Malteser International
Order of Malta Worldwide Relief

CERA
Community Empowerment and Resilience Association.

Reducing disaster risk through trust and tangibles

Stories of change and good practices in disaster risk reduction and climate change adaptation in Rakhine State, Myanmar

This publication was funded by the German Ministry for Economic Cooperation and Development (BMZ) and the Swiss Agency for Development and Cooperation (SDC).

About this publication

This publication aims to share good practices and stories of change from Rakhine State in Myanmar with regard to disaster risk reduction and climate change adaptation. The stories were collected from villages participating in a project implemented jointly by Malteser International and the Community Empowerment and Resilience Association (CERA) in Rakhine State. The project is funded by the German Ministry for Economic Cooperation and Development (BMZ) and the Swiss Agency for Development and Cooperation (SDC).

Two independent consultants from Banyaneer oversaw the collection of stories in December 2016. This included training of CERA staff in the Most Significant Change tool, who then assisted in collecting stories of change from fourteen villages across the five townships. These stories, good practices and lessons learned are for sharing with other community members and committees, local NGOs, CSOs, INGOs, and with the Myanmar Government. It is with high hopes that this publication will inspire action, create discussion and promote further cooperation.

About CERA www.ceramyanmar.org

The Community Empowerment and Resilience Association (CERA) is a local non-governmental organisation based in Sittwe, Rakhine State, Myanmar. Following the Rakhine riots in March 2014, it was founded by former staff of Malteser International. CERA's vision is to be a leading local non-government organization in reducing disaster risks and promoting community resilience in Myanmar.

CERA supports long-term and future-oriented development by combining short-term relief measures with a holistic and sustainable approach in the following areas:

- Providing emergency relief after disasters, helping communities rebuild and recover;
- Enhancing coastal zone management through mangrove reforestation and related protection activities;
- Reducing the risks of disasters, especially at the community level.

About Malteser International www.malteser-international.org

Malteser International is the relief agency of the Sovereign Order of Malta for humanitarian aid. With over 100 projects annually in some 25 countries in Africa, Asia, and the Americas, they aim to stand by those affected by poverty, disease, conflict and disaster, and to help them lead a healthy life with dignity - without distinction of religion, race or political persuasion. Christian values and the humanitarian principles are the foundation of their work. The non-governmental organisation has its headquarters in Cologne, Germany and Florida, USA.

About Banyaneer www.banyaneer.com

Supporting practitioners to reinforce resilience of communities across South & South-East Asia, Banyaneer is a network of independent consultants from Asia and Australia. Banyaneer provides evaluations and studies, training, and on-demand support to project implementation. Banyaneer also offers the resilience radar as a free tool to measure community resilience as part of baseline and endline surveys.

Acknowledgements

The authors would like to express their gratitude to the beneficiaries and community members of the project, who shared their stories and photographs from fourteen sampled villages in five townships - Sittwe, Pauktaw, Ponnagyun, Myebon and Rathedaung. They are also grateful to township authorities from the Department of Meteorology and Hydrology for their information, as well as to CERA and Malteser International staff for their full participation, time and contributions to this publication.

Contents

4 Introduction

5 Project background

7 The study's approach

8 Working with local partners: Malteser International's approach in Rakhine State

9 Good practices and stories of change

10 Story 1: Coming together

12 Good practice 1: the multiple benefits of mangroves

14 Story 2: Managing mangroves

15 Good practice 2: Timing and trust – the underlying success factors

15 Good practice 3: Mixing hardware with software

16 Story 3: Improving infrastructure

20 Story 4: A catalyst

21 Story 5: Feeling prepared

23 Story 6: Enhancing education

24 Good practice 4: Strengthening connections

25 Good practice 5: Promoting fuel-efficient stoves

26 Story 7: Boosted livelihoods, changed attitudes

27 Good practice 6: Including vulnerable groups

28 Story 8: Differently abled

29 Good practice 7: Empowering women as key actors in DRR

31 Story 9: Confident women

32 Story 10: The chance to speak up

33 Story 11: Saving a life

34 Concluding remarks

Published by:
Malteser International
Kalker Hauptstr. 22 - 24 | 51103 Cologne | Germany
E-Mail: info@malteser-international.org
Website: www.malteser-international.org

Responsible: Maren Paech
Authors: Samadhi Marr (Banyaneer)
Su Myat Yin Chaw (Banyaneer)
Editing and layout: Patrick Bolte (Banyaneer)

Cover photo: A young mangrove plant (Samadhi Marr)
Back cover photo: Mangrove plantation and fences, Kalar Chaung village, Ponnagyun (S. Marr)

Date of publication: January 2017

Contributors:

Kyaw Naing Soe	Director, CERA
Serge Birtel	Partner and Programme Coordinator, Malteser International
Nwe Yee	DRR Partner Coordinator, Malteser International
Maung Win	Operations Manager, CERA
Kyaw Tin	Programme Manager, CERA
Ma Sann Htay	Community Trainer, CERA
Than Htay	Construction Officer, CERA
Oo Kyaw Sein	Community Trainer, CERA
Thein Than Htay	Community Trainer, CERA
Kyaw Htoo	Community Trainer, CERA
Aung Tun	Community Trainer, CERA
Maung Aye Tin	Township Field Officer, CERA
Oo Saw Win	Mangrove Technical Officer, CERA
Than Hlaing	Mangrove Monitoring and Evaluation officer, CERA

Abbreviations

BMZ	German Ministry for Economic Cooperation and Development
CCA	Climate change adaptation
CERA	Community Empowerment and Resilience Association
CSO	Civil society organization
DMH	Department of Meteorology an Hydrology
DRR	Disaster risk reduction
EUR	Euro
GAD	General Administration Department
GBV	Gender-based violence
HVCA	Hazard, Vulnerability and Capacity Assessment
MERN	Myanmar Environment Rehabilitation and Conservation Network
MFSD	Myanmar Fire Services Department
MMK	Myanmar Kyat
MSC	Most Significant Change
MRCS	Myanmar Red Cross Society
RRD	Relief and Resettlement Department
SDC	Swiss Agency for Development and Cooperation
VAC	Village Adaptation Committee

As part of a disaster simulation, members of the Search & Rescue committee in Sa Pa Tar villlage (Ponnagyun township) carry a child to safety.

PHOTO: SAMADHI MARR, BANYANEER

Introduction

How does a disaster risk reduction (DRR) project make a difference to the lives of the people in its target communities?

Many studies have shown that the benefits of DRR outweigh its costs several times.[1] Yet, such studies tell only part of the story, not accounting for the social, organizational, emotional and full economic benefits of disaster risk reduction.[2]

This report shows the benefits of DRR and climate change adaptation (CCA) from a different perspective - that of the beneficiaries themselves. Through the eleven stories in this report, villagers give a first-hand account on the most significant changes that DRR has brought to their lives. The stories tell of the value of feeling prepared, of working together, of greater inclusion and empowerment, of improved livelihoods.

Collected and selected through a two-week process, the stories and their themes - as well as the results of focus group discussions and document review - also led to the identification of good practices and lessons learned. These are for sharing amongst community members, committees, local and international organizations, and the Government of Myanmar.

The stories refer to a project that has been implemented by Malteser International and the Community Empowerment and Resilience Association (CERA) in Rakhine State since 2013. Funded by the German Ministry for Economic Cooperation and Development (BMZ) and the Swiss Agency for Development and Cooperation (SDC), the project shows how a partnership-based approach can yield results against the difficult environment that Rakhine State has been in over recent years.

The report starts off by describing the project, the design of this study, and the partnership-based approach of Malteser International and CERA. It then moves on to the stories of change - broadly aligned with related good practices.

It is with high hopes that this publication will inspire action, create discussion and promote further cooperation.

1. For a review of such cost-benefit analyses, see: Chreve, C.M., Kelman, I. (2014) Does mitigation save? Reviewing cost- benefit analyses of disaster risk reduction. International Journal of Disaster Risk Reduction 10, 213-235.
2. See Thanner, T., Rentschler, J (2015). Unlocking the 'triple dividend' of resilience. Why investing in disaster risk management pays off. Interim policy note, ODI/GFDRR/World Bank.

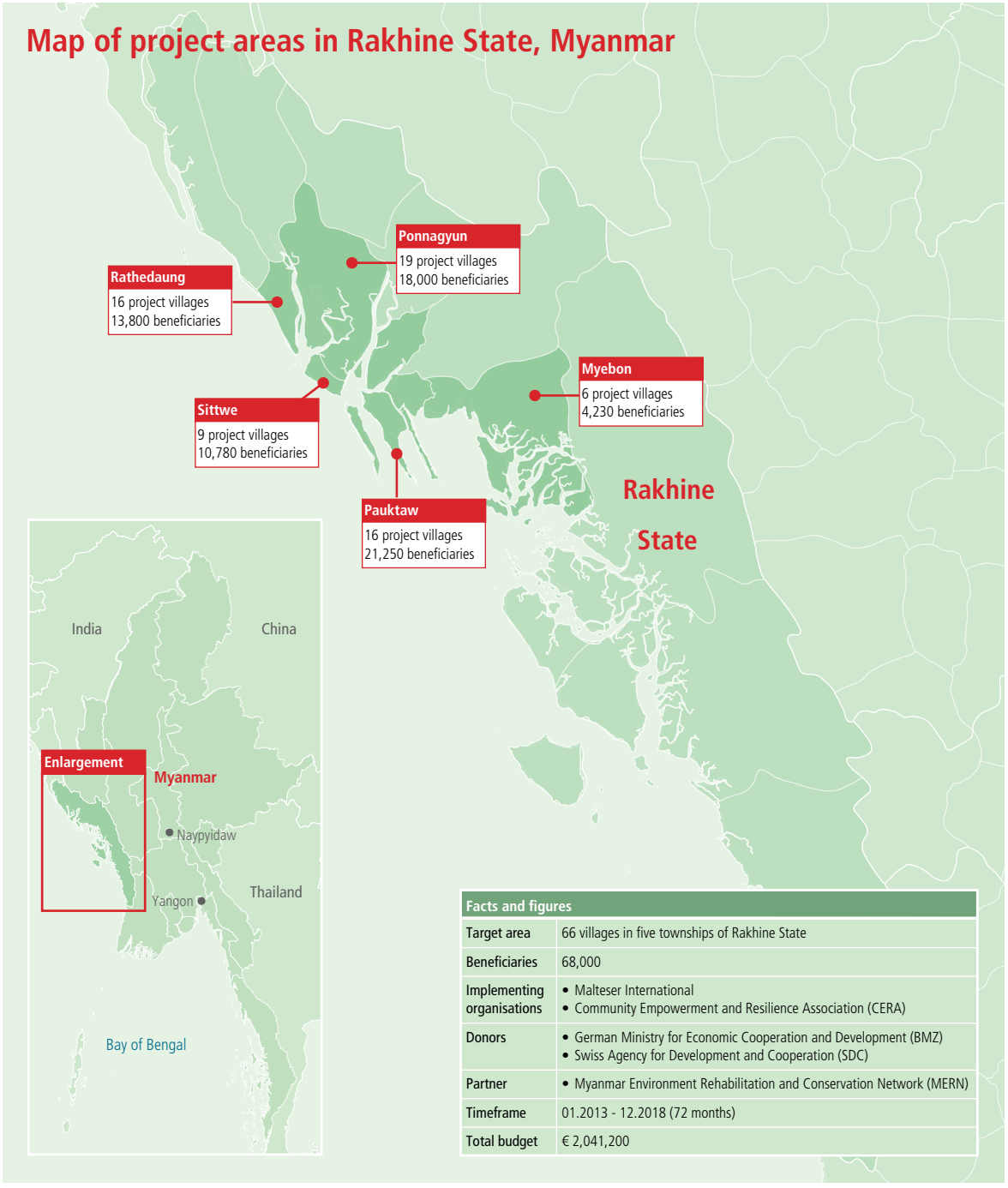
Project background

Entitled '*Strengthening of DRR capacity and community-based management of the mangrove forest ecosystem for adaptation to climate change in high-risk areas of Rakhine State, Myanmar',* the project related to this study covers 66 villages across five townships in Rakhine State *(see map)*.

Launched in January 2013, the six-year project received an initial €1.6 million from the German Ministry for Economic Cooperation and Development (BMZ). In 2015, Malteser International secured an additional €441,200 of complementary funding from the Swiss Agency for Development and Cooperation (SDC), thereby allowing for the project to upscale activities, and to aim for even deeper and more sustainable impact. The SDC-funded sub-project extends from October 2015 - September 2017 (24 months).

Project outline

The project aims to develop a replicable and community-based model to strengthen local capacities for climate change adaptation. It includes the development of disaster preparedness plans and of early warning systems, and integrates mangrove afforestation for improved coastal protection. Furthermore, the project links disaster risk reduction (DRR) with income-generating activities and the conservation of the ecosystem. The project's objective is to be achieved through three expected results:



Facts and figures	
Target area	66 villages in five townships of Rakhine State
Beneficiaries	68,000
Implementing organisations	• Malteser International • Community Empowerment and Resilience Association (CERA)
Donors	• German Ministry for Economic Cooperation and Development (BMZ) • Swiss Agency for Development and Cooperation (SDC)
Partner	• Myanmar Environment Rehabilitation and Conservation Network (MERN)
Timeframe	01.2013 - 12.2018 (72 months)
Total budget	€ 2,041,200

U Win Thar, the village administrator of Kyay Taw Pike Seik village in Sittwe township, tends the mangrove nursery. The nursery is an income-generation activity for the village. CERA purchases mangroves as needed to establish mangrove forests in other villages. Any plants that are not purchased will be used by this village to extend its own mangrove forest.

PHOTO: SAMADHI MARR, BANYANEER

Expected results	
1	**Local authorities** are better informed about duties and responsibilities in risk management for climate change adaptation, and can provide input in the National Plan for Climate Change Adaptation.
2	The **coping mechanisms** of the participating communities in **disaster management** are strengthened and their vulnerability is reduced through the **reforestation of mangroves** and a community-based coastal resources management system for **climate change adaptation.**
3	The publication of **case studies** further adds to the already existing knowledge on options for successful climate change adaptation in Myanmar.

In practice, the project sensibly combines aspects of DRR and CCA. Following training and comprehensive processes of hazard, vulnerability, and capacity assessments (HVCA), communities developed their climate change adaptation plans.

These plans served as the basis for small-scale mitigation (jetties, retaining walls, pathways), preparedness measures (early warning systems, evacuation regimes, search and rescue capabilities), and afforestation of mangrove forests.

Harnessing technical expertise from a local partner, the Myanmar Environment Rehabilitation and Conservation Network (MERN), and building on previous project expertise[4], community-managed mangrove afforestation became an effective instrument for adaptation: serving as protective barriers against storm surges and cyclones, they also lead to greater availability of fish, shells and crabs.

The project linked communities' practical experience in afforestation with other conservation messages, and promoted the production and distribution of fuel-efficient cook stoves. With up to 50% less firewood required for cooking, the stoves reduce the need for wood collection, and thus help to preserve coastal forests further.

While disaster risk reduction plays a prominent role in the project, the intervention also addresses other aspects of community resilience, including natural resource management, livelihoods, as well as the underlying process dimensions of community capacity, social capital, inclusiveness and connectedness.[5]

4. Malteser International has been working on mangrove afforestation in Rakhine State since 2008 and was thus able to utilize local conservation networks and its own expertise.

5. The project thus addressed seven of ten key aspects of community resilience. See for instance www.banyaneer.com/resilience-radar/.

List of project activities	
1.1	**Training** on climate change adaptation strategies
1.2	**Township-level fora** with representatives from villages and township authorities
1.3	**National and local workshops** for the International Day of Disaster Risk Reduction
2.1	Development of a **general training manual** for community-based climate change adaptation
2.2	**Hazard, Vulnerability and Capacity Assessments (HVCA)** in participating villages
2.3	**Community-based climate change adaptation plans** based on the HVCAs
2.4	**Trainings** on First Aid, Search & Rescue and Early Warning in communities and schools
2.5	**Small-scale mitigation measures** (pathways, jetties, retaining walls) based on community adaptation plans
2.6	**Distribution of DRR and CCA kits** to local committees (e.g. radios, megaphones, First Aid kits)
2.7	**Simulation exercises** in communities and schools
2.8	**Afforestation of mangroves** and coastal resource management
2.9	**Rehabilitation of social infrastructure** (schools, health centers, cyclone-resistant buildings that can serve as evacuation centers)
3.1	**Climate change vulnerability assessment** for coastal areas of Rakhine State
3.2	Publication of **best practice case studies** of climate change adaptation at the community level

The study's approach

Story collection

Stories were collected on the basis of the Most Significant Change (MSC) technique. Led by two external consultants, the study team included staff of CERA and MI. Following selection of villages *(see sampling)* and initial training of staff on the MSC technique, the team collected 97 stories from fourteen villages across the five project-supported townships of Ponnagyun, Pauktaw, Sittwe, Myebon and Rathedaung.

The Most Significant Change (MSC) tool uses a creative and open process, and allows for unintended outcomes to be expressed. Beneficiaries were requested to identify project impact. The process also highlights "what worked" and the challenges that beneficiaries faced.

Most Significant Change (MSC) process: the ten steps[5]
1. Scope the purpose of the MSC monitoring/evaluation
2. Get started and collect the MSC stories
3. Establish the 'domains of change'
4. Continue collection stories of change
5. Determine a structure to select the MSC stories
6. Review and select the stories within the organisation's levels. Document reasons for selection
7. Give feedback to participants about selection process
8. Verify details of selected stories
9. Analyze content and secondary information
10. Reflect, learn, improve

5. For more information on the MSC technique, see: Davies, R. and J. Dart (2005): The Most Significant Change (MSC) Technique. A Guide to Its Use.

Sampling

Villages were selected in a purposive manner. The following aspects were considered during selection:

- Villages that have experienced a natural hazard since the start of the project;
- Reports from project staff of 'extraordinary' stories or good practice cases. These included successful mangrove plantations, increased community unity and participation, establishment of mangrove nurseries, strong women's groups, community ownership of activities, and completion of fuel-efficient stove training.
- The sample should reflect a variety of socio-economic status as well as location (peri-urban and rural).
- Coverage of two to five villages per township.

Once collected, the stories were reviewed and shortlisted within the organisational hierarchy. From a total of 97 collected stories, CERA and Malteser International project staff shortlisted the 25 most significant ones over a two-day process. From that basis, the senior managers at Malteser International and the consultants then selected the final eleven stories presented in this publication.

Researching good practices

In addition to the collection of MSC stories, the consultants met with village focus groups, leaders, township or state authorities, and CERA and Malteser International teams - investigating and documenting good practices in implementation. This bottom-up process was based on the most significant changes reported by beneficiaries and communities, and then explored the good practices that facilitated these changes through follow-up discussions.

Makalar Kya community members farewell CERA staff at the village jetty. This jetty and the adjacent retaining wall was constructed for flood, storm surge and cyclone mitigation - and made access to the village easier.

PHOTO: SAMADHI MARR, BANYANEER

Working with partners: Malteser International's approach in Rakhine State

Malteser International cares for people in need - both through its own implementing structures and through partner organizations. Partnerships are part of Malteser International's strategy to strengthen its mission of humanitarian response and poverty alleviation. They are also a mechanism to achieve its overall goal to improve the living conditions of the vulnerable and marginalized, and to enable them to live a healthy life with dignity.

Malteser International has been working in central Rakhine State since 2005. Until 2014 Malteser worked in Sittwe through its own implementing structures with own staff, as there were few local organizations.

Following the violent events[6] in March 2014 in Sittwe, Rakhine State, Malteser International changed its approach from direct implementation to working with and implementing through local partners.

Former Malteser International staff members from the DRR team founded a local NGO and registered with the name Community Empowerment and Resilience Association (CERA). CERA continued the implementation of the community-based DRR program with the support of Malteser International.

The new approach turned into a successful partnership: Malteser International benefits from CERA's excellent implementation skills and high community reputation, while CERA benefits from Malteser's support to develop and strengthen the organization and fulfil donor requirements.

CERA received intense capacity-building and organisational development support. Coupled with local knowledge and understanding, this led CERA to develop into a strong and well-known organisation in Rakhine State.

The director of CERA once described this partnership as a 'pioneer initiative', which is very rare in Rakhine State. Since the events of 2014, CERA has been directly implementing the community-based activities of the project together with Malteser International staff in Sittwe and Yangon. It is supported in all aspects of the program.

CERA's working style, staff retention and ability to build strong relationships within communities is a big part of the project's success. The communities refer to CERA as the implementing organisation and know Malteser International as its supporter and the BMZ and SDC as the donors of the program.

6. In late March 2014, premises of INGOs and UN agencies were damaged by a violent mob. The events let to a temporary relocation of INGO and UN staff and suspension of humanitarian services.

Good practices and stories of change

The collected **stories of change show the impact** of the project, or the changes that the beneficiaries identified as important. When collecting the stories, each person was asked a series of open questions about the changes in their own lives and within their communities as a result of the intervention.

Stories captured both positive changes and elements that could be improved. Each of the 97 stories is unique - however, common themes and threads emerged that are reflected in the eleven stories presented in this chapter.

Once these themes were identified from the stories, the study looked at the **good practices and outstanding elements** of the project that may have assisted in attaining these positive changes. This publication intentionally focuses on the good practices and what worked, to try to draw out what could be replicated in other contexts, projects and communities.

The stories share voices from many different people in Rakhine State with a wide range of experiences. The good practices aim to **inspire discussion, sharing and further action** in disaster risk reduction and climate change adaptation.

This first story introduces the challenging context of working in Rakhine State, afflicted by communal violence and poverty. Told by a community leader who inspired a new way of working in his village, it shows how the community responded to difficult circumstances with more unity and a change in mind-set.

Coming together | Maung Thein Soe

The first hurdle: community acceptance

CERA tried to have a project here last year. At that time, I was not the village administrator. At that time CERA was not accepted to work here.

This year, I became the village administrator and luckily CERA came back to us again and proposed to work with us. I explained to the villagers that CERA is doing good work and does not want to harm us. Eventually the community understood and accepted CERA.

There are some people in the village that did not understand CERA and these types of organisations. They think that outside organisations mostly support the Muslim community and only support a little for Rakhine communities.

When CERA came back the second time, I explained to my community that these organisations come for human rights and humanitarian aid. I explained that everyone has rights. Rakhine people have been neglected; even we don't have rights.

For example, our isolated and remote villages still do not receive support from government and international organisations for basic things. Most people over the world have the idea that the Muslim people are the most vulnerable in Rakhine State.

But even us, we also do not get the support we need.

I explained that these organisations are working for all people. I know this because I listen to the radio and I know that this kind of organisations help all kinds of people without discrimination.

In the beginning, I thought CERA looked like an international organisation because local organisations cannot work without international organisations' support and money.

People in this village are confused and don't know what is an international organisation or local organisation. Whenever a visitor came to support the community, they thought they are an international organisation.

They cannot separate national and international organisations. Since the community thought that international organisations only support the Muslim population, they didn't like this.

Myanmar has 135 ethnic groups. They are also neglected. They were neglected by the military government for the past sixty years. We should remember that we are not the only ones neglected.

Now there are changes in the country. I explained to people here that local and international organisations help all people, no matter if Rakhine or Muslim. Only few villagers understood this at the time. Rakhine State is one of the poorest regions in Myanmar. I gave the

Maung Thein Soe (54) is the village administrator of Sar Pa Tar village (Ponnagyun township). He has two sons, five daughters, and one grandchild, and works as a paddy farmer.

PHOTO: SAMADHI MARR, BANYANEER

Opposite page:
Myat Kay Khine from Makalar Kya village (Ponnagyun township) waits on the new retaining wall that protects the village from rising tides and storm surges.

PHOTO: SAMADHI MARR, BANYANEER

CERA staff some advice. I said that you are coming here to implement our project and you can get a salary from this work. I advised them: "Please do not be too greedy as it will mean that the funds for us, the beneficiaries, will be reduced."

Is the project important?

The project is not so important because in this area, we can stay alive in times of disasters. However, I also think it is important because in this village we have a population of over 3,000 people, and this population has elderly, pregnant women, people with disabilities.

If the cyclone strikes normal people, they can evacuate normally - but it is more difficult for the vulnerable population. Now we know which routes to use during emergency times. In the past, people got injuries as they were evacuating.

Changes

So, when the CERA team came to the village, I called for a meeting. I explained that we have to think about the difference between major and minor things. We have a jetty. If we construct a road to the jetty, everybody can use this road. So, it means it is useful for everyone. If strangers or other organisations visit, we can show it and be very proud of ourselves.

I gave advice on what major and minor things are. I explained and most people agreed. Only few people did not understand. So then I explained again. I took care to explain that the most important thing of constructions is that, in an emergency, everybody can use it.

After CERA provided some training, we developed a village action plan. At that time, they included constructing the village cement pathway. First, CERA planned 300 feet of road. At its end, the road is very low - and bad to walk on in the rainy season. So I asked the community if they could contribute their labour, as I wanted to construct 450 feet. According to the design, the width was five feet. I extended it to six, and to 450 feet in length. I asked the community if they had any problems to assist completing it, and they said no - they were able to contribute their labour.

So finally, our pathway was successfully finished. This can be my charity, my historical legacy for the community – that I could organise and finish this pathway. This kind of project is very useful for whole community. In 1968, there was a big cyclone (locally known as Namaye); we lost many lives. We are behind in Rakhine State development because of this cyclone. Now my villagers have more knowledge and know how to make a preparedness plan.

On the other side of the village, a cyclone shelter has been constructed. In this village, no matter if they have a cyclone shelter or not, they can also manage.

In 1968 there was only one radio in this village so it was very difficult to get information. Now we have many radios. Some people are careless - but most people listen to the radio although often they didn't understand. But now they clearly understand.

Most significant change

Now the **mind-set** in the community has changed. For example, people are willing to work together and to work with outside organisations. Now the community has understanding. I can easily call them for meetings and they will participate. Previously, it was not like that. Now most villagers are ready to participate and they are happy to work with the CERA staff.

There is a big change here for disaster awareness. Most of the community receive warnings via the radio. I also receive warnings from the township authority. No matter how I understand the colour code changes, this only shows the cyclone stages. Beyond that we also have to know and consider the direction and intensity of the storm too.

Which coast is it forecasted to hit? If the cyclone is due to hit Ayeyarwaddy Delta then we don't have to worry anymore. If the cyclone is predicted to hit Rakhine, we must make plans. Evacuate the elderly and people with disabilities first. This can save people's lives. We have to consider if the storm is for us or not.

Before the CERA project, we had constant dangers when a cyclone hit. For our paddy farms and we just ran away, we did not prepare important documents and we didn't prepare anything else.

In the 1968 cyclone, most of the houses here collapsed and people under the houses died. Other people were buried and died.

Now they clearly know how to prepare, how to move livestock, where to move food, to evacuate to the monastery. If we have this kind of knowledge we cannot save everything but we can reduce losses and injuries. That is why the mind-set is the most important.

What could be improved?

CERA staff should come more regularly - at least every two months. If CERA staff can give awareness more frequently, this would be better. This year, they have visited four times in the past eight months.

Good practice 1: the multiple benefits of mangroves

Planting mangroves was found to be a good practice for disaster risk reduction as well as climate change adaptation in Rakhine State. Mangrove forests provide several benefits, and communities appreciated them for (a) their role in preventing riverbank and seashore erosion, (b) increasing fish, prawn and crab by providing a place for them to breed, (c) providing a protective barrier to reduce the impact of storm surges, and (d) the fresh air they provide.

Further benefits include:

- **Reducing saltwater intrusion:** Especially during the hot season, when the salinity of tidal waters increases due to increased evaporation, the roots of mangrove trees reduce the extent to which salt enters ground waters – thereby helping to retain utilization of groundwater for consumption.
- **Absorption of carbon dioxide:** Mangrove forests are known to absorb two to three times more CO2 than other comparable forests.

Lessons learned

Since starting mangrove plantations in 2013, several lessons were identified on the appropriate modes of mangrove afforestation for disaster risk reduction. These are listed below.

➔ **Proper spacing and planning for future fuel needs**

The mangrove seedlings were **spaced at six feet** between each plant. This allows for space for natural plants to grow in between. The community can eventually use these other plants for firewood/fuel without cutting the mangroves.

➔ **Selecting the appropriate species of mangrove**

It is important to identify the most appropriate mangrove species to suit the geography of the planting area. Two species were used by the project – ***Avicennia marina*** (Pyar Ben/Taw) grow spreads and horizontal) and ***Rhizophora stylosa*** (Byu) (grows upright). In the local context, *Avicennia* proved a better species, as *Rhizophora* is more useful for wood collection (and thus prone to destruction).

➔ **Establish the mangrove seedlings in nurseries before re-planting near villages.**

➔ **Adequate fencing and protection of the mangrove plantations is vital in first four years.**

Without adequate protection, the newly planted mangroves face damage from buffalo and cows, people and boats. New seedlings easily succumb to cattle consumption and destruction from boat engines riding over them. Once damaged at this young stage, mangroves do not recover easily. Protective fences are only needed for the first four years while the mangrove saplings are vulnerable.

Protecting the mangroves forests is not straightforward. Bamboo fences are low cost, readily available and appropriate for salty water, but bamboo does not discourage cattle, as they can easily push through bamboo fences.

Barbed wire is highly effective to deter cattle but not suitable for salty water, and easily rusts and disintegrates. CERA tried a number of fencing methods over the project period. The barbed wire fences rusted within 6 months and fell into the marshes, becoming a hazard to mangrove carers. Conversely, the bamboo fences did not effectively keep cattle out.

➔ **The best low-cost solution was a combination of bamboo structure with barbed wire wrapped around the bamboo.** *(see photo below).*

Fences require regular maintenance; this needs to be discussed with the committees at the outset of planting.

Bamboo and barbed wire fencing was identified as the best low-cost solution to protect young mangrove forests from livestock and motorboats.

PHOTO: SAMADHI MARR, BANYANEER

➔ **Do not fence entire mangrove plantation to promote community participation and care.**

CERA staff learned not to fence the entire mangrove plantations to ensure some community participation. Field staff stressed that the community needed to take responsibility to keep the mangroves safe - otherwise they would not adequately care for them. Staff asserted that if new mangrove plantations were completely fenced, the community care and participation would decrease. **The biggest protection for mangrove is community awareness and participation.**

➔ **Education of whole community is needed to ensure mangroves are protected – this takes time.**

Raising community awareness of the importance of mangroves "is easy to say, but not easy to do" according to CERA field staff. Poverty is a barrier in creating interest and awareness of environmental issues. Time, resources and persistence are required for long-term change and awareness.

➔ **Allow communities to regulate and manage mangrove use.**

Some communities decided on consequences if community members did not respect the protected mangrove areas or broke the community mangrove agreements. Some employed punishments or fines if people cut down trees, drove over protected mangrove areas with motorboats or let their livestock eat the young plants. CERA did not instruct or advise on this matter - the communities came up with these regulations as appropriate to their villages.

"The community has said that if someone cuts a tree, he or she has to plant 100 trees. Punishment by money is not good, it is better to have a peer-to-peer agreement. CERA staff explained about forestry law when they gave the environmental trainings. According to the law, if someone cuts out the trees, the government or community can fine him."

Women's focus group discussion, Ye Yoe Pin village

➔ **A survival rate of 50% for mangrove plants must be considered a success in populated areas.**

The mangrove forests were all planted close to populated areas (villages) to reduce the impact of natural hazards for the village inhabitants. However, by doing so it increased the threats to mangrove survival. The project found the biggest threat for mangroves saplings were livestock such as pigs, buffalos and cows.

Rural populations need livestock - this factor thus cannot be fully controlled or mitigated. Mangrove saplings planted further away from human inhabitation will naturally have a higher survival rate, and will aid the general environment, but will not bring the same protective benefits to communities. With this in mind, a lower survival rate for mangrove plantations close to populated areas should be expected and planned for.

Innovations

CERA set up a mangrove nursery with Kyay Taw Pike Seik village, Sittwe township *(see photo on page 6)*. The community takes care of the mangrove saplings, they are placed in the right environment near the sea for proper growth and protected by fences and green mesh roofing. CERA can use them/buy them when needed for other villages. This is an income generation activity for the village, whilst ensuring that there is a ready supply of viable saplings to plant in other project areas.

If CERA does not use them for other villages, there is no waste: the community is happy to plant them in their own areas.

"We started a nursery in October 2016 so other people can buy the mangroves. We discussed this together as a community. This village faces disasters every year and mangroves are very important, so we have a nursery. When the mangroves were planted some died, and so we can replant them if they die. If we have this mangrove nursery - we can protect half of the village and we can extend it. We have a plan to also sell the mangrove saplings to others. We haven't sold them yet as we only just started."

Kyaw Taw Pike Seik village, Sittwe township, focus group discussion

Managing mangroves | Daw Wai San Chae

I took part in CERA since they first arrived. I joined because I love village development activities. I am a member of the early warning committee. I need to warn people about the condition of disasters. From the yellow colour of a storm, from that moment I will be on radio all the time and give the message to others on the weather colour codes. I also gather the people for CERA meetings.

CERA is important because they can do what we cannot do. For example, they constructed the cement pathway for our village. They also initiated the mangrove forest. They conducted the trainings on early warning, search and rescues, first aid and environmental development, and restoration. These are very important for my village and the CERA activities are precious for us.

Changes

Previously, we did not have a mangrove forest in our village. The tide comes directly to our village, which floods easily. Previously the tide took away our land - up to 20 to 25 feet in total by erosion. Now because of the mangrove forest, we can protect our land from this erosion. Our village became greener and more peaceful. Visitors and people envy our village because of this green forest. Now we are also more aware about the benefits of the trees and we rarely cut down these trees.

The village pathway is very important for our daily life. In our previous days, students had difficulties moving to the school every day because of the dirty, muddy, flooded path. There was no road or pathway in our village. Now we can walk in the village and to the school, to the monastery. Now getting anywhere is convenient through the village pathway.

Villagers have also become more positive because of CERA. In the old days, it was very difficult to gather people for meetings or trainings. They were lazy and they felt that these things were not important. Now the village members are more reliable with the CERA activities, and they participate happily. All villagers know to listen to the radio for weather forecasting. Villagers believe in CERA.

Most significant change

The most significant change for me is the mangrove forest. Before CERA, there was no mangrove forest and it was more difficult to find the fish in the stream and/or river. Now, because of the mangrove forest, there are plenty of fish. We can find fish more easily than before.

Villagers are keen on mangrove afforestation now. It also breaks the wind from the south-east of the forest. We needed to renovate the village jetty every year because of bank erosion, but now the mangrove forest prevents this erosion. Our neighbouring village, Nga Ku Chaung, independently copied our mangrove forest in their village. We are proud that our neighbour copied our mangrove forest.

Furthermore, fish and prawns breed in this mangrove forest. I am very happy. Now we need very strict discipline to restrict cutting trees and also we should have a punishment. I would like to see that the mangrove forest exists in my village forever.

Daw Wai San Chae (30) lives with her parents, her sister and her husband in Thin Ga Na village in the township of Myebon. She makes a living from fishing.

PHOTO: CERA

Challenges

At the beginning, it was a real difficulty to gather people for trainings or meetings. People were reluctant to attend them. Instead, they requested me to tell them about it afterwards. But after they had seen the results of the trainings or meetings, they participated happily.

Suggested improvements

Please come to our village more frequently. We are not very intelligent and I am so worried that we cannot recognise and remember the knowledge and lessons from the all the trainings that we have attended in the last years.

Good practice 2:
Timing and trust - underlying success factors

Most of the visited communities praised CERA's flexible manner of working with them, particularly concerning timing. Although it should be a development fundamental to adapt to the flows of community schedules and times, in practice, communities said that it was rare. They appreciated that CERA would only conduct community meetings at the right time of the day that suited the community - "even if they had to miss their own lunch". CERA's flexibility and relaxed attitude helped to establish respect and trust, something that is difficult for outside organisations to achieve in Rakhine State.

In the context of Rakhine, flexible schedules, coupled with a relaxed manner and work flow in line with the community spirit may be amongst the keys for this project succeeding.

"Compared to other organisations, CERA is the best as they have respect for the community. CERA are very respectful. They have been involved with us so long (first it was Malteser); we are like family - our relationship is so strong. They respect our time and they inform us and ask us for our convenient time. They don't just tell us when they are coming.

Even if they miss their own lunch, they come. They always ask us about the time and season, and they are flexible in time management. Some organisations just tell us - we support this and we will do this. Then they do it. CERA is not like that. CERA always checks what suits us."

Kyaw Taw Ywar Ma Village, Sittwe township, focus group discussion

Timing matters

Communities in Rakhine took time to open up, to trust and to participate in activities. It is recommended when planning projects, organisations should build on established relationships in communities over longer periods, rather than working in many different villages over short periods of time.

Villages appreciated longer-term relationships, and outcomes improved in line with the invested time. Furthermore, daily timings of meetings and appointments were also a vital factor in communities feeling respected. Organisations should take care to not push timeframes and appointments, but be directed by community convenience.

Good practice 3:
Mixing hardware and software

The overwhelming majority of community members mentioned the construction of 'hardware' and small-scale mitigation like a village pathways, jetties or retaining walls as a significant change, for various reasons.

The villages highly valued these initiatives for their practical use in their daily lives.[7] Communities also explained that by providing a tangible, useful and valuable "hardware" element in their villages, they could see that CERA had demonstrated their commitment - that they 'were serious about assisting us'. This helped to establish trust. Gaining and keeping trust is not a straightforward achievement in Rakhine State, where doubts and suspicions are common towards external organisations.

Once this trust was established and village members could see that CERA had displayed commitment to the village, community members were happy to participate in other trainings, activities or "software" elements of the project. In fact, anecdotal evidence suggests that after the completion of community pathways and jetties, participation rates in village meetings and trainings increased significantly.

In a context where conflict, suspicion and mistrust prevail, it is vital that external organisations work with communities to identify and quickly deliver tangible benefits early on - thereby demonstrating commitment and earning trust.

Lessons learned

While small-scale mitigation constructions were highly valued, target communities still face drastic gaps in basic needs. In visited villages, there were considerable needs in potable water, sanitation/latrines, education facilities and health services.

Although the project addresses preparing for and mitigating hazards and natural disasters, communities must also have basic needs met to reach a higher level of resilience. Communities that can prepare for natural disasters, but cannot access potable water or do not have basic sanitation facilities and are using open defecation, have obvious limitations in resilience.

7. Each small-scale mitigation measure was identified and agreed on by the whole community via participatory tools.

Likewise, if children cannot go to school due to lack of infrastructure and school buildings, and if there are no health clinics or health services, then there are potholes on the path to greater community resilience. More cooperation and linkages is required between communities and other state actors/ appropriate bodies that can provide and meet basic needs for communities.

"Every year we have flooding. Mostly the houses are affected, the paddy fields, the water pond and the school. If we are flooded we cannot go to the toilet - as we normally go outside, so when the ground is flooded - where do we go?"

Ye Yoe Pin village, focus group discussion

"In the summer season we have drought and we don't have drinking water. The drinking water here is very dirty - so we get diarrhoea.

This is an important issue - we face this every year and every summer. It is a big problem.

Sometimes people come to donate water (not purified). We cannot have tube wells - no matter how deep we dig, it will be salty. Also we have nearly 500 school children, but a building for 50. That is why they study below the monastery."

Sar Pa Tar village, focus group discussion

Improving infrastructure | U Phay San Tin

I have been involved in the CERA project – in activities like mangrove plantations and some construction. I needed to be involved in what to prepare before, during, and after a disaster.

I am also the President of the main committee. The project came in 2013 or 2014. From when they first arrived, CERA was able to support us, and support what is needed. We have worked with Malteser and Save the Children also. In my view, CERA is the best as they give us awareness of disaster risk reduction, but support construction as well.

Is the project important?

Yes, it is important, as CERA works together with the community. In terms of disasters and climate change, nowadays disasters can happen every year, this change in the weather patterns affects the whole community. So this is why the whole community joined the activities.

It is important, as everyone should be aware of what to do in disasters. The weather has changed, and we also have deforestation. That is why we get cyclones every year now. We had cyclones before - but now with this change, we get them more frequently. That is why

U Phay San Tin (46) has been the village administrator of Ma Kalar Kya (Ponnagyun township) for six years. He also works as a paddy farmer and lives with his wife, three sons and one daughter.

PHOTO: SAMADHI MARR, BANYANEER

In pictures:
the people and the project

people need to know about this topic. Our village is close to the sea and the river. We are low lying, so we are at high risk.

Changes

During the time of the project, CERA constructed a retaining sea wall and protected us from erosion so the community can live safely. Side by side with the community, CERA also planted mangroves and they help to protect us too. We can now better protect our paddy farms with these two things.

Before the mangrove plantation, there were no fish alive in this area - fish could not reproduce here. There was no protection or barrier between the sea and the paddy farms. We used to face floods and cyclones and we had no protection or barriers, so the waves entered the village and the paddy farms and the village felt unsafe. Now I feel delighted and happy when I see the mangroves. If they grow up, they will protect us from the sea waves.

The community and I have changed especially in disaster awareness - especially how we should keep documents, valuables and jewels and how to prepare water and food and how to support affected people.

Now I can be more organised before and after disasters. Whenever we get the cyclone warnings from the radio or township authorities, I organise the committee members. So then we go to people like elderly people, people with disabilities, pregnant women, children and we know to move them to the evacuation site first. I also know how to select the safe routes to get people out. I can see if this way is safe or not.

Before this kind of program here in the community, I used to just get information from the township authority. I just got information that a cyclone was in the Bay of Bengal, but with no clear plan. I didn't even know where the community should go. Now I know the best evacuation site. During Cyclone Komen in 2015, we could do all this ourselves.

Cyclone Komen hits in 2015

When we got the information about Cyclone Komen, we knew what to do before it hit. We tied our boats and canoes down and kept fishing nets away, cut dangerous branches and chose the best evacuation site. We prepared torchlights and water. We got one day's warning.

We moved people that were elderly, pregnant women or people with disabilities and we prepared food. During the cyclone we had a checklist to see if someone was missing from the community. If they were missing, we had to get them. Most people came to the evacuation site, definitely all the vulnerable people. However, some other people stayed inside their homes - so our team explained to them that it was dangerous and we asked them to come to our evacuation centre.

After the cyclone had passed, we had to clear up and pull all the trees off the roofs. The entire village was flooded. We had to stay in the evacuation site for three to four days. But most of our boats that we tied down were okay - just a few were damaged.

Most significant change

Actually I am not originally from this village. Forty years ago I was in a village where we lost 300 feet of land due to sea and river erosion. So from this life experience, I think the retaining wall is the most significant change, as it can protect the land and the village. We still need to construct more to protect the whole village. The first 270 feet of it is completed but we need 1,000 feet. So we have 730 feet more to do.

This retaining wall can protect the riverbank and the main part of the village, and can protect us from floodwater. This means that the salty water cannot reach the village drinking water wells. So we can have clean water.

Previously, the wells used to get contaminated. Even tidal waters used to reach the wells - but now CERA constructed the retaining wall with cement and stones. Before this, we had to make a temporary one with mud every year. We had to use our labour and our own money every year.

Challenges

I had challenges when CERA planned to construct: the budget was not big enough to cover everything. So I had to organise the community to help pick up building materials by boat, and also to help building with their own labour.

When I organised people, they had their own businesses and livelihoods to think about and they also needed to earn money. But people did come to help. It was also a little difficult to call people for trainings, but no matter if it was challenging, it is my responsibility, so I did it.

Improvements

To be more successful, we need to be more organised: when other organisations come or if a donor comes, we need to be ready.

A catalyst | U Shwe Tun Thar

I am a village administrator. CERA came to us in 2014. I welcome everyone who will help us to develop our village and facilitate the process of activities. I helped in organizing the CERA committees.

CERA promoted our living standard with both hardware and knowledge. They always sacrificed themselves for us - their time and their money.

Changes

They initiated the construction of 250 feet of our village road. We followed them and now we have a 950 feet long village pathway. This village road starts from the jetty and ends at our monastery.

They organized committees, they provided trainings, and they educated us. Now villagers are not happy to cut trees. Instead of cutting trees, now the villagers plant the mangrove forest. Our village is becoming green and peaceful.

CERA trained committees on how to respond and how to reduce the risk of disasters - how to do disaster risk reduction for floods and storms very clearly and systematically.

Before the CERA trainings, people ran from house to house with their families. Now CERA committee members came to evacuate vulnerable people who are prioritised. Vulnerable people are pregnant women, children, elders and people with disabilities. Our monastery is designated as the safer place, as a cyclone shelter. Moreover, other family members and villagers have more time to manage their belongings. The early warning committee also warns the community with a megaphone walking through the village.

Most significant change

I have to say: the most significant change for me is our living standard. I have many reasons that point to this.

CERA initiated our village road. We learnt how to do it and then we extended this village road up to 950 feet - throughout the village. Now we have a clean, safer pathway around the village. We can go faster than before in case of any kinds of emergency, including natural disasters.

The village pathway is the best picture of CERA in our village. Every day, students can go to the school faster, safer and cleaner than ever before. The village became tidy, mud-free, clean and safe because of this village road. Villagers have got more knowledge and a habit to discuss and to work together from the everyday work of village road also. Villagers also got knowledge from the trainings.

I have to mention the impact on education by CERA also. We have a school up to grade 5 only. Students attending in grade higher than 5 need to cross the river every day to attend the school in another village.

Twice in my lifetime, one of these school ferries have capsized but no student died. So we put CERA life

When not on duty as village administrator, **U Shwe Tun Thar (46)** works as a farmer and sells prawns to Sittwe. He lives with his wife and three sons in Ta Ba Lan village, in the township of Ponnagyun.

PHOTO: SU MYAT YIN CHAW, BANYANEER

jackets in the school ferryboat and let students put them on while they are in the boat every day, this made them safer.

The next one is about First Aid training. Our village has no doctor, no rural health centre or health staff. Because of this first aid, villagers can obtain minor medical help from the First Aid committee. Moreover, we can assess high blood pressure, low blood pressure with the first aid box and first aid committee. They can also wake the drowned ones by pressing on the chest!

Cyclone Komen

When Cyclone Komen hit in 2015, all houses near the riverbank were damaged. We also had floods from heavy rain. We followed every disaster risk reduction measure from the CERA trainings step-by-step.

We did the early warning, the search and rescues committee and First Aid committee also assisted.

Because of this, we were safe. After the storm, CERA reached our village and delivered food, plastic sheets and tarps, and clothes for the villagers. CERA is always alive in our heart because of this assistance.

My other point concerns the fire safety training. Just days after the training, one house in our village caught fire. As you can see, our houses are built of wood, bamboo, and dry coconut leaves - all of which can easily burn down. We were so shocked and suddenly had no idea what to do. The fire safe committee came to that house and stopped the fire systematically. CERA saved my village - that means CERA saved me.

For me, CERA is the vice village administrator. For example, if I have an order from the township authority office on the same day with CERA activities, I put the township administrator on hold because he can give me only directions, but CERA assists me directly. Therefore, CERA is more important for me and for my village.

Feeling prepared | Ma Ohn Khine

Weaver **Ma Ohn Khine (32)** lives with her son (13) and daughter (9) in Ye Yo Pin village in the township of Ponnagyun. Her husband while fishing during a cyclone.

PHOTO: SAMADHI MARR, BANYANEER

CERA had a community meeting and explained they needed some committee members for early warning. At that time, I was selected as a committee member. I help when they have trainings or meetings. Whenever I hear cyclone or flood information, my job is to listen to the radio. If we hear about low pressure in the Bay of Bengal, we need to know the stage. When we know this, we share it with the community by megaphone. **Yellow** stage means low pressure in Bay of Bengal. If it changes to **orange** stage, it means a cyclone is heading towards the Myanmar coast. **Red** stage means the cyclone will hit areas within 12 hours. **Brown** means there is currently a cyclone hitting. **Green** means the cyclone is finished.

CERA provided one radio for the early warning committee – but it has already broken. So now I don't listen to the radio. I also have a mobile phone. In this season we no longer need to consider floods or cyclones.

I am from the early warning committee. I also take part in the simulation exercises.

This is important not just for me, but for the whole village: to avoid the disasters, people should prepare something. I became a member three years ago.

Changes

I received some training and I have more knowledge and I learned many things from the simulation exercise. I got to know how to give early warning and how to prepare.

In the simulation exercise, I learned that as soon as we receive early warning from radio or an authority, we have to hold a mass meeting with the village leader and village administrators.

We should develop a plan to give information to the whole community and how to move people and evacuate, and how to move and alert people who are deaf or mute.

Assisting a pregnant woman during a cyclone

I had the real experience too - not just in a simulation. I faced real situations this year - we had both a cyclone and floods.

At that time, we had a pregnant woman in our village. She went into labour around the time of the cyclone. There was no traditional birth attendant here in the village to help her, so as soon as we received the early warning, we put a life jacket on her and sent her to the township hospital. That pregnant woman is the village administrator's daughter.

She delivered her baby and the baby is a boy - he is so cute! Life is very important, so she should be safe - that is why I helped her get to hospital. When a cyclone hits, it is impossible to send her or anyone to hospital, so we try to get them there before. However even if the cyclone hits and we can't move her, we will help her as much as possible.

Before the CERA project, we only knew that a cyclone was going to hit when it was on top of our heads. We would run or respond when it was the actual time of the cyclone. Now that we got the training and knowledge, we know how to prepare and get the information before.

Now when I get the early warning information, I share not only with my family but with the whole community. If it is needed, the six members give information to the whole village. I don't do anything special for my own household.

Most significant change

The most significant change and what I think is the best part of the project is that I clearly understand the information about disasters, and that I can tell people about this. It is valuable knowledge. Before this project, we used to face many different difficulties. Now we have more knowledge. Now that I know – as much as I can, I will share this information with people.

People listen to me, and follow the early warning information. I don't just decide how to tell – we all meet and decide in our committee. I think that it can save people's lives. It is good information for everyone.

Challenges

I don't have too many challenges but in the megaphone the battery is empty. I have to buy one from my own money. We have to put six batteries, MMK 500 each (50 US cents), so a total of MMK 3,000 (USD 3.00). They are available to buy in this village and I can buy them if I have the money. However sometimes I do not have this money.

Suggestions for improvements

If CERA can implement more of the road construction it would be good. At present, it only covers a part of the village. If possible, it would be better to construct throughout the whole community.

Regarding the mangroves, we planted a lot of them. But still we need more as there are some gaps.

Regarding capacity building training, the staff came and gave two – three training sessions per year. All humans tend to forget. So if possible, we need refresher trainings once or twice every year.

Enhancing education | Daw Phyu Ma Daung

School principal **Daw Phyu Ma Daung (51)** moved to Aung Mye Kone village in 2011, where she lives with her husband and her six children.

PHOTO: SERGE BIRTEL, MALTESER INTERNATIONAL

I am not a committee member of of this village and I am not directly involved in the project, but I live in this village and I heard from other people about CERA. I live in the school compound. People brought the CERA good news to me and I heard about their project activities from the village adaptation committee (VAC). When they started the village road construction, I could see the good intentions and the benefit of their projects.

It is also good to have committees for organisation. Because of these committees, activities became more systematic, and the village community now has a habit of discussing and working together. The whole community benefitted from the pathway construction.

This village is a poor village. In the rainy season, the water and mud is up to three feet high. It is very difficult for the students to come to school every day in this condition. Now we have a pathway. Both the community and school benefit from that pathway.

The rainy season lasts four months, and throughout the entire season - especially when the tide is very high - all of the surroundings are flooded up to the level of the school for four to five days. During that time, it is very dangerous for the life of the students. I take care of students, especially if it rains with thunderstorms and children being scared.

Before the pathway was constructed, students had so many problems on the way to school every day in the rainy season. On the way to the school, they got wet. Their bags and clothes were dirty and muddy every day. They had to take longer to reach to the school. Some students slipped during the rainy season and were not able to join the classes but went back to their home. We (the teachers) had to go to their homes and take care of them. When they came to school, they were very dirty, had wet clothes and went back.

Now students can easily go to school. The pathway is not only important for the community to save lives, but also for education. I'm very happy that CERA is here. CERA was warmly welcomed when they came to our village. Sometimes community members are afraid to attend the training in Sittwe because they have no confidence to attend a new training course and to go to a new place like Sittwe. At that time, the village administrator organised the committee members and supported the trainings.

I noticed that after CERA's training, the villagers understood the weather colour codes and the various stages of the cyclone and flooding and how to act. I can see that the villagers are now more confident. During the last flood, I listened to the situation of the floods on the radio and closed the school during that time to avoid putting the children in danger.

Most significant change

The pathway is the most important change because it is good for better education and movement around the village is now very convenient. But education is most important. If the children do not attend the school, they cannot become a doctor or work in the military. The school is the resource of education. Education is very important for the village.

Challenges

It was a little bit difficult for some members of the committee to attend the trainings in Sittwe. The community was not sure if it were good to attend or not. They didn't know what kind of training it would be, what would happen, and what kind of organisation would be there.

But the village administrator said that they would get food allowance and the whole village would benefit from the trainings.

Suggestions for improvements

Inside the compound of the school, there is no road to the school. It would be good to construct a pathway to the school. There is also no water source in the school compound.

CERA could focus more on the basic needs of the community. For example, in the hot season there is not sufficient drinking water in the village. CERA could also dig a pond. For the school, a rainwater collection tank would be great so that I can collect rainwater.

Good practice 4: Strengthening connections between authorities and villages

The project aims to bring together different government and non-government actors to support disaster risk reduction and increase cooperation and coordination.

At the Rakhine State level, CERA works with the Relief and Resettlement Department (RRD), Department of Meteorology and Hydrology (DMH), Myanmar Fire Services Department (MFSD), and Myanmar Red Cross Society (MRCS). At the township levels it works with the General Administration Departments (GAD).

"My staff from our department conduct the trainings for village committee members... The department staff also assist in the village drills, even for the far away villages.

If we are requested, I will send the staff to remote areas. I give important information about weather changes and warnings to township administrators and also to village administrators. They can also contact me, I always keep my phone on."

Assistant Director, Department of Meteorology and Hydrology (DMH), Sittwe

One good practice was that the project has created connections between relevant government departments and the village level - in some cases, for the first time. Moreover, some sampled villages noted that they had more contact with government representatives and greater confidence to speak with government authorities, rather than just follow instructions or receive advice. This new two-way communication was appreciated by both sides.

"Previously, we had no practice to inform authorities, we did this only after 2010. Now also the authorities know us, know our area. They came with CERA when we practiced our drill/simulation and our evacuation. This was the first time we have worked with the authorities in this way."

Kyaw Taw Ywar Ma village, Sittwe township focus group discussion

"Now we have contact with the township authorities in regards to disasters. Before the CERA project, township authorities also gave us information. But even if the township authorities gave us the information, we did not dare contact the authorities ourselves, it was only top down. Now we have confidence to communicate and we can call them. The village administrator has the phone numbers of every township department. During the village simulation, the fire brigade department came and joined in, it was helpful for us. They shared information how to put out the fires and how to prepare in summer."

Sar Pa Tar village focus group discussion

"CERA introduced the government departments to the village level. If they can do more of this, it would be useful. To reach the village level, is not easy for government staff due to our tight budget and workload. We can connect to the township level, but the village level is more challenging.

With the CERA project we are able to touch the village level also. I am most interested in the village level as they are the main people conducting the fishing, agriculture - and face the risks of floods and storms. Also the population is denser at the rural level, rather than in the cities in Myanmar, so I am happy if we can connect with them more directly. They face hazards every year and people have little awareness, so we are happy to conduct trainings and assist the village level."

Assistant Director, Department of Meteorology and Hydrology (DMH), Sittwe

"We have more contact with the authorities now. We are now brave enough to say something to the government. For example, we had a project with the Department of Rural Development to distribute solar panels. The community has already given the money for this - but the department has not given us the solar panels yet. So we ask them again and again and can follow up. We are now confident to do this. Previously, we didn't have the confidence."

Ye Yoe Pin Village, focus group discussion

A woman in Kalar Chaung (Ponnagyun) cooks vegetables for dinner on her new fuel-efficient stove. Compared to conventional fire places, this stove uses just half the firewood.

PHOTO: SAMADHI MARR, BANYANEER

Lessons learned

Although improvements in connection and cooperation between state/township authorities and villages were noted in townships close to Sittwe, improved contact was less evident in areas far from Sittwe, Rathedaung township for example.

Further efforts are required to reduce the barriers of connection and cooperation between remote villages and state government departments.

Innovations

Inviting state and township authorities to actively participate in village disaster drills was widely successful. This initiative allowed state/township authorities to visit the villages in person, to get involved in a practical event, meet people, and see village conditions first hand. This was done in conjunction with inviting village committee members to meetings in Sittwe where they have the chance to talk with department representatives.

Good practice 5:
Promoting fuel-efficient stoves

Fuel-efficient stoves were introduced to the project for multiple purposes. In Myanmar, 81% of people rely on wood related sources for fuel - reducing firewood consumption is thus a critical element in any environmental protection initiative. In Rakhine State, around 96 % of households use either firewood or charcoal as fuel.

Compared to open fireplaces, the fuel-efficient stoves concentrate the heat where it is needed, and have lower bypass flow. They reduce fuel needs by up to 50%, allow for faster cooking/heating, and reduce fire hazards. Critically, they require only small twigs and branches or coconut shells. Much of this fuel can be collected without cutting trees (for instance, from floating wood in the rivers).

Innovations

Rather than simply distributing the fuel-efficient stoves to project areas, the project team teaches communities to produce them. According to their interest, they can make and sell them with some profit. This initiative was just underway at the time of the study and it was too soon to assess the full results. Some communities had taken it up with enthusiasm (see story below), some less so.

Boosted livelihood, changed attitudes | Hla Thein Tun

I think it was in 2014, when a group from CERA came to our village to organize committees. Since then, I have been involved in the project with disaster risk reduction and mangrove forest plantation activities.

I took the role as a leader in an environmental maintenance committee organised by MERN. I attended the training for environment maintenance of mangrove forests celebrated in Sittwe's May Yu Hall. It was very interesting to listen to the mangrove technical specialist U Win Maung. Based on the knowledge I got from that training I planted mangrove forests in my village. They are growing well and I am now a mangrove forester. I also make and sell the fuel-efficient stoves.

This project supports not only the hardware but also ideas and knowledge to the people. It can improve the people's mind-set. By cooperating in this project, people love nature and become more aware of environmental protection and conservation issues. Also, we completed a drill in our village to prepare for storms. We are now systematically ready for the floods and storms, each and every individual.

A change in attitude towards persons with disabilities

We now put value on the disabled persons from the knowledge gained from the CERA trainings. Everyone can be disabled when he or she meets with his or her weak points. For example, I am disabled when I meet with a Chinese guy in terms of communication, because I cannot speak Chinese. So we realised very well that disabled persons are not to be discriminated and we can also be disabled depending on the situation.

In my old days, I used to hate people with disabilities. I thought that people with disabilities were a burden and they should not live long. Since the trainings from CERA, I began to consider them and changed my way of communication with them.

Changes

This project made so many changes in my life.

First, I got the knowledge of the benefits of mangrove forests - I love it and I look after it.

Second, I now value people with disabilities. Previously, no one would help the elderly or the people with disabilities when they got any trouble. Since the exercise, there are so many people who help elders or people with disabilities in an emergency.

During the storm, young people wearing life jackets evacuated the vulnerable people. At the time of emergency, people in uniforms become more connected as a whole. We feel greater confidence because of the life jackets.

A few years ago, "I was so poor I could not imagine getting married", says **Hla Thein Tun (38).** With support from the project, he is now better off - having established a small business selling cook stoves. He lives with his parents and his sister in Al Lel Kyun village in the township of Myebon.

PHOTO: CERA

We know life jackets are keeping us away from the risks so the thing we have to do is to look after each other. This unity brings the villagers together, not only in emergencies, but also for social affairs and the development of the village.

We can see that the frequency of the storms has increased as a result of global warming and destruction of the forests. Therefore, the forests are to be protected. Also for the fishermen and for the longevity of fishery industry, we need to avoid catching fish in the breeding season and not to catch the very small crabs.

Third, from the knowledge of the training, I can produce fuel-efficient stoves for my living.

Fourth, all the villagers including myself have become accustomed to volunteerism.

Most significant change

The most significant change for me is that I became the owner of a fuel-efficient stoves small business.

I was a teacher hired by a village self-help school before I became involved in the CERA project. That village is not rich so the money I could earn was also very little. I was so poor that I could not even imagine to get married. Now, following the training, I can earn money from the fuel-efficient stove production. With the knowledge I also plant mangrove forests in the village and protect the environment. I have become an important person in the village. I can do more village development activities as I earn more money. Finally, I got appointed as village administrator.

Now I have the prospect of getting rich. I believe that I will become rich by promoting and selling fuel-efficient stoves. I am so delighted to make stoves. My stoves can reduce the use of fuel by half - so it has already protected the natural forests. I am satisfied with this feeling; it is more than only making money from my small stove business.

Challenges

I had so many challenges. When people were demonstrating against international organisations in Rakhine State, they were especially angry towards Malteser International. At that time we had Saya U Than Hlaing (the Malteser township manager) in our village. Some villagers wanted to hurt him because of his status within the international non-governmental organisations, but we were able to get him back to Sittwe safely.

I also had to face the destruction of mangrove forest by cattle at the beginning of plantation. I could not make any fences for the mangrove forest. The barbed wire bands dissolved in the seawater in just four months. Now the fencing problem has settled - I put local black bamboos as pillars and sheets of them as a cover as well.

Suggested improvements

When I started planting and looking after the mangrove forest, I got no financial support. I would like CERA to support every mangrove founder in each village. I would like CERA to support the production of locally made fuel-efficient stoves that are suitable to local conditions. My other advice is to provide training on brick production for village development.

Good practice 6: Including vulnerable groups

All interviewed community members easily identified vulnerable people in times of a disaster. People listed elderly people, pregnant women, children and people with disabilities as needing additional assistance before and during a disaster. Initial changes in attitude towards people with disabilities were evident (see story above).

Malteser International and CERA conducted participatory exercises with communities around the strengths and weaknesses of all vulnerable people within the village. Staff reported that this exercise helped to demonstrate the strengths of people who are vulnerable and their contribution towards society – rather than focussing on their weaknesses.

In the exercise, after the communities had agreed on the contribution of these vulnerable people, they were then asked "would you like to assist them and bring them with you in times of disaster?" This exercise helped create a mind-set shift around assisting people with vulnerabilities.

Early warning systems were set up for people who are deaf, mute or with visual impairments so everyone can understand alarms or calls to action. People with disabilities in communities found that their prioritisation for evacuation was notable and comforting.

Lesson learned

Despite a large shift in awareness of vulnerable people in communities, and how to protect them, additional steps should be taken. Persons with disabilities should be further integrated and included in decision-making processes and committees. Communities could improve on providing better access to designated evacuation shelters, including accessible toilets.

I got involved with the CERA project when I attended the trainings. These were disaster risk reduction and fire safety trainings. I think the project is important, as the trainings provide knowledge. Furthermore, the village pathway makes our village cleaner, safer and faster to move around.

Changes

Every year the tides bring floods to my village. Now the mangrove forest can prevent the floods.

Previously, we used to have to walk through the village through mud, stones and water - before the village pathway was built. Many times I fell on my knees and got injured. I walk with a stick for support. Now we can walk on the CERA village road, which is much easier.

Before the training, we did not know where to go during the storm. Now we have identified a safe place to go to before the storm hits us. In our village it is this monastery at which we are now. The training also taught people how to communicate with the disabled, deaf and mute through body language. The training let us know about the priority of the vulnerable people.

Most significant change

The best significant change for me is the knowledge on disaster risk reduction. Before the CERA training, people ran to the safer place and I was depressed because there was no one who wanted to bring me with them. I cried by myself and had to stay at home alone. I was lonely and felt worried as I thought my house could fall down or the flood could reach into my house.

Through these trainings, the other villagers became aware of me and that they should bring me with them as a priority. I am with everyone on his or her plan.

We need to go to the safer place, to our monastery together. We have not had a disaster since the CERA project yet, but I believe that I will be evacuated through their plan. They will not leave me home alone.

During the drill in our village in 2014, I was moved to the monastery first - as a priority. I was very happy and it made me feel confident. The search and rescue team members are my heroes. They carried the pregnant women in the hands of two people. They carried the women as if they had a stretcher or chair – but they did it only with their hands.

Challenges

I could not attend some training courses when I was ill, and I asked other people to share the information with me. Also, I cannot recall some of the lessons.

Improvements

I would like to have our village road up to my house.

Having a physical impairment, **Maung Aye Than (35)** has seen several improvements over the last years. In case of an evacuation, he is now "with everyone on his or her plan." He lives with his sister and brother-in-law, three nieces and a nephew in Ye Yoe Pyin village (Ponnagyun township).

PHOTO: SAMADHI MARR, BANYANEER

A female member of an early warning committee gives instructions during a disaster drill.

PHOTO: SAMADHI MARR, BANYANEER

Good practice 7:
Empowering women as key actors in DRR

By promoting their participation in the DRR and CCA project, women have become key actors in disaster risk reduction functions within their communities. In the project's baseline survey of 2014, nearly all respondents (97%) agreed that in times of disaster, men are better positioned to lead disaster management efforts than women. However, since the project's initiatives, women now identify themselves as important in acting and leading disaster management efforts.

The project ensured that each committee had equal representation of men and women – an idea that women appreciated, as they saw the training as relevant and important for their lives.

By ensuring that women were equally represented in committees (search and rescue, early warning, first aid, and environmental maintenance), women realised that they had a unique and important role to play.

As shown in the next two stories, participation in the project helped to increase some women's personal confidence and empowerment. Beyond these individual changes, many women stressed that it was pertinent that they were included and central in any DRR initiative within their communities.

Women in the visited villages pointed out that in Rakhine culture, they are the main caregivers to children, the elderly and people with disabilities, and that they were suited to taking care of these groups in times of disasters too.

Notably, several women in focus group discussions commented that women took early warnings about impending storms and cyclones more seriously than men. They noted that sometimes men were unwilling to respond to warnings, whilst women were more willing.

In communities close to the sea and to rivers, women observed that more women than men were unable to swim. This heightened their own vulnerability in times of floods, storm surges and cyclones. This feeling of heightened vulnerability also drove them to action and to prepare more carefully before these events.

CERA staff found that women were natural information sharers in their communities, and observed that women were more likely to share new insights with their neighbours and friends than men.

The staff observed that when men attended trainings, they were more likely to keep new information to themselves. They reported that women also share information with their children around hazards and safety. In times of disaster, women were more willing to

In focus: The women's group of Kyaw Taw Pike Seik

PHOTO: SAMADHI MARR, BANYANEER

"It is important that women are involved in DRR. In disasters we are the main ones to take care and protect our children.

That is why our involvement is important. We can also take care of pregnant women, the elderly and sick people. Mostly in our culture we, the women, take care of these people - and that is why our involvement is important.

Mostly the men here work outside the village, so when capacity-building organisations like CERA come to us, we have the chance to join the training and we are empowered by this.

Women organise and mobilise other people for evacuations in times of a disaster - people with disabilities, blind people and deaf people. Mostly the men are not involved in the training.

Whenever the men hear about the cyclone information, they think it is not serious and it is normal. But now the women in our village understand the weather colour codes, so we can mobilise and prepare ourselves correctly.

Usually men do not take these warnings very seriously, they think it is just a normal storm and they ask us why they should worry. Whenever women receive the information about a storm or cyclone, we want to do something. Men are very calm and they don't care. Sometimes our men shout at us at this time, they don't know the weather colour codes.

For example, if the colour code is at the **red** stage, the cyclone will hit this area in the next 12 hours. So we explain to the men and finally they let us evacuate.

Mostly the men agree with us after we explain it to them. Everyone is afraid at that time, and tension is high. If they don't agree to evacuate – we will leave them behind!

care for vulnerable groups, were able to take action quickly, and were natural information and skills sharers.

For these reasons, women are vital to disaster risk reduction efforts. CERA staff also observed that there is an increased risk of gender-based violence (GBV) during and after natural disasters. This is exacerbated if displacement occurs.

Lessons learned

- Women and other vulnerable community members benefit from swimming lessons. CERA provided a short swimming course conducted by the Fire Safety Department to community search and rescue committee members - this was well received and could be extended.
- DRR programming should include some awareness and sensitisation for staff and communities on gender-based violence (GBV), including sessions for both men and women.
- Furthermore, DRR projects should ensure that GBV and the safety of women and children are carefully considered in all disaster preparedness and planning.

Daw Oo Thein Nu (37) works as a farmer and sells crabs to markets in Sittwe. She lives with her husband and five daughters in Pyar Pin village in the township of Rathedaung.

PHOTO: CERA

Confident women | Daw Oo Thein Nu

Our village administrator called us to organize the committees when CERA asked for it. I am a member of the early warning committee. When the storm is about to hit us, this committee has to warn everyone in the village.

The project is important. CERA feeds us with new, precious knowledge. They explain what we do not understand. They support our village and they built a jetty for us.

CERA organized committees as soon as they touched the village. CERA mainly shared the knowledge about disaster risk reduction procedures and activities. Our early warning committee has five members.

The committee got training three times - two days each time. I had to go to Sittwe for two days - it was the first time I went to Sittwe in my life. They provided also a per diem during training – MMK 2,000 for interim village training and MMK 5,000 for training in Sittwe. I am happy I could earn this money.

Learning about weather colour codes was important to us. There are five colour codes:

- **yellow**, which means there is a low pressure area in the Bay of Bengal;
- **orange**, which means this low pressure become stronger and direct to the town;
- **red**, which means storm will hit our place within 24 hours;
- **brown**, means the storm is here and we need to stand still; and
- **green**, which stands for clear weather.

The training also covers how to evacuate people to safer places. Vulnerable people (elders, pregnant women, children, people with disabilities) are priorities to be evacuated through the CERA village pathway to the monastery.

In stage red, I have to go around the village and give the alarm on the megaphone. When people hear my alarm,

everyone in the village will prepare their belongings, and call all the family members back home in one place for their safety. We have altogether five members and each of us will take responsibility to warn 20% of the village. I am proud that I will be responsible for their safety. I will take serious care. If someone happens to be outside of village, the search and rescues team will go to find him.

Before I was a committee member, my daily life was busy only with household works and looking after my daughters. I was not working for the community. Now I can also stand for my community. CERA invited me to every meeting and discussion. Through this I got a role in my community.

In the 2015 Komen storm, our trainings were still ongoing. Committees could not support the community so much. Cattle were lost in that storm and a 25-year-old cowherd boy - who could not swim well - passed away in the tide. Now we know the way to protect our people and ourselves. We will not let anyone get harmed from any future disasters.

I like CERA very much because it lifted our living standard in the village and empowered women. The CERA team always ask women to take part in every activity. They put equal numbers of female and male in every committee.

Now women in our village can talk more than before. I realise the role of women in community. For me, I wish my five daughters to become important ladies in different areas if it could be possible.

The chance to speak up | Su Su Hlaing

Su Su Hlaing (21) is a distance university student from Ywar Thit Kay village (Rathedaung township). She lives with her parents and two little brothers.

PHOTO: CERA

One day, CERA staff arrived at our village and they talked about committees. I decided to join and become involved. I am a member of the search and rescue committee. If a storm comes to us, the search and rescue committee has to evacuate the people according to their vulnerability.

The CERA project is important. It trains people how to protect each other and look after each other during a natural disaster.

Most significant change

The most significant change for me is that I learned how to communicate with the people through the project activities. I can communicate with others much better than before.

Before I was with CERA, in the year I passed my matriculation exam, I applied to the Sagaing development organization for work and was called for an interview. However, I was so afraid of sitting in the interview and to talk to people, I missed the job opportunity. Now with CERA, I am involved in discussions, training and sometimes I have to talk in front of people. It is like training for me to come in front of people or to talk in front of people. I also had to go to Sittwe for training and I met many people there. I was trained how to help people.

In the simulation exercise I knew that we should give favour to the vulnerable people (children, pregnant women, people with disabilities and elders) during an evacuation. Now I am not only a good communicator, I can also save people from disasters. Now I feel upgraded, more confident - my attitude is 'I can do it'.

Challenges

When I went to Rathedaung township to attend the training, there was no one at my home to help me. I had to cook, do the entire household work and also attend to the training.

Suggestions for improvement

I suggest extending the training process, to mobilise villagers more and give leadership training to us.

Saving a life | Daw Hla Thein Nu

Daw Hla Thein Nu (52) is a community health worker from Kalar Chaung village in Ponnagyun township. She lives with her sister, brother, sister-in-law, and one grandson.

PHOTO: CERA

CERA came to our village in 2014 and I joined the first aid committee organized by CERA. My main role is to take care of minor illnesses like fever, loose motions, common colds and headaches. Also to minor injuries like cuts and minor burns.

Changes

Previously we knew only to run during the storm but now from the CERA trainings, we are aware of listening to the radio if we have low pressure in the Bay of Bengal. We listen carefully to the weather colour codes, the early warning committee tells us and then we have a procedure of evacuation by the search and rescues committee. We also know how to take care of minor injured people during the storm; the first aid committee can do this.

Previously, we were always afraid of floods or storms. Since the training on early warning, search and rescue and first aid management, now we are quite confident.

Moreover, we now have a habit of working together in our village and learnt about the benefits of mangrove forestation. We also have a village road on which we can walk more safely, faster and more conveniently around the village and to the jetty.

We also learned that mangrove forests can protect the natural environment. We can prevent erosion, storm surges and floods too.

Most significant change: saving a life

I have been working as a community health worker for nearly twenty years. I attended the first aid training from CERA twice, three days each time. I learned how to resuscitate a patient who suddenly stops respiration while swimming, or shock from any cause, such as electrocution. We also learned how to care for minor injuries, minor burns and minor wounds, how to take care of fever, how to support the children choking from inhaling or foreign objects stuck in their throats. These were our lessons.

I have saved one baby's life with the knowledge I got from the CERA first aid training. One day, I visited a house of my friend and her daughter was delivering her baby assisted by traditional birth attendant. It was her first baby and all the household members were excited.

The traditional birth attendant told me that the waters had broken already and the mother needed an injection for her uterus to induce labour and then she gave injection.

After two to three hours, the traditional birth attendant told us that the baby was delivered but the baby did not breathe or cry. I was so worried so then I entered into the delivery room and did the systematic chest compression to the baby to wake his heart. After doing 30 rounds of chest compressions, the baby breathed and cried – luckily!

As soon as the baby breathed and cried, I kept the baby warm by wrapping him in a cloth and I let the mother feed him very first milk from her breast. My friend's family felt so thankful to me to bring back the life of the baby.

However, for me, the baby was saved by the knowledge provided by CERA trainings but not solely by me. Now the baby is one year old, living healthy and getting fat! This is the most significant change and memorable thing for me.

Challenges
At first it was difficult to organize villagers to attend to the CERA trainings. Later they knew the benefits of the trainings and it got easier to gather people.

Improvements
I would like to ask CERA to finish our village road.

Concluding remarks

How a disaster risk reduction (DRR) project makes a difference to the lives of the people in its target communities, was the question posed in the introduction. The eleven stories of change presented in this report show that good DRR and CCA programming creates many benefits - in fact, most stories refer to benefits that are *beyond* the main objectives of DRR - the reduction of hazard-induced damages and losses.

The stories show that through their project, Malteser International and CERA managed to provide both tangible (pathways, jetties, retaining walls) and intangible (e.g. knowledge, confidence, inclusion) benefits that have been materialised already - irrespective of whether and when a hazard strikes.

Villagers' stories tell of changes towards a more proactive mind-set, of better links with local authorities, and of better organization within villages. They tell of better care and inclusion of persons with disabilities, and of women's empowerment. They show appreciation of mangrove forests and of coastal resource management more generally.

They tell of improved livelihoods and living conditions. Through the many references to Cyclone Komen - that struck Rakhine in 2015 - the stories show the value of preparedness, both in terms of greater confidence and increased safety.

The stories are there to be shared and to inspire. Their lessons can be widely adopted.

Reducing disaster risk through trust and tangibles: the report's title highlights a key lesson for successful implementation. In light of Rakhine State's difficult conditions and mistrust towards outsiders, the project was based on a thoughtful approach.

As a new local organization, CERA became the main implementor, with Malteser International providing capacity-building and technical support. The stories demonstrate that the CERA team was appreciated for their sensitive style - being flexible in the timing of meetings, listening to communities' concerns, and jointly exploring possible solutions. Against the odds, CERA managed to quickly gain the trust of communities.

Tangibles helped too: identifying 'hardware' that could reduce risk and make a difference to people's lives was important - showing that the project team cared about the 66 communities it supports. This widened alleys to provision of 'software' - training, simulations, discussions and further planning.

The community-managed afforestation of mangrove forests and training of cook stove production are great examples of multiple benefits: reducing risk (through protective barriers and reduced need of fuel supply), while delivering concrete benefits at the same time (income from stove production, less time for firewood collection, greater supply of fish, shells and crabs).

In terms of community resilience, there is room for follow-up action: communities that can prepare for disasters, but cannot access potable water or do not have basic sanitation facilities (using open defecation) remain vulnerable to health hazards.

More assistance and links to other actors - both government and non-government - is required to ensure that basic needs are met.

Having that said, there can be no doubt on the many improvements achieved through the project. As the stories in this report illustrate, communities are better off *and* better prepared - a recipe for success.

Malteser International
Order of Malta Worldwide Relief

Community Empowerment and Resilience Association.
CERA

How does a disaster risk reduction (DRR) project make a difference to the lives of the people in its target communities? Many studies have shown that the benefits of DRR outweigh its costs several times. Yet, such studies tell only part of the story, not accounting for the social, organizational, emotional and full economic benefits of disaster risk reduction.

This report shows the benefits of DRR and climate change adaptation (CCA) from a different perspective - that of the beneficiaries themselves. Through the eleven stories in this report, villagers give a first-hand account on the most significant changes that DRR has brought to their lives. The stories tell of the value of feeling prepared, of better working together, of greater inclusion and empowerment, of improved livelihoods.

This publication was funded by
the German Ministry for Economic Cooperation and Development (BMZ)
and the Swiss Agency for Development and Cooperation (SDC).

german cooperation
DEUTSCHE ZUSAMMENARBEIT

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development and Cooperation SDC