preparation of national policies and guidelines on risk assessments, emergency preparedness and planning, and simulation exercises. This provided the team with important technical guidance.

Formulating an integrated emergency management plan

"Our goal was to develop an integrated, multi-hazard emergency management plan. As this was our first step, we started the process with a standard risk assessment to better understand the hospital's vulnerabilities," Dr. Phouthone said.

As a result, the team developed the Mittaphab Emergency Management Plan, which is linked with various other community plans and public safety agencies. The plan aims at maximizing prompt and effective medical care during incidents that might otherwise disrupt the normal operations of the hospital. Today, staff and institutional resources of the hospital are ready for effective performance during disaster.

Teaching others the emergency response plan

"We recognized after our first HOPE course that we needed an action plan, and in 2009 we started that process. However after the plan was finalized we needed to teach others what their role in the plan would be if a disaster occurred," Dr. Phouthone said.

HOPE courses strive to back-up theoretical lessons with exercise, a method that Dr. Pouthone finds useful when training other medical professionals on emergency response principles.

Dr. Phouthone explained that the basics of pedagogics – from how to teach other people, including how to prepare a lesson and an effective presentation as well as how to encourage participation – were clarified during the HOPE course and put the hospital's new emergency management plan into practice.

"The HOPE course was very valuable when we got to the point where we needed to start teaching the staff emergency response measures," Dr. Phouthone explained. He continued, "HOPE teaches the essentials of emergency response, but what we valued most was learning how to teach."

Pilot testing the plan

Once the emergency response plan was developed and staff acquainted, simulation activities tested its effectiveness. Medical staff learned their role in the hospital's incident command system, and how to respond in times of disaster.

"Staff now understand the role of each incident commander in the system," Dr. Phouthone said.

The pilot test of Mittaphab's emergency management plan was a success, but as Dr. Phouthone explained, "this is just the beginning". "We need to continue to improve the knowledge of our staff, further explain organizational structures and our incident command system."

"Luckily, the SEA Games concluded without any major incidents occurring. I can confidently say that we're much more prepared now, as we demonstrated for other major events such as in 2012 during the ninth Asia-Europe Meeting."

Mittaphab Hospital has recently been announced as a model hospital in Lao PDR, and other hospitals, such as Mahasot, are reportedly following in similar directions to improve emergency response and preparedness measures. ■



Mittaphab Hospital officials study hospital images to develop an inclusive emergency response plan.



ENSURING SUSTAINABILITY



After CADRE and HOPE courses are complete, what's next? This chapter looks at how communities throughout the region are ensuring that HOPE and CADRE lessons learned are becoming engrained into their emergency response plans. This chapter illustrates how courses have been localized and replicated, contributing to the sustainability of HOPE and CADRE in the future.

COMMUNITY LEADERS IN PATHUMTHANI, THAILAND PREPARE FOR THE WORST

PATHUM ThANI, Thailand – The province of Pathum Thani directly borders Thailand's capital city, Bangkok, to the north. In 2011 Pathum Thani was among the provinces worst hit by the floods. Many communities along the Chao Phraya River in Pathum Thani were forced to evacuate their homes, even the Thammasat University, Rangsit campus, was forced to temporarily shut down its facilities and send students home.

Klong Haa Sub-District in the Klong Luang District in Pathum Thani was among the affected communities. Ms. Thipsuda Rianphoomkit is a Department of Disaster Prevention and Mitigation (DDPM) officer based in the Klong Haa Sub-District. She experienced first-hand the consequences of the 2011 flood.

“As a DDPM officer I play a leadership role when disaster strikes,” states Ms. Rianphoomkit, “I have experienced my fair share of floods but none as serious as those in 2011. In such mass casualty events it is important to educate the people so they can help their families, their community or even other communities.”

Communities taking action in disaster response

The CADRE training program provides an opportunity for community leaders like Ms. Rianphoomkit to learn basic first aid training along with emergency response training for mass casualty incidents. The training curriculum, originally developed with the help of the Red Cross and Red Crescent Societies, also teaches participants to organize in a potentially volatile situation and carry out light search and rescue operations.



Ms. Thipsuda Rianphoomkit belays another CADRE participant as he throws a floatation device.

“If I could go back to the time of the 2011 floods with the knowledge I have gained from the CADRE training today, I think I could have done a lot more. Some skills, such as conducting water rescues to secure drowning victims would have been essential”, Ms. Rianphoomkit reflects.

Hopes for the future

Ms. Rianphoomkit wears a tan plaid work shirt with its sleeves rolled up. She looks ready for the upcoming final

exercise simulation. In this final exercise participants are put through a simulated disaster situation and asked to perform a number of tasks they have learned throughout the course. Instructors judge participants based on their performance in these tasks. Ms. Rianphoomkit's tone is serious and urgent.

“I hope that the DDPM can set up more courses like this CADRE course to educate more people, in more communities across Thailand,” states Ms. Rianphoomkit. ■

THAILAND'S CHAO PHRAYA RIVER COMMUNITIES GEAR-UP FOR UPCOMING FLOOD SEASON

PATHUM THANI, Thailand – The 2011 floods that swept across north, northeast and central Thailand, resulted in one of the most economically taxing disasters in the country's history. As floodwaters swept southward across the country, the central province of Pathum Thani acted as a final buffer between the floodwaters and the nation's capital, Bangkok. However, the flood-barrier could not compete with the overwhelming volume of water. Communities along the Chao Phraya River were forced to evacuate their homes. Both industrial estates and residential areas were inundated in the floods. The flooding caused an estimated USD45.7 billion in economic damages and losses in Thailand.

'Displacement' an aftermath of flood

Mr. Chavarat Srimumpan, a representative of the Bangduea Sub-District office reminisced of how people had to relocate after much of the Sub-District, located along the west bank of the Chao Phraya, was inundated by floodwaters.

"Most of Bangduea was directly affected by the floods. There were only a few communities that were not directly affected. However, even in these communities people felt the effects of the flood through traffic created by those who were displaced. It is in these communities that we set up bases of operation to administer aid to those affected by the floods," he said.

The 2011 floods displaced thousands of people as they sought drier grounds. In the future, when communities are more prepared, central emergency centers can be established, and less families will be displaced.



Mr. Chavarat Srimumpan instructs his team members on how to properly elevate a collapsed structure to save a victim trapped underneath.

Building necessary skills

Mr. Srimumpan was among the participants that took part in CADRE training conducted at Border Patrol Police base in Pathum Thani. CADRE teaches community members to be prepared in the case of a disaster situation. The program provides specially trained instructors to disseminate the knowledge and skills necessary for community leaders like Mr. Srimumpan to respond appropriately to disaster situations before professional responders arrive.

In the interest of replicating the CADRE experience for many communities, instructors are specially trained in a CADRE Training for Instructors (CADRE TFI). The course trains potential instructors to enhance their organizational ability, be comfortable in leadership roles and teaches them how to effectively disseminate training skills. Most importantly the course also aims to develop a deep technical knowledge on specific CADRE skills. Through this specialized training, instructors are able to build the necessary skills of community leaders to meet CADRE objectives.

One of the goals of the CADRE training is to reduce mortality rates by teaching community leaders to prioritize emergency care where there are limited resources.

"I believe life is the most important consideration in a disaster situation. We can always rebuild infrastructure. Life, on the other hand, cannot be replaced. The training emphasizes this reality. We must always prioritize human life over material losses," Mr. Srimumpan said.

"I'd like this training to be continually implemented and improved. There are many people out there that need access to this knowledge. I hope CADRE can reach out to more communities and more people", he said. ■

HOW TWO EMPTY BUCKETS CAN SAVE A LIFE: BANGLADESH EMERGENCY RESPONSE COURSE GOES LOCAL

SIRAJGANJ, Bangladesh – Each year, the banks of the Jamuna River in Bangladesh swell, engulfing agricultural riverine communities. Annual flood pulse secures the livelihoods of these communities as flooded river banks provide a breeding ground for fish and a healthy substance for rice to grow. However, if communities are unprepared for rising water levels, it puts people at risk of emergencies, such as drowning and other injuries.

The CADRE course instructs communities on how to prepare for annual disasters such as floods, and how to organize resources required for emergency response.

“The problem is that many communities just don’t have enough resources available to respond as necessary,” Mr. Ruhul Amin, CADRE course instructor said, “in theory we have the skill set to coordinate resources and logistics, but in practice we often don’t have the basic equipment required to save lives.”

Or do they?

With very limited resources Paikpara community members of Srirajganj are prioritizing emergency care.

During a three-day CADRE basic training course in Srirajganj, participants discovered that, with some creativity, basic equipment is available for emergency response. In fact, participating men were wearing their water rescue devices while other nearby household items such as ladders and drinking water pots provided alternative, localized, emergency equipment options.

Water Rescue by lungi: The sarong technique

“When we arrived to conduct the training, we were excited to see that the community was prepared to show us their own life-saving techniques,” Mr. Muhammad Murad Billah, a CADRE instructor recalled.

In Bangladesh, rural men wear a traditional sarong, or lungi, which as CADRE instructors learned, can transform into a life-saving tube for water rescue operations.

A young man demonstrated the technique by emerging into the river, then rapidly waving his arms under water. A rescuer can direct the current under his lungi and within moments, the lungi will swell, providing a tube around the man’s waist, enabling him to float to aid the drowning victim to safety. The air under the lungi will remain intact until the man gets out of the water.

“This technique only works if the victim and the responder remain calm and focused, allowing them the time and concentration to create the lungi flotation device,” Mr. Billah continued.

Cost efficient stretchers

Agricultural communities in the delta of the Jamuna River, are not only at risk of drowning during flood season. Harvest and planting seasons pose equal threats as arduous labor often results in broken limbs, for example. In these cases, emergency volunteers are instructed to secure the victim to a stretcher to ensure safe transport to safety.

Where stretchers are not available, bamboo ladders often are. As an alternative, community members use their bamboo ladders, covered in a sarong for safe transport of those unable to walk in an emergency.

Additionally, the same bamboo sticks that are used to make ladders can be used as splints to protect fractured bones.

Water rescue by lungi in four steps





Participants construct a stretcher using only bamboo poles and a blanket. Both are materials that can be easily found in the local community.

Understanding risks and preparing for hazards

Annual floods, injuries from working in an agricultural environment as well as dog and snakebites are all hazards, which may call for emergency response. However, in the case of Paikpara community before the training, community members did not consider such events hazards.

“Before our training, we did not understand our communities’ hazards and how we can prevent risk,” Selina Begum, 24, CADRE instructor from Paikpara community said.

Although the community has made a request for emergency equipment, Paikpara CADRE course participants learned in what ways they are at risk, and how they can prepare, even with the most basic household supplies available.

“I helped a boy that got bit by a dog after our training. [Of course] I did not have any gloves around, but I had a plastic bag to protect my hands and the boy’s wound. Before the CADRE course I would not have known that to touch a wound without gloves is considered a hazard to one’s health”, Shikha Khatun, 23, explained. ■

Disaster response skills – are they universal?

Within the first 24 to 72 hours after a disaster, local communities are on the front-line of emergency response. Depending on the location and scale of emergency, response times may vary.

As this case study explores, communities’ confidence to respond to emergencies is commonly based on available resources. However, as CADRE participants learned, basic household items can provide the foundations for emergency response materials.

In Sirajganj, communities worked together with CADRE instructors to add value to the course by exploring ways in which the course could be localized to accommodate their lack of emergency equipment.

The CADRE course is flexible, allowing instructors to modify the curricula on site to suit local circumstances. The skills CADRE participants learn are universal; however, the tools used to perform emergency care may vary from community to community.

SPREADING THE WORD: LAO PDR'S NATIONAL MEDICAL SCHOOL USES LESSONS FROM HOPE COURSE

VIENTIANE. Lao PDR – Weekly, second and third year medical students from Lao PDR's University of Health and Science are introduced to lessons on emergency response, a critical component to their medical degree training.

Dr. Bouasone Bounta, medical doctor and university professor, has lectured on the topic of emergency response principles since he attended his first HOPE training course in 2010.

"At that time, there was no mass casualty incident response plan or a systematic way to identify emergency department patients. By the time the course finished it was clear [to us] that we needed to institutionalize these emergency response measures," he recalled.

When Dr. Bouasone returned to his post at Mahosot Hospital as resident emergency doctor and professor, he embarked on a plan to train others on what he had learned.

"Staff trainings have been key," he said.

In short segments, Dr. Bousone established weekly staff trainings that included lessons from the HOPE training. Each week, emergency department staff learned a new skill – from triage to building collapse procedures and how to cope with mass casualty incidents.

"Staff must learn first to be prepared. [For example] if the hospital collapses, what will they do? How will they move patients?" Dr. Bouasone reflected.

Specifically, Dr. Bouasone focuses on refresher trainings for on-site fire safety, as electrical shortages that result in fire are a common occurrence throughout the capital city.

Refreshing knowledge on emergency response principles, once-a-week

Preparing staff at weekly meetings for the unforeseen was a challenge before the hospital was confronted with a mass casualty incident a few years ago.

A bus crash resulted in 26 severely injured people delivered to Mahosot Hospital for referrals. At the time, the hospital was unprepared for the event.

"Then, we could not admit 26 patients at once. This was our wake-up call."

Today, Mahosot can comfortably admit fifty emergency patients for a mass casualty incident – double its capacity a few years ago.

Weekly staff meetings were the first step to this progress. Mahosot Hospital has also institutionalized the four-color patient identification system. Today, when a patient enters the emergency department, they will first register, then be sent to their 'zone': red for critical cases, yellow for more severe injuries, and green for walk-ins. A black-taped area is designated for patients that arrive on-site deceased.

"It seems like a very logical and simple idea, but we never institutionalized it until we experienced the benefits of this organizational system from the HOPE course," he admitted.

Adapting HOPE lessons into medical school curricula

Dr. Bouasone is passing the message on that HOPE lessons are most effective when adapted into his medical students' curricula.

"Once we learned the course as trainers, it was not difficult to adapt the lesson for our students," he said.

Developed with the intention for public readership, HOPE encourages course adaptation.

Dr. Bouasone's adaptation has resulted in the course's informal institutionalization at the University of Health and Science in Vientiane, Lao PDR. The students share worksheets from the HOPE course book every semester, sustaining the course's principles long after the initial training course is over.

As a lecturer, Dr. Bouasone finds the HOPE approach appropriate to introduce emergency response principles to medical students.

"In the future, I would like to see the University of Health and Sciences and the Ministry of Health adapt HOPE as the official course for hospital preparedness," he said.

Medical students learn from HOPE curricula

Mahasot Hospital's emergency response measures were a significant step towards disaster preparedness; however, Dr. Bouasone realized that in order for the knowledge to be sustainable, he needed to pass the lessons learned on to his medical students.

"We didn't have emergency response as part of our curricula, so we adapted the HOPE course. It's easy to understand, and is well received by our students," he said.

Each week, students join Dr. Bouasone to learn HOPE emergency response lessons. The curriculum has not waived: it is a copy and paste version of Dr. Bouasone's HOPE course participant workbook.

"We focus more on the lessons more pertinent to our local situation," he explained.

In Lao PDR, risk for earthquake is low, while fire and floods are more prevalent. With his medical students, Dr. Bouasone explores more in-depth the emergency response principles that impact their everyday work environment. However, his teachings include topics of low risk as well, to ensure that his students do not make the mistake of underestimating unforeseen hazard situations.



Hospital staff transport an injured person by hand during a simulation. It is important to keep practicing the basics when resources are limited.

More HOPE trainers needed

"We need more HOPE trainers, but at the moment we have no financial support for the course. Teaching the course content to our medical students is our way of outreach. It's our only way to ensure sustainability at the moment", Dr. Bouasone explained.

Although financial limitations hinder course advancement, Dr. Bouasone's weekly staff meetings and university lectures are overcoming this challenge.

"As a result of the HOPE course, we have doctors on-call for mass casualty incidents; we have designated spaces, such as meeting rooms, that we can extend our emergency intake to; and we are a very reliable referral hospital that can respond confidently," he said.

Despite significant progress, emergency department doctors and management at Mahosot Hospital continue to improve their situation. Momentarily, the hospital does not adhere to a specific disaster management plan, an area that Dr. Bouasone hopes to see improved in the near future. ■

COMMUNITY RESPONDERS REPLICATE COURSE IN BANGLADESH

DHAKA and SIRAJGANJ, Bangladesh – Members of communities in Bangladesh's capital city of Dhaka and in the northern district of Sirajganj are reportedly ready to act as community emergency responders. Asian Disaster Preparedness Center and Bangladesh Red Crescent Society have teamed-up to train communities throughout the country on how to take action in emergencies through CADRE course.

Paikpara passes the message on

On the outskirts of Sirajganj district on the banks of the Jamuna River, the community of Paikpara faces continual emergencies. Without an established emergency response system to call on when in need, the community joined the CADRE course in 2011 to learn techniques to help others in times of emergency.

Responding to risks from annual floods to snake and dog bites; performing basic first aid; and conducting resuscitation and setting broken arms, Paikpara's most active first responder team consists of female volunteers.

In 2011, Shikha Khatun, 22, received CADRE 'basic training' in her community with 24 other participants. During the course she learned about compiling hazard information on her community. She also learned about first aid, basic life support, incident command systems and triage, dead body management, fire emergencies, light search and rescue, and water emergencies – all necessary for her riverine agricultural community's safety.

"Since the training, I have been motivated to keep people aware of hazards and emergency response on a weekly basis," Shikha commented.

CADRE's approach is to teach the importance of keeping up-to-date. The more often community members repeat CADRE emergency response lessons to others, the more they will be prepared for unforeseen hazards.

"First aid knowledge is very important for our community because health facilities in our community are quite far

from the district hospitals. In emergencies I can provide some basic support to the victim. These are the basic life-saving techniques I teach others", said Shikha.

In 2012 when the CADRE-TFI course was offered, Shikha took on this challenge. "I learned more in this course on how to reduce loss and how to improve our [community's] responsiveness to natural hazards."

CADRE basic training at use in urban Dhaka

Narinda area of Dhaka is one of the capital city's most populous areas. Traffic, coupled with tall buildings towering narrow roads, often hinders emergency responders' arrival to the scene on time.

Women in Narinda community testify that their knowledge of CADRE is not only useful for disasters, but for everyday emergency situations.

"Before taking the initial CADRE course, I was not aware how vulnerable my community was to disaster," said Farzana Islam, 22.

Awareness of disaster vulnerabilities is a central component of the CADRE Training for Instructor course. It enables participants to understand their surrounding and how to identify and prepare for potential hazards.

Among the lessons, CADRE volunteers learn how to apply 'direct pressure' to slow bleeding from an injury.

"A friend of mine was injured and bleeding a lot. I took a clean piece of cotton and raised his injured arm. After cleaning the injured area, I applied pressure on it to stop the flow of blood. The last step was to bandage his arm to protect it", Farzana recalled.

"That day I felt proud to have this first aid knowledge, it

really makes a difference."

In the same community, Dipa Das, 18, a student at Shahid Sharowardi College first joined CADRE as a volunteer of the Bangladesh Red Crescent Society, but later decided to become a trainer for her community on her own. Dipa works as a receptionist in a private clinic. Although she works around doctors and nurses on a daily basis, she has been able to utilize her first aid skills.

She recalls a recent time when she was able to use her CADRE training at work.

"A mother came [to our clinic] with her 5-year-old son. His hand was injured badly and the bleeding needed to be stopped. At that very moment there were no emergency doctors and nurses around."

"I applied my first aid knowledge from CADRE basic training. I was able to successfully stop the bleeding, and then locate the doctor for the patient and his mother. All senior doctors appreciated me for this work. From that day onwards I felt so proud to be a volunteer," said Dipa.

Practical emergency response skills taught in the CADRE course are often praised once at use. In the case of Dipa Das and Farzana Islam the encouragement and recognition they receive from those they have helped empowers them to pass their lessons learned on to others and to take action as community leaders in times of disasters.

"In a community like Paikpara, if you know First Aid or other basic life-saving techniques, people come to you. You become their life support," said Shikha.

The CADRE course is founded on basic principles of communalism. The course aims to build resilient communities through lessons of emergency response, and encourage them to pass on the knowledge to others.

"As an instructor I am ready to teach others; I am ready to carry on," Shikha added. ■



Women in Paikpara practice securing a splint on a fractured leg. In this agricultural community, fractured bones are a common injury.

Vernacular cultures contribute to emergency response

In Bangladesh, histories of oral traditions have laid the foundation for community training in emergency response. A strong colloquial culture in folklore and storytelling makes a compelling case why community training is practical and effective. In many cases, knowledge equates to power.

Within these traditions, women have a central role in passing on knowledge to others as providers and educators of their households. Similar to the CADRE's trainers' approach, women's interaction is highly engaged and may at times include role-play or re-enactment of event.

Women's participation in training others in emergency response is demonstrated to have a lasting effect, long after the course is finished. As illustrated in this case study, women are putting their course to the test as they disseminate their knowledge to other community members. On their own, they are holding trainings with very limited resources.

Studies have demonstrated that women are among the most vulnerable in times of disaster. Understanding that women are particularly vulnerable in times of emergencies, the CADRE course ensures high female participation and encourages women to take a lead as course instructors.



Asian Disaster Preparedness Center