

# Disaster Risk Reduction in South East Asia

Analysing hazards, preventing disasters and reinforcing resilience





# Disaster Risk Reduction in South East Asia

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# Disaster Risk Reduction in South East Asia

## Introduction

### Introduction

The impact and frequency of natural disasters is increasing and affected communities are faced with enormous challenges. Within just a few hours or even minutes, tropical wind-storms (hurricanes, cyclones or typhoons), floods, volcanic eruptions, earthquakes or tsunamis can kill or injure tens of thousands of people, destroy their homes and livelihoods or set back the economic development of an area or a whole country several decades. Organisations such as the Red Cross assist with providing emergency relief as well as rehabilitation.

Besides major disasters, a wide range of smaller scale extreme natural events such as landslides and floods can also cause repeated significant damage unless local people are aware of these natural hazards and adequately prepared.

Ninety-seven per cent of all deaths caused by extreme natural events today occur in developing countries. Past decades have seen a sharp rise in the number of disastrous natural events and in the numbers of people they strike as well as the economic damage they cause. This is particularly acute in the Asia Pacific zone, where natural disasters occur almost daily, and account for approximately 40% of the world's disasters annually. Emphasising the impact of disasters in the Asia Pacific zone, International Federation of Red Cross and Red Crescent operational records indicate that eight out of the ten countries worldwide which experienced the highest number of disasters since 2004 were from Asia: Afghanistan, Bangladesh, China, India, Pakistan, Indonesia, Philippines and Vietnam. During this period, Red Cross and Red Crescent National Societies have provided assistance to more than 200 million beneficiaries in the Asia Pacific zone. While this includes spikes in 2004 due to the Indian Ocean Tsunami, in 2005 - the Pakistan earthquake, in 2008 - the China earthquake and in 2010 - the vast floods in Pakistan, it is two and a half times that of the total of all the other regions of the world, and indicates a distinct trend in the number of people in need for assistance (International Federation of Red Cross and Red Crescent Societies AP DM Strategy 2010-2014).

The social and economic impact of these events is not often recognised, as the majority of these disasters are localised and small scale, and are managed at the local level without regional or international acknowledgement. This emphasises the importance of better preparing communities as they are the first and often only responders to disasters. Enhancing the preparedness of local communities to react to disasters and reducing the risk and impact of predisposing hazards through mitigation measures is both more effective and cost-efficient than responding once a disaster has occurred. As a consequence, humanitarian actors like the Red Cross have long incorporated Disaster Risk Reduction (DRR) into their core capacities.



Philippine Red Cross volunteers, 2009

Climate change poses an additional threat to communities already affected by numerous disaster events. Climate change intensifies the frequency and impact of disasters and there can be challenges to incorporate future potential risks into DRR.

The following pages give an overview about the involvement and approach of the German Red Cross (GRC) towards DRR programming in general, followed by three case studies on Indonesia, the Philippines and Vietnam. GRC has been involved in a number of DRR projects in recent years in these three South-East Asian countries and has supported a DRR component in

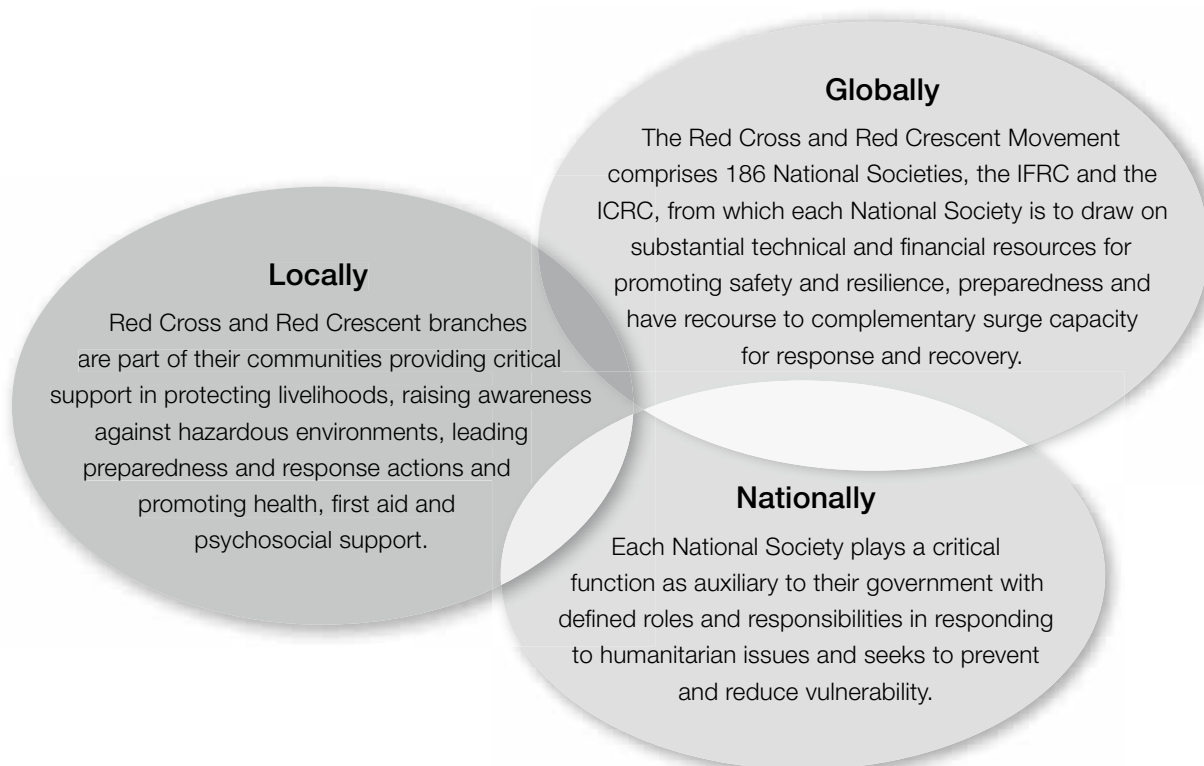
# Disaster Risk Reduction in South East Asia

## Introduction

schools as part of the DRR portfolio of the three Sister National Societies - allowing all involved to gradually build experience and develop standard methodologies and materials for future replication. The latest projects started to incorporate climate change into all training and teaching materials, shifting the focus from past and current disaster risks to potential future ones. In all three countries in-depth evaluations were undertaken in the first half of 2011, looking at the different approaches, implementation, sustainability and lessons learned. Some of these findings are summarised in the case studies and the final outlook.

The GRC is part of the worldwide Red Cross and Red Crescent Movement, comprising the International Committee of the Red Cross (ICRC), the International Federation of Red Cross and Red Crescent Societies (Federation), and presently 186 recognised National Red Cross or Red Crescent Societies. The Geneva Conventions and their Additional Protocols provide an international legal basis for the Movement, with the ICRC, in particular, endowed with a mandate of the international community to act as the guardian of international humanitarian law.

In preventing disasters and reinforcing resilience of local communities the Red Cross works at all levels:



**Figure 1: The components of the Red Cross and Red Crescent Movement**  
Source: IFRC 2010



# Disaster Risk Reduction in South East Asia

## Disaster Risk Reduction within GRC Disaster Management

### Disaster Risk Reduction within GRC Disaster Management

GRC has a long history in helping victims of natural disasters, and disaster management is still one of its core capacities. However, over the past decades GRC has become increasingly engaged in long-term development projects that build local capacity, preparedness and resilience, and reduce vulnerabilities.

This shift towards DRR is part of a wider process in the Red Cross and Red Crescent Movement, with the aim of assisting communities in building their self-help capacities and strengthening the resilience of particularly vulnerable groups such as women, children, elderly people and people with disabilities towards potential disasters.

GRC support to all DRR programs of Sister National Societies follows the priorities of the Hyogo Framework for Action (HFA) 2005-2015 by:

- Identifying, assessing and monitoring disaster risks and enhancing early warning through risk assessments, risk mapping, elaboration and dissemination.
- Using knowledge, innovation and education to build a culture of safety and resilience at all levels

both by including DRR in school curricula as well as training DRR at Local Government Unit and community levels.

- Strengthening disaster preparedness for effective response at all levels through volunteerism and participation as well as exercising preparedness through the Disaster Action Teams.

All HFA cross-cutting issues – multi-hazard approach, gender perspective and cultural diversity, community and volunteer participation and capacity building are addressed, therefore working clearly towards the overall HFA goal of ‘substantial reduction of disaster losses, in lives and in the social, economic and environmental assets of communities and countries.’

In addressing DRR, the GRC tries to combine three fields of action: The first contains measures to analyse natural hazards and people’s resilience on site (vulnerability and capacity assessments), the second comprises activities designed to prevent or reduce adverse effects of future disasters (disaster prevention and mitigation) and the third is about effectively preparing the people at risk for future disasters and strengthening their capacities to cope (disaster preparedness).

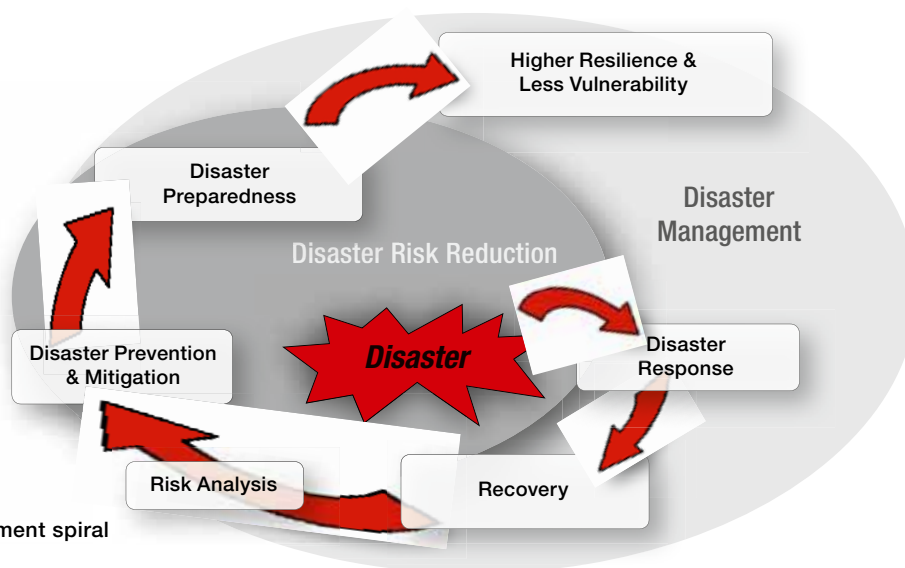


Figure 2:  
The GRC's disaster management spiral  
Source: GRC 2009

# Disaster Risk Reduction in South East Asia

## Disaster Risk Reduction within GRC Disaster Management

**A Vulnerability & Capacity Assessment (VCA)** on site should be the starting point for all DRR programmes using a participatory method by which local communities are enabled to recognise their vulnerability to existing natural hazards as well as their current capacity to help themselves. Local knowledge of natural hazards and pre-established structures such as evacuation routes, safe refuges or functioning village committees are taken into account and incorporated into the programme design where possible.

In addition to identifying key risks, VCAs provide information on existing capacities that can be used to eliminate or reduce these risks. And finally, the hazard maps produced in this context imply the identification of high-risk zones and safe spots in the respective area. The aim is to succeed in designing and implementing DRR projects that are adapted to needs, based on existing capacities and integrated meaningfully into national and provincial civil protection or disaster management schemes.

Based on an analysis of risks, vulnerability and capacities, DRR programmes and projects supported by the GRC are aimed at preventing or reducing loss and damage caused by future disasters and preparing National Red Cross and Red Crescent Societies as well as the communities in disaster-prone regions for future extreme events.



Disaster mitigation: cleaning drainage canals, Palawan, Philip.2009

**Disaster Prevention and Mitigation** comprises activities that contribute to preventing or mitigating the impact of future disasters in the medium or long term. The GRC focuses these activities on awareness-raising in general and a community-based approach in particular, as well as support for preventive measures taken by National Societies of disaster-prone countries.

Disaster prevention and mitigation is most effective where it succeeds in combining infrastructural improvements and awareness raising with development-oriented approaches to secure and potentially build people's livelihoods. Implementing small-scale mitigation measures is proving most successful and sustainable with a counterpart contribution by Local Government Units or the communities themselves either through financial contributions or material and labour.

**Disaster preparedness** is one of the GRC's top priorities in DRR. The GRC is here again focusing on a community-based approach and strengthening Sister National Societies. The geographical focus is mainly on disaster-prone coastal areas, through the establishment of disaster management teams at local level, training teachers and students in DRR, encouraging communities to develop contingency and evacuation plans using a participatory approach and holding regular evacuation drills. These and similar preparations save lives during earthquakes, tsunamis, floods and tropical wind-storms in coastal countries.



Disaster Action Plan, Camarines Sur, Philippines, 2011

# Disaster Risk Reduction in South East Asia

## DRR context in South East Asia and the climate change challenge



Disaster preparedness drill at school, Indonesia 2008

Strengthening local capacities to cope with the impact of disasters is a standard endeavour in DRR, aiming to reduce future needs for emergency intervention to a minimum. Therefore GRC has a dual focus on assistance during and after disasters, and in particular assistance before the next disaster. Though activities aimed at DRR play a rather minor role in disaster relief, efforts to improve the linkage between the emergency

response, reconstruction and the rehabilitation phase start as early as possible in the emergency phase. This approach known as Linking Relief, Rehabilitation & Development (LRRD) requires that a framework for sustainable development following emergency relief is established from the very beginning of an intervention. DRR can be integrated early to function as a link in the LRRD approach.

Sustainable DRR activities are particularly well suited to put the LRRD approach into practice by acting as an effective link between emergency aid, reconstruction and subsequent development. The GRC provides DRR assistance all across the globe, with DRR and its elements accounting for a major part of the inputs into the disaster management spiral (cf. fig. 2).

GRC launched the first Community Based DRR projects together with its partners in South Asia (India, Pakistan and Bangladesh) in the early 1990's. In the wake of the Indian Ocean Tsunami of 2004, it started similar programmes in South-East Asia.

## DRR context in South East Asia and the climate change challenge

The DRR support for South-East Asia started first in Indonesia in 2007, where five DRR projects have now been concluded and another five are currently being implemented. In the Philippines, GRC has assisted the Philippine Red Cross with the implementation of five DRR projects since 2007 and participated very closely in the DRR standardisation process throughout all programmes of Philippine Red Cross.

Since 2010, GRC transferred lessons learned from Indonesia and the Philippines and adapted them to the Vietnamese context, supporting Vietnam Red Cross in implementing DRR projects. The major challenges currently facing DRR are the effects of climate change combined with demographic growth, urban develop-

ment, often unplanned in less developed countries and the resulting reliance on vulnerable means of livelihood.

The overall regional impact of climate change in Asia is likely to include<sup>1</sup>:

- Increased flooding, and rock avalanches from destabilised slopes due to Himalayan glacier melts, affecting water resources within the next two to three decades. This will be followed by decreased river flows as the glaciers recede.
- Decreased freshwater availability in Central, South, East and South-East Asia, particularly in large river basins due to climate change which, along with population growth and increasing demand arising

<sup>1</sup> IFRC Climate Centre (2007), Red Cross/Red Crescent Climate Guide, The Hague



# Disaster Risk Reduction in South East Asia

## DRR context in South East Asia and the climate change challenge

from higher standards of living, could adversely affect more than a billion people by the 2050s.

- Coastal areas, especially heavily-populated mega delta regions in South, East and South-East Asia, will be at greatest risk due to increased flooding from the sea and in some mega deltas flooding from the rivers.
- Crop yields could increase up to 20% in East and South-East Asia while they could decrease up to 30% in Central and South Asia by the mid-21st century. Taken together and considering the influence of rapid population growth and urbanisation, the risk of hunger is projected to remain very high in several developing countries.
- Epidemic morbidity and mortality due to diarrhoeal disease primarily associated with floods and droughts are expected to rise in East, South and South-East Asia due to projected changes in the hydrological cycle associated with global warming.

**Indonesia, Philippines and Vietnam** are highly vulnerable to the impacts of climate change. Prolonged droughts, increased frequency in extreme weather events, and heavy rainfall leading to severe floods are a few examples of the impact of climate change.

The IFRC Red Cross/Red Crescent Climate Centre estimates that for South-East Asia this situation is likely to deteriorate in the coming years as coastal resources will be especially affected due to climate change and its impact. Likely changes will include:

- Sea-level rise with changes in storm patterns, precipitation and freshwater availability.
- Increased typhoon frequency and intensity due to sea surface temperature increase.
- Increased erosion of beaches and cliffs and therefore increased inundation of low-lying lands with densely populated areas facing an increased vulnerability to storm surges as well as decrease in fish supplies.

- Saltwater intrusion with negative effects on agricultural productivity especially rice production and water quality in coastal areas.
- Changing rainfall patterns and runoff will have a severe impact on mangroves forests that are a unique feature of protected coastal shorelines around South East Asia.
- Increased prevalence of water and vector-borne diseases.

By virtue of the Red Cross Movement's core mandate, addressing climate change and more specifically the humanitarian consequences, particularly for those who are most vulnerable, is therefore one of the GRC's main tasks.

Incorporating Climate Change Adaptation (CCA) components into DRR projects widens the focus to potential future hazards and includes:

- Establishing good working relationships with national meteorological offices.
- Climate Risk Assessments with the Sister National Society to identify future climate risks in the respective country.
- VCAs in cooperation with climate change experts and including future climate change risks.
- Capacity building and training of Sister National Society staff regarding climate change.
- Awareness raising in communities regarding climate change.
- Implementation of climate related disaster mitigation and preparedness activities like adapted cultivation methods or early warning systems.
- Taking into account trends, projections and seasonal forecasts.

Not all of these aspects were or could be covered through the projects described in this report, but CCA is now embedded at strategic, conceptual and operational levels in the Red Cross Movement and all planning for new projects now takes CCA into account.

# Disaster Risk Reduction in South East Asia

## Case Study: GRC support to DRR projects in Indonesia

### The Pacific Ring of Fire

The so called Pacific Ring of Fire is the reason for the high risks of earthquakes, tsunamis and volcanic eruptions in the Asia Pacific zone. It is relevant for both Indonesia and the Philippines.

*“The Pacific Ring of Fire is a belt of oceanic trenches, island arcs, volcanic mountain ranges and plate movements that encircles the basin of the Pacific Ocean. The ring is home to 90% of the world’s earthquakes [...]. The Ring of Fire is a direct consequence of plate tectonics and the movement and collisions of crustal plates, with the northwestward moving Pacific plate subducted beneath the Aleutian Islands arc in the north, along the Kamchatka peninsula and Japan in the west. To the south a number of smaller tectonic plates are in collision with the Pacific plate from the Mariana Islands, the Philippines, Bougainville, Tonga, and New Zealand” (United Nations Office for the Coordination of Humanitarian affairs (OCHA) 2007).*

### Case Study: GRC support to DRR projects in Indonesia

With a population of more than 235 million people, Indonesia is the fourth biggest country in the world comprising almost 2 million km<sup>2</sup>, distributed over 15.000 islands. More than 60% of its territory is covered by tropical rainforest, which is diminishing at an alarming rate due to land clearing for new oil plantations. Indonesia is one of the biggest producers of greenhouse gas emissions and one of the biggest victims of climate change. Sea levels are rising visibly and when combined with regular flooding threaten urban areas like Jakarta.

Indonesia is situated on the Pacific ‘Ring of Fire’ with extremely high risks of earthquakes, tsunamis and volcanic eruptions. The movement of tectonic plates especially at the west coast of Sumatra and Java poses a constant threat. Landslides, flash floods, transport accidents and local outbreaks of avian influenza pose additional disaster risks. 2.75 natural disasters hit the country on average every day. Most of them are weather- and water related. Industrial accidents and pollution, groundwater over-extraction in big cities and rural areas plus insufficient waste management increase the likelihood of countrywide disasters and epidemics.

The GRC was among the first National Societies to respond to the Indian Ocean Tsunami that occurred in

December 2004. Subsequent to the recovery operation, the GRC has provided support to the Indonesian Red Cross (Palang Merah Indonesia, PMI) with disaster preparedness in school projects especially targeting students and teachers in the provinces of Central Java and Bengkulu using own funds and DIPECHO<sup>2</sup> funding.

While each of the projects differed in numbers of beneficiaries targeted, materials distributed, and cross-cutting issues covered, all projects shared the common objectives of PMI DRR:

- To reduce the vulnerability of the communities.
- To increase the capacities of PMI branches to better prepare for, mitigate and respond to natural disasters emphasising a multi-hazard approach.

All projects included or were a combination of a number of activities in the communities such as:

- Increase of awareness and knowledge amongst teachers and students on climate change related risks and natural disasters through provision of education material, trainings and drills.
- Provision of basic equipment to schools to respond to disasters (material and equipment for first aid, accommodation during disasters etc.).
- Establishment, training and equipment of Disaster

<sup>\*2</sup> DIPECHO: Disaster preparedness programme of the European Commission’s Humanitarian Aid department (ECHO)

# Disaster Risk Reduction in South East Asia

## Case Study: GRC support to DRR projects in Indonesia

Action Teams amongst the communities.

- Risk analysis and hazard mapping with students, teachers and community members.
- Development of evacuation plans and routes.
- Strengthening of local PMI branches through training and equipping staff and volunteers.
- Cooperation and coordination with Local Government Units (especially the department of education and disaster management bodies).

High vulnerability and lack of other organisations (including Red Cross Movement partners) were deciding factors for GRC to support PMI projects in the Provinces of Central Java and Bengkulu. The main threats are tsunamis, earthquakes, floods and volcanoes. The Province of Bengkulu is at particular risk of a major natural disaster when the tension built up in the Sunda mega thrust is released. This may create an earthquake and a tsunami within the next few decades which could match the December 2004 disaster in Aceh.

The first component of the projects is to provide disaster awareness and knowledge to students and teachers of primary and secondary high schools. They mainly target Youth Red Cross (Palang Merah Remaja, PMR) volunteers in primary and secondary high schools, which already exist and are part of PMI's general set-up in the whole country. In each school, two to four teachers or KSR (Korps Uska Rela, PMI volunteer corps) are selected as PMR facilitators. They receive intensive training on disaster preparedness and response through training modules, films and games. The PMR facilitators carry out weekly extra-curricular training sessions amongst PMR. These PMR volunteers function as peer-educators - to share their knowledge with friends and at home with their families.

Knowledge sharing is also promoted during special events that involve all students of the schools, such as at the start of the school year, Independence Day, art performance days and simulations. Other activities include risk mapping, making evacuation plans, cleaning up campaigns, providing first aid kits, stretchers and other equipment for emergency situations to the schools.

The second main focus area is the establishment of Community Based Action Teams (CBATs) for disaster preparedness and response in the respective communities. To re-enforce the dissemination of knowledge amongst the respective communities and improve timeliness of response in case of a warning, CBATs are responsible for risk mapping, assigning evacuation routes and evacuating the community members. In some cases, PMR facilitators are also members of the CBATs to create a link between DRR activities in the communities and the schools.

The third bundle of activities focuses on capacity building of the PMI chapters and branches through the implementation of the activities themselves and additional training courses to put PMI in a position to continue the activities after GRC funding ends and enable them to prepare and respond to disasters in a well-coordinated manner. Coordination and cooperation with government institutions is an integral part of all components of the projects.

PMI has a close relationship with the Indonesian Government. Founded in 1945, the National Society has 33 Chapters at provincial level and 395 branches. The government provides financial support to PMI on a yearly basis and has mandated it to assist local public administrations in the first two weeks following a natural disaster through provision of first aid and evacuation services. PMI is the only national relief organisation recognised by the disaster management authorities at the national and at the provincial and district levels. In 2007, a new Disaster Management Law was promulgated with input from PMI regarding its role in governmental disaster relief operations as well as in disaster preparedness structures. This law shifts the focus from emergency response to risk management and defines the role of schools in educating children in disaster risk reduction.

All GRC supported DRR projects are well in line with and embedded into PMI's DRR strategy, further strengthening already existing PMI structures in the communities and the PMI volunteer network in schools. Additionally coordination and close cooperation with government institutions at all levels is crucial for longer-term sustainability.

# Disaster Risk Reduction in South East Asia

## Case Study: GRC support to DRR projects in Philippines



DRR school activity, Central Java, Indonesia 2011

As a result, the projects have increased the number of PMI volunteers working in preventing and reducing disaster risks, raised the level of awareness in the targeted communities, helped to develop trainings and materials and given PMI an enhanced profile thus increasing

potential interest by individual and institutional donors to continue investing in DRR in Indonesia in the future.

The main challenge with the majority of the projects has been or is the short project duration, where the emphasis has been on quantity of measures implemented rather than on quality of design and sustainability. A challenge with regards to the activities in schools is the frequent change of the headmasters or transfers of trained PMR teachers who take with them valuable experience and knowledge. In some cases, new headmasters are not as supportive – further training and advocacy is sometimes required to enable activities to be continued.

Measuring the impact of the projects using not only quantitative but also qualitative methods should remain a focus for future DRR projects in Indonesia as well as building continuously on lessons learned.

## Case Study: GRC support to DRR projects in Philippines

The Philippines comprises of 7,107 islands with a population of approximately 92 million. After Indonesia, the Philippines is the second most disaster-prone country in the South East Asian Region and among the most disaster-prone in the world. It also lies within the Pacific Ring of Fire, between two large tectonic plates and is facing numerous natural hazards, like earthquakes, tsunamis, volcanic eruptions, typhoons and landslides. A World Bank report from 2005 found that one third of the Philippine population is residing in areas exposed to three or more hazards and 75% are residing in exposed areas of two or more hazards.<sup>3</sup>

Families are highly dependent on small-scale or subsistence farming and/or fishing, sectors that are very vulnerable to natural disasters. Typically, such populations are hit by several typhoons and flooding during the rainy season (i.e. Typhoon Ketsana and Parma in 2009 and Typhoon Megi in 2010) so their coping mechanisms are already exhausted when recovery starts. The Philippines ranked 105 out of 182 on the 2009 Human Development Index, with around 45% of the population living on less than two US\$ a day.

High population density among the coastal areas of the Philippines will exacerbate the existing risks and vulnerabilities amongst populations that are currently barely coping.

The Philippine Red Cross (PRC) is the only non-governmental member of the National Disaster Risk Reduction and Management Council (NDRRMC) of the Philippines. PRC together with its partners like GRC were among the first to develop a community-based approach to DRR focussing on integrated, multi-hazard and multi-sectoral systems to programming even though the role of PRC at that time was still perceived as primarily in response rather than disaster preparedness.

The GRC started its support for PRC DRR programming in 2007 in the island of Palawan with three major components - establishment of Disaster Action Teams and community mobilisation; health and welfare promotion through community health volunteers; and chapter development. In 2008 through funding by the Federal Foreign Office of Germany, DRR education in schools was

<sup>3</sup> World Bank (2005), Natural Hazards Hotspots: A Global Risk Analysis (Disaster Risk Management Series no. 5), pp4-12



# Disaster Risk Reduction in South East Asia

## Case Study: GRC support to DRR projects in Philippines

included and all trainers, Disaster Action Team members and teachers trained on DRR and first aid now form part of the network of volunteers of the PRC. With funding from ECHO the project was further expanded to include disaster preparedness education in schools, small-scale mitigation projects (canal drainage, riverbank rehabilitation, tree planting, disaster preparedness corners in schools, flood boats, field kitchens), along with strengthening coordination and linkages with the Local Government Units and departments of education for increased sustainability. Based on the experiences gained in Palawan the DRR support was expanded to three new provinces.

While each of the projects differed in numbers of beneficiaries targeted, materials distributed, mitigation activities and cross-cutting issues covered, all projects shared the common objectives of PRC DRR:

- To reduce the vulnerability of the communities.
- To enable and support local communities and institutions to better prepare for, mitigate and respond to natural disasters.

All projects included or were a combination of a number of activities in the communities such as:

- Barangay Disaster Action Teams established, trained and able to engage and mobilise communities in DRR activities. VCAs conducted in communities.
- Barangay Disaster Action Plans produced.
- Selected teachers and students able to impart general knowledge on hazard awareness, climate change and DRR at schools, and to render basic first aid, mobilising school students and parents in extra-curricular DRR-related activities.
- Existing local disaster management structures reinforced at barangay, municipal and provincial level, strengthening coordination and cooperation between communities, Local Government Units and PRC chapters.
- Sustainable small-scale mitigation measures implemented.

### Times of no disaster:

- Giving first aid to victims of road and boat accidents
- Cleaning drains, creeks and rivers to prevent over-flooding in heavy rain
- Garbage pick-ups
- Serving as first aider during community events such as sports competitions, village festivals, school events
- Supporting disaster preparedness at school activities
- Recruiting blood donors and assisting in mass blood-letting activities
- Assisting municipality school nurse in health and nutrition related activities at school level (e.g. weighing and measuring campaigns)
- Assisting municipality health workers and midwives in dissemination of prevention info (Malaria, dengue, TB, Hepatitis, Hygiene promotion)
- Assisting in community feeding programme
- Drills such as flood simulation drills with practising river crossings, mass casualties due to landslides or road accidents
- Assisting children and elderly to cross streets and rivers
- Coastal clean up and mangrove planting

### Times of disaster:

- Early-warning
- Preparation of evacuation sites
- Evacuation
- Crowd control
- First aid
- Communication
- Volunteer mobilisation

Figure 4: Responsibilities of Action Team members

# Disaster Risk Reduction in South East Asia

## Case Study: GRC support to DRR projects in Philippines

### Putting learning into action: Camarines Norte and Sur Provinces, March 2011

*All project communities experienced a real tsunami evacuation in March 2011 after a tsunami warning was issued for large parts of South East Asia following the Japan earthquake and tsunami. PRC as well as the trained teachers and community volunteers were able to assist efficiently during the evacuation, providing early warning through mobile messages, bells, megaphones and gongs and making sure all community members were accounted for. The island communities from the project area evacuated onto the highest elevation on their respective islands. All Local Government Units congratulated the communities on their preparedness and stated that the coordination of the trained teachers and PRC volunteers had largely contributed to the smooth evacuation (fortunately a false alarm). Humanitarian affairs (OCHA) 2007).*

Trained teachers include the topics of DRR and climate change in the school curricula as well as into extra-curricular activities such as:

- DRR corners in school or in every classroom.
- Poster- poem, slogan and essay writing competitions.
- Murals competitions.
- Screening of films related to climate change and environmental topics.
- Small scale mitigation measures such as school campus cleaning, drainage and beach clean-ups.
- Trained students work as multipliers for the wider community by carrying the messages into their families and beyond.

The project design reflects the lessons learned and the accumulated experience PRC has gathered since 1994 in DRR, working closely both with and in the communities, coordinating with Local Government Units and recognising the realities on the ground. This approach is strongly community driven and encourages engagement with local authorities and the wider population through the whole project cycle, which helps with sustainability. The long-term aim is to establish and equip Disaster Action Teams countrywide as part of the PRC volunteer structure. On the initiative of GRC, PRC added DRR in schools in 2007 as one crucial component, in-

volving trained teachers to teach DRR to children and thus multiplying it into the wider community. Disaster preparedness in schools is now an integral element of PRC DRR, its standardisation and harmonisation is well under way, and the concept has been strengthened through the new Philippine Disaster Risk Reduction and Management Act of 2010 (DRRM Act 10121).

Expanding the project area from one province initially to the current five provinces and utilising the same approach as well as cross-province visits and joint trainings to harmonise implementation has proven valuable and sustainable, and further scaling up is expected.

# Disaster Risk Reduction in South East Asia

## Case Study: GRC support to DRR projects in Vietnam

### Case Study: GRC support to DRR projects in Vietnam



Water rescue drill, Vietnam 2011

With its long coastline, Vietnam is one of the most typhoon-prone countries in the world. Between 1990 and 2009, the country experienced estimated economic losses equivalent to 1.3% of GDP, and more than 70% of the country's 87 million people are exposed to risks from multiple natural hazards.

Typhoons affect mostly the coastal provinces where they first make landfall. Floods hit all low-lying provinces and several stretches along rivers are exposed to flash floods. Drought affects inland areas in the north in particular.

With a gradual intensification of typhoons and storms due to climate change, increased population density and economic infrastructure in exposed areas, the impacts of future disasters are predicted to worsen. A particular threat to livelihoods and food security is saltwater intrusion, as much of the rice in Vietnam is produced in low-lying coastal areas.

As a member of the Central Committee for Flood and Storm Control, Vietnam Red Cross (VNRC) plays an

integral role in Vietnam's disaster risk management framework. With its country-wide network of chapters and branches and extensive membership down to the commune level, with its substantial experience in DRR work and its set of tools (such as VCAs), it has the capacity to take an even more central role.

After working with VNRC since 2005 in disaster management and community-based healthcare, GRC added programme support for DRR in 2010 in order to raise local resilience and capacity in Thua Thien Hue province. Choosing Thua Thien Hue province where GRC had provided assistance to the victims of Ketsana, facilitated linkage of the continuum from response to rehabilitation and development (LRRD).

Building on the experiences and lessons learned from the DRR programmes supported in Indonesia and the Philippines, the outline of the DRR project in Hue bears the three characteristic features:

- The establishment and training of Disaster Action Teams.
- The training of teachers and students through a "DRR in schools" component.
- The reinforcement of local disaster management structures.

DRR activities in Vietnam include training of teachers, VCAs, training courses for Emergency Response Teams at commune level, provision of rescue equipment and small-scale risk mitigation measures (e.g. mangrove and tree-planting, riverbank rehabilitation, construction of river-crossings, loud-speaker systems, rescue boats). The Emergency Response Teams were already existent but focused more on response rather than preparedness. Thus trainings included VCAs to produce detailed risk maps, and first aid and rescue activities, with the aim of expanding their scope of assistance to communities.

The evaluation pointed out the importance of community involvement and a bottom-up approach during the

# Disaster Risk Reduction in South East Asia

## Outlook

planning and the early implementation phase of the project to build ownership right from the beginning. One recommendation was also to look deeper into the aspect of volunteer management to help securing longer-term sustainability of the projects.

In Vietnam as well as in the Philippines the communities have raised the issue of including swim training in the projects, mainly to reduce drowning incidents, especially involving children during non-disaster times and floods. In case this cannot be secured through GRC funding, close partnerships with other organisations working in this field will be considered in future projects.

## Outlook

GRC's contribution towards a gradual development of a standard methodology for DRR programming in the three most disaster-prone countries of South East Asia consisted and consists of analysing and sharing experiences, evaluations where available, best practices and lessons learned from the implementation of the various projects and their replication in various municipalities, districts and provinces and other countries. Over time, by adapting the project design and monitoring and evaluation methods, and with replication to different settings, the methodology today works towards using an integrated, multi-sectoral and multi-hazard approach for DRR programming.

The reporting, monitoring and evaluation tools should be developed further in all three countries, to collect and document the activities and lessons learned more consistently and assist measuring impact over a longer timeframe.

The gradual development towards a more standardised and integrated DRR approach has helped to prepare, accompany and precede government plans and legislation, shifting the Red Cross role in disaster management from response gradually to a more comprehensive approach including DRR. Examples include the new Disaster Management Law of the Philippines, for which

The sustainability of the DRR in schools component will depend both on the initiative of trained teachers and students to continue carrying out the activities without back funding as well as on successful advocacy for funding by the Department of Education for teacher refresher training, updated materials and extra-curricular activities to help ensure longevity.

The DRR project in Thua Thien Hue serves as a pilot for future DRR support of GRC in Vietnam and expansion into other communities started in 2011 with funding from the Federal Foreign Office of Germany.

the PRC lobbied, and which was approved in 2010 (DRRM Act 10121), and the Disaster Management Law of Indonesia (2007) that shifts the focus from emergency relief and response (post-disaster) to disaster prevention and risk reduction (pre-disaster).

Disaster preparedness in schools, included in DRR programming in all three countries through GRC support, now forms an integral part of DRR. GRC as one of the longer-term Red Cross partners with PMI and PRC has played an important role towards a standardisation process especially in the field of DRR in schools through the continuous development and adaptation of education materials. In addition, the latest projects have addressed the challenge of how to include CCA in the DRR curricula and assisted in developing the necessary training and teaching materials for a comprehensive dissemination of this topic.

Climate change provides the need as well as room to cross boundaries and forge new relationships with non-traditional partners. This might include partnerships with government meteorology or environment departments and even environmental organisations in civil society such as World Wildlife Fund for Nature (WWF) to bring together climate change experts and DRR practitioners to identify opportunities for partnership



# Disaster Risk Reduction in South East Asia

## Outlook

and share information. The environment sector has a strong history of campaigning with effective messages that can provide inspiration for the DRR sector.

GRC has held regional workshops on CCA in all continents in which it operates to find practical ways to incorporate CCA into its projects and to make the different programme approaches more climate smart. These workshops aim not only to foster the sharing of experience between GRC DRR practitioners but also to promote the greater involvement of other organisations in tackling the issue and to explore opportunities for future collaboration. GRC is clearly in a position to continue and potentially expand the role it plays in supporting the three Sister National Societies further in CCA as well as DRR and the wider geographical roll-out.

Short-term funding as well as strict back-donor requirements on what can and what cannot be included in a DRR project has been and continues to be a matter of serious concern for all DRR projects implemented in South-East Asia. GRC in the past has been able to overcome this constraint partly by allocating additional own funds for measures not funded by back donors.

For future sustainability, the focus needs to be intensified on linkages and promotion of the Integrated Community Disaster Preparedness approach with Local Government Units at all levels. GRC can play a vital role in supporting and prioritising, lobbying for, expanding and intensifying this crucial linkage between the Red Cross and Local Government Units through continuous support to DRR projects of its Sister National Societies. At the same time, GRC's back donors for DRR projects, ECHO, the Federal Foreign Office and potentially the Federal Ministry for Economic Cooperation and Development (BMZ) emphasise the need to strengthen the link between the community-based approach, Red Cross chapters and local, provincial and national government institutions for future sustainability.

The priorities of DIPECHO in Indonesia will for example be for disaster preparedness actions with a clear linkage towards the integration of the DRR approach into

rural development programmes as well as the national education and health systems. ECHO will also expect support to the dissemination of the country's DRR programme on Early Warning Systems and that future DRR projects include approaches for scaling up community-based DRR handover strategies. DIPECHO's priorities for the Philippines will be for projects that have an impact on local development planning and include measures for capacity-building. For Vietnam DRR projects should accompany the elaboration and implementation of the community based Disaster Risk Management National Programme, and support the integration of DRR into development programmes.

The experience that GRC has gathered especially working with PRC on strengthening the crucial link between communities, Red Cross chapters and governmental authorities on various levels could potentially put GRC in a position to secure longer-term funding to support future DRR projects in South-East Asia.

Nonetheless, the Red Cross and Red Crescent Movement and its endeavours are neither able nor willing to substitute for politics. National legislation on civil protection including disaster preparedness is a political responsibility of individual governments. However, the GRC can contribute towards strengthening institutions on-site, and it can support Sister National Societies in performing appropriate tasks within such legislation, for instance by drawing up local and regional contingency and intervention plans.

Even though the most optimum DRR cannot provide solutions to all humanitarian and development problems, the GRC recognises its importance as a means to secure the future – a future with global concerns in a globalised world. DRR can play a crucial role in helping to reduce damage, loss of life and personal distress in many regions across the world today and in the future.

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## The Fundamental Principles of the International Red Cross and Red Crescent Movement

### **Humanity**

The Red Cross, born of a desire to bring assistance without discrimination to the wounded on the battlefield, endeavours – in its international and national capacity – to prevent and alleviate human suffering wherever it may be found. Its purpose is to protect life and health and to ensure respect for the human being. It promotes mutual understanding, friendship, cooperation and lasting peace amongst all peoples.

### **Impartiality**

It makes no discrimination as to nationality, race, religious beliefs, class or political opinions. It endeavours only to relieve suffering of individuals, being guided solely by their needs, and to give priority to the most urgent cases of distress.

### **Neutrality**

In order to continue to enjoy the confidence of all, the Red Cross may not take sides in hostilities or engage at any time in controversies of a political, racial, religious or ideological nature.

### **Independence**

The Movement is independent. The National Societies, while auxiliaries in the humanitarian services of their governments and subject to the laws of their respective countries, must always maintain their autonomy so that they may be able at all times to act in accordance with the principles of the Movement.

### **Voluntary Service**

It is a voluntary relief movement not prompted in any manner by desire for gain.

### **Unity**

There can be only one Red Cross or one Red Crescent Society in any one country. It must be open to all. It must carry on its humanitarian work throughout its territory.

### **Universality**

The International Red Cross and Red Crescent Movement, in which all Societies have equal status and share equal responsibilities and duties in helping each other, is world wide.



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