ADPC | Impact 2013

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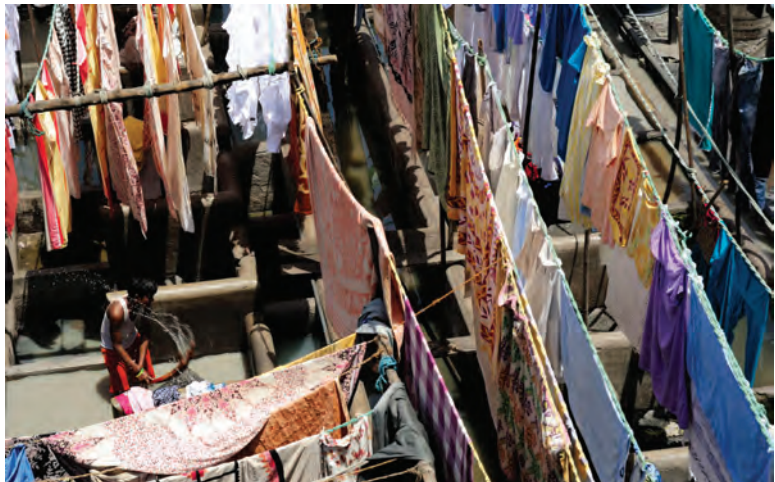


Dear Readers,

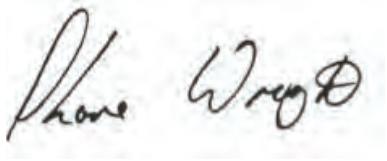
It is with great pleasure that I present to you this publication which showcases the valuable work of Asian Disaster Preparedness Center (ADPC) in 2013 in the Asia region.

The showcased articles feature some of the concrete steps taken last year towards accomplishing ADPC´s vision of safer communities and sustainable development through disaster risk reduction. We hope that by continuing along the path laid down by these steps, come 2020, we will see a region where disaster risk reduction and climate change adaptation have been mainstreamed deeper into economic and social development policies. We also look forward to a new Asia region where the systems and underlying capacities for reducing disaster and climate risk impacts have been deeply engrained.

As this publication shows, ADPC has taken a comprehensive approach towards disaster risk reduction, utilizing cutting-edge scientific solutions, strengthened systems for effective management of risk, as well as improved application of risk reduction measures in communities. The use of early warning systems as a tool for local communities in preparing for floods and mitigating the impacts of natural hazards is a prime example of the utilization of science-based solutions.

The publication contains valuable insights based on the experiences of community first responders trained by ADPC alongside experiences of our own, gained through our work with local governments in integrating disaster risk reduction and climate change adaptation efforts into development planning.

Sincerely,



Mr. Shane Wright
Executive Director

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TABLE OF CONTENTS


Photo by Sayan Chuenudomsavad

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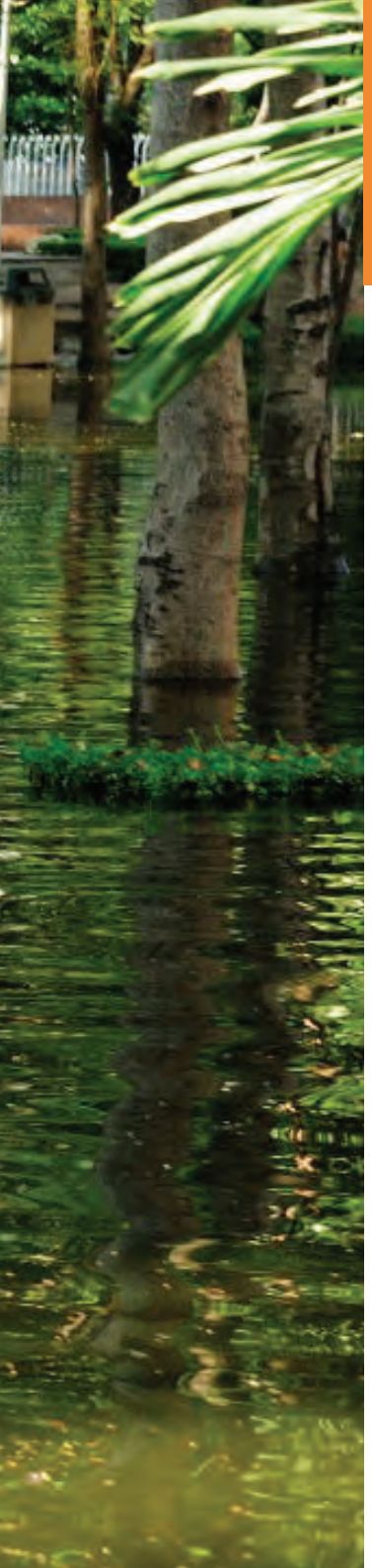


PROTECTING HOMES AND LIVELIHOODS

Floods affect millions of people in Asia yearly and cause considerable economic losses. Coastal communities are affected by flash floods, inundation and storms, which expose homes and businesses to constant risk. ADPC works to strengthen the countries´ national capacities in dealing with weather-related natural hazards including the dissemination of early warning.

Living with a river that rises: Coastal communities in Da Nang taking measures to respond to flash flooding

DA NANG, Vietnam – Ms. Nguyen's shop sits on the edge of the small rice farming community of Truong Dinh along the banks of the estuarine Cu Dê River in the district of Hòa Liên. The town is one of Da Nang's many coastal communities in Mid-Central Vietnam.

Nguyen, 45 years old, has lived and farmed along the Cu Dê River her entire life. Flash floods, destructive coastal storms with high winds as well as inundation jeopardize Nguyen's and her neighbors' livelihoods as the natural hazards leave little room to compromise. Nguyen frequently loses her rice crop and often her community shop is inundated for weeks, depending on the strength of the storm that sweeps through.

"In 1999, the floods reached over two meters," she explained to ADPC as she pointed to the flood marker on the outside of her door. "Since then," she continued, "we've had many flash floods that allow only an hour or two to evacuate."

The Cu Dê River Basin faces seasonal coastal hazards.

Approximately five kilometers inland from the sea, the community Truong Dinh faces disaster risks associated with annual cyclones and typhoons, as well as heavy rainfall from the hilltops that surround the community. The Cu Dê River Basin encompasses an area of approximately 500 square meters and is approximately thirty kilometers from head to mouth. Due to its size, the basin is considered insignificant in comparison to others throughout Vietnam. With this in mind, information on the basin's flux is not as well known; models of the basin to assist with early warnings are currently limited.

Ms. Nguyen, 45, points to where her house was inundated to in 1999.

Early warning systems could save lives and secure livelihoods

As Nguyen and her sons reported, the township notifies her community when the river is on the rise, but often, "it's just not soon enough."

She explained, "[They] are very good at sending the news through a loud speaker in town, which we can all clearly hear. I am not necessarily at risk, but our homes and businesses are."

"We just don't have enough time to pack up our belongings before the river swallows our home," she continued.

Nguyen's community store contributes to approximately USD 20 to her household's monthly income. Whereas her sons provide the family's primary source of income, loss due to floods is avoidable with appropriate early warning systems in place.

Responding to communities' needs

Supported by the Royal Norwegian Government and Norway's Meteorological Institute, ADPC together with Vietnam's National Hydro-Meteorological Services under the Ministry of Natural Resources and Environment is considering how to improve local level early warning and knowledge dissemination to make sure that at-risk coastal communities are informed in ample time.

ADPC's and its partners' work aims to provide technical assistance to strengthen national capacities to deal with weather-related natural hazards, promote advanced methodologies for weather forecasting, and support the dissemination of early warning at the local level.

Through this project, coastal communities such as Nguyen's, will become more informed of early warnings and forecasts, and be able to reduce the disaster risk of the villages and the families. ■

Local residents gear-up collaboration efforts to prepare for floods

AYUTTHAYA, Thailand – It is nine o'clock in the morning and Tambon Tha Luang Administration Organization is unusually crowded as up to thirty residents from nearby areas gather at the office soon after receiving an official warning of heavy rainfalls. A massive amount of water is expected to reach this flood-prone province of Ayutthaya's Tha Rua district in Thailand.

A small operation room is now filled with loud conversation as officials from the Department of Disaster Prevention and Mitigation, the Royal Irrigation Department and the district office as well as village leaders, health volunteers and community residents are racing against time in a bid to come up with a strategic plan essential for protecting their communities from possible flooding damages.

More updates from the Royal Irrigation Department show flooding is likely to strike the area. The public relations team of the operation unit is now ready to send a warning message to the public while mitigation teams are going to vulnerable areas to begin evacuation procedures before it is too late to save lives and reduce damages.

Fortunately, the flooding situation these local residents are dealing with is part of a tabletop exercise aiming to increase public awareness of strategic planning for flooding resilience.

The activity belongs under the Program for Reduction of Vulnerability to Floods in Thailand supported by U.S. Agency for International Development of the Office of U.S. Foreign Disaster Assistance (USAID-OFDA).

"We would like communities to be strategically more prepared when it comes to floods, so any possible damages and vulnerability to disasters can be minimized," said Dr. Chusit Apirumanekul, ADPC's Project Manager specialized in flood preparedness in Thailand and leading the tabletop exercise project.


Photo by Apiradee Treerutkuarkul

Ms. Supatta Choomporn, Agricultural Officer of Tambon Champa Administration Organization and a community member during the tabletop exercise.

Community contributing to flood preparedness

Thailand was heavily affected by major floods in 2011, particularly the provinces situated in the Chao Phraya River Basin – including Ayutthaya. Loss caused by the crisis rose to an estimated USD 45.7 billion. At the time of the tabletop exercise, the flooding damages still remained in Tambon Tha Luang – the main road used for transportation in the area was still under restoration two years after the crisis.

The tabletop exercise is a good opportunity for all involved parties at the community level such as district and sub-district administration organizations, disaster response and mitigation teams, and community representatives to explore and assess their roles and responsibilities in flood warning dissemination and responses, leading to better understanding and awareness of the early warning system.

Ms. Supatta Choomporn, Agricultural Officer of the nearby Tambon Champa Administration

Mr. Sujit Wongnate, Deputy Chief of Tambon Ta Luang Administration Organization and Mr. Somsak Yingbumrung, Disaster Prevention and Mitigation Officer from Tha Luang Tambol Administrative Organization, help participants in brainstorming during the tabletop exercise.

Organization, found lessons learned during the tabletop exercise very useful. She was responsible for public relations in her community during the flooding crisis in 2011. The female civil servant learned how to translate technical messages about the flood level into simple alerts for the public – without causing panic. The executive-like practice enabled her not only to be a part of the strategic team but also to prepare in a bid to reduce flooding vulnerability in her own community.

Mr. Sujit Wongnate, Deputy Chief of Tambon Ta Luang Administration Organization, said he believed the tabletop exercise should be put into practice also in other flood-prone communities, particularly those located in the Chao Phraya River Basin.

"A lesson learned from the flooding crisis is that we all can help reduce damages caused by flooding. People on the frontline can learn to strategically deal with the situation for sustainable flooding resilience," said Mr. Wongnate. ■

Striking gender balance to build a flood-resilient community

AYUTTHAYA, Thailand – Hat is on. Mrs. Mayuree Chaengpradit, or known among villagers as 'Mo', turns on her motorbike and gets ready for a daily round of residential visits. As the village head of Moo 2, Ta Luang District in Ayutthaya province, it is her duty to take care of the three hundred village members and always carefully check their safety and flooding preparedness – especially when the monsoon season arrives.

"Even though I am a woman, years of work here have proven that I can also be good at a male-dominated position," Mrs. Mayuree said.

The 49-year-old housewife-turned-village head was elected in the position when the heavy flood hit the old capital of Ayutthaya in 2011. Mrs. Mayuree remembers that she and her relatives had to row a boat against a strong water tide to run for the election.

Mrs. Mayuree concedes she was not certain that Ta Luang residents would choose her as the village head in the beginning. Never before had her village and the nearby communities had a female head. Her sincerity and more than fifteen years of work experience as health volunteer for the community however excelled.

After a week-long of floodwater receded, Mrs. Mayuree won the majority vote from the village members. Everyone calls her 'Poo Yai Ban' – meaning head of the village.

Floodwater receded, but there was no time for the newly elected village head to relax. Many tasks were handed over to her. As a former health volunteer, Mrs. Mayuree knew that clean food, water and medicine were important for the village members. She asked the local administration of Ta Luang district for help and made sure that the relief supplies were delivered to the village members, so they could survive the post-flooding situation.

Mrs. Mayuree helped coordinate with the district hospital to provide sufficient medication for the patients in her community. She also had to follow up on the government fund for each of the families affected by the flooding.

Lesson learned from the 2011 flooding crisis

Although everyone got through the unusual flooding situation and nobody in the village suffered from serious post-flood diseases like diarrhea and leptospirosis, Mrs. Mayuree concedes her work during the flooding crisis in 2011 was quite passive.

Photo by Sayan Chuenudomsavad

"We are like a big family. We help each other to survive from the flood. However, we just focus on the relief part while preparedness has never been our priority," she said.

An estimated loss of USD 45.7 billion caused by the 2011 flooding crisis in Thailand well reflected Mrs. Mayuree's view towards the less-prioritized issue of flooding resilience and preparedness among local communities. In Ban Ta Luang district, flooding damages remain seen. Main roads used for transportation in the area are still under restoration two years after the crisis.

To enhance resilience and sustainably reduce vulnerability of the flood-prone province, local residents in Ban Ta Luang for the first time learned about disaster risk management skills in early 2012. Mrs. Mayuree also participated in a series of flood-resilience workshops usually organized during weekends so local community members would have time to join in the activities ranging from drawing a community map to a flooding drill.

"Simple methods that we always overlook such as drawing maps and flooding simulations really enable us to learn inside and out about communities and to work as a team when it comes to emergencies," Mrs. Mayuree said.

Role-playing exercises are also useful sessions that bring together all involved parties at the local level, for example district and sub-district administration organizations, the Royal Irrigation Department, the Department of Disaster Prevention and Mitigation, and community representatives to assess their roles and responsibilities in flood warning and relief.

After participating in a series of flood-resilience workshops, Mrs. Mayuree said she and her community also came up with an idea to not only have sufficient flood relief equipment such as parachutes and plastic boats, but also, most importantly, a flood warning system in their community.

The power of information

A simple metal pole painted with three colors – green, yellow and red – was put recently at the bank of Wat Hua Hin. Located in the high ground by the Pa Sak River, the Buddhist temple is regarded as community center of Ban Ta Luang suitable for attaching the early warning system for the community.

The three colors represent safety levels. Green signifies the water level is normal. Yellow means residents should start evacuating their belongings to higher ground. If the water reaches the red part of the metal pole, residents should leave for the evacuation center as soon as they can because the water level is unsafe and relief could be very difficult if residents insist to stay in their homes.

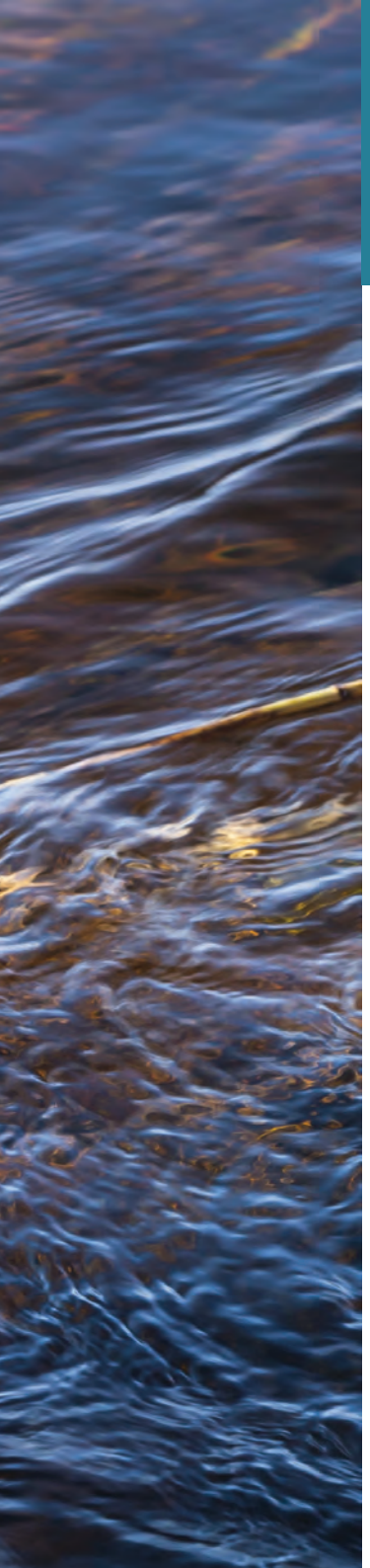
Photo by Sayan Chuenudomsavad

Prior to the capacity workshop, the community usually depended on information from government authorities. By the time they learned about the warning information, the water already flooded their community.

Mrs. Mayuree hopes her community-initiated warning system would be of good use when the monsoon season in Ayutthaya usually reaches its peak in October.

"The color-coded warning system is simple and easy for local residents to understand. We can easily drop by at the temple, our community center, at any time to check the water level. Most importantly, it is an initiative that proudly represents our flooding preparedness, and means we are trying to do our best to reduce damages caused by flooding rather than waiting for relief from outside," Mrs. Mayuree said.

Photo by Gashgeron / Shutterstock.com



LEARNING SKILLS THAT CAN SAVE LIVES

Alongside with governments and hospitals, community-led teams can become a valuable contributor in the management of emergencies. While paying special attention to gender equity, ADPC equips community-members with capacity to respond to emergencies ranging from small-scale fires to mass-casualty incidents. Having once witnessed an emergency response volunteer at work, makes it evident for one that these skills can save lives.

Coordination improved response time and increased concentration during emergency, volunteers report

DHAKA, Bangladesh – By nine o-clock in the morning on 24 April 2013, every television channel was broadcasting what was later to be known as the worst disaster in the readymade garment 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, Md. Mahamudul Amin, 24 years old, sat with his family in front of their television, hypnotized. 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," Md. 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.

Ms. Jubaidah Khanam trains as a community reponder.

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

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 Army of Bangladesh, is important for effective management as each team contributes crucial services to the overall response effort.

of disaster risk management. As the Narinda community team demonstrated, communities provide effective and efficient front-line 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 mobilise 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 every-day 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."

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.

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 5, '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 5 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

The narrow crowded streets of Dhaka are a risk factor for hazards such as fires and earthquake tremors.

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 9-story 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.

Training and preparation: a must

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

"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. ■

Fortifying emergency support crucial for Phnom Penh 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- and out-patients including emergency cases on a daily basis. However, dealing with large amount of patients particularly during disasters is still a major challenge, and Mr. Banoul as well as many other health professionals in the hospital would like to strengthen their capacity.

"Although we have not experienced many disasters like tsunamis or volcano eruptions, it doesn't mean we do not have to prepare for them," Mr. Banoul said.

Thanks to the program called Hospital Preparedness for Emergency (HOPE), the staff at Khmer Soviet Friendship Hospital could learn how to systematically respond to emergencies. With focus on health care personnel, the five-day training program aims to build capacities essential for effective rapid response to emergencies involving a large numbers of casualties, for example, earthquakes, floods, droughts, cyclones and disease outbreaks. Such emergencies could overwhelm emergency response at hospitals and communities without effective systems put in place.

Chieu Chin-Banoul (right), Chief Administrator of Khmer Soviet Friendship Hospital, taking care of an injured patient. The hospital takes care of hundreds of emergency cases on a daily basis.

HOPE is part of the objectives implemented under the Program for Enhancement of Emergency Response (PEER), a regional program initiated in 1998 with the support from U.S. Agency for International Development of the Office of U.S. Foreign Disaster Assistance (USAID-OFDA). PEER aims to boost local and regional disaster preparedness and build the response capacities of vulnerable countries in Asia.

Expect the unexpected

Dr. Prom Phanit, Vice Chief of the hospital's technical office, still reminisced over 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 the Bassac River in Phnom Penh fell down. Prime Minister Hun Sen even called the stampede the biggest tragic incident since the Khmer Rouge when more than 1.7 million Cambodians died.

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.

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

Since an increasing number of emergency cases sent to hospitals involve road accidents, Dr. Phanit overseeing the hospital's emergency 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 guidelines could, in time, be a tool also for other provincial hospitals as part of their emergency preparedness.

"Not only the paramedic team but all staff should be involved in a bid to effectively prepare for disasters. We have learned a lesson that health emergencies may happen. That's why we have to be more prepared for the unexpected," Dr. Prom Phanit said. ■

Achieving gender equality in times of emergency: Discussing gender issues in post-disaster context

BANGKOK, Thailand – In times of disaster, it's imperative that disaster response is equitable and considers the complexities gender relations may present. For women and girls, this requires rethinking health and sanitation facilities, accommodation arrangements and the safety of household responsibilities.

Course revamped: Public Health Emergency Management in Asia

The year 2013 offered the first Public Health Emergency Management in Asia and the Pacific (PHEMAP-11) inter-regional training course since its evaluation and reformatting in 2011 and 2012. Participants of the course analyzed emerging issues that would impact disaster risk management – from climate change, to the spread of disease, to urbanization and beyond; and then how to strengthen plans for disaster risk management in their countries and communities.

During the course, the role of gender in disaster management was covered and discussed among participants. The discussions led to participants reflecting on how gender equity can be better achieved in their respective home countries.

Dr. Roderico Ofrin, Coordinator of Emergency and Humanitarian Action at the World Health Organization's Regional Office for Southeast Asia shared his experiences and guided participants towards understanding women's vulnerabilities.

Dr. Ofrin reflected on his experience with a community that was provided with a sanitation unit to use after a disaster made their normal facilities inaccessible. It was not until a female aid worker noticed that women were very rarely at the unit that inquiries were made and it was discovered that the women did not feel safe using the unit alone, so they went to the unit as a group twice a day. This meant that many women were left needing to use the bathroom for hours but felt obliged to wait for the protection of the group.

In this case, separate facilities for men and women may have increased vulnerabilities, as women did not feel comfortable washing due to a fear of an attack.

Achieving equity in vulnerable societies

"There is a need to recognize the different needs, capacities and contributions of women, girls, men and boys," Dr. Ofrin said.

At a community-based disaster risk reduction training program based in Ayutthaya, Thailand, two women participate and represent their communities.

During the course, he spoke about the need to try to implement gender equality in vulnerable societies before a disaster strikes, enabling women in communities to be considered of equal merit for receiving aid and participating in disaster relief when the time comes.

"Working towards gender equality does not mean sameness between men and women, but rather that both can exercise their rights in an equitable process which recognizes that their starting points are different, but nevertheless equal," Dr. Ofrin stated. ■

Communities taking action – community-based disaster risk reduction training runs its 22nd course

BANGKOK, Thailand – Having accurate knowledge of the opportunities and constraints for disaster preparedness often makes local communities the best equipped to act on disaster risk reduction issues. This topic was thoroughly dealt with during ADPC´s 22nd regional learning workshop on community-based disaster risk reduction with a changing climate.

The annually organized workshop gathered people from fourteen different countries in the Asia-Pacific region and beyond.

“I learned a lot of new things about practical tools for disaster risk reduction such as hazard mapping and capacity matrixes. Hearing experiences from other participants was particularly useful,” said Mr. Jaap Vuijk, Disaster Risk Reduction Program Manager for Operation Mercy, Afghanistan.

A field visit to Bang Rakam district, Nakornpathom province in the central part of Thailand, provided the participants with an opportunity to put their newly learned disaster assessment tools into practice.

“With community representatives, we tried to find out what is the most devastating natural hazard in the area, when and how often it occurs and what is the scope of its impacts. It was really nice to be able to use the tools learned in a workshop setting within a real community,” Vuijk states.

Bringing early warning systems to Pakistan

Humanitarian Affairs Officer Mr. Kamran Shariff from UN OCHA participated in ADPC´s workshop for the second time. In his disaster-prone home country, Pakistan, he is involved in developing the disaster preparedness capabilities of particularly vulnerable communities. What worries Shariff the most about the situation in Pakistan is the lack of early warning systems, which was a key topic of ADPC´s workshop this year.

“I work a lot with capacity building in Pakistan and ADPC´s trainings give a good aggregate overview on the basic concepts and policies. They also give a very good regional perspective on how the various practices and policies have been implemented in the South and Southeast Asian region in particular,” he stated.

In Pakistan, Shariff has contributed widely in disaster preparedness; especially in contingency planning and convening multi-hazards simulation exercises, mostly in the regions that are prone to monsoons.

“Over the last year, perspectives on vulnerable communities with respect to early warning and life-saving responses have been highlighted. Humanitarian responses are all supposed to respond to the needs of the communities,” stresses Mr. Shariff.

“Our aim is to facilitate the inclusion of the communities’ concerns in government responses and to sensitize government stakeholders and first responders to flood prone communities’ vulnerabilities,” Mr. Shariff states.

Church acting for disaster risk reduction

In the Philippines, the Church has a central role in providing disaster relief – the country is repeatedly ravaged by typhoons, flooding, earthquakes, landslides, volcanic eruptions and tsunamis. In 2012, Manila’s Quiapo Church established a Ministry for Disaster Risk Reduction to promote disaster preparedness.

Manila's Quiapo Church in the Philippines wants to encourage also other churches to put efforts in disaster preparedness. Parish Priest, Rector Msgr. Jose Clemente F. Ignacio and Coordinator Rachelle Ann Sagun from the Church attending ADPC's training course.

The annually organized workshop gathered people from fourteen different countries in the Asia-Pacific region and beyond.

The church is refocusing its aims from disaster relief, to disaster preparedness to lower impacts caused by natural hazards.

"Attending ADPC's course last year gave me an overview of the need for Geographical Information Systems (GIS) to assess the community and map its hazards, vulnerabilities and capabilities. We wanted to pilot this kind of a strategy using the tools of GIS for preparedness in our Church," says course participant, Parish Priest and Rector Msgr. Jose Clemente F. Ignacio from the Quiapo Church Ministry on Disaster Risk Reduction.

"We wanted to move our efforts from relief, rehabilitation and recovery towards preparedness, and encourage other churches in the Philippines to consider the need for it as well.

"Efforts must go beyond preparedness for recovery and rescue to preparing the community to have the capacity to face up to possible disasters," Ignacio states. ■

Photo by Huongson / Shutterstock.com

SUSTAINING SAFE DEVELOPMENT IN ASIA

As climate change poses businesses under constant uncertainty, accurate and timely information about natural hazards becomes crucial in a bid to ensure well-informed decisions to protect the livelihoods. Disaster and climate change management are key in fostering the growth and protecting the development gains. In order to ensure long-term resiliency, disaster and climate change adaptation need to be integrated into development planning.

Towards a resilient Myanmar: Integrating disaster and climate risk considerations in the development process

NAY PYI TAW, Myanmar – Amidst the vibrant pro-economic atmosphere in Myanmar in the past year, the country is emerging as an attractive investment and is quickly becoming a tourist, trade and service hub for the region. To cope with its new demands, Myanmar is gearing-up into development mode to establish a firm basis for the fast progress anticipated to take place in the near future.

Disaster and Climate Risk Management fosters growth

As development takes off, challenges that impede growth, need to be looked into and proactively approached. In the past, damages caused by disasters resulted in a diversion of funds to response and recovery efforts, hampering development. With a stronger focus on disaster and climate risk management, development fund diversion is kept at a minimum and the country is more prepared to cope with the impact of disasters.

Disasters such as Cyclone Marla (2006), Cyclone Nargis (2008), Cyclone Giri (2010), Eastern Shan Earthquake (2011), Mandalay Earthquake (2012) and recurrent floods in expanded locations in the past several years demonstrate the extent in which development activities suffer considerable loss. As disaster trends are on the rise, inevitably so is loss.

The question at stake now is: How can development gains be protected from adverse impacts of disaster and climate risk?

Close links between disaster, climate risk and development a 'must'

The close linkage between disaster, climate risk and development need attention and should not be overlooked. Development interventions are not 'risk neutral' as skewed development could create new risks or intensify the existing ones. Urban expansion could lead to dramatic change in land use patterns, while infrastructure could extensively alternate physical structure and landscape of the areas and development activities in risk prone areas – such as with floods and earthquakes.

How do we ensure development does not increase risk?

The Government of Myanmar plans to adopt risk-sensitive development interventions that would offer long-term solutions. Realizing the intricate relationship between disaster and climate risk and development, the Planning Department and the Ministry of National Planning and Economic Development decided to circulate the interventions among planning-related officers throughout the country for better-informed development and decision-making.

Course tackles disaster and climate risk topics critical to sustainable development

Ministry of National Planning and Economic Development of Myanmar conducts a regular training on development planning and implementation at the officer level. The training encompasses a series of sessions covering topics ranging from planning processes, project appraisal, to regional planning and SWOT analysis. It also includes topics on economic indicators, cost effective assessment, calculating national income and inflation. The training is organized in line with the annual planning cycle.

In order to strengthen the development planning from a risk angle, a module on risk reduction titled 'Resilient Development planning in Myanmar: An overview' has been included into this training and a handbook has been developed by Ministry of National Planning and Economic Development with technical support from ADPC.

The module orients the training participants with multi-faceted linkages between disaster and climate risk and development. It also provides an overview of the benefits and approach of mainstreaming disaster and climate risk into development planning to enhance resilience and sustainable development.

In parallel with the module developed, the Planning Department and Relief and Resettlement Department with technical assistance by ADPC developed a 5-day national training course, 'Mainstreaming Disaster and Climate Risk Management into Development Planning'. The course provides a comprehensive training that thoroughly discusses and explores broad ranges of mainstreaming disaster and climate risk management into development planning layers from national, to regional and city-level planning.

Identifying action areas

Multi-disciplined in nature, mainstreaming disaster and climate risk will require extensive work and synergy from all concerned to step-up the agenda and incorporate it into development planning.

Myanmar plans to adopt risk-sensitive development interventions that would offer long-term solutions.

The module 'Resilient Development planning in Myanmar: An overview' will, for the time being, serve as building blocks to develop concrete actions in the near future. Relevant to the current development context, resilient development planning through the application of a disaster and climate-risk sensitive approach will make a difference. ■

Mainstreaming put to the test – one official's experience in Bhutan

THIMPHU, Bhutan – As a Planning Officer in Bhutan's Ministry of Agriculture and Forestry, Mr. Sangay Chophel understands that disaster risk management is essential for the overall wellbeing of the Bhutanese people.

Influenced by ADPC's training course on mainstreaming disaster risk management, Mr. Chophel has taken it upon himself to devise a mainstreaming strategy for the Ministry of Agriculture and Forestry to propose in Bhutan's 11th Five Year Plan.

"In Bhutan, natural hazards can be devastating. Storms, flash floods, landslides and earthquakes can destroy a farmer's entire crop yield. Many people here rely on agriculture for their livelihood. If you take away their crop, you are taking away their means to survive," he explained.

Bhutan – The Land of the Thunder Dragon

Upward of forty percent of the population rely on agriculture and forestry for their livelihoods, food security and economies. For people in Bhutan, subsistence agriculture is a way of life.

Agriculture depends heavily on the climate of a particular region. Each agricultural product in Bhutan, whether it is rice, corn, root crops or citrus, has its own climatic requirements. Abnormal deviations from these requirements have adverse effects on yield.

Bhutan is known as the 'Land of the Thunder Dragon' for the violent storms that blow in from the Himalayas. Here, climate change and weather hazards have always been point of vulnerability. Besides Himalayan storms, glacial melting can also cause flash floods. Frequent landslides during the rainy season and seismic activity further increase risks for farmers.

Tackling cross-sector natural hazards – mainstreaming an option

The process of mainstreaming refers to the process of integrating disaster risk management into the development process of a ministry. Effective mainstreaming can ensure that the necessary planning occurs for adaptation, management, prevention and mitigation in the case of natural hazards.

Since 2009, Mr. Chophel has worked as

Disaster risk management critical for farmers

Accurate and timely information on natural hazards is critical for farmers in making important decisions to maximize their crop, particularly, in setting up protective mechanisms and scheduling inputs and activities.

The successful development of Bhutan's agricultural economy is, therefore highly dependent on the use of climatic and seismic information, particularly on weather hazards.

Needless to say, disaster preparedness in Bhutan's agricultural sector needs to be a priority. While people cannot avert natural hazards caused by climatic extremes, disaster risk management can reduce the impact of such hazards in terms of productivity and human suffering.

"Bhutan has made a significant effort to modernize and sustain agriculture for national food security," Mr. Chophel notes.

"However, without the ability to proactively assess the dynamic of seismic and weather manifestations, we cannot hope for this progress to bring about the expected returns."

Bhutan's Department of Disaster Management (DDM) focal person for the Ministry of Agriculture and Forestry. He recognizes the need for mainstreaming disaster risk management in the ministry most of all.

"We work in a very ad-hoc manner," states Mr. Chophel referring to the, at times, tedious nature of his work as a focal person.

"Whenever there is a disaster, there is coordination for response and relief. We receive a disaster assessment from the Department of Disaster Management; we make our own assessment; we compile and submit the assessment to the Department of Disaster Management; and only then do we present the assessment at the national level in terms of total damages, quantity of seeds and needs of communities."

Bhutan is known as the 'Land of the Thunder Dragon' for the violent storms that blow in from the Himalayas.

"There is a lot of frustration," he added. "When we cannot deliver quickly it can be stressful because lives and livelihoods are in danger. With mainstreaming our system could be more effective and efficient from the beginning."

When funding has to be approved at the national level on a case-by-case basis, quick response times are an issue. More importantly, such reactionary funding leaves little room for investing in disaster risk management, which aims to mitigate the effects of a disaster before it happens rather than deal with the consequences of a disaster after it happens. However, there is a reason why things are the way they are.

"One problem we face is that when disaster strikes, the government asks us to divert budget from regularly planned activities to reconstruction," explains Mr. Chophel in regards to funding for disaster risk management.

As there is no specific budget for disaster risk management in the Ministry of Agriculture and Forestry, funding diverted for disaster risk management restructures the ministry's entire budget. Such changes undoubtedly warrant attention at the national level.

That is not to say that funding for disaster risk management has not been obtained from outside sources.

Mr. Chophel noted that in 2009, the United Nations and AusAID acted as donors to provide compensation for the loss of crops.

"However, this compensation modality will not sustain in the long term," he reflects. ■

Sustaining the disaster preparedness message through information resource centers

KUNGYANGONE, Myanmar – On 12 May 2013 the Kungyangone Township's Information and Public Relations Department embarked on activities to prepare their coastal community for cyclonic storm "Mahasan" that would make landfall in 48 hours. The information that fishermen and coastal communities received from the department reportedly heightened public awareness of the danger of the storm's relentless path. Activities such as disseminating preparedness pamphlets, producing large vinyl prints of awareness material and providing other valuable relevant information led to more prepared communities, reducing disaster risk and lowering loss.

Disaster risk reduction activities during Mahasan are a result of efforts that ignited in the aftermath of Cyclone Nargis. In 2008, the category 3, Bay of Bengal storm named Nargis leveled Myanmar, and left behind an estimated USD 4 billion in damage. Since then, Myanmar has boosted its disaster risk reduction planning from the national to township and community levels.

Through various risk reduction activities, large amounts of valuable local and national disaster risk reduction information were produced in different townships. This information ranged from national action plans and policies, to township and village disaster management plans, to sector guidelines on disaster risk reduction, and to public awareness materials.

Guidelines and Plans

Public Awareness Materials

DRR Project Activities

Kungyangone Township is one locality that has prioritized reducing disaster risk as it sits on the southwestern tip of Myanmar on the Andaman Sea. Due to its location, Kungyangone faces not only the risk of cyclone, but floods, forest fire, storm surge, tsunami, and earthquakes as well. Understanding communities' risk in nearby localities, township authorities and the public have worked tirelessly with the government and development partners to create safer and more resilient communities.

There is now a need to build information linkages between the township level disaster risk reduction efforts and community based interventions. Together with the Government of Myanmar, development partners wanted to bridge the divide between national, township and local levels by improving information sharing and establishing a central local location for the information to be accessed by Kungyangone township officials and residents.

"We believe that local information-sharing platforms are an effective way to get the word out. We have a significant amount of information at hand now. In order to turn policy into practice, we need the information to be accessible in a central location," explained U Aung Ngwe, Deputy Director of the Information and Public Relations Department (IPRD), Nay Pyi Taw.

An easily accessible information-sharing platform could significantly help sustain Myanmar's risk reduction efforts and link national and township level activities. Moreover, escalating information sharing activities could be an opportunity for other Asia-Pacific countries to learn from.

"A sustainable mechanism for disaster risk reduction information linkages and dialogue

Kungyangone line ministry officials discuss development of the township's Information Resource Center.

between the township level and village levels is necessary," asserted U Chum Hre, Director, of the Relief and Resettlement Department (RRD), Nay Pyi Taw.

Kungyangone is taking a lead and paving the path for others to follow: By establishing the first Information Resource Center for Disaster Risk Reduction at the township level, officials and development partners have established a system to improve information sharing, while creating public awareness to the town's disaster management plans. Through Kungyangone's Information Resource Center, information sharing at the township level is sustained, and coordination between township departments and communities is enhanced – essential actions required to achieve disaster preparedness.

"A central location for public access to information on disaster risk reduction is key," U Aung Ngwe said. "Traditional libraries are a common gathering point for the public in Myanmar. People are interested: It's our responsibility now to offer them access to this information," he continued.

Foundations laid: working with existing structures

The activity began with a review of Information Resource Centers in Myanmar and other South and Southeast Asian countries, in order to understand some of the challenges and successes. It was found that there were very few information resource centers with a focus on disaster risk reduction publications.

When Information Resource Centers have been established in other countries, they are mostly attached to a particular project, as a standalone – not within existing structures. Therefore, when the project completes, the sustainability is uncertain.

In Myanmar however, there is a well-established nation-wide information management system, coordinated by the Information and Public Relations Department. The department runs existing knowledge hubs and outreach approaches such as Town Libraries and the well-used "Mobile Library" – Myanmar's delivery book loan and information dissemination system that provides resources to hard-to-reach villages. Through a series of consultations, it was found that these existing systems and assets could be used to establish an Information Resource Center for disaster risk reduction.

The Information and Public Relations Department handles the Center's information management, as a nodal agency. With several responsibilities to support disaster risk reduction, the department works to raise public awareness of natural hazards through advocacy materials and cooperation with local authorities for disaster preparedness as required. The department actively seeks out knowledge produced on disaster risk reduction and ensures that the information becomes available at Kungyangone's Information Resource Center. Conversely, other township departments agree to share any related disaster risk reduction material as it becomes available. "Working with systems already in place is one of the main strengths of the establishment of Kungyangone's Information Resource Center," U Hla Myo Aung, District Officer, of Information and Public Relations Department Yangon explained.

"The Township Center is strengthening local systems as it is a government-owned mechanism and fully operated by the Information and Public Relations Department. This approach promotes sustainability and the possibility of duplication in other areas of the country," he continued.

A goal of the Information Resource Center is to establish a system that can be replicated elsewhere, broadening knowledge of disaster risk reduction in other areas throughout the country. Therefore, policy and guidance notes were developed, in order to promote and guide townships to replicate the Information Resource Center model.

Heightened public awareness reduces risk of disaster

"Having access to documents related to disaster risk, such as village mitigation, evacuation and contingency plans, will definitely raise awareness. Access to information is an important aspect of disaster risk reduction information," Daw Khay Mar San, Program Officer for Swanyee Development Foundation, commented.

It is hoped that the township Information Resource Center will benefit the community in several ways. To begin, through its establishment, the center will support long-term coordination and stronger linkages between the township and surrounding villages by disseminating information on disaster risk reduction. The center also hopes to set an example for other townships in Myanmar to follow to improve disaster risk reduction implementation at the township level.

Additionally, as the center is government-owned, it is accessible and utilized by both township authorities and the general public. Finally, the center aims to improve stockholding of information developed by development partners. This will prevent loss of information once projects are completed. ■

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China Government
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Focus Humanitarian Assistance
French Red Cross
Give2Asia
Helen Keller International
National Society for Earthquake Technology
New Zealand Government
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Save the Children
Stiftung JT International
Thailand Environment Institute Foundation
Tulane University
United Nations Development Programme
United Nations Environment Programme
United Nations Institute for Training and Research
United Nations World Food Programme
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Water Resources & Environment Administration, Lao PDR
World Bank
World Health Organization
World Meteorological Organization

ADPC Core Programs (2012 - 2020)

pursue a broad approach to risk reduction, development and poverty reduction. The three core programs are founded on:

SCIENCE

Enhanced capacity of countries in utilization of science based information to understand risk.

SYSTEMS

Strengthened systems for effective management of risk at all levels in countries and especially at sub-national and local level.

APPLICATIONS

Improved and grounded application of risk reduction measures in development.

It is important to note that while projects are listed under the heading to which they most pertain, many projects are cross-cutting and promote two or three of the key areas listed above.

Science

Multi Hazard Risk and Vulnerability Assesment, Sindh Province, Pakistan
2012 - 2013
Donors: United Nations World Food Program (UN WFP), Pakistan
Countries: Pakistan

Catastrophe Risk Assessment and Modeling for the Philippines
2012 - 2013
Donors: World Bank
Countries: Philippines

Developing Disaster Risk Financing Capability in the Philippines and Indonesia (Phase 1: Assessment and Profiling of Risks and the Selection of the Project Cities)
2012 - 2013
Donors: Asian Development Bank
Countries: Indonesia, Philippines

Technical Assistance to Vietnam for Strengthening National Capacities to Deal with Weather Related Natural Disasters
2012 - 2014
Donor: Ministry of Foreign Affairs, the Royal Norwegian Government
Countries: Vietnam

Training in Partnership with UNOSAT
2012 - 2014
Donors: Ministry of Foreign Affairs, the Royal Norwegian Government
Countries: Vietnam

Documentation and Piloting the Integration of Risk Information in Economic Modeling
2012 - 2014
Donors: Ministry of Foreign Affairs, the Royal Norwegian Government
Countries: Bangladesh, Vietnam

Multi Hazard Risk and Vulnerability Assessments, Modeling and Mapping (MRVAM)
2011 - 2014
Donors: The World Bank through Directorate of Disaster Management, Bangladesh
Countries: Bangladesh

Seismic Hazard and Risk Assessment
2012 - 2014
Donors: Government of Bangladesh, UK Aid, European Commission, Norwegian Embassy, Sida, AusAID, UNDP through CDMP-II
Countries: Bangladesh

Sub-Soil Investigation for Built Structural/ Foundation as well as Architectural Drawing Towards Seismic Risk Assessment and Developing Retrofitting Design
2013
Donors: Government of Bangladesh, UK Aid, European Commission, Norwegian Embassy, Sida, AusAID, UNDP through CDMP-II
Countries: Bangladesh

Systems

Program for Enhancement of Emergency Response
2009 - 2014
Donors: Office of U.S. Foreign Disaster Assistance / USAID ARC
Countries: Bangladesh, Cambodia, India, Indonesia, Lao PDR, Nepal, Pakistan, Philippines, Thailand, Vietnam

Strengthening Emergency Response Capacity of Humanitarian NGOs in Cambodia
2012 - 2014
Donors: Office of U.S. Foreign Disaster Assistance / USAID
Countries: Cambodia

Project on Strengthening Community Based Disaster Risk Management in Three Provinces in China
2012 - 2013
Donors: TAF/USAID
Countries: China

Community-Based Disaster Risk Management for Children in Sichuan Province, China
2013 - 2015
Donors: Save the Children, UK
Countries: China

Capacity Development for Community-Based Flood Risk Management in Assam
2009 - 2013
Donors: Asian Development Bank
Countries: India

Operationalizing Strategic Plan for Disaster Management in Lao PDR
2010 - 2013
Donors: World Bank – GFDRR through the Government of Lao PDR
Countries: Lao PDR

Community Based Disaster Risk Management
2013 - 2015
Donors: World Meteorological Organization
Countries: Lao PDR, Thailand

Institutional and Capacity Building Support for Sub-National Post-Disaster Reconstruction Activities: Khammouane Development Project (KDP) Component 1
2012 - 2014
Donors: World Bank
Countries: Thailand

Community-Based Approaches to Flood Management in Lao PDR and Thailand
2013 - 2015
Donors: World Meteorological Organization
Countries: Lao PDR, Thailand

Strengthening In-Country Capacity for Post-Disaster Reconstruction and Recovery Planning in Lao PDR
2009 - 2010
Donors: GFDRR
Countries: Lao PDR

Applications

Regional Program for Investigation and Strengthening of Vulnerable Flood Protection Dikes in South and Southeast Asian countries (REG-PRO-DIKES)
2012 - 2014
Donors: Ministry of Foreign Affairs, the Royal Norwegian Government
Countries: Bangladesh, Myanmar, Thailand, Vietnam

Strengthening Earthquake Resilience in Bangladesh (SERB)
2013 - 2015
Donors: USAID
Countries: Bangladesh

Saudi Humanitarian Emergency Aid and Response Team (SAUDI HEART) Project
2013 - 2015
Donors: Saudi Red Crescent Authority
Countries: Saudi Arabia

Developing one of the flagship courses for China - CNDMC
2013 - 2014
Donors: Chinese Government
Countries: China

Technical support on Mainstreaming DRR into Development Training and Earthquake Vulnerability Reduction Training for GIDM
2012 - 2013
Donors: Gujarat State Disaster Management Authority
Countries: India

Mainstreaming Disaster and Climate Risk Management into Investment Decision
2013 - 2015
Donors: World Bank
Countries: Lao PDR

Program for Flood Risk Reduction by Locating Weak Spots in Vulnerable Flood Protection Dikes in Selected Asian Countries, and Showcase How Mitigation Measures can be Implemented
2012 - 2014
Donors: Ministry of Foreign Affairs, the Royal Norwegian Government
Countries: Myanmar

Technical Services to Relief and Resettlement Department, Myanmar on DRR Capacity Building
2012 - 2013
Donors: CARE Myanmar
Countries: Myanmar

Disaster Management Course Review and Update
2012 - 2013
Donors: CARE Myanmar
Countries: Myanmar

Technical Support to Myanmar on Mainstreaming Disaster Risk Reduction into National and Sub-National Development Planning Processes and Implementation
2012 - 2014
Donors: Ministry of Foreign Affairs, the Royal Norwegian Government
Countries: Myanmar

Developing Guidelines for Integrating Disaster Risk Information in Urban Land Use Planning for Mandalay City, Myanmar
2013 - 2014
Donors: AusAID
Countries: Myanmar

Managing Risks through Economic Development
2013 - 2016
Donors: Mercy Corp
Coutries: Nepal, Timor-Leste

Strengthening Institutional and Legislative Systems for Mainstreaming DRR in Nepal
2009 - 2013
Donors: UNDP Nepal
Countries: Nepal

National Training Course on Mainstreaming DRR into Planning and Implementation Processes of Irrigation Sector
2013 - 2014
Donors: AusAID
Countries: Pakistan

RCC Programmes on Mainstreaming DRR into Development Phase 4
2012-2015
Donors: AusAID
Countries: RCC Member Countries

Support to Institutional Strengthening of the Regional Consultative Committee on Disaster Management (RCC) and its Multi-Donor Funded Program on Partnership for Safe Development and Good Governance
2009 - 2013
Donors: AusAID
Countries: RCC Member Countries

Chemical Accidents Prevention and Preparedness (CAPP)
2012 - 2013
Donors: United Nations Environment Programme
Countries: Sri Lanka

Priority Implementation Partnership on Mainstreaming Climate Information Application for Enhancement of Agro Ecosystem Services and Functions in Nilwala Basin of Sri Lanka
2012 - 2014
Donors: AusAID
Countries: Sri Lanka

Priority Implementation Partnership on Mainstreaming Disaster Risk Reduction into National Development and Housing Sector Planning Processes in Sri Lanka
2012 - 2015
Donors: AusAID
Countries: Sri Lanka

Priority Implementation Partnership on Mainstreaming Climate Information Application for Enhancement of Agro Ecosystem Services and Functions in Mekong Delta
2012 - 2014
Donors: AusAID
Countries: Vietnam

Development of the National Course on Risk Reduction for Sustainable Development
2013 - 2014
Donors: AusAID
Countries: Vietnam

Priority Implementation Partnership (PIP) on Mainstreaming Disaster Risk Reduction into Land-Use Planning in Bangladesh (Phase III)
2011 - 2014
Donors: AusAID
Countries: Bangladesh

Regional Stocktaking And Mapping Of DRR Interventions for Asia and the Pacific (PHASE II)
2009 - 2013
Donors: Asian Development Bank
Countries: Philippines