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# **THE ROLE OF SOCIAL CAPITAL IN DISASTER RESILIENCE**

A research report on the influence of social capital on disaster resilience in the Ayerwaddy Delta, Myanmar

based on research carried out by **Kenneth Green**

edited by Lizz Harrison

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## Foreword



More than 1 million people have been killed and one billion affected by disasters since 2000. Floods, cyclones, tsunamis, earthquakes and other natural hazards have cost the world more than US\$1 trillion in destruction since then. At the end of last year the strongest ever recorded typhoon caused destruction in the Philippines and affected over 14 million people in the country.

Natural hazards present many risks to young people, particularly those living in poverty in less developed countries. Disasters can affect young people's education, livelihoods and health, and also setback gains made through development activities. Disaster risk reduction (DRR) is one of Y Care International's key focuses and all of our projects and programmes consider disaster risks throughout the project management cycle to support young people and their communities to become more resilient to disasters, and to ensure sustainable development.

We believe that for DRR activities to be effective and sustainable, they must include the leadership, participation and engagement of the young people in the communities in which we work. Young people are assets in development and therefore supporting them to identify and address disaster risks that face them and their needs in emergencies is essential.

In a world where disaster risks are becoming increasingly unpredictable as a result of the changing climate, supporting young people to lead and engage in disaster resilience building efforts in their communities is key to reducing vulnerability. This research study is the third such one to come out of our valuable partnership with King's College London. We are very grateful to Kenneth Green for his research based on his discussions with people living in remote rural communities in the Ayerwaddy Delta in Myanmar. We are also very proud to be working with Myanmar YMCA who have recently finished a DRR pilot project in the two townships of Ein Me and Nga Pu Daw, Ayerwaddy Region in Myanmar and we thank them for their commitment to this and their support to Kenneth.

Finally, YCI aims to integrate as many of the recommendations outlined in this report as feasible into our DRR projects and activities to ensure that young people are leading the effort to help their communities to become less vulnerable to disasters, and thus better places to live.

Dylan Mathews

Director, International Programmes

**Y Care International**



## Acknowledgements

### Acknowledgement from Y Care International

Y Care International would like to thank the people involved in this research and acknowledge the young people around the world who are engaged in disaster risk reduction (DRR) work.

Thanks to King's College London and particularly Professor Mark Pelling for the valuable partnership and support which made this research possible. We hope that this link continues to enable Y Care International to learn, improve and deliver on our mission. Through this partnership, we hope to continue to work alongside Masters students at King's College London to carry out more research on young people, disasters and DRR.

Thank you to the National Council of YMCAs in Myanmar and particularly Pathein YMCA for their time, dedication and hard work in supporting young people and for supporting Kenneth in this research study.

Finally, Y Care International would like to say a big thank you to Kenneth Green for his support, enthusiasm and research work. This valuable piece of research will feed into our project development and help us to ensure young people are leading on and participating in DRR in Myanmar and across the world. Thank you Kenneth.

### Acknowledgements from Kenneth Green (taken from his dissertation)

I am deeply indebted to Y Care International and the YMCA in Myanmar for all of their help in collecting my research – they have been incredible. I would also like to thank my classmates in DAD [Disasters, Adaptation and Development Masters] and all of my lecturers for supporting me throughout the year – it's been an extremely enjoyable and productive time. I would like to dedicate this dissertation to my translator Khin who was absolutely critical to my successful completion of it. She helped me so much in Myanmar with both research and learning about the country, the language and its people. Thank you.

### Photography

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## About

### About this study

This study is a result of the collaboration between Y Care International and King's College London. It is based on the dissertation of Kenneth Green which was submitted to King's College London for the Masters degree of Disasters, Adaptation and Development on the 30th of August 2013. This report has been written by Y Care International to summarise the key findings in the full academic version written by Kenneth Green.

### About Y Care International



Y Care International is the YMCA's international relief and development agency. We work in partnership with YMCAs and other local partners across the developing world to respond to the needs of the most disadvantaged young people.

The needs of disadvantaged young people in developing countries are often neglected, making the transition into adulthood difficult. We help young people develop alternatives to a future of poverty and empower them to contribute to the development of their communities.

[www.ycareinternational.org](http://www.ycareinternational.org)

### About Myanmar YMCA



Established in Myanmar in 1897, Myanmar YMCA and its 30 local branches across the country are committed to working for the sustainable development and empowerment of youth. The YMCA envisions a more just and peaceful world where individual and community development is sustained, and young people are empowered to become responsible citizens. Myanmar YMCA aims to be the leading youth-focused organisation in Myanmar, addressing the needs and rights of young people regardless of their race, ethnicity or gender.

### About King's College London



King's College London is one of the world's leading research and teaching universities based in the heart of London. It is also one of England's oldest, founded in 1829. King's is dedicated to the advancement of knowledge, learning and understanding in the service of society.

[www.kcl.ac.uk](http://www.kcl.ac.uk)

## List of acronyms

ASEAN	Association of South East Asian Nations
DRR	Disaster Risk Reduction
IPCC	Intergovernmental Panel on Climate Change
NGO	Non-Governmental Organisation
UNISDR	United Nations International Strategy for Disaster Reduction
YMCA	Young Men's Christian Association



Two young boys in their home village in Patheingyi, Myanmar

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## Executive Summary

People living in developing countries are more vulnerable to disaster risks and their impacts than those living in more economically developed countries. Building disaster resilience is essential for ensuring sustainable development and the protection of development gains made so far for any community, region or nation at risk from disasters. The impact of Cyclone Nargis in Myanmar in 2008 demonstrated the vulnerability of people in Myanmar to natural hazards, particularly across rural areas of the Ayeyarwaddy Delta. The vulnerability of people living in remote rural areas is perhaps less visible to state institutions than those in urban areas and they are often characterised by reduced access to information and support necessary to reduce the risk of disasters, and limited power to influence decision-makers. For this reason, remote rural communities are forced to be more self-reliant than their urban counterparts, both in terms of preparing for, and responding to, disasters. Research into the social dynamics of rural communities, particularly in the face of crises, may provide some clues to help determine ways to empower hard to reach rural communities to build their disaster resilience.

Myanmar is one of the most hazard-prone countries in the world, with much of the population vulnerable to cyclones, flooding and earthquakes. However, there is limited understanding about how the political context of Myanmar has impacted on the strength of civil society relationships and linkages, and how this might affect communities' resilience to disasters.



The purpose of the research is to get a better understanding of the influence of social capital on disaster resilience in remote rural communities in an area of Myanmar particularly exposed to natural hazards; the Ayerwaddy Region. This analysis has been carried out by assessing the strength of civil society and linkages of and between remote rural communities, and looks at the extent to which these villages rely on each other to reduce their own vulnerability to disaster risks. Y Care International hopes that the findings and recommendations from the research will help to inform future project design and ensure community-based DRR projects and activities empower young people and their communities to reduce the risk of future disasters.

### **Key recommendations**

- Local gaps in knowledge on disasters and disaster risks should be assessed and indigenous knowledge should be taken into account in this process.
- Knowledge gaps in DRR should be addressed through locally appropriate training and efforts should be made to ensure this training is available in remote hard to reach communities. Training should include information of how hazard patterns and trends might be affected by a changing climate.
- Future projects should include ways to ensure DRR knowledge is shared within and between communities.
- Efforts should be made to support and facilitate dialogues and relationship building between communities and local governance structures to build their linking capital.
- DRR activities should include particularly marginalised people and people from a variety of ethnic, religious and other social groups to ensure those that are most vulnerable are included.
- Programmes in disaster-prone locations should build the capacity of local actors in DRR to enable them to support community-based DRR activities and learning.

The report starts with an introduction to the research project (Chapter 1) and then goes on to give an overview of civil society, social capital and vulnerability (Chapter 2). Chapter 3 then gives a justification for, and description of, the research locations; Ein Me and Nga Pu Daw Townships, Ayerwaddy Region, followed by the methodology of the research (Chapter 4). Analysis and discussion of the results and findings of the research are outlined in Chapter 5. Finally, Chapter 6 concludes and provides ideas for further research and recommendations for future project and programme considerations.



A rural community close to the river in Patheingyi

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## 1. Introduction

People living in developing countries are more vulnerable to disaster risks and their impacts than those living in more economically developed countries. This is due to a variety of factors, including higher poverty levels and limited government funds or commitment to invest in disaster risk reduction (DRR) measures. Rapid unplanned urbanisation has also led to an increased number of people exposed to hazards which has meant that there has been significant attention, resources and support focused on urban areas in recent years where vulnerability is more visible. However, people living in remote rural areas are also particularly vulnerable to disasters, in many cases more so than their urban counterparts, as they lack the information and linkages to enable them to prepare for and reduce the risk of disasters.

Myanmar is one of the most hazard-prone countries in the world, with much of the population vulnerable to cyclones, flooding and earthquakes. There has been real progress at national level demonstrated through changes in national policy in Myanmar to include DRR activities, particularly since Cyclone Nargis in 2008. However, the results of these changes will take some time to trickle down to community level and there is still work to do to ensure every community in Myanmar has an understanding of the disaster risks they face and the measures they can take to reduce these.

A number of factors play a role in community coping capacity and resilience to disasters. Strong social networks and mutual support mechanisms can be very



important for communities to prepare for, respond to, and build back after a disaster. The strength of these networks and relationships, and the social capital which these exemplify, will therefore be considered through this research and their influence on disaster resilience. They are particularly interesting to assess given the context of Myanmar's recent political changes from a country which was insulated to increased freedom for many.

### **Expected outcomes**

Reducing vulnerability to disasters is crucial for sustainable development. The purpose of the research is to get a better understanding of the influence of social capital on disaster resilience in remote rural communities in an area of Myanmar particularly exposed to natural hazards; the Ayerwaddy Region.

Y Care International is committed to supporting young people to change their lives for the better and make positive changes in their families, communities and wider society. Incorporating DRR into our development programmes wherever they are located in hazard prone areas is just one part of this. Y Care International hopes that the findings and recommendations from the research will help to inform future project design and ensure community-based DRR projects and activities, particularly in remote rural areas, consider factors affecting social capital and disaster resilience.



People going about their day-to-day life in Patheingyi

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## 2. An overview: civil society, social capital and vulnerability

### Civil society and social capital

Civil society is the product of social interactions and the networks that they create, and is built on membership in networks. In developed countries these networks tend to be more formalised compared to more informal networks in developing countries.

Social capital is the basis of civil society and refers to the interactions between formal and informal groups and individuals both internal and external to a community.

### Internal to a community

Societal 'strength' refers to the depth and breadth of horizontal links within a community. These links within a community include bonding and bridging capital.

**Bonding capital** refers to ties that are shared between individuals which share similar characteristics, such as religion or ethnicity. These tend to be internal connections within a network or group that allow for trust to be reciprocated on the basis these shared characteristics. This type of social capital is based on solidarity and as such can be more inward looking and less open to those from outside the group.

**Bridging capital** relates to ties that connect individuals or groups with those outside the immediate sphere of shared ethnic or religious values and focus on working with



them for shared benefits<sup>1</sup>. These ties might be made based on shared geographical space such as a community and so may well encompass individuals or groups of different social characteristics. This is interesting for this research as it will play a part in mobilising community resources and community disaster risk reduction.

### **External to a community**

Vertical links between a community and individuals, groups or networks outside a community are also important for a strong civil society. This type of social capital is referred to as **linking capital**. These include the relationship between a village and the government, or a donor and its recipient for example. These links are also crucial to reducing community vulnerability to disasters, particularly those with limited resources, given the fact that a disaster is defined as a serious disruption to the functioning of a community or society which exceeds its coping capacity using its own resources<sup>2</sup>.

A balance of bonding, bridging and linking capitals is important for social and economic stability as well as resilience. It will also play a large role in a community's ability to reduce their risk of disaster and cope with external shocks as they play a role in resource management, sustainable livelihoods and coping strategies. Social capital can in fact be a substitute for a lack of governmental intervention in disaster planning, early warning and recovery<sup>3</sup>. Y Care International works through YMCAs and other local partners in country which themselves are often part of networks at community level with links through the YMCA movement to external stakeholders as well.

### **Vulnerability**

The quality and extent of social capital, and the strength of horizontal and vertical linkages which affect these, are key to reducing the risk of disasters and can in fact be used to measure vulnerability. Both physical and social factors play a part in vulnerability, and vulnerability is defined as the susceptibility of a community to the damaging effects of a hazard. These physical and social factors differ in urban and rural environments; for example, rural communities tend to have stronger social capital due to their geographical distance from government and decision-making structures necessitating them being more self-sufficient. Conversely, urban communities are often characterised by high mobility and thus weaker social relationships and ties between community members in general.

Y Care International works to improve the lives of young people across the world and recognises the value of young people playing a part in their communities both in decision-making and disaster risk reduction. As such young people are a central element in this study.

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<sup>1</sup> Pelling and High (2005)

<sup>2</sup> UNISDR (2009)

<sup>3</sup> Adger (2003)



Young people from a local community who are participating in a YMCA project

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### 3. Myanmar

Myanmar is one of the most hazard-prone countries in the world. Since 2000, Myanmar has been affected by more than 20 disasters triggered by natural hazards; including cyclones, earthquakes, flooding and landslides which have affected a total of 3.3 million people<sup>4</sup>. This vulnerability to hazards was dramatically illustrated in 2008 when the category 4 Cyclone Nargis made landfall, resulting in around 138,000 deaths and affecting lives, homes, livelihoods, and infrastructure.

In the aftermath of Nargis, the government worked in conjunction with ASEAN and the United Nations to outline ways to reduce vulnerability through DRR policies. As a result, structures and policies have been put in place to build disaster resilience, and the country is involved in working towards the Hyogo Framework for Action.

#### **Ayerwaddy Region**

The Ayerwaddy Region is situated on the south coast of the country, south-west of Yangon. The Region has a population of almost 8 million, most of who rely on livelihoods as farmers, fishermen and labourers, and a third of which live in poverty. The region is home to people of a number of different ethnicities; the three primary ethnic groups are majority Burman/Bamar, with smaller numbers of ethnic Karen/Kayin and Rakhine, the latter of which live on the west coast.

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<sup>4</sup> EM-DAT (2014)



The region's coastline stretches over tributaries of Myanmar's longest river, the Ayerwaddy, and the delta has a high density of rivers and streams making flooding common, especially during the monsoon season (August-September). Climate change has resulted in a shortening of Myanmar's monsoon period since the 1970s but it is expected to lead to an increase in the intensity of cyclones also<sup>5</sup>. Ayerwaddy Delta was one of the worst hit areas by Cyclone Nargis, with many communities severely affected.

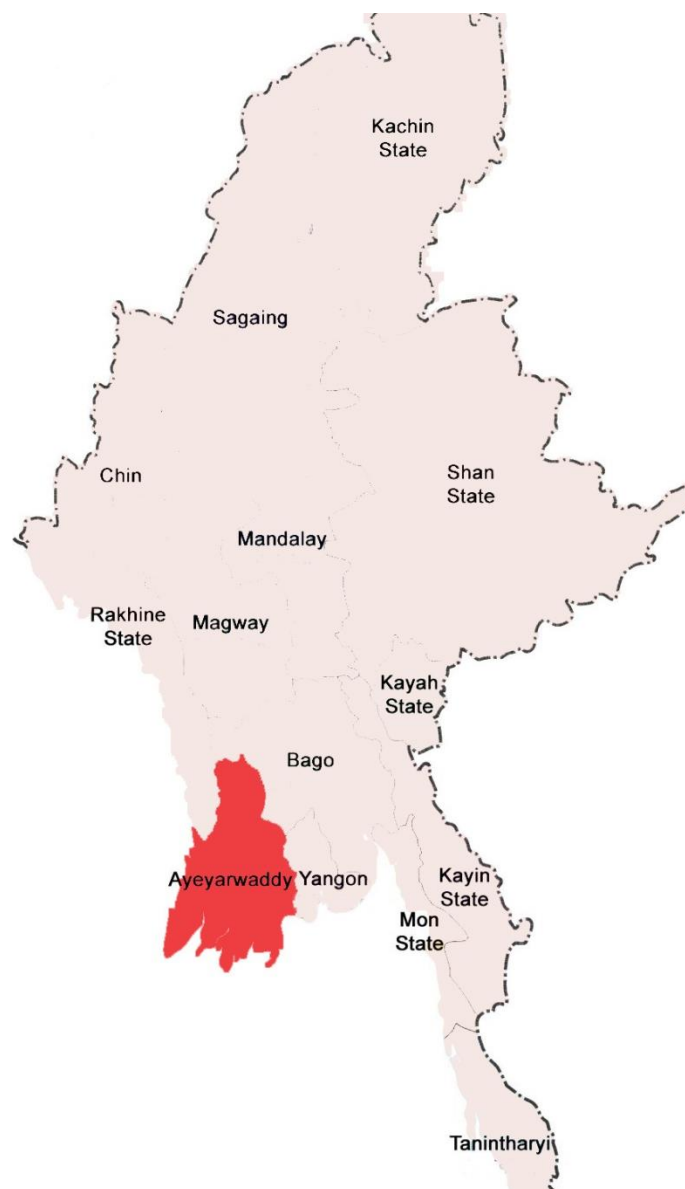
### **Ein Me and Nga Pu Daw Townships**

Prior to the research period, a scoping study was carried out by Pathein YMCA, a local YMCA in the region, supported by the National YMCA of the Republic of the Union of Myanmar (referred to as 'Myanmar YMCA' hereafter), Y Care International and Church World Service – Asia/Pacific. This identified a lack of awareness and understanding about disaster risks in the area and as a result a Disaster Risk Reduction (DRR) project started in 2013 implemented by Pathein YMCA and National YMCA with support from Y Care International and Church World Service – Asia/Pacific.

Ayerwaddy Region has 26 townships, including the townships of Ein Me and Nga Pu Daw which are particularly vulnerable to flooding due to their proximity to river tributaries. Both townships are accessible from Pathein, the Ayerwaddy Region's capital, during the dry season but rely on boats during the monsoon season. The population in Ein Me and Nga Pu Daw is 210,000 and 310,000 respectively, and this consists almost completely of people living in rural areas.

**Figure 1: Map of Myanmar showing location of Ayerwaddy Delta highlighted**

Source: © www.myanmars.net



<sup>5</sup> IPCC (2007)



A typical house in rural Patheingyi, Myanmar

© Y Care International

## 4. Methodology

Research consisted of semi-structured interviews and participant and environment observation. 21 semi-structured interviews were undertaken in Ein Me and Nga Pu Daw townships in the Ayeyarwaddy Delta region of Myanmar, to determine villagers' experiences of living in their communities and to what extent they relied on internal structures and external connections to solve problems.

In order to situate the findings and further understand the knowledge of vulnerability and social capital in the region, 3 semi-structured interviews took place with representatives from NGOs active in the region. These provided a background to the general DRR work taking place in Patheingyi and the extent of community level interaction.

In addition, participant and environment observations took place to allow for better contextualisation during data collection and analysis. This was an informal 'interview' while walking around the community to allow the participant to highlight aspects which they thought were important. The research aimed to investigate whether social structures within communities help to reducing vulnerability to disasters. Three research questions were considered:

- 1 To what extent do villages in the Ayeyarwaddy Delta rely on community, rather than government, support in terms of vulnerability reduction (and in general)?
- 2 To what extent is religion a determining factor in creating social linkages between villages and their inhabitants?
- 3 Does this strengthening of civil society reduce community vulnerability to disasters?





A group of children walking to school in Pathein

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## 5. Results

In general, relations between villages in the delta seem strong, and strengthened by the cross-village kinship system, built through inter-marriage. Social capital is strong and there is a sense of social cohesion and common purpose within the villages. Villagers generally rely on other villagers and local markets for skills and products rather than travelling to township urban areas to access them. One reason for this is the difficulty accessing urban areas as a result of the delta's watery geography; however, this also limits interaction between villages<sup>6</sup>.

Village life in the delta is governed by a range of formal and informal institutions. Informal institutions play an important role in control, decision-making and problem-solving and are influenced by village elders, religious networks, and local customs and traditions. In most villages, a standing committee, usually of village elders, is consulted for key decisions. Other village committees also exist which may form on an ad-hoc basis, in particular when there is an externally-funded development project in the village. Limited interaction with the state at region/state and national levels has led to the development of indigenous mechanisms for solving problems and managing village life<sup>7</sup>.

<sup>6</sup> Myanmar YMCA & Y Care International (2013)

<sup>7</sup> Ibid.

## 5.1 Bonding capital for small scale problems

In order to assess community social capital, by determining the ability of the communities to solve problems internally, as well as to work out where power resided in terms of community leadership, community members participating in the research were asked to imagine a situation where a local primary school did not have a teacher for a period of time. The answers suggested that there would be significant cooperation within the village in order to solve this problem.

Ninety percent of respondents said that religious leaders would help support the effort to find a new teacher, however this may be because some schools are run by religious groups and therefore would be responsible for the running of the school. This was followed by 81 percent of respondents saying that the village president would help to solve the problem and 76 percent saying the entire village / parent of the school children showing a real participative approach to community problem-solving. The majority believed that the village president would be the most likely to take the initiative to do this. Interestingly, the lowest number of respondents said that the local government would help on this issue, but it was still a high percentage at 67 percent. These findings suggest that the bonding capital in the villages is strong and rural communities in the Ayerwaddy delta are reasonably self-sufficient when it comes to low urgency issues.

The importance of bonding capital within the village is demonstrated in a case where a villager cannot afford medical care at the hospital outside the village or the transport to get there. Community members spoke of working together to organise fundraising events to help other villagers in situations like this involving selling items at the market to raise money, or donating some of their savings to help. This highlights a strong civil society in Ein Me and Nga Pu Daw, where villagers are willing to commit resources to support those who need them.

## 5.2 Bonding and linking capital for larger scale disaster risk

In order to assess social capital with larger scale and more urgent issues, participants were asked to consider a problem that affected the whole village; a large flood. Responses were not significantly different than for the small scale problem; 95 percent said the village president and religious leaders would help to solve the problem. This time around half of the respondents also believed that the local government and outside organisations would help in this situation. This shows again that the majority thought that the issue of a large-scale, urgent problem would be resolved internally by community members and leaders demonstrating strong bonding capital. A significantly lower percentage of respondents believing authorities and organisations outside the community would help, this suggests limited linking capital. This is revealing given the example of a large flood implies a situation which could potentially be beyond the community capacity to cope; a disaster.

However, when asked more about the organisations who might help in such a situation, respondents said that NGOs working in the area had supported them in the past on such occasions. For example one respondent in Ein Me said that they would have



been “unable to cope with the consequences of the flood” if it wasn’t for the intervention of the NGOs. NGOs play an important role in support communities to cope with large scale problems where linking capital with state structures and government authorities are limited.

In interviews, several participants mentioned that the presence of NGOs within these communities in the past was owing to personal ties between villagers and these organisations through for example employment. This shows that while it is limited, there is some level of linking capital in the village to external organisations primarily due to geographical proximity.

### **5.3 Community bridging capital**

Seventy-six percent of the sample was Baptist Christian; the remaining 24 percent were Buddhist. This was representative of the villages in Ein Me and Nga Pu Daw townships included in this research. While it is not the only factor, shared religious beliefs are one factor in determining bonding capital, so this is an indication that the bonding capital here is likely to be reasonably strong. When comparing the answers of the Christian respondents to the Buddhist respondents there was no real difference in how they regard the village community. When asked to rank their feelings on trust and honesty in the village, on average respondents responded positively with no significant difference between those with Christian and those with Buddhist beliefs. This suggests that bridging capital is also reasonably strong in the villages of the Ayerwaddy Delta and community members have ties likely to be based on shared geographical space.

While bonding capital appears to be high in the villages in the research townships, a case was discussed by respondents in Nga Pu Daw which consolidates the finding that bridging capital is based on a shared space. This was demonstrated when newcomers moved into a village there; 50 percent of respondents said there had been problems with their arrival. These newcomers had assets and opened shops, many were Buddhist so bonding capital might have been limited but there was the potential for building bridging capital. However, disagreements arose between the existing villagers and the newcomers because of the latter’s alcohol consumption which was frowned upon by the existing villagers. The newcomers were encouraged to leave the village and so the potential to build bridging capital was lost. This highlights the influence of social behaviour for strong social capital.

### **5.4 Linking capital between communities**

As highlighted above people living in villages in Ein Me and Nga Pu Daw Townships have a strong sense of civil society and high social capital in the form of bonding and bridging capital. The villages also cooperate with, and support, each other representing linking capital at the local level. For example, one villager from Nga Pu Daw said that when monsoon rain resulted in vegetation preventing safe transport between villages on the rivers, any villager unable to return home was always able to find shelter in a neighbouring village until the rivers were safe enough to travel on again. The villages in Nga Pu Daw also share a motorised boat that is used to visit markets and provide transport for to health centres outside the villages.

There are also benefits of strong linking capital between communities when this extends to sharing links with other external organisations to the village. For example, in the cases mentioned above where NGOs supported villages where they had strong ties through employment, many respondents also said that the NGOs extended support to neighbouring villages with no existing ties other than those between these communities. This is also a good example of where strong linking capital can reduce vulnerability to disasters.

## 5.5 Conflict

While the findings suggest that bonding and bridging capital are strong, there were cases mentioned through the research where there were divisions and disputes within the village; 48 percent could recall an event which had led to problems in their village. These were predominately around financial issues, differences in education, and newcomers to the village. A small number of people also mentioned problems due to religious differences.

### Financial issues

Finance was the main source of disputes among villagers in the Ayerwaddy Delta with 29% of participants recalling a dispute in their village relating to this. Debt, specifically that of daily labourers, was most often cited as the source of these disputes.

Many community members make their living through daily labour in Myanmar and they often heavily rely on wages in kind from their employers, including food and sometimes shelter. Daily labourers generally have few assets and savings and so are particularly vulnerable to shocks – including disasters, loss of work or illness – which may result in them going into debt. Conflicts can then arise concerning late or missed repayments of these debts.

One example shared by a respondent in Ein Me was a time when a daily labourer in one village borrowed money from another villager in order to purchase medicine for their child on the condition that they would work on the lender's fields to repay this debt. The debtor was then unable to uphold his side of the agreement due to injury and there was a dispute. While the daily labourer belonged to the same religion and shared the same ethnicity as the majority of the village, and was able to access the money to help his sick child, he was unable to rely on this same bonding capital when he was not able to repay the loan. In this case, strong linking capital might have helped if the daily labourer was able to access additional resources from outside the village.

## 5.6 Social capital for reducing vulnerability to disasters

Of those that were interviewed and said that they did not prepare for the upcoming monsoon season, 70 percent said that this was because they believed that major floods only happen every 3 or 4 years. Although anecdotal evidence suggests that this is the case in general, flooding events are far less predictable than this and changing monsoon patterns as a result of climate change are likely to alter the frequency of flood events in the Ayerwaddy Delta. The lack of disaster preparedness also shows that community members in these villages are vulnerable to disasters. A field study was carried out by Myanmar YMCA (supported by Y Care International and Church World

Service – Asia/Pacific), to assess the level of disaster preparedness and understanding in Ein Me and Nga Pu Daw townships. More than half of the respondents in this study said that there was nothing they could do to prepare for a disaster. This shows a serious lack of awareness of disaster preparedness measures and the importance of these for reducing vulnerability to disasters. This is where external intervention might be beneficial and linking capital is so important.

However, when it comes to local knowledge on natural hazards events, there is real knowledge based on community experience and indigenous knowledge which shouldn't be overlooked. Utilising local knowledge has been increasingly seen as a vital part of DRR local information on natural hazards and disasters can inform appropriate DRR actions. Transferring and sharing this knowledge is also vital in ensuring all community members are aware of the disaster risks that face them and appropriate measures for mitigating the impacts. This is one of the area's which strong social capital through networks and links plays a part in in reducing vulnerability to disasters.

The YMCA has recently completed a youth-led DRR project in these two townships with support from Y Care International and Church World Service – Asia/Pacific. An evaluation of the project has shown that there is a significant increase in understanding on disaster risks here. Young people leading this project shared their learning through community awareness raising sessions showing that a shared goal of reducing disaster risk can be very effective in reducing community vulnerability to disasters. These awareness raising sessions were so well attended in part due to the strong civil society and social relationships present in these villages which played a part in mobilising community members to attend.





Two smiling young girls in rural Myanmar

© Y Care International

## 6. Conclusion, recommendations and further research

This research analysed the social linkages and connections within communities of the Ayerwaddy Delta (bonding and bridging capital), and the social interactions with external actors (linking capital), to consider the importance of social capital and a strong civil society in reducing vulnerability to disasters. The research found that villages in the Ayerwaddy Delta are mutually supportive, have strong bonding capital and reasonably strong bridging capital and are self-sufficient for issues arising in the everyday functioning of their community. However, their linking capital is limited and this is an issue when it comes to coping with larger scale problems such as disasters. Below are some recommendations for addressing the issues found in the research, and some areas for further study.

### Conclusions and recommendations

The strong civil society found in this research in the villages in the Ayerwaddy Delta is important for mutual support in times of crises and plays a part in reducing vulnerability to disasters in these communities. The strong bonding capital found in the villages not only mobilises communities to assist each other in recovering from disasters and building community coping mechanisms, but is also vital for DRR and knowledge and information sharing.

As a first step, **local gaps in knowledge on disasters and disaster risks should be assessed and indigenous knowledge should be taken into account in this process. Knowledge gaps should be addressed through locally appropriate training on DRR and ways found to provide this training to remote hard to reach communities.** The DRR project implemented by Myanmar YMCA through the local YMCA in Patheingyi and with support from Y Care International and Church World Service – Asia/Pacific utilised the innovative Mobile Knowledge Resource Centre (MKRC) as a way of reaching remote communities. The MKRC is a retrofitted truck which was driven into the communities to provide training on DRR supported by easily accessible learning materials and dynamic models. **DRR training should include information of how hazard patterns and trends might be affected by a changing climate.**

**Projects should also include ways to ensure DRR knowledge is shared within and between communities.** One way of facilitating this knowledge transfer is by supporting young people to engage in peer to peer education; shown to be extremely effective in villages in the Ayeyarwaddy Delta through the project mentioned above. It is important that information is also shared with members of the community with lower social capital and higher vulnerability. Therefore, **DRR activities should include particularly marginalised people and people from a variety of ethnic, religious and other social groups.** Not only will this lead to increased disaster resilience as a result of increased knowledge, but may also lead to stronger bridging capital between groups in the community.

In contrast to strong social capital within and between these rural communities, links and ties to individuals and groups outside the communities were found to be fairly low in villages in the Ayeyarwaddy Delta. The lack of linking capital found here is both a result of, and of particular importance because, these villages are geographically remote and hard to reach. A disaster by its definition is an event which surpasses a community's ability to cope on its own so strong linking capital is essential for reducing vulnerability. External assistance has been limited in the past to NGOs but with recent positive governmental changes and an opening up of the country there are hopes that this might change in the future. **Efforts should therefore be made to support and facilitate dialogues and relationship building between communities and local governance structures to build their linking capital.** Where possible, supporting the capacity building needs of local government authorities in disaster management is also important.

The linking capital associated with ties with NGOs and civil society organisations was found to be slightly higher than that with local government. It is essential then that these organisations have the capacity to support emergency response and DRR activities in the communities in which they work. For this linking capital to be sustainable in the long term, a focus on capacity building of local and national indigenous organisations is also key. Efforts should be made to assess organisational DRR capacity and **programmes in disaster-prone locations should build the capacity of local actors in DRR and climate change adaptation to enable them to support community-based DRR activities and learning.**

## **Areas of further research**

The findings of this study suggest a number of directions for future research:

- 1 Similar studies of social capital of communities living in urban areas are important. The results of these studies would be valuable in identifying the differences and similarities between rural and urban communities and identifying other appropriate approaches to build disaster resilience.
- 2 Further research into strategies for supporting or facilitating strong social capital might be interesting.



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**This report summarises the findings from Kenneth Green's research in rural communities in Patheingyi, Myanmar in 2013. The report attempts to understand and analyse the role of social capital within and between rural communities in disaster resilience. The recommendations will be considered in project design to increase the impact of Y Care International's projects.**

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