CASE STUDY

DISASTER RISK REDUCTION AND DISASTER MANAGEMENT IN MYANMAR: THE ROLES OF EMPLOYER AND BUSINESS MEMBERSHIP ORGANIZATIONS

International
Labour
Organization

DISASTER RISK REDUCTION AND DISASTER MANAGEMENT IN MYANMAR:

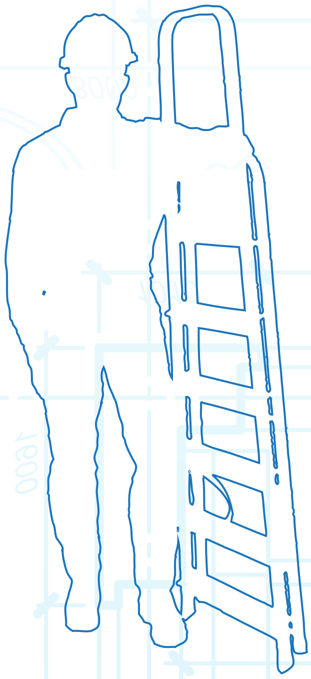
THE ROLES OF EMPLOYER AND BUSINESS MEMBERSHIP ORGANIZATIONS

March 2017

Linda Vega Orozco

Regional Office for Asia and the Pacific
Bureau of Employers' Activities (ACT/EMP)

Contents



List of figures

List of tables

Abbreviations

AMCHAM	American Chamber of Commerce
ARISE	Private Sector Alliance for Disaster Resilient Societies
ASEAN	Association of Southeast Asian Nations
BWP	Beneficiary Welfare Programme
CBI	Connecting Business Initiative
CPWG	Myanmar NGO Contingency Planning Working Group
DRR	disaster risk reduction
DRRWG	Disaster Risk Reduction Working Group
EBMO	Employer and Business Membership Organizations
EUROCHAM	European Chamber of Commerce
GDP	gross domestic product
MAMDA	Myanmar Automobile Manufacturer and Distributor Association
MAPDRR	Myanmar Action Plan for Disaster Risk Reduction
MDPA	Myanmar Disaster Preparedness Agency
MBE	Myanmar Business Executives Association
MFF	Myanmar Fisheries Federation
MLF	Myanmar Livestock Federation
MIMU	Myanmar Information Management Unit
MPBSMA	Myanmar Pulses, Beans and Sesame Seeds Merchants Association
MPD Network	Myanmar Private Disaster Preparedness Network
MRF	Myanmar Rice Federation
MSOWRR	Ministry of Social Welfare, Relief and Resettlement
NGO	non-governmental organization
NNDMC	National Natural Disaster Management Committee
PDRF	Philippine Disaster Resilience Foundation
SBA	sectoral business association
SME	small and medium-sized enterprises
UMFCCI	The Republic of the Union of Myanmar Federation of Chambers of Commerce and Industry
UN	United Nations
UNDP	United Nations Development Programme
UNISDR	United Nations Office for Disaster Risk Reduction
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
WHS	World Humanitarian Summit

Introduction and structure of this report

This report is part of a series of case studies that the ILO's Bureau for Employer's Activities (ACT/EMP) in cooperation with the Regional office for Asia and the Pacific in Bangkok is undertaking across the Asia-Pacific region on the role of employer and business membership organizations (EBMOs) in fragile zones. [1]

The report identifies disaster risk reduction (DRR) and disaster management interventions undertaken by private sector actors, including the Republic of the Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI), EBMOs, private sector networks and private enterprises. This research focuses on the impact of and response to two major disasters: Cyclone Nargis in 2008 and the 2015 floods.

The report is divided into seven chapters, as follows:

- **Chapter 1** examines Myanmar's socio-economic context and provides an overview of recent natural disasters.
- **Chapter 2** provides an overview of how EBMOs and private sector networks engaged in disaster management during Cyclone Nargis and the 2015 floods.
- **Chapter 3** examines the role of the private sector according to DRR and disaster management policies in Myanmar as well as potential areas for further collaboration between the business community and the Government.
- **Chapter 4** explores the role that EBMOs and private sector actors have had in formulating and implementing strategies and initiatives for disaster preparedness and mitigation in Myanmar.
- **Chapter 5** explores the measures taken by EBMOs to maintain sectoral operations during and following disaster events.
- **Chapter 6** examines the experience of the private sector in short and long-term disaster recovery and reconstruction.
- **Chapter 7** contains conclusions and recommendations resulting from this research.

ACT/EMP wishes to acknowledge the contribution of all stakeholders who made completion of this case study possible. Thanks to the interviewees who keenly shared their views on the role that their organizations have played or could play in DRR and disaster management in Myanmar. In addition, appreciation is expressed to Gary Rynhart, Senior Employers' Specialist of the ILO Bureau for Employers' Activities, Jared Bissinger, Chief Technical Advisor of the ILO Strengthening Capacity of Employers' Organization project in Myanmar and Nyein Chan, National Development Officer at the ILO in Myanmar.

[1] In this paper, EBMOs are defined as membership-based organizations from the private sector that promote the collective interests of business, across sectors, irrespective of enterprise size. EBMOs include SBAs, apex business organizations and employers' organizations. ILO (2016)

Methodology

Initially a desk review was conducted to map and assess the role of employer and business membership organizations (EBMOs) and other private sector actors before, during and after major disasters in Myanmar. The desk review was conducted using a wide range of secondary sources, including:

- sectoral development plans, policies, programmes and other official policy documentation produced by the Government of Myanmar;
- national and regional disaster management policies and plans produced by the Government of Myanmar;
- websites and other materials related to the Government of Myanmar;
- websites and other materials related to business membership organizations and the UMFCCI;
- international reports, policies, frameworks and case studies produced by United Nations (UN) bodies, development banks and international non-governmental organizations (NGOs);
- academic articles and databases housed at a range of universities and research institutions globally; and
- newspaper articles, news videos and social media reporting from a range of sources including the *Myanmar Times.*

The desk review was limited by gaps in information available online. Therefore, in order to strengthen the findings of this report, fieldwork was undertaken in Yangon between 3 and 12 November 2016. A questionnaire aimed at specific stakeholders was developed for semi-structured interviews conducted with 23 key informants from 12 organizations according to the following pre-determined categories:

- **Staff of EBMOs and sectoral business associations (SBAs):** Key informants were interviewed from the UMFCCI and four business membership organizations that conducted disaster relief initiatives after major disasters, namely, the Myanmar Rice Federation (MRF), Myanmar Livestock Federation (MLF), Myanmar Fisheries Federation (MFF), and Myanmar Pulses, Beans and Sesame Seeds Merchants Association (MPBSMA).

  Additionally, four SBAs in major agriculture and industrial sectors that were not identified in the desk review were contacted in order to examine whether they had taken part or could participate in future disaster management activities. Of these four SBAs, only the Myanmar Automobile Manufacturer and Distributor Association (MAMDA) agreed to participate in the interviews.

- **Members of private sector networks:** Key informants from the Myanmar Business Executives Association (MBE) and the Myanmar Private Sector Disaster Management Network (MPD Network) were interviewed.

- **Staff of UN agencies working on disaster risk reduction (DRR) and disaster management in Myanmar:** Two staff members of the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) and the United Nations Development Programme (UNDP) were interviewed.

- **Enterprises which had provided disaster assistance:** Five key informants who held executive positions or were in charge of corporate social responsibility at Telenor (a mobile communication services company), KBZ Bank (a major commercial bank), and Diamond Mercury (a large exporter of wood) were interviewed.

- **High ranked officials from the Department of Relief and Resettlement:** The director and a staff member of the Relief and Resettlement Department in the Yangon region were interviewed.

The semi-structured interviews were conducted in both English and Burmese with a translator. The list of interviewees is presented in Appendix II. Key findings from the fieldwork have been integrated into the report.

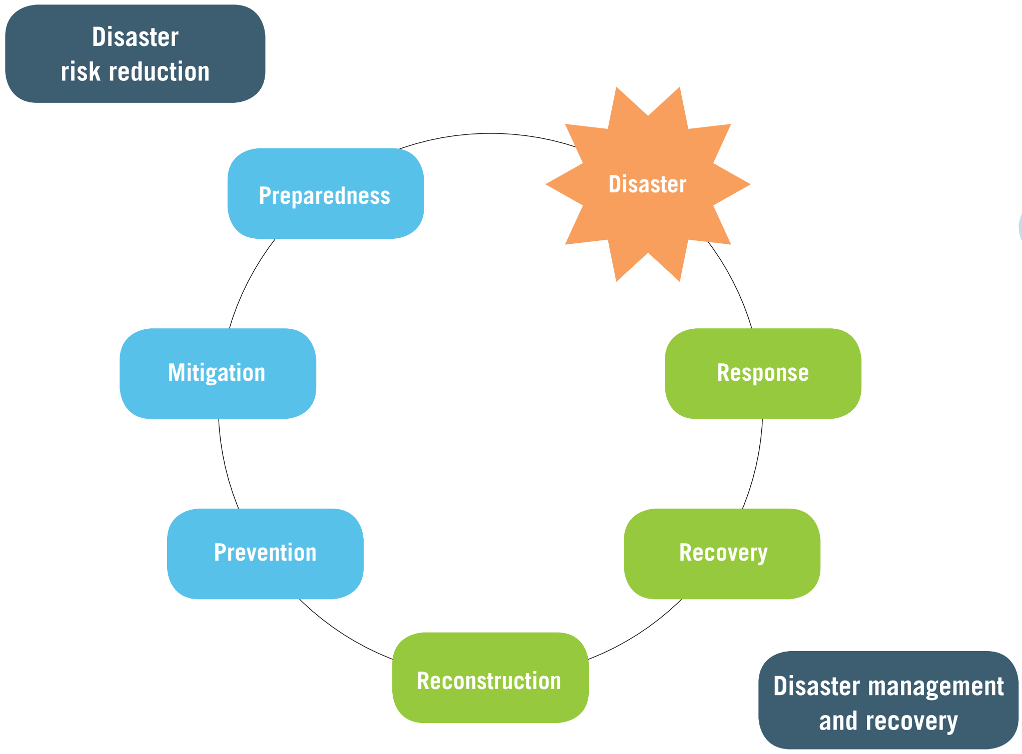
Terminology

The following terms are used throughout the report. The disaster related definitions were adapted or taken directly from UNISDR (2009), ILO (2010) and ILO (2008).

- **Contingency planning:** An analysis of specific potential events that might threaten society, businesses or the environment where arrangements are established in order to conduct timely, effective and appropriate responses to such events.
- **Disaster:** A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts. Disasters result from a combination of the exposure to a hazard, the present conditions of vulnerability and insufficient capacity to respond to or cope with the negative impacts of the disaster.
- **Disaster management:** The management of resources and responsibilities for addressing all aspects of disasters, particularly response and initial recovery activities. Disaster management is also referred to as emergency management.
- **Disaster risk reduction:** The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters.
- **Employers' and business membership organization:** Membership-based organization of the private sector that promotes the collective interests of business, across sectors, irrespective of enterprise size. EBMOs include SBAs, apex business organizations and employers' organizations.
- **Public-private partnership:** Voluntary and collaborative relationships among various actors in the public and private sectors, in which all participants work together to accomplish a common goal or conduct specific activities.
- **Resilience:** The ability of a system, community or society to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner.
- **Risk:** The combination of the probability of an event and its negative consequences.
- **Risk assessment:** A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services and livelihoods, among others.
- **Natural hazard:** Natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Figure 1 illustrates the phases of DRR and disaster management. DRR encompasses decisions and operational activities to manage the causal factors of disasters in order to reduce exposure and vulnerability to hazards and increase preparedness for adverse events. Disaster management focuses on actions to manage disasters or emergencies, particularly the immediate response, short-term recovery and long-term reconstruction. In this way, DRR and disaster management refer to pre-disaster and post-disaster actions, respectively.

Figure 1. DRR and disaster management cycle



Source: Adapted from FAO, 2013 and UNISDR, 2009.

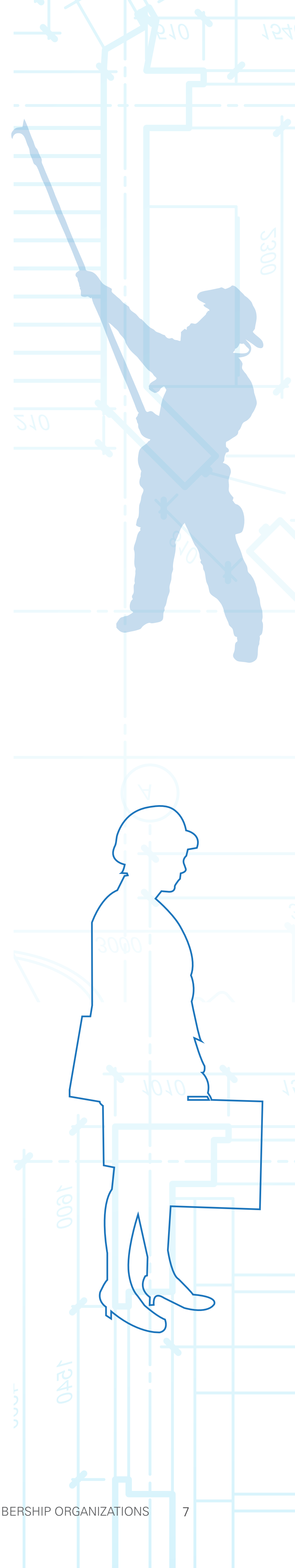
1. Socio-economic context and past disasters in Myanmar

Chapter 1 provides an overview of the socio-economic context and major natural disasters that have occurred in Myanmar. Section 1.1. describes Myanmar's economic structure and examines how recent political changes have impacted the development of the private sector; while Section 1.2 analyses the frequency and impact of past natural disasters in Myanmar to identify major events and disaster types.

1.1 Socio-economic context: A generous country with a thriving private sector

Myanmar is a lower-middle-income country with a population of 53.8 million people. In terms of human development, Myanmar is ranked 148th out of 188 countries on the UNDP's Human Development Index (2015).[2] In 2015, its gross domestic product (GDP) totalled US$64.8 billion.[3] In 2014, the agriculture sector accounted for 44 per cent of GDP, while services and industry contributed 35 per cent and 21 per cent respectively.[4] According to the latest employment figures from 2015, the agriculture sector employed 52 per cent of the labour force and provided livelihoods for more than 70 per cent of the population.[5] These figures indicate that Myanmar's economy is strongly dependant on agriculture and provide an idea of the significant impact that disasters can have on the sector. In 2013, the top five agricultural commodities in terms of production were rice (26.4 million tonnes), sugar cane (10.3 million tonnes), beans (4.4 million tonnes), fresh vegetables (3.4 million tonnes) and maize (1.6 million tonnes).[6] In that same year, only 484,108 tonnes of rice were exported, which means that 98 per cent of all rice produced in Myanmar was consumed domestically.

In 2011, Myanmar's military junta handed over control of the government to a new military-civilian-led government. This political change has resulted in economic and social reforms, which have facilitated the integration of Myanmar into the global economy and led to the increasing development of the private sector. This is visible through several indicators. Between 2010 and 2015, for example, foreign direct investment increased from US$901 million to US$4.08 billion, which represents an increase of over 450 per cent.[7] According to the World Bank's (2017) "Doing Business" Ranking, which analyses the rigidity of business regulations, Myanmar has become an easier place to start a new business.[8] The Ministry of Industry estimates that there are over 44,700 formal enterprises in Myanmar. Of these, 68 per cent are small enterprises, 19 per cent are medium-sized and 13 per cent are large enterprises.[9]



2 UNDP, 2015.
3 World Bank, 2016.
4 McKinsey Global Institute, 2013; Oxford Business Group, 2016.
5 Government of the Union of Myanmar, 2015.
6 FAO, 2016.
7 World Bank, 2016.
8 World Bank, 2017. As of January 2017 Myanmar was ranked by the World Bank as the 44th most difficult place worldwide to start a new business, an improvement from the 20th most difficult place in 2016. However, Myanmar is ranked 170 out of 190 countries on the overall "ease of doing business".
9 Central Department of Small and Medium Enterprises in Myanmar, 2015.

As this report will show, private sector actors have contributed greatly to disaster response and recovery through donations in cash and in kind. This is in keeping with the fact that Myanmar is the most generous country worldwide as revealed by the World Giving Index (2016). [10] This index measures generosity by surveying representative national samples worldwide, and evaluates three aspects: donating money; helping a stranger; and volunteering. Myanmar has ranked first for the past three years, and in 2016 was followed by high-income countries such as the United States, Australia and New Zealand. [11]

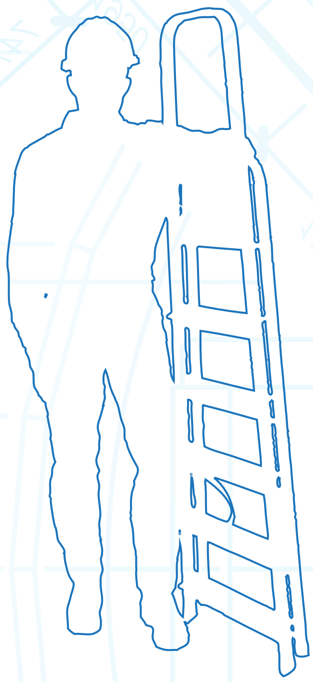
1.2 Review of past disasters: Storms and earthquakes are the major natural hazards

Between 1990 and 2015, there were 38 recorded disaster events in Myanmar, which killed over 139,000 people, affected more than 13 million people and caused economic damage equivalent to US$4.8 billion. [12] During this period, Myanmar was exposed to various natural hazards including cyclones, storms, floods, earthquakes, droughts and fires. Storms most frequently led to disaster events, accounting for over half of the total number of disasters recorded. Five disaster events over this period (1990-2015), namely two earthquakes in 2004 and 2008, Cyclone Nargis in 2008, Cyclone Giri in 2010, and the 2015 floods accounted for 97 per cent of total economic damage, 99 per cent of people killed and 89 per cent of people affected (see table 1).

Table 1. Five major disaster events in Myanmar

Year	Disaster	Total deaths	Total affected	Economic damage (US$ thousands)
2008	Cyclone Nargis	138 366	2 420 000	4 000 000
2004	Indian Ocean earthquake	71	15 700	500 000
2015	Floods	133	9 014 000	119 000
2010	Cyclone Giri	45	260 049	57 000
2011	Earthquake Tarlay	74	21 277	3 600
Total		**138 689**	**11 731 026**	**4 679 600**

Source: EM-DAT, 2016



[10] Charities Aid Foundation, 2016.

[11] Myanmar's generosity is so embedded in the local culture that a large proportion of people reportedly donate money for charitable purposes on a monthly basis. This "culture of generosity" is associated with the fact that according to official data, 88 per cent of the population follows Theravada Buddhism. Through this religion good deeds, acts or thoughts are believed to be accumulated to "make merit" and influence the quality of people's next lives (CIA, 2016; Malaysian Buddhist Co-operative Society Berhad, 2016).

[12] EM-DAT, 2016. The total number of people affected includes those injured and made homeless. Economic damage is the amount of damage to property, crops and livestock due to disasters. It is worth noting that according to the Government of the Union of Myanmar (2015), estimated economic damages from the 2015 floods totalled US$1.51 billion, which was equivalent to 3.1 per cent of national GDP in 2014.

Cyclone Nargis killed more than 138,000 people, affected over 2.4 million and resulted in economic damage totalling US$4 billion, making it the deadliest disaster in the history of Myanmar. Over a week prior to the cyclone, international forecasters issued general warnings of a growing storm approaching. This was followed by daily updates of hydrological changes and computer-generated plots of the likely route of Cyclone Nargis 48 hours before it struck Myanmar.[13] Even though these warnings were sent to the Government, it did not issue national warnings or evacuate populations situated in the cyclone's direct path. This lack of action was responsible, in part, for the high death toll.

The 2015 floods, which were caused by heavy monsoon rains exacerbated by Cyclone Komen, affected over 9 million people in 12 out of Myanmar's 14 states. The floods heavily impacted the agriculture sector, killing over 242,000 livestock, damaging more than 527,000 hectares of crops, and harming almost 30,000 hectares of fish and shrimp ponds in the six most affected states and regions.[14] The floods seriously disrupted business activities in the sector due to rapid increases in the price of agricultural products as well as the destruction of roads and bridges.

The main natural hazard risks to Myanmar are storm surges, floods and earthquakes. Major storms and floods have hit Myanmar every year since 2010, with some storms turning into devastating cyclones. In terms of earthquakes, a fault line runs vertically down the country through Mandalay and Yangon. Given the recent rapid expansion of commercial infrastructure nationwide, this exposure is profound. Myanmar was revisited by earthquakes in 2014, 2015 and 2016 (one measuring 7.6 in magnitude).

[13] Waidyanatha, 2008; Voanews, 2009.
[14] FAO, 2015. The six most affected regions and states were Sagaing, Chin, Ayeyarwaddy, Rakhine, Bago and Magway.

2. Overview of EBMOs and private sector networks that engage in disaster management

Chapter 2 provides an overview of how EBMOs and private sector networks engaged in disaster management during Cyclone Nargis and the 2015 floods. Section 2.1 lays out the structure of the UMFCCI and the nature of its past activities in disaster management. It also explores the partnerships that the UMFCCI has developed with UN agencies. Section 2.2 examines the role of a range of EBMOs and private sector networks in disaster management. Section 2.3 analyses the degree of coordination between the UMFCCI and four private sector actors: sectoral business associations (SBAs), EBMOs, private sector networks, small and medium enterprises (SMEs), and large enterprises.

2.1 Role of the UMFCCI in disaster management

In Myanmar, the apex organization representing the business sector is the UMFCCI, founded in 1919 as the Business Chamber of Commerce. The UMFCCI is composed of 72 EBMOs – 47 SBAs and 25 chambers of commerce and industry (16 state and regional chambers of commerce and nine border trade chambers) (see the list of UMFCCI members in Appendix 1). In addition, as of 2015 according to the UMFCCI's website, the apex organization had 30,553 members, including Myanmar and foreign enterprises, associations, cooperatives and individuals. [15]

In the wake of Cyclone Nargis in May 2008, the international community, UN agencies, the Government of Myanmar, and the private sector supported disaster response and recovery. [16] The UMFCCI set up several disaster task committees with 37 members from affiliated SBAs and EBMOs to support disaster response in their areas of competence. Private enterprises also assisted disaster response after Cyclone Giri and Tarlay earthquake. [17]

The role of the UMFCCI in disaster management, however, has been primarily limited to the recovery phase, meaning it has taken action mostly following the occurrence of a disaster. It is worth highlighting that the Government has also primarily conducted disaster management (post-disaster actions) despite having policies in place for DRR (pre-disaster). In the aftermath of the 2015 floods, the UMFCCI established the "Support Myanmar" initiative through which it conducted disaster response through various donations and the distribution of emergency supplies.

[15] UMFCCI, 2016a. BMOs are representative (member-based) organizations of the private sector, namely employers' organizations, chambers of commerce and sectorial associations.

[16] According to FAO (2009), after Cyclone Nargis, the Government established an emergency response package totalling US$45 million and the private sector contributed US$68 million to support disaster response and reconstruction. The Government did not issue warnings or evacuate people despite having received daily cyclone warnings for over a week prior to Nargis and computer-generated plots of its likely route 48 hours before it struck Myanmar (Waidyanatha, 2008; Voanews, 2009).

[17] Trocaire, 2011.

During the floods in August 2015, the UMFCCI requested that UNOCHA and UNDP collaborate for disaster preparedness, response and recovery. This collaboration resulted in a UMFCCI-UN project, “Supporting the Myanmar Private Sector on Disaster Preparedness, Response and Recovery”, which is aligned with the Connecting Business Initiative (CBI), a global mechanism for the private sector to engage with multiple stakeholders in DRR led by the United Nations Office for Disaster Risk Reduction (UNISDR).

The UMFCCI-UN project aims to develop a common understanding across the private sector of key disaster related concepts and guidelines, and establish a private sector network to coordinate disaster preparedness, response, and recovery. Increased cooperation among private sector actors is intended to better support the Government and humanitarian actors before, during and after disasters. [18] In December 2016, this joint engagement led to the creation of the MPD Network – the first time that the UMFCCI, as a representative of the private sector in Myanmar, has engaged in disaster preparedness and mitigation activities with development agencies. The specific objectives and achievements of the UMFCCI-UN project and the MPD Network are explored in Chapter 4.

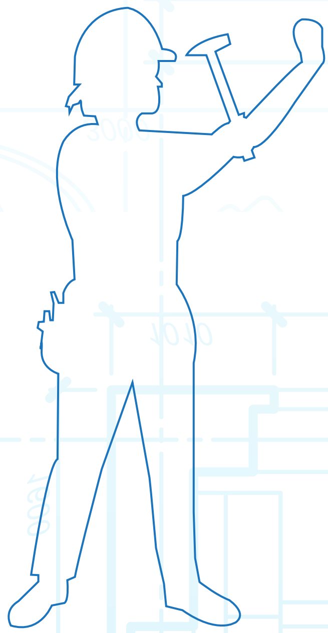
2.2 Role of EBMOs and private sector networks in disaster management

EBMOs and private sector networks have only provided assistance after disaster events, concentrating on disaster response and recovery. Of the 47 SBAs that are members of the UMFCCI, only 12 per cent (six SBAs) have engaged in disaster management. [19] SBAs and private sector networks have collected donations in cash or in kind and distributed them to the victims of disaster events in cooperation with both governmental and NGOs. Moreover, two SBAs have planned or advanced policy measures to lessen the impact of disasters within their sectors. One private sector network also engaged in long-term disaster reconstruction.

The activities of the EBMOs and private sector networks are outlined below.

Following Cyclone Nargis: [20]

- Myanmar Fisheries Federation (MFF) conducted an impact assessment of the fishing sub-sectors that calculated economic losses in 11 townships in the Ayeyarwaddy Region. The MFF also donated boats, fishing gear and fishing nets to flood-affected fishermen.
- Myanmar Pharmaceuticals and Medical Equipment Entrepreneurs Association collected donations of medicine equivalent to 1 billion Myanmar kyat (MMK) (about US$1.1 million) from its members, which were distributed to disaster victims through the Ministry of Health.
- Myanmar Pulses, Beans and Sesame Seeds Merchants Association (MPBSMA) provided beans and rice worth MMK30 million (about US$35,100) in Mandalay, responding to requests by the Mandalay State Peace and Development Council.
- The American Chamber of Commerce (AMCHAM) collected almost US$7 million from its members through the United States Chamber of Commerce Foundation for disaster relief. [21]



[18] See UNOCHA, UMFCCI and UNDP, 2016.
[19] According to this research, based on secondary sources of information available online and interviews conducted in November 2016. It is possible, nevertheless, that the number of SBAs that have engaged in disaster management is actually higher due to the culture of generosity that is widespread across Myanmar.
[20] Trocaire, 2011, and interview with the MFF, 2016. Donations in US dollars were calculated using the 2012 average exchange rate of MMK854.26 per US$1 from the Bank of Canada (2016).
[21] US Chamber of Commerce Foundation, 2008.

During and after the 2015 floods: [22]

- Myanmar Automobile Manufacturer and Distributor Association (MAMDA) founded the Myanmar Motor Volunteer Foundation, which collected and distributed donations in cash and in kind (food and medicine) worth MMK15 million (about US$12,434) to flood victims in the Ayeyarwaddy Region.

- The MFF protected fish farms by surrounding them with nets to avoid fish from being washed away by the floods. The MFF also donated fishing equipment to fishermen in flood-affected townships worth MMK180 million (US$149,205).

- Myanmar Livestock Federation (MLF) expressed its willingness to carry out a study, over late 2015 or early 2016, in order to determine the best methods for using rice and paddies in disaster-affected areas to produce animal food. The MLF developed a manual for farmers on ways to protect livestock during disasters in cooperation with multilateral organizations.

- Myanmar Rice Federation (MRF) sold over 400,000 bags of rice cheaply to flood-affected farmers in Rakhine State in order to alleviate food shortages. The MRF also agreed with traders, in coordination with the Ministry of Commerce, to ban rice exports as an emergency measure to stabilize prices. See Chapter 5 for more information on the export ban.

Private sector networks:

- **Myanmar Business Executives Association (MBE)** is a private sector network and NGO founded in 2008. It is composed of 84 enterprise members and over 1,000 business actors. [23] The MBE aims to support sustainable business development in Myanmar through education, social development, microfinance and corporate social responsibility initiatives. The MBE supported disaster response and recovery during both Cyclone Nargis and the 2015 floods by providing shelter, drinking water and medical aid to the victims. Between 2008 and 2012, the MBE led the reconstruction of 37 schools in 36 villages hit by Cyclone Nargis. In 2015, it established an online crowdfunding platform to collect donations and coordinated donations of rice sacks to flood-affected areas in the town of Kawlin in Northern Myanmar. [24] Chapter 6 examines the MBE's disaster response and reconstruction initiatives in more detail.

---

[22] Kyaw, 2015; Win and Aung, 2015a; Mg Oo, 2015a; interviews with informants from SBAs in November 2016.
[23] MBE, 2016a.
[24] MBE, 2016b. See MBE's crowdfunding initiative at: https://www.youcaring.com/myanmar-flood-victims-in-ayeyarwaddy-delta-area-406896

© MBE 2015

MBE staff and partners donating sacks of rice to flood-affected victims in Kawlin, Sagaing Division, 2015

- **Myanmar Private Disaster Preparedness Network (MPD Network)** is composed of more than 15 private enterprises, foundations, chambers of commerce and international NGOs. The creation of this network in August 2016 resulted from the UMFCCI's request to UNOCHA and UNDP to collaborate for disaster preparedness, response and recovery. [25] The MPD Network aims to coordinate DRR and disaster management actions between private sector actors and multiple stakeholders before, during and after disasters. As of December 2016, its members included:
  - **EBMOs:** UMFCCI.
  - **Foreign chambers of commerce in Myanmar:** European Chamber of Commerce (EuroCham Myanmar), AMCHAM Myanmar, Australian-Myanmar Chamber of Commerce (A-MCC) and British Chamber of Commerce in Myanmar.
  - **Private sector enterprises:** Ooredoo and Telenor (two mobile communication services companies), Sky Net (a television channel), KBZ Bank and Yoma Bank (two major commercial banks), First Myanmar Investment (a large public enterprise) and Citi Mart (a large food retailer).
  - **Humanitarian actors:** UNDP and UNOCHA as well as a range of international NGOs including the Htoo Foundation (an NGO established by the Htoo Group after Cyclone Nargis) and the Ayeyarwaddy Foundation. [26]

Chapter 4 will examine in more detail the establishment, development and way forward for the MPD Network.

[25] UMFCCI, 2016b.
[26] The Htoo Group is the parent enterprise of the national airline Air Bagan. The group is also engaged in trading, construction and property development, agriculture, shipping, mining and hospitality, among other businesses.

2.3 Coordination between the UMFCCI and private sector actors in disaster management

Through this research it was possible to explore the extent to which the actions of EBMOs are coordinated with those of the UMFCCI. Coordination here refers to the degree of alignment in their activities.

Overall, it was found that the coordination between the UMFCCI and private sector actors is relatively weak.

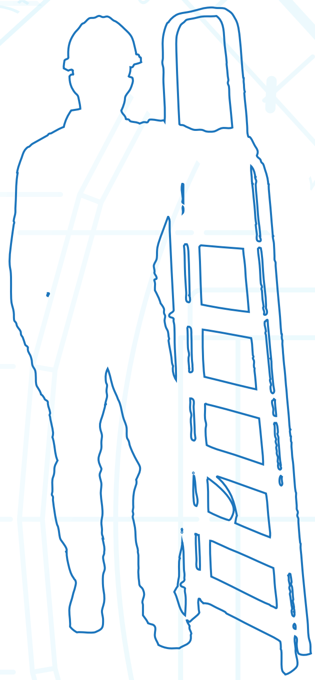
In the case of SBAs, six associations or federations were found to have been involved in disaster response and recovery and four of them belong to the agriculture sector. These SBAs have collected and distributed donations to disaster victims and communicated policy measures to enterprises in their sectors. However, with the exception of the disaster task committees formed by the UMFCCI after Cyclone Nargis, SBAs have operated independently of the UMFCCI, making decisions and taking actions without consulting it. In fact, four of the five SBAs interviewed as part of this research reported that they had had little interaction with the UMFCCI both before and after disaster events. Only the MPBSMA had knowledge of the UMFCCI-led “Support Myanmar” initiative and supported disaster management by making donations through the initiative following the 2015 floods. These findings highlights a lack of coordination as well as very weak linkages and communication between the SBAs and the apex organization.

In terms of the 25 EBMO members of the UMFCCI, no initiative involving disaster response conducted by state or regional chambers of commerce or border trade chambers was found. It is thus not possible to classify what type of coordination exists between the UMFCCI and state, regional and border EBMOs.

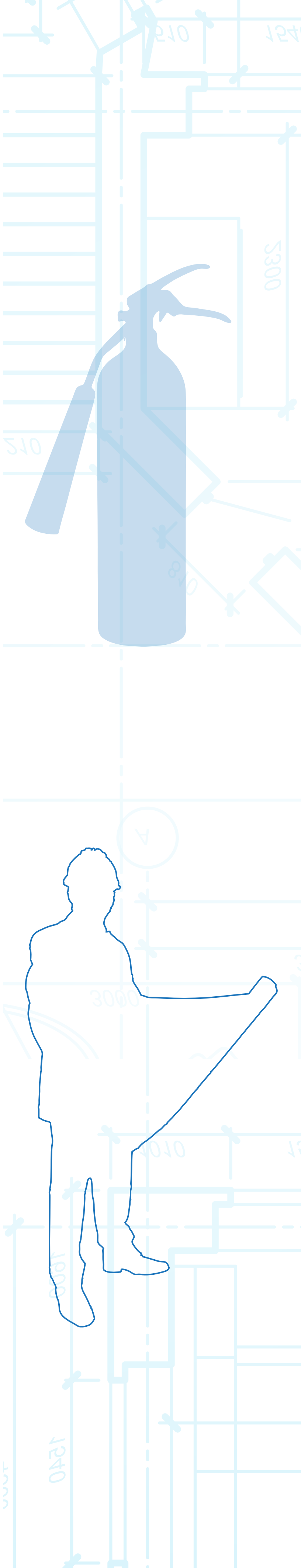
The two private sector networks, the MBE and the MPD Network, function in different ways. The MBE has no formal linkages with the UMFCCI. While it has been very active in disaster response, recovery and reconstruction, it appears to have acted either independently or in cooperation with local NGOs. Interviewees from the MBE reported that they have never interacted with the UMFCCI for disaster management actions. The MBE, nevertheless, has partnered with international NGOs such as Caritas and Save the Children. The fact that it is not a member of the MPD Network further reinforces that linkages between the UMFCCI and MBE are very weak. For the MPD Network, given that the UMFCCI was one of its founding members, it is possible to argue that linkages between the two organizations are strong.

Finally, as will be shown in Chapter 5, after Cyclone Nargis, the following small, medium-sized and large enterprises engaged in disaster response, relief or reconstruction:

- Swan Ar Electric Mart
- Tiger Sunflower Seeds Enterprise
- Ngwe Sabai Sugar Mill
- Jupiter Kyaw Maung
- Yupawady Manufacturing Co. Ltd
- Diamond Mercury
- Total Exploration and Production Myanmar
- Mamee Double Decker Instant Noodles
- Unilever Thai Trading Ltd.



These private enterprises all acted independently of the UMFCCI in terms of their disaster response activities. Some enterprises acted individually, and others in partnership with local NGOs, faith-based and informal aid groups. As a result, the linkages between the UMFCCI and these SMEs can also be characterized as weak.



3. Overview of policies and institutions for DRR and disaster management in Myanmar

This chapter examines DRR and disaster management policies in Myanmar in order to identify: a) areas where the private sector is involved and public policies it could advance; and b) potential areas for further collaboration between the business community and the Government. Section 3.1 explains key disaster management institutions in Myanmar. Section 3.2 analyses global and regional frameworks on DRR to understand the role of the private sector in DRR and disaster management according to such agreements. Section 3.3 examines Myanmar's two main national DRR policies while Section 3.4 builds upon these policies to explain the relationship between the private sector, the Government and other stakeholders in the humanitarian sector. Section 3.4 also proposes recommendations to increase the engagement of Myanmar's private sector in the overall DRR and disaster management cycle.

3.1 Disaster management institutions in Myanmar

Following Cyclone Nargis, Myanmar has had an evolving landscape of disaster management institutions. In 2011, the Myanmar Disaster Preparedness Agency (MDPA) was established as a focal point responsible for organizing and conducting disaster preparedness.[27] Two years later, the Ministry of Social Welfare, Relief and Resettlement (MSOWRR) established the National Natural Disaster Management Committee (NNDMC) through the Natural Disaster Management Law.[28] The NNDMC, funded by the MSOWRR, replaced the MDPA. This committee assumed the leading role as the government institution responsible for the planning, execution and coordination of DRR and post-disaster management policies and activities.[29] However, the NNDMC has mainly conducted post-disaster activities, reflecting the Government's position on disaster management and DRR. The Government has primarily taken reactive disaster management actions following events rather than proactively conducting disaster prevention, preparedness and mitigation.

Non-governmental disaster management institutions in Myanmar include the Myanmar Information Management Unit (MIMU) and the Disaster Risk Reduction Working Group (DRRWG). MIMU is a service functioning under UNOCHA that collects, processes, analyses and disseminates information and data in order to improve emergency and disaster management.[30] MIMU maintains an updated collection of key documents and data in the public domain, enabling stakeholders to improve efficiency in their decision-making processes before, during and after disasters. The DRRWG is a network of 53 agencies including the UN, international and local NGOs and other stakeholders.[31] The DRRWG aims to strengthen DRR policies and institutions and form partnerships with the private sector and academia.

[27] UNSPIDER, 2015.
[28] MSOWRR, 2013.
[29] The NNDMC is composed of four additional committees: National Disaster Management Work Committee, Search and Rescue Work Committee, Recovery and Coordination Work Committee and International Relations Work Committee.
[30] MIMU, 2016a. MIMU has been financially supported by international donors including the European Union and Government of Canada.
[31] MIMU, 2016b.

3.2 Regional and global DRR frameworks and milestones

The following regional and global DRR frameworks and policies provide some space for the private sector in DRR activities:

- **Association of Southeast Asian Nations (ASEAN) Agreement on Disaster Management and Emergency Response (2005):** This regional policy framework aims to reduce losses in lives, social, economic and environmental assets and services. [32] The agreement calls for member States to strengthen cooperation and coordination to achieve effective DRR; prioritize prevention and mitigation to monitor and reduce the impact of disasters; and involve all stakeholders, including the private sector, in both disaster preparedness and response.

- **Sendai Framework for DRR (2015-2030):** This global voluntary and non-binding agreement was adopted in March 2015 by UN member States. The framework replaced the Hyogo Framework for Action, which was the first international agreement to guide national and international DRR agendas from 2005 to 2015. The Sendai Framework aims to achieve the following outcomes: "The substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries." [33] The Sendai Framework represents a shift from previous global agreements because it is explicit about the role that the private sector should play in DRR. It sees the private sector as an important stakeholder in society that should participate in decision-making before and after disasters and encourages private investment and public-private partnerships for DRR.

- **World Humanitarian Summit (WHS) (2016):** This UN-led meeting held in Turkey in May 2016 was a call for action to strengthen the humanitarian system in order to alleviate human suffering, diminish risk and reduce vulnerability worldwide. [34] About 9,000 participants from 180 countries, including stakeholders from the government, private sector, civil society organizations and NGOs attended. Leaders discussed seven areas of action, including natural disasters and climate change, and agreed upon 32 commitments outlined in the Agenda for Humanity, which was the main outcome of this meeting. The Agenda for Humanity highlighted that the private sector must be an integral part of disaster response and recovery in order to enhance people's resilience. [35] Stakeholders agreed that the private sector must be included in the design, implementation and monitoring of DRR policies and programmes. Finally, the CBI was mentioned as a global mechanism for the establishment of private sector-led networks for better coordination of private sector initiatives for DRR. The WHS was aligned with the Sendai Framework for DRR in positing that the private sector should play a more visible and coordinated role before, during and after disasters.

[32] ASEAN, 2005.
[33] UNISDR, 2016a.
[34] United Nations, 2016a.
[35] United Nations, 2016b.

3.3 National DRR plans and policies

The main national policies and plans related to DRR in Myanmar are as follows:

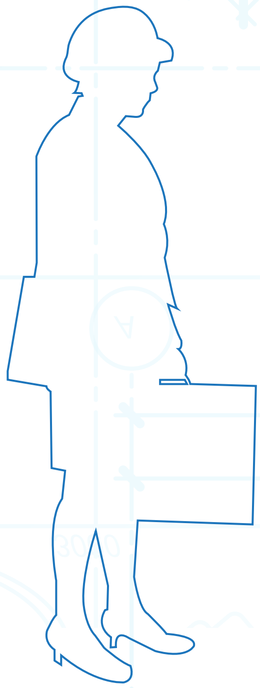
- **Myanmar Action Plan for Disaster Risk Reduction (MAPDRR) (2009-2015):** This national plan aims to achieve resilience against natural hazards in order to protect lives, livelihoods and development objectives. [36] The plan does not view the private sector or EBMOs as essential stakeholders or partners for DRR, perhaps because it was developed based on the Hyogo Framework for Action, in which the private sector had little participation in this field. The MAPDRR focuses on disaster preparedness and fundamental emergency response (i.e. saving lives and livelihoods in communities exposed to natural hazards) involving humanitarian actors. The MAPDRR does not establish how the Government could assist businesses after disasters to overcome economic damage through financial aid such as tax exemptions, credits for SMEs, and enterprise insurance funds or subsidies, among others. Disaster management in Myanmar functions rather the other way around, meaning that the private sector is expected to support the Government during and after emergencies and natural disasters.

  The MAPDRR outlines the following potential areas of collaboration in which the private sector could partner with the Government to benefit disaster-affected communities:

  - provision of safe shelters to affected communities;
  - preparedness and response to epidemics and diseases resulting from disasters;
  - reduction of deaths and economic losses due to landslides;
  - mainstreaming DRR into housing to develop hazard resistant buildings;
  - developing financial mechanisms for risk transfer and sharing, partnering with financial institutions; and
  - developing microfinance schemes to enhance and provide livelihood opportunities to communities living in risk prone areas.

As of December 2016, a new and updated version of the MAPDRR (2009-2015) was being drafted. Interviewees from UN agencies and the Government did not know to what extent the role of the private sector in DRR and disaster management would be different in the updated document.

- **Natural Disaster Management Law (2013):** This law establishes the Natural Disaster Management Fund through which the NNDMC receives contributions and donations from both local and foreign stakeholders, including private sector actors, to conduct disaster management activities. [37]



3.4 Links between the Government and private sector in disaster management

Global, regional and national DRR policies have emphasized the importance of involving the private sector in the entire disaster management cycle. The Sendai Framework for DRR encourages private investment and public-private partnerships for DRR. The Private Sector Alliance for Disaster Resilient Societies (ARISE) aims to expand the role of the private sector to achieve the goals set by the Sendai Framework. ARISE was formed in 2015 in cooperation with UNISDR [38] with an initial 140 members representing the private sector.

[36] Government of the Union of Myanmar, 2009.
[37] MSOWRR, 2013.
[38] UNISDR, 2016b.

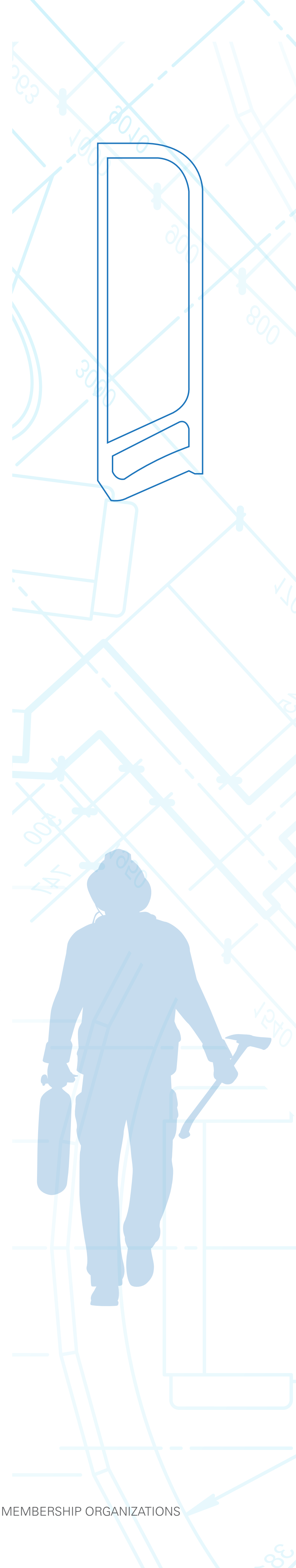
This research did not find any policies in Myanmar that support businesses before, during and after disasters through such measures as tax exemptions, subsidies, credits for SMEs and insurance funds. However, the Post-Nargis Joint Assessment recommended establishing catastrophe risk financing and transfer mechanisms to respond to Myanmar's medium to long-term needs.[39] The Post-Nargis Joint Assessment recommended that the Government implement ex-ante measures such as risk transfer instruments (i.e. insurance), reserve funds and contingent capital agreements to respond to post-disaster funding needs.[40] These recommendations, however, were not acted upon.

In 2015, the MRF reported that it was initiating a crop insurance system with the world's second-largest reinsurer, Swiss Re Group.[41] In the same year, the Ministry of Livestock, Fisheries and Rural Development was reportedly revising the national insurance law to align it with the principles of the International Association of Insurance Supervisors, which sets international standards for insurance regulators.[42] The legal framework and regulations of the insurance sector in Myanmar are outdated. The main insurance company, state-owned Myanmar Insurance, does not provide insurance in rural areas.

Past disaster management experiences have revealed that, in general, the Government expects the private sector to collaborate in disaster preparedness, relief and long-term recovery. For example, on 8 September 2015, shortly after the flooding had eased, the National Disaster Management Committee and the UMFCCI held the National Disaster Recovery Forum. At this forum, the Government and the private sector discussed potential employment opportunities led by enterprises in flood-affected areas in the context of disaster rehabilitation, reconstruction and recovery.[43]

Chapters 2 and 6 examine how the private sector has engaged in disaster response and recovery. In some cases, private sector participation has resulted from direct government requests to provide support due to the limitation in financial and technical capacities of the State.[44] In other cases, the private sector has played a proactive role in disaster relief for reasons such as religion, ethnicity, philanthropy or corporate social responsibility, among others. The culture of generosity is widespread in Myanmar, not only among private sector actors but also across the whole population.

Nevertheless, as has been explained, the business community has mostly engaged in post-disaster recovery, and links or partnerships with the Government and humanitarian actors have been very weak or non-existent prior to natural disasters. After Cyclones Nargis and Giri and the Tarlay earthquake, cooperation between large and small enterprises, the Government and humanitarian actors (NGOs, informal aid groups) took place in an organic rather than institutionalized manner.[45] A sentiment expressed in the interviews was that enterprises tend to view the Government as being too slow due to bureaucratic red tape, and prefer to work directly with other actors such as NGOs in disaster response and recovery. The creation of the MPD Network is a step towards increasing coordination among private sector actors for better and more institutionalized collaboration with the Government and humanitarian stakeholders.



[39] ASEAN, UN and the humanitarian and development community, 2008.
[40] Reserve funds are saving accounts that are generally used for unforeseen costs, and contingent capital refers to a debt that turns into an asset after contingencies (e.g. disasters and crises).
[41] Mg Oo, 2015b.
[42] Government of the Union of Myanmar, 2015.
[43] Support Myanmar, 2015a.
[44] Trocaire, 2011, p. 21. This was stated by the Deputy Director General of the Department of Social Welfare at the MSOWRR following Cyclone Nargis.
[45] Trocaire, 2011, p. 37.

Long-term public-private partnerships could be established to coordinate DRR actions to ensure that the private sector contributes strategically to disaster management in coordination with humanitarian actors in response to specific community needs. The private sector could also engage with key non-governmental disaster management institutions such as MIMU and DRRWG to help it get a better sense of the skills and technical knowledge that enterprises and EBMOs could assist with.

4. Role of EBMOs in disaster mitigation and preparedness

Chapter 4 investigates the role that EBMOs have had in formulating and implementing strategies and initiatives for disaster preparedness and mitigation in Myanmar. Section 4.1 analyses the disaster management initiatives conducted by SBAs and examines recent disaster preparedness and mitigation actions taken forward by the MRF and MLF. Section 4.2 explores the objectives and achievements of the UN-UMFCCI partnership and the process through which the MPD Network was established. Section 4.3 looks at: a) one Filipino private sector network, the Philippine Disaster Resilience Foundation (PDRF), which was a role model for the MPD Network in DRR; b) two cluster systems used for disaster management; c) the critical role that could be played by the UMFCCI because of its unique position as the largest representative of the private sector; and d) the potential challenges that the MPD Network could face in the future. Section 4.4 investigates contingency planning efforts and risk assessments conducted in Myanmar in order to better understand the role that the private sector has played or could play in these disaster mitigation initiatives.

4.1 Disaster mitigation and preparedness initiatives led by SBAs

As mentioned in Chapter 2, SBAs have concentrated on providing assistance during and after disasters. This report did not find any preparedness or mitigation strategies aimed at specific businesses or the business community as a whole, although DRR initiatives by the MFF and MRF that focus on their own sectors were identified. SBAs that have supported disaster management have done so through donations in cash and in kind – in two main ways: SBAs have provided direct assistance to their sectors; or they have supported disaster recovery more generally. Examples of these two types of approaches are outlined below.

- **SBAs provide direct disaster assistance to support recovery of their respective sectors.** Interviews revealed that this has been the case for SBAs in sectors that have been seriously affected by natural disasters. In Myanmar, the agriculture sector was the worst hit sector following Cyclone Nargis and the 2015 floods. After the floods, the MFF played a significant role in supporting fishermen by donating fishnet, boats and fishing gear. Interviewees from the MFF reported that following a disaster, their concern is to ensure that the sector recovers its capacity to be productive as soon as possible and their focus is on the rehabilitation of key players. A case study on disaster management initiatives by the MFF is examined in Section 5.2.

- **SBAs support generalized disaster recovery.** This practice has been common among SBAs in sectors that have been minimally affected by disasters, such as manufacturing and services, particularly where enterprises located in Yangon, Myanmar's largest city. It is notable that except for Cyclone Nargis, which hit Myanmar as a whole, Yangon has not experienced the negative impact of recent disasters to the same extent that other smaller cities and rural areas have. MADMA, which founded the Myanmar Motor Volunteer Foundation in 2015, collected and distributed donations worth MMK15 million (about US$12,434) to people affected by the floods.[46] Disaster assistance by MADMA was not aimed at stakeholders from the automotive industry, manufacturers or distributors, for example. Rather, it was a charitable action to support

[46] Interview with the MRF, 2016. Donations in US dollars were calculated using the July 2015 average exchange rate of MMK1,206.39 per US$1 from the Bank of Canada (2016).

the prompt recovery of Myanmar in general.

Interviewees from SBAs acknowledged the need to support their members by conducting disaster preparedness and mitigation. This was particularly the case for SBAs in the agriculture sector because of the monetary and non-monetary costs involved in the recovery of agriculture following disasters. Indeed, the MRF and MLF have engaged in the following small-scale initiatives to support disaster mitigation and preparedness in rural areas:

- The MRF has established five agriculture service centres in five townships in the Ayeyarwaddy Region.[47] The centres are equipped with specialized machines including tractors, harvesters and paddy driers. These centres provide the following services: paddy drying, warehousing and storage, seed cleaning and distribution and training, among others. The MRF provides these services at a cost, which is reported to be cheaper than regular market costs. Interviewees reported that farmers do not own specialized rice machines, which are relatively expensive, but need to mitigate the impact of hydrological disasters by drying rice paddies and cleaning seeds.

  In addition, the MRF is in the process of setting up a permanent rice storage facility in Shan State. This state is frequently impacted by landslides, lacks adequate infrastructure and is difficult to reach during and after disasters. Interviewees from the MRF reported that following Cyclone Nargis and the 2015 floods, the MRF faced difficulties transporting rice to Shan State and other remote areas. For this reason, it decided to establish a rice storage facility in order to be better prepared for the yearly monsoon season. Rice stored in this facility would be sold to Shan people to address rice shortages in the event of a natural disaster.

- Following the 2015 floods, the MLF requested support from the United States Agency for International Development and Winrock International (an international NGO) to develop a manual for farmers on ways to protect their livestock during disasters.[48] This manual, which focuses on cyclones and floods, provides guidelines on disaster preparedness and mitigation as well as on evacuation, shelter and livestock feeding procedures. As of December 2016, over 10,000 copies of the manual had been distributed and four trainings had been conducted in the cities of Yangon, Mandalay, Naypyidaw and Magway.

It is interesting to note, however, that the MRF and MLF have no formal disaster mitigation plans in place for their sectors. Instead, both SBAs assess post-disaster impacts, analysing whether a natural hazard has affected the whole sector, individual farmers or the entire country, with corresponding measures taken. Interviewees from both federations made no mention of specific tools or systems for post-disaster assessment but indicated that their actions were aimed at states or regions that reported the greatest sectoral losses. For example, following the 2015 floods, the MRF focused on alleviating food shortages in Rakhine State by providing bags of rice cheaply to flood-affected farmers.

As a result, the MRF and MLF concentrate primarily on disaster management rather than DRR, reacting to disasters rather than proactively taking actions that would diminish disaster impacts on the rice sector. The five SBAs that participated in the interviews confirmed that they did not have concrete long-term plans in place for disaster preparedness and mitigation and had not participated in risk assessments or contingency planning.

---

[47] The Ayeyarwaddy Region is visited by hydrological disasters on a yearly basis. Interviewees from the MRF, MFF and MLF reported having conducted disaster management initiatives that exclusively focused on this region.

[48] Interview with the MLF, 2016.

4.2 The UMFCCI's partnership with UN agencies and the establishment of the MPD Network

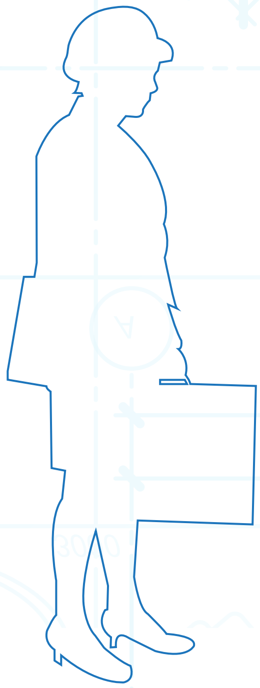
As mentioned in Chapter 2, since 2015 the UMFCCI has cooperated with UNOCHA and UNDP in the project entitled "Supporting the Myanmar Private Sector on Disaster Preparedness, Response and Recovery". This project resulted from the UMFCCI's request to UNOCHA and UNDP to collaborate for disaster preparedness, response and recovery during the 2015 floods. Furthermore, this initiative is aligned with the UNISDR-led CBI, which at the global level is a mechanism for the private sector to engage with multiple stakeholders, including UN agencies, national governments and civil society for disaster risk reduction, preparedness, response and recovery.

In 2015, UNDP and UNOCHA included the UMFCCI in the Early Recovery Network, an international network composed of humanitarian actors and development partners through which the UMFCCI has participated in meetings, forums on DRR and disaster needs assessments. Additionally, the two UN agencies and the UMFCCI organized the first National Disaster Recovery Forum in Myanmar, and a workshop in which the Government and EBMOs met to discuss potential ways in which private actors could support disaster recovery. A trip to the Philippines took place in December 2015, enabling UMFCCI representatives to learn from the experiences of the private sector-led PDRF. [49]

Building upon these efforts, the UMFCCI, UNOCHA and UNDP in August 2016 founded the MPD Network, which has the following objectives:

- to coordinate financial, human and technical resources from private sector actors through a cluster approach whereby members can support a specific sector (e.g. water, telecommunications and emergency supplies);
- to build awareness of DRR by following the guidelines on humanitarian assistance by the Inter-Agency Standing Committee;
- to develop a common understanding of key concepts, guidelines and principles for DRR;
- to exchange information about disaster management activities among members; and
- to collaborate and coordinate between the private sector and multiple stakeholders, including the Government and humanitarian actors in order to provide effective assistance before, during and after disasters. [50]

In 2015 and 2016, the founding members of the MPD Network conducted a comprehensive identification of private sector actors who could participate and invited them to be part of the core members' group. UNOCHA and UNDP have provided extensive technical assistance and guidance for the establishment and functioning of this network.



[49] See PDRF's website at http://www.pdrf.org
[50] See UNOCHA, UMFCCI and UNDP, 2016.

4.3 Role models for the MPD Network,the critical role the UMFCCI could play and potential challenges

The aim of the December 2015 mission to the Philippines by representatives from the UMFCCI, UNOCHA and UNDP was to discuss the establishment and experiences of the PDRF and explore whether its structure could be used as a role model in Myanmar for the involvement of the private sector in disaster management.

The PDFR was founded in 2009, a year during which the Philippines experienced 14 typhoons killing more than 1,200 people, affecting 12.2 million people and causing US$932.7 million in economic damages.[51] The PDRF functions as a well-established and recognized nationwide platform that mobilizes, informs and guides the contributions and participation of the private sector in disaster preparedness, response and recovery. The PDRF addresses key gaps in DRR by coordinating among its members and between the Government and the humanitarian community while complementing the limited financial, operational or technical capacities that the Government might face.[52] This strategy of cooperation minimizes the risk of duplicating disaster response initiatives and over-serving or under-serving certain geographical areas and communities.

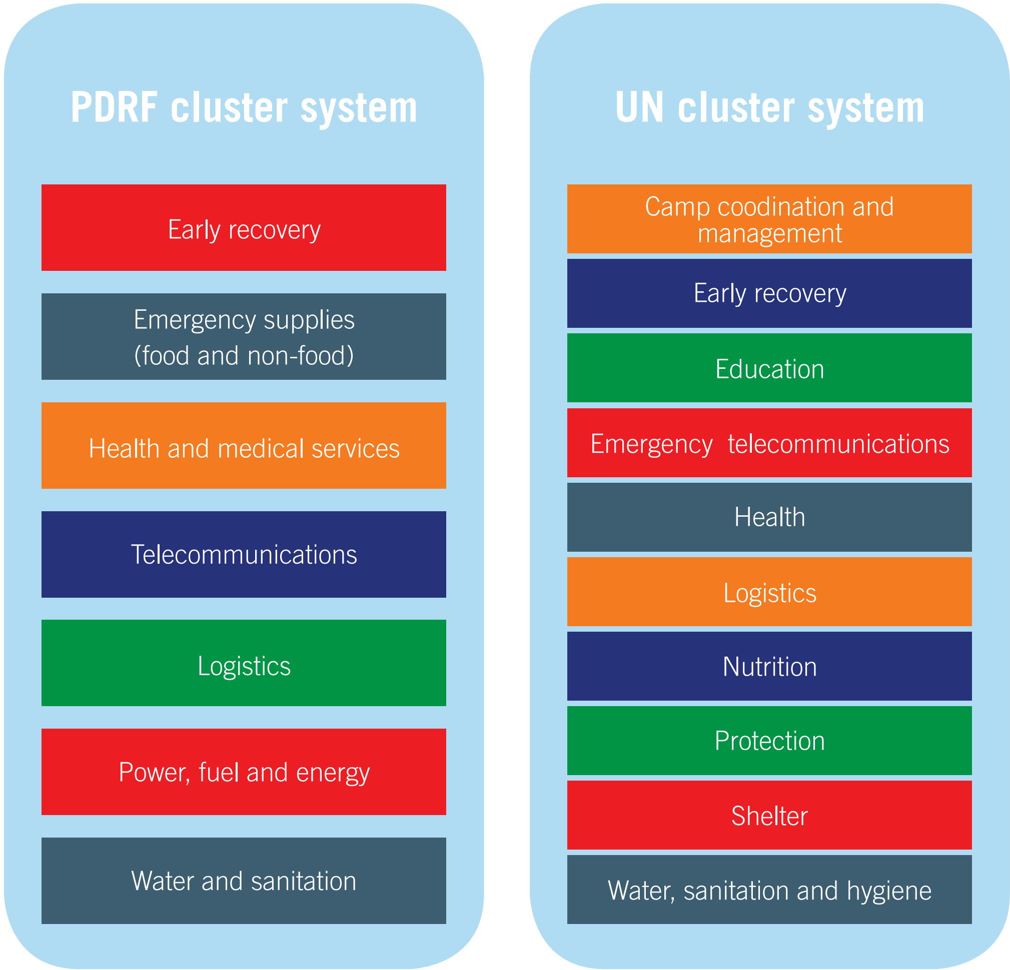
The PDRF is composed of over 60 private enterprises that have been grouped in seven clusters around which their DRR and disaster management actions are coordinated.[53] These clusters are: early recovery; emergency supplies; health and medical services; telecommunications; logistics; power fuel and energy; and water and sanitation. The system is structured to ensure that clusters are aligned with enterprises' area of expertise and knowledge. Each cluster is composed of three to ten members and has a leader who coordinates DRR and disaster management initiatives with other members.

The cluster system adopted by the PDRF has been used more generally by the humanitarian community for disaster and emergency management. Indeed, the PDRF drew greatly on the UN cluster system through which humanitarian actors (both UN and non-UN bodies) can minimize gaps and overlaps while improving the effectiveness of their actions. The UN cluster system is relatively more complex than PDRF's as it involves ten clusters: camp coordination and management; early recovery; education; emergency telecommunications; health; logistics; nutrition; protection; shelter; and water, sanitation and hygiene. Nevertheless, the PDRF and UN cluster systems have similarities as they both focus on similar areas for disaster management and have leader organizations in charge of coordinating operations in each cluster. Figure 2 shows the two different cluster systems.

---

[51] EM-DAT, 2016.
[52] Interview with UNOCHA, 2016.
[53] PDRF's members include both national and international enterprises such as Manila Water, Coca Cola, Philip Morris, Air Asia and Shell.

Figure 2. PDRF and UN cluster systems for disaster and emergency management



Source: Adapted from PDRF, 2015, and based on interviews with UNOCHA, 2016

The MPD Network has discussed the organization of a similar cluster system for private sector engagement in DRR and disaster management that is adapted to the Burmese context. This adaptation is necessary to enable the network to respond effectively to local needs that consider the social, economic and political particularities, and the disaster risk and natural hazards of Myanmar. Questions remain regarding the type of cluster system that will be adopted by the MPD Network and whether it will be contextualized.

As this report has found, Myanmar's private sector has been active in supporting disaster response and recovery. However, private sector actors have acted independently of each other, which has led to ineffective disaster management. The MPD Network could fill the existing coordination gap by organizing ongoing private sector engagement and reducing unnecessary duplication in disaster preparedness, response and recovery.

Next steps

As of the end of 2016, the MPD Network was still in the process of defining its organizational structure and terms of reference and had not yet been activated for disaster management. Between August and December 2016, members met on a monthly basis to agree on key aspects of the network, including objectives, membership principles and fees, internal coordination mechanisms and decision-making processes. Plans for 2017 include solidifying its structure and inviting more private sector actors to join the network. Additionally, it is envisaged that members will approach government institutions and other humanitarian organizations working in DRR and disaster management in order to formalize channels of collaboration between the private sector, the Government and humanitarian stakeholders. [54]

The MPD Network has also discussed the possibility of having one member act as a host organization. As the representative of the private sector, the UMFCCI would appear to be best suited to playing this role. The UMFCCI is in a unique position to delegate responsibilities among MPD Network members in a neutral way (according to network members who were interviewed); it has a long history of acting as a bridge between the Government and the private sector; it does not represent the interests of an individual enterprise; and it has links with EBMOs, SBAs and over 30,000 business members in Myanmar. Discussions with the UMFCCI leadership to explore this role were held in late 2016; however, a decision regarding hosting of the network had not been reached when this report was written.

The UMFCCI's potential overall coordination of disaster initiatives through the MPD Network could result in a generalized shift from disaster management (post-disaster actions) to DRR (pre-disaster actions) across the private sector. Nevertheless, the UMFCCI faces two challenges that could create obstacles to its playing a host role. Firstly, it has limited financial resources and staff; and secondly, as Chapter 2 examined, coordination and communication between EBMOs and the UMFCCI is weak.

To address these two challenges, the MPD Network must look for ways to ensure its financial sustainability without depending on the UMFCCI. As profit generating organizations, enterprise members should be in a position to pay yearly fees that ensure the effective functioning of the network as long as they receive quality services in return. Additionally, it is recommended that the UMFCCI strengthen its links with SBAs, EBMOs and enterprise members so that more private sector actors become members of the network for better disaster preparedness, response and recovery in Myanmar. However, it is advisable for the MPD Network to approach potential members through diverse channels.

The potential benefits of membership in the MPD Network in Myanmar are significant as the private sector is already conducting disaster response and recovery primarily through donations both in cash and in kind.

[54] Interviews with UNOCHA, UNDP, UMFCCI, KBZ Bank and Telenor, 2016.

4.4 Contingency planning and risk assessments in Myanmar

This section investigates contingency plans and two risk assessments conducted in Myanmar in order to better understand the role that the private sector has played or could play in disaster mitigation initiatives.

Contingency plans

The Myanmar NGO Contingency Planning Working Group (CPWG) was established after Cyclone Nargis as a civil society initiative, technically assisted by UNOCHA, to increase disaster preparedness and response. The CPWG is composed of 80 organizations, a steering committee and nine specialized clusters that established the Contingency Plan on Disaster Mitigation and Early Recovery. The nine clusters are: water supply, sanitation and hygiene; food and nutrition; agriculture; health; protection; education; early recovery; coordination; and emergency shelter. This contingency plan considers disaster scenarios and planning assumptions and can be activated when a minimum 10,000 people are affected. Moreover, it complements the Inter-Agency Contingency Plan through which UN agencies coordinate their actions following disaster events. [55]

There are no records of business contingency plans developed by EBMOs or the private sector in Myanmar. The five SBAs and the UMFCCI confirmed that they do not maintain a contingency plan in any form. It is possible that some of the larger private enterprises maintain such plans, but these would most likely be private corporate documents not available in the public domain.

Nonetheless, the contingency plans produced by the CPWG and UN agencies recognize and acknowledge the role of the private sector in disaster response and recovery in Myanmar. However, there is no specific provision regarding the role that the UMFCCI or other EBMOs could play in disaster management or how they could contribute to these contingency plans. This suggests that EBMOs have little interaction with humanitarian organizations and the Government in the DRR phase. It would thus be advantageous for EBMOs to engage with local NGOs, the Government and the international community to advance contingency planning for DRR. In this regard, the UMFCCI could identify partners among its members to conduct DRR and disaster recovery actions through a cluster approach. These efforts could be supported by the newly formed MPD Network.

Risk assessments: Absence of the private sector

UNISDR (2009) defines risk as the combination of the probability of an event and its negative consequences, including damage to property and the environment, loss of livelihoods and death. Conceptually, risk assessment is a methodology used to analyse potential hazards and evaluate conditions of vulnerability to understand the potential impact on exposed people, property, economic activities, services, livelihoods and the environment. [56]

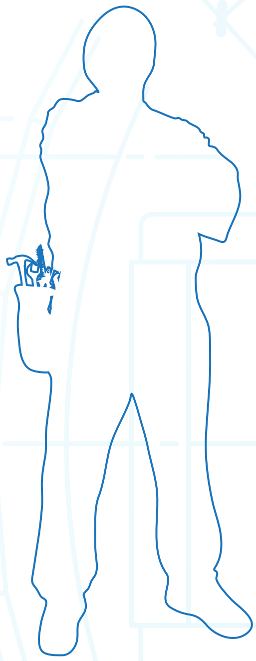
[55] UNOCHA, 2012. The UN agencies include FAO, WFP, and UNDP, among others.
[56] UNISDR, 2009.

To date, the following risk assessments have been conducted by UN partners and NGOs in Myanmar:

- **Earthquake Risk Assessment for Three Cities:** Conducted in 2012, this risk assessment aimed to assess the earthquake risk in the cities of Bago, Taungoo and Sagaing. It was conducted by the MSOWRR and the United Nations Human Settlements Programme. [57]

- **Multi hazard risk assessment in the Rakhine State of Myanmar:** Undertaken in 2011, this is a region-specific assessment that analyses both the hazards and risks of cyclones, storms, floods, fires, earthquakes and tsunamis. This assessment was carried out by UNDP, the Asian Disaster Preparedness Centre and Myanmar Engineering Society. [58]

This report found no instances where the private sector directly contributed to or was involved in risk assessments. [59] Interviewees from the private sector (from both EBMOs and enterprises) confirmed that they have not conducted other assessments to evaluate the potential impact of disasters on their businesses. Given the massive disruption that disasters can cause to business operations, infrastructure and economic activity, it is recommended that EBMOs participate in or at least use the information and data generated from risk assessments to increase the disaster mitigation efforts and resilience of the private sector.



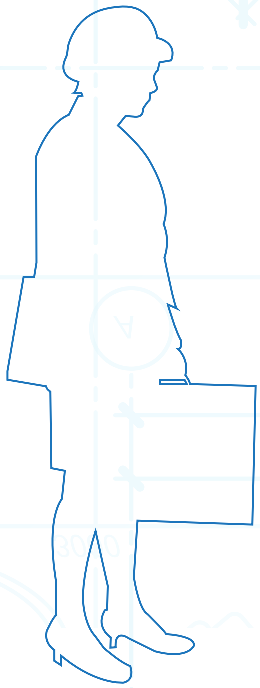
[57] PreventionWeb, 2012.
[58] UNDP, ADPC and Myanmar Engineering Society, 2011.
[59] It is possible that other risk assessments have been conducted in Myanmar, but were not available in English.

5. Role of EBMOs in maintaining sectoral operations

Chapter 5 explores the measures taken by EBMOs to maintain sectoral operations during and following disaster events. Section 5.1 analyses and compares the impact of Cyclone Nargis and the 2015 floods on selected sectors and sub-sectors. Section 5.2 investigates: a) how service provision by the MRF changed as a result of the floods; b) how service provision by the MFF changed in the wake of Cyclones Nargis and Giri and the 2015 floods; and c) how the role of Myanmar's leading microfinance institution shifted after Nargis. Section 5.3 examines the communication mechanisms between EBMOs and the Government.

5.1 Economic impact of Cyclone Nargis and the 2015 floods and the implications for private enterprises in agriculture

Both Cyclone Nargis and the 2015 floods had a negative impact on the agriculture sector. Of all the county's primary economic sectors, the agriculture suffered the most. Cyclone Nargis caused severe flooding across coastal and riverine regions and the shifting of sands submerged over 60 per cent of paddy fields (about 783,000 hectares), damaged 85 per cent of seed stocks and destroyed about 3,000 power tillers and tilling machines. Some 1.25 million chickens (almost half the country's total) were killed and about 37,000 acres of fish and shrimp ponds were destroyed.[60]



Additionally, critical infrastructure for the distribution of agricultural products was disrupted by both disaster events. This included roads, sanitation systems, fuel supplies and energy systems (electricity generation and distribution) as well as public and private buildings.

Table 2 shows the economic impact of Cyclone Nargis on the agriculture sub-sectors based on the Post-Nargis Joint Assessment conducted by ASEAN, the UN and the humanitarian and development community. Field crops were the hardest hit, with damages and losses totalling an estimated MMK225 trillion and MMK348 trillion (US$265 million and US$407 million) respectively.[61] The economic impact on the agriculture sector totalled between MMK571 trillion and MMK694 trillion (US$669 million to US$813 million), all of which was assumed by the private sector (including not only enterprises but also households and communities).

[60] FAO, 2009.
[61] Economic damages and losses in US dollars were calculated using the 2012 average exchange rate of MMK854.26 per US$1 from the Bank of Canada (2016).

Table 2. Impact of Cyclone Nargis on the agriculture sector (in million MMK)

Agriculture sub-sector	Disaster effects		Total disaster effects by ownership[62]		
	Damages	Losses	Public	Private	Total
Field crops	65 336	159 929–283 000	-	225 265–348 336	225 265–348 336
Farm equipment	24 046	-	-	24 046	24 046
Plantations	22 043	65 209	-	87 252	87 252
Livestock	45 190	30 775	-	75 965	75 965
Fisheries and fish farms	29 729	129 326	-	159 055	159 055
Total	**186 344**	**385 239–508 310**	**-**	**571 583–694 654**	**571 583–694 654**

Source: ASEAN, UN and the humanitarian and development community, 2008.

The 2015 floods killed 242,000 livestock, damaged more than 527,000 hectares of crops, and harmed almost 30,000 hectares of fish and shrimp ponds in the six most affected states and regions, according to the joint assessment conducted that year by the Food and Agriculture Organization (FAO) and the World Food Programme (WFP). Table 3 shows the economic impact of the floods on selected sectors based on the Post-Disaster Needs Assessment conducted by the Government. Similar to the impact of Cyclone Nargis, field crops were the worst affected sector, bearing damages and losses totalling MMK389 trillion (US$322 million).[63] The total economic impact on the selected sectors amounted to MMK1,207 trillion (about US$1 billion), with the private sector experiencing over 98 per cent of total disaster losses and damages.

Table 3. Impact of the 2015 floods on selected sectors (in million MMK)

Sectors	Disaster effects		Total disaster effects by ownership		
	Damages	Losses	Public	Private	Total
Field crops	54 252	335 210	-	389 462	389 462
Livestock	7 627	10 150	-	17 777	17 777
Fisheries	299	305 677	75	305 976	306 051
Water resource management systems	13 271	-	13 271	-	13 271
Industry	27 585	300 191	-	327 776	327 776
Commerce	27 723	125 307	-	153 030	153 030
Total	**130 757**	**1 076 535**	**13 346**	**1 193 950**	**1 207 296**

Source: Government of the Union of Myanmar, 2015.

[62] Conceptually, damages are defined as the estimated replacement value of (partially and totally) destroyed physical assets; losses refer to the declines in revenue due to the absence of damaged assets (ASEAN, UN and the humanitarian and development community, 2008).

[63] Economic damages and losses in US dollars were calculated using the July 2015 average exchange rate of MMR1,206.39 per US$1 from the Bank of Canada (2016).

These two major disasters had repercussions for the economy as a whole, but disproportionately affected the agriculture sector, which is a critical source of jobs and incomes. The sector employs 52 per cent of the labour force and provides livelihoods for over 70 per cent of the total population. Economic damages and losses from these natural hazards highlight the uneven distribution of disaster impacts across the public and private sectors.

5.2 Disaster response of selected EBMOs to support their members

It is important to note that there is very limited information available on this topic and four of the five SBA informants did not report having taken actions to assist members during or after disaster events. Following an extensive review of a range of government literature, social media and news media and based on the interviews conducted in November 2016, only three cases have emerged that can constitute material for this section. These are outlined below. It should be borne in mind, however, that this report does not rule out the possibility that other EBMOs have undertaken strategies and actions to maintain operations during and after natural hazards.

The first case shows how service provision by the MRF changed as a result of the 2015 floods, highlighting the measures put forward by this EBMO and coordination challenges among its members. The second case examines how service provision by the apex organization MFF evolved following Cyclones Nargis and Giri and the 2015 floods. The third case concerns the country's leading microfinance institution, Pact Global Microfinance Fund (PGMF). While PGMF is not formally an EBMO, this case proposes the potential involvement of the UMFCCI in order to reduce damages to the agriculture sector from disasters.

Role of the MRF during and after the 2015 floods

The MRF was established in 2012 to assist associations nationwide that represent the interests of various private sector actors involved in the rice sector.[64] Its primary focus is to ensure the sustainable development of the rice sector, coordinate decision-making processes among its stakeholders and act as a bridge between the Government and rice producers.

In the six worst affected states and regions, almost 90 per cent of rice paddies were damaged by the floods, which officially started on 31 July 2015 after Cyclone Komen hit Bangladesh and created heavy winds and rains in Myanmar. On 5 August, according to local newspapers, the MRF publicly announced its agreement with rice traders and associations to temporarily suspend rice exports for 45 days until 15 September in order to stabilize rising rice prices.[65] This measure, as reported by interviewees from the MRF, was taken in coordination with the Ministry of Commerce. On 10 August, it was reported that the MRF had prepared a contingency plan to import rice, and was selling bags of rice cheaply in flood-affected areas.[66] However, in early September, Burmese media outlets pointed out that certain enterprises had disregarded the ban on exports and had continued to trade rice with China, disguising the rice by packing it inside sugar bags.[67] Although the export ban was agreed by all of the MRF's members, some exporters opposed it. MRF representatives declared that rice enterprises contravening this measure would face sanctions.

[64] MRF, 2016. These member associations are the Myanmar Rice Industry Association, Myanmar Rice Millers Association, Myanmar Rice and Paddy Traders Association, Myanmar Paddy Producers Association, Myanmar Farmers Association, Myanmar Fertilizer, Seed and Pesticide Entrepreneurs Association and Rice Specialization Companies.

[65] Win and Aung, 2015a.

[66] Win and Aung, 2015b.

[67] Wai and Aung, 2015.

This case highlights how the services provided by the MRF changed as a result of the floods. The MRF led the proposal and implementation of disaster response measures to support domestic producers and consumers. It is also a clear example of the challenges that the federation faced in controlling emergencies in its sector and reaching real consensus among its stakeholders.

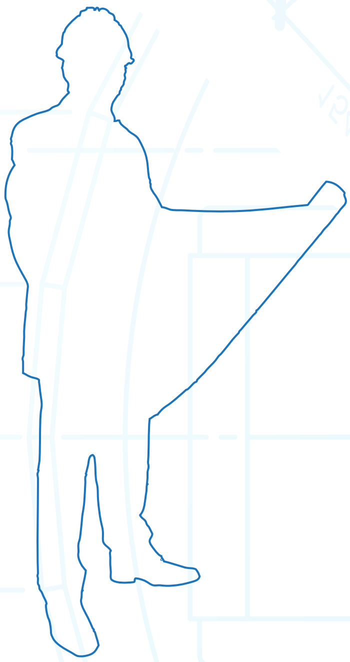
According to those interviewed from the MRF, following the 2015 floods the federation started conducting pre-disaster actions in order to minimize disruptions to rice production from natural hazards. The MRF established agriculture service centres in five townships in the Ayeyarwaddy Region, which provide the paddy drying and seed cleaning services needed following a hydrological disaster. The MRF also reported it was in the process of setting up a permanent rice storage facility in Shan State, which is regularly affected by landslides, with poor infrastructure further complicating access to the state during disaster events.

Nevertheless, interviewees reported that the MRF does not have contingency plans or other disaster mitigation or preparedness initiatives in place for the sector as a whole. The few disaster mitigation initiatives conducted by the MRF have been localized in a few geographical areas. Thus, although the MRF does intervene during and after disaster events and has recently started to take disaster mitigation actions, its role so far has been primarily reactive. This is troubling given that many parts of Myanmar suffer annual flooding and rice is the most important domestic agricultural product.[68]

Role of the MFF after Cyclones Nargis and Giri, and the 2015 floods

The MFF is the apex organization of the fishing sector in Myanmar and the umbrella organization of ten associations and over 33,000 businesses in the sector.[69] It was founded in 1998 to promote the expansion of the fishing sector as a major component of the national economy, representing the interests of its members and liaising with the Government to achieve this goal.

The MFF has conducted several disaster management initiatives following major disasters, including Cylones Nargis and Giri, and the 2015 floods. It has focused on directly supporting the recovery of the fishing sector, one of the worst hit sectors of the economy. The MFF has collected donations from its members and worked in cooperation with the humanitarian community and business members in disaster-hit areas to assist affected fishermen and businesses.



Following Cyclone Nargis, the MFF conducted an impact assessment of the fishing sub-sectors that calculated total economic losses in 11 townships in the Ayeyarwaddy Region. Additionally, the MFF collected donations from its members and worked with NGOs such as Action Aid and Save the Children to distribute fishing gear, motorized boats and fishing nets to affected fishermen. After Cyclone Giri, the federation distributed donations in kind specific to the fishing sector and earmarked for local fishermen. During and after the 2015 floods, the MFF distributed donations in kind worth MMK180 million (US$149,205) that were also for fishermen.[70]

Interviewees from the MFF representing its leadership reported that the federation has acted quickly and responded effectively to the needs of workers and enterprises in the fishing sector,

---

[68] Flood mitigation measures include constructing embankments and dikes, clearing rivers and brooks and making rice terraces in paddies, among other actions (Rottach, 2010).

[69] Interview with the MFF, 2016. These member associations are the Myanmar Shrimp Association, Myanmar Farmers Association, Myanmar Fishery Products Processors and Exporters Association, Myanmar Aqua-feed Association, Myanmar Marine Fisheries Association, Myanmar Freshwater Capture Fisheries Association, Myanmar Crab Entrepreneurs Association, Myanmar Eel Association, Myanmar Ornamental Fish Entrepreneurs Association, and Myanmar Fish Paste, Dried Fish, Fish Sauce Entrepreneurs Association.

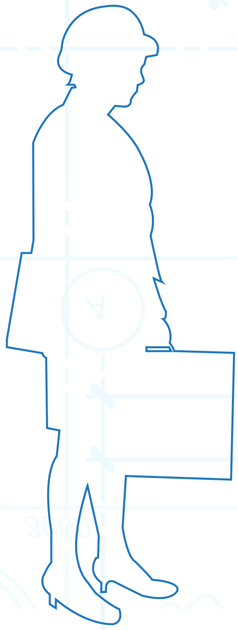
[70] Donations in US dollars were calculated using the July 2015 average exchange rate of MMK1,206.39 per US$1 from the Bank of Canada (2016).

particularly after disasters. They also emphasized that these actions aimed to support the prompt economic recovery of the sector. However, the MFF has not conducted any DRR actions that could potentially mitigate damages and losses in the sector such as risk assessments or contingency planning. Thus the MFF, similar to the MRF, has mostly engaged in post-disaster recovery.

Potential role of the UMFCCI and EBMOs for DRR: Partnering with PGMF

The PGMF is Myanmar's leading microfinance institution with more than 630,000 clients. The PGMF also functions as UNDP's microfinance initiative in Myanmar. In the aftermath of Cyclone Nargis, about 4,500 of PGMF's clients died and those who survived had no means to repay loans. This resulted in loan write-offs of US$2.9 million – losses that were covered by UNDP and its donors.[71] Six months after the disaster, PGMF launched the Beneficiary Welfare Programme (BWP) in order to financially protect its clients following natural hazards, livestock epidemics, death, serious illnesses or other unforeseen emergencies. Through the BWP clients can receive cash or write off their loans, depending on their circumstances.

The Government has previously promoted microfinance schemes for SMEs and farmers with microfinance institutions that charge a much more favourable interest rate than informal lenders. Reports indicate that informal lenders charge a monthly interest rate of 10 to 20 per cent.[72] The MAPDRR mentions the need to establish microfinance services in communities at risk as a way to promote entrepreneurship and provide livelihood alternatives.[73]



Although the BWP's long-term financial sustainability and viability have been put into question by development partners, this programme is a financial cushion that supports workers and could ultimately benefit EBMOs and their sectors.[74] Potential partnerships between the UMFCCI and PGMF could benefit EBMOs by reducing the damage to agricultural sectors and supporting workers to better cope with disasters. A UMFCCI-PGMF partnership could be put forward in the context of both the new relationship established between the UMFCCI and PGMF's cooperation with UNDP.

5.3 Communication mechanisms between EBMOs and the Government

This research did not identify any formal communication channels or mechanisms through which the UMFCCI, SBAs and other EBMOs communicate their concerns to the Government during disaster events. Nevertheless, EBMOs have publicly expressed their concerns about issues impacting their members such as price hikes or food shortages at various occasions to the press.

Only one ad hoc formal meeting has been conducted. On 8 September 2015, the NNDMC and the UMFCCI held the National Disaster Recovery Forum to discuss employment and business opportunities in flood-affected areas.[75] During this meeting, representatives from the MRR, MLF and the Myanmar Young Entrepreneurs Association shared their concerns and established their needs in the post-disaster recovery phase of the livestock, fisheries and agriculture sectors.

[71] Meikle, 2014.
[72] Oxford Business Group, 2014, p. 115.
[73] Government of the Union of Myanmar, 2009.
[74] SCBF, 2016.
[75] UMFCCI, 2015. The list of BMOs that assisted the National Disaster Recovery Forum is not available online.

6. Private sector experiences in providing short-term disaster response and long-term recovery

Chapter 6 examines the experiences of the private sector in short and long-term disaster recovery and reconstruction in Myanmar. Section 6.1 analyses private sector contributions in the wake of Cyclone Nargis, exploring its motivations to participate in disaster response. The UMFCCI-led "Support Myanmar" initiative established after the 2015 floods is investigated in Section 6.2, while Section 6.3 presents long-term disaster reconstruction and recovery initiatives spearheaded by the private sector.

6.1 Short-term disaster relief initiatives led by the private sector

According to Trocaire (2011), in-kind and in-cash donations from the private sector have come from individuals and business owners, SMEs and large enterprises.[76] Post-disaster interventions have been conducted by enterprises themselves and in cooperation with NGOs, religious organizations, government agencies and the UMFCCI.

The motivations behind short-term disaster assistance have included religion; ethnicity; a sense of obligation to help regions or communities of origin; requests by the State or pressures to please government officials; and corporate social responsibility and philanthropic initiatives. Private sector networks (such as the MBE), large businesses and the UMFCCI were directly involved in logistics and operational support after Cyclone Nargis. Examples of disaster relief actions taken by the private sector include:

- **Religion and faith-based disaster response:** The owner of Swan Ar Electric Mart collected donations in Mandalay. Two enterprises, Tiger Sunflower Seeds Enterprise and Ngwe Sabai Sugar Mill, donated about MMK1 million (US$1,170) each after the disaster.[77] These donations resulted from requests by monks in Buddhist monasteries in Mandalay.

- **Ethnicity and origin-based disaster management initiatives:** Jupiter Kyaw Maung, a seafood exporter whose managing director was born and raised in Rakhine State, led the collection and distribution of cash donations to affected Rahkine communities in Ahmar Township (Ayeyarwaddy region) after Cyclones Nargis and Giri. Similarly, the owner of Yupawady Manufacturing Co. Ltd, an enterprise that produces cement, financially assisted disaster recovery in her hometown.

- **Requests from the Government to provide voluntary or mandatory disaster relief assistance:** The Government has requested the UMFCCI, SMEs and large enterprises to provide mainly voluntary, but also mandatory, disaster relief assistance. The main reason was the "limitation in financial and technical capacities of the State", as stated by the Deputy Director General of the MSOWRR.[78] Examples of local authorities, national departments, ministries and foreign governments that have requested both voluntary and mandatory assistance from the private sector are as follows:

---

[76] Most of this section draws on Trocaire, 2011. Donations in US dollars were calculated using the 2012 average exchange rate of MMK854.26 per US$1 from the Bank of Canada (2016).
[77] Swan Ar Electric Mart is a distributor of electronics and electrical products.
[78] Trocaire, 2011, p. 21.

- The Ministry of Commerce asked the UMFCCI to support disaster relief following Cyclone Nargis in three hard-hit townships of the Ayeyarwaddy Region: Bogale, Pyapon and Labutta. The UMFCCI established disaster task committees with 37 members from affiliated SBAs and EBMOs to support the response based on their business sectors.[79] Through these committees, EBMOs such as the Myanmar Pharmaceuticals and Medical Equipment Entrepreneurs Association and the Beans and Pulses Brokers and Millers Association collected and distributed in-kind donations.

- The Japan External Trade Organization asked the UMFCCI to facilitate partnerships between Japanese NGOs and SBAs for the coordination of disaster relief after Cyclone Nargis. This was done through a Memorandum of Understanding between the UMFCCI and the Japan External Trade Organization.[80]

- After Cyclone Nargis, the Ministry of Forestry asked Diamond Mercury, a large exporter of wood, to provide assistance in Bogale Township, Ayeyarwaddy Region.[81] As part of its immediate disaster relief efforts, Diamond Mercury planned and coordinated the distribution of food, medicine and clothes equivalent to MMK5 million (US$5,852), and other long-term disaster reconstruction actions (explained later in this chapter). In 2010, in the aftermath of Cyclone Giri, the company offered its help to the Government and assisted by cutting wood logs into planks very cheaply and transporting these to Yangon Port Terminal free of charge. In this case Diamond Mercury supported disaster relief through the Ministry of Forestry and in addition contributed to EBMOs through its membership of the UMFCCI.

• **Disaster relief as part of corporate social responsibility and philanthropic efforts:** The following private sector actors engaged in disaster relief as part of their corporate social responsibility campaigns, programmes and philanthropic objectives:

  - Total Exploration and Production Myanmar, an oil and gas multinational headquartered in Paris, donated US$2 million to the International Federation of the Red Cross for disaster relief after Nargis. This enterprise also provided boats and donated 100,000 litres of fuel to local NGOs to support post-disaster operations and logistics.

  - Mamee Double Decker Instant Noodles, a Malaysian food factory, increased the number of shifts in order to ensure food production that was both sold cheaply to NGOs and distributed by Mamee staff to cyclone-affected areas. Shortly after Cyclone Giri, Mamee donated MMK3.5 million (about US$4,097) worth of instant noodles.

  - Unilever Thai Trading Ltd donated 36,000 pieces of anti-bacterial soap that were distributed by World Vision.

Interviewees from the private sector, including EBMOs, SBAs and individual enterprises, reported that they did not use formal mechanisms and practices such as price monitoring and control systems, post-disaster information services and management tools such as “business helping business” schemes.

[79] Ibid.
[80] Izumi and Shaw, 2015.
[81] Trocaire, 2011.

6.2 Coordination of donations by the UMFCCI for short-term relief after the 2015 floods

In July 2015, the UMFCCI established the “Support Myanmar” initiative aimed at coordinating the collection of donations and aid through an online platform.[82] Through this platform, donors could make donations and choose their desired type of contribution (such as food, medicine, shelter, water, clothing). The UMFCCI partnered with the Kanbawza Bank to facilitate various payment options, and the distribution of donations to flood-affected victims was carried out in cooperation with EBMOs.

©UMFCCI, S. Linn, 2015

UMFCCI staff and volunteers engaging in disaster relief in Pyay City, Pyay District in the West Bago Region

As a result of this initiative, donations of more than MMK1 trillion (about US$911,156) were collected, as shown in table 4, and distributed across six states and regions. An additional US$45,150 was received in US dollars. The UMFCCI also collected data and facilitated information sharing through SBAs, private enterprises and NGOs at the local level. Other stakeholders that contributed to the “Support Myanmar” initiative included LG Electronics, which donated MMK19.2 million (US$15,915) worth of food, clothes and cash to the UMFCCI, and BNH Association, a Japanese NGO, which donated US$5,000.[83]

[82] Support Myanmar, 2015b.
[83] Support Myanmar, 2015b.

Table 4. Donations collected by the UMFCCI (in MMK)

State or region	Donations in MMK	Equivalent in US$ [84]
Rakhine State	354 196 952	293 599
West Bago Region	352 372 400	292 087
Sagaing Region	121 913 000	101 056
Magway Region	103 111 618	85 471
Irrawaddy Region	84 956 824	70 422
Chin State	82 664 675	68 522
Total donations	**1 099 215 469**	**911 156**

Source: Support Myanmar, 2015b.

6.3 Disaster reconstruction and recovery initiatives led by the private sector

The MBE, Diamond Mercury and KBZ Bank have led three separate initiatives to reconstruct damaged infrastructure, which are examined below.

The MBE signed a Memorandum of Understanding with the Ministry of Education for the construction of 37 schools in 36 villages, carried out in close coordination with its donor, Caritas Switzerland. As part of the Memorandum of Understanding, the design of the buildings was done in conformity with national building codes. The idea was to build back better and strengthen disaster resilience. The newly reconstructed schools, for example, are both storm and earthquake resistant. Moreover, the MBE established a ten-year maintenance plan through a community system whereby village leaders were provided with some money to be used for loans to other village members for the promotion of livelihoods. The interest generated from these loans is used for the yearly maintenance of the schools, which includes reparation of windows, doors and tiles. [85]

Diamond Mercury rebuilt 36 schools, 110 houses and a cyclone shelter after Cyclone Nargis in response to a direct request from the Ministry of Forestry. After Cyclone Giri, Diamond Mercury expressed its interest in engaging in infrastructure reconstruction, but the MSOWRR rejected its proposal for reasons that are unclear.

KBZ Bank invested MMK250 million (US$207,230) in the reconstruction of an entire village, home to over 360 people, in Kayah State. [86] The reconstruction was channelled through the bank's KBZ Brighter Future Myanmar Foundation. [87] The reconstructed village has 60 houses, a school, a library and two water tanks with a capacity of 8,000 gallons of water. This project also involved the construction of water pipes for water distribution, power distribution poles for energy supply and the paving of roads to facilitate access to nearby villages and towns. Reconstruction was carried out in close coordination with the MSOWRR over a six-month period. [88]

[84] Donations in US dollars were calculated using the July 2015 average exchange rate of MMK1,206.39 per US$ from the Bank of Canada (2016).
[85] Interview with the MBE, 2016. The MBE has also conducted other long-term disaster recovery activities, in cluding capacity development programmes and microfinance and livelihood projects in the Ayeryawady Region.
[86] Donations in US dollars were calculated using the July 2015 average exchange rate of MMK1,206.39 per US$1 from the Bank of Canada (2016).
[87] The KBZ Brighter Future Myanmar Foundation focuses on five areas: disaster relief and recovery, women's empowerment and health, environmental conservation, youth development and education enhancement, and community development and engagement.
[88] Interview with KBZ Bank, 2016.

©KBZ Bank 2016

Village reconstructed in Kayah State with funding from KBZ Bank

Interviewees from the MBE and KBZ Bank emphasized that their role in these projects was merely one of supporting people in need (through the KBZ Brighter Future Myanmar Foundation) without expecting anything in return. Complementing the Government's limited capacities following Cyclone Nargis and the 2015 floods was also a factor.

While the UMFCCI and SBAs have supported disaster response and recovery, this research did not find any long-term disaster reconstruction and recovery initiatives led by EBMOs, either directly or at the policy level.

7. Conclusions and recommendations

This report has identified DRR and disaster management interventions undertaken by private sector actors including the UMFCCI, SBAs, private sector networks, and small, medium-sized and large enterprises in response to two major disasters: Cyclone Nargis and the 2015 floods.

7.1 Conclusions

The main conclusions from the report are as follows:

- Private sector actors such as the UMFCCI, SBAs, private sector networks and enterprises have supported disaster relief and recovery, but have largely been inactive in preparedness and mitigation. They are playing an increasingly important role in disaster relief, complementing the limited technical and financial capacities of the Government. However, their actions have mostly been carried out in an uncoordinated manner.

- The 2015 floods represented a turning point for the UMFCCI. The apex organization led the establishment of the "Support Myanmar" initiative that coordinated the collection of donations through an online platform. The UMFCCI also partnered with UNDP and UNOCHA in order to enhance its capacity in disaster preparedness, response and recovery and coordination among private sector actors. The UMFCCI was a founding member of the MPD Network, which resulted from its engagement with the UN. The MPD Network has discussed ways to organize its members in a cluster system for private sector engagement in DRR and disaster management that is adapted to the Myanmar context. The adaptability of this network to local challenges and potential successes resulting from increased coordination among MPD Network members and other stakeholders is yet to be assessed.

- SBAs have concentrated on providing assistance during and after disasters but have not focused on preparedness. Their actions have been conducted in two main ways: 1) providing direct assistance to their sectors, and 2) supporting generalized disaster recovery actions. SBAs in agriculture were engaged in post-disaster sectoral assistance, while general assistance that did not target any particular business niche was common among SBAs in the manufacturing and services sectors.

- Coordination and linkages between the UMFCCI and SBAs were found to be weak at all stages of disaster events.

- Most SBAs have provided post-disaster support. However, two SBAs from the agriculture sector, the MRF and MLF, have engaged in small-scale initiatives that support disaster mitigation and preparedness in rural areas.

- The economic impact of disasters has been unevenly distributed between the private and public sectors, with the private sector (including enterprises, households and communities) experiencing the near totality of disaster losses and damages.

- There are no policies or laws establishing how the Government could financially assist businesses impacted economically following disaster events through such measures as tax exemptions, credits for SMEs, or enterprise insurance funds or subsidies.

- Conversely, it was found that the Government expects to receive support from the private sector in the wake of a disaster event, and the MAPDRR outlines six areas of potential collaboration in which public-private partnerships could be taken forward for DRR.

- There are weak or no institutional connections between the private sector and national DRR strategies in policy or in practice. There are no formal channels or mechanisms through which the UMFCCI, SBAs and other EBMOs can communicate their concerns to the Government during disasters. A one-off, ad hoc forum has been the only mechanism for interaction. However, it is expected that the MPD Network will coordinate private sector engagement in DRR and disaster management, and will improve interaction and communication with the Government and humanitarian actors.

- The private sector does not seem to have participated in risk assessments and contingency planning nor to have conducted any type of assessment that evaluates the potential impact of disasters on business interests, including assets.

- Private sector motivations for short-term disaster assistance after Cyclone Nargis included religion; ethnicity and a sense of obligation to help regions or communities of origin; requests by the State or pressure to please government officials; and corporate social responsibility and philanthropic initiatives.

- Three private sector actors, the MBE, Diamond Mercury and KBZ Bank engaged in separate initiatives to reconstruct damaged infrastructure.

7.2 Recommendations for action

This report proposes the following recommendations based on the findings mentioned above:

- The UMFCCI, EBMOs and other private sector actors should engage in DRR, mitigation and resilience, with preparedness interventions carried out through meaningful and targeted integration with national DRR frameworks.

- Private sector actors including SBAs, EBMOs and enterprises should develop disaster mitigation and preparedness plans in order to take proactive actions that would diminish disaster impacts on their productive operations. They will need institutional support to carry out these roles.

- The UMFCCI should increase communication and coordination with its members, including EBMOs, SBAs and enterprise members, in order to improve efficiency in DRR and disaster management initiatives.

- The UMFCCI should play a central role in the MPD Network by hosting it and improving communication with SBAs, EBMOs and other private sector actors to motivate them to participate in the network. A starting point would be a set of targeted consultations on the different roles that SBAs and the UMFCCI could play under the rubric of national DRR strategies.

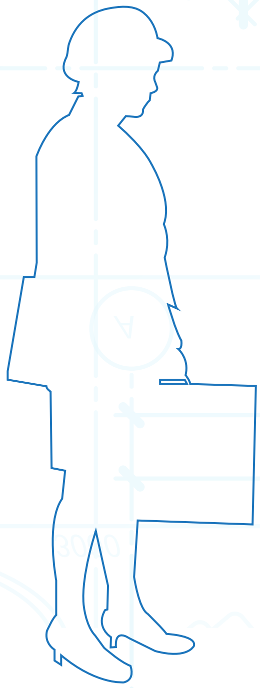
- The creation of the MPD Network is a step towards increasing coordination among private sector actors for better and more institutionalized collaboration with the Government and the humanitarian community. The network should approach the Government to look for potential long-term public-private partnerships for DRR and disaster management. These partnerships should be established to coordinate actions between the MPD Network and the Government as a preparedness measure.

- Formal and regular communication mechanisms and channels between the Government and private sector actors should be established.

- The private sector should increase linkages and coordination with the Government and humanitarian actors (UN agencies and NGOs) according to national DRR strategies as a preparedness measure in order to ensure that its contribution is strategic, effective and efficient. The MPD Network should be a vehicle to improve coordination with the Government and reduce unnecessary duplication of initiatives.

- Considering that insurance law in Myanmar is outdated, EBMOs could explore potential partnerships with microfinance agencies such as PGMF as a way to reduce the damage to agriculture sub-sectors.

- The UMFCCI should establish a policy framework for action for its roles in DRR and disaster management and promulgate it widely among its membership, policy-makers and donors.



References

Association of Southeast Asian Nations (ASEAN). 2005. *ASEAN agreement on disaster management and emergency response.* Available at: http://agreement.asean.org/media/download/20140119170000.pdf 10 Oct. 2016.

Association of Southeast Asian Nations (ASEAN), UN and the humanitarian and development community. 2008. *Post-Nargis Joint Assessment.* Available at: http://yangon.sites.unicnetwork.org/files/2013/05/post-nargis_joint_assessment_all_pages.pdf 14 Oct. 2016.

Asian Disaster Preparedness Center (ADPC). 2004. *Capacity Building in Asia using Information Technology Applications* (CASITA), Module 4. Available at: http://www.adpc.net/casita/course-materials/Mod-4-Disaster-Mgmt.pdf 7 Oct. 2016.

Bank of Canada. 2016. 10-Year Currency Converter. Available at: http://www.bankofcanada.ca/rates/exchange/10-year-converter/ 2 Oct. 2016.

Bollin, C. and Khanna, S. 2007. *Review of Post Disaster Recovery Needs Assessment and Methodologies* (IRP, ECLAC and UNDP).

Central Department of Small and Medium Enterprises in Myanmar, 2015. History of Small and Medium Enterprises. Available at: http://www.smedevelopmentcenter.gov.mm 26 Nov. 2016.

Central Intelligence Agency of the United States (CIA). 2016. *The World Fact Book*. Available at: https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html 23 Nov. 2016.

Charities Aid Foundation. 2016. “World Giving Index 2016”. Available at: https://www.cafonline.org/about-us/publications/2016-publications/caf-world-giving-index-2016 24 Nov. 2016.

Connecting Business Initiative (CBI). 2016. *Myanmar Private Sector Disaster Risk Reduction Network.* Available at: http://www.connectingbusinessinitiative.org/networks/myanmar

EM-DAT, International Disaster Dabase. 2016. *The OFDA/CRED International Disaster Database.* (Brussels, Université Catholique de Louvain). Available at: www.emdat.be 1 Oct. 2016.

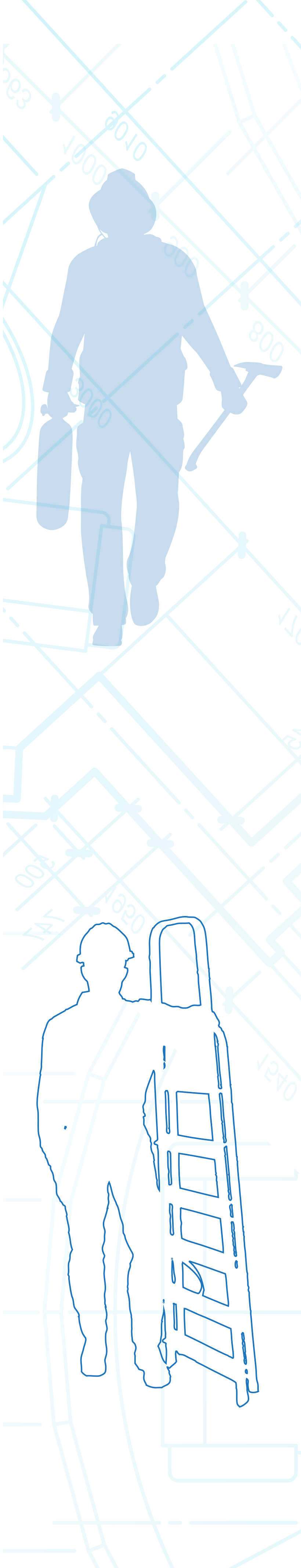
Food and Agriculture Organization of the United Nations (FAO). 2009. *Post-Nargis recovery and rehabilitation programme strategy.* Available at: http://www.fao.org/fileadmin/user_upload/emergencies/docs/FAO_Myanmar__Post_Nargis_Recovery_and_Rehabilitation_Programme_Strategy.pdf 8 Oct. 2016.

–. 2013. *Resilient livelihoods: Disaster risk reduction for food and nutrition security,* 2013 edition. Available at: http://www.fao.org/3/a-i3270e.pdf 22 Nov. 2016.

–. 2015. *Myanmar floods: Huge impact on agricultural livelihoods, more international support urgently needed.* Available at: http://www.fao.org/fileadmin/user_upload/emergencies/docs/Final%20fact%20sheet%201%20-%20web%20version.pdf 10 Oct. 2016.

–. 2016. “FAOStat”. http://faostat3.fao.org/home/E 11 Oct. 2016.

Food and Agriculture Organization and World Food Programme. 2015. *Agriculture and livelihood flood impact assessment in Myanmar.* Available at: https://www.wfp.org/sites/default/files/Final_Impact_Assessment_Report_final.pdf 1 Oct. 2016.



Global Facility for Disaster Risk Reduction and World Bank. 2010. *EAP DRM Knowledge Notes: Disaster risk management in East Asia and the Pacific,* Working Paper Series No. 19. Available at: https://openknowledge.worldbank.org/bitstream/handle/10986/10132/566090BRI0REVI10BOX353820B01PUBLIC1.pdf?sequence=1 10 Oct. 2016.

Government of the Union of Myanmar. 2009. *Myanmar Action Plan for Disaster Risk Reduction (MAPDRR) (2009- 2015).* Available at: http://www.preventionweb.net/files/18657_myanmaractionplanondisasterriskredu.pdf 10 Oct. 2016.

–. 2015. *Myanmar post-disaster needs assessment of floods and landslides: July-September 2015.* Available at: http://www.earlyrecovery.global/sites/default/files/Myanmar000Post0uly000September02015%20(1).pdf 10 Oct. 2016.

International Labour Organization (ILO). 2008. *Committee on Technical Cooperation: Public-private partnerships,* Governing Body, 301st Session, Geneva, March 2008, GB.301/TC/1. Available at: http://www.ilo.org/wcmsp5/groups/public/@ed_norm/@relconf/documents/meetingdocument/wcms_090364.pdf 22 Nov. 2016.

–. 2010. *The role of employers' organizations in growth and sustainable enterprise promotion,* Working Paper No. 4, Bureau for Employers' Activities, ILO (Geneva). Available at: http://www.ilo.org/public/english/dialogue/actemp/downloads/publications/working_paper_n4.pdf 25 Nov. 2016.

–. 2015. "Key Indicators of the Labour Market (KILM)". Available at: http://www.ilo.org/global/statistics-and-databases/research-and-databases/kilm/lang--en/index.htm 13 Oct. 2016.

–. 2016. *Employment and decent work in situations of fragility, conflict and disaster: Guide.* Available at: http://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/instructionalmaterial/wcms_141275.pdf 26 Dec. 2016.

Izumi, T. and Shaw, R. (eds.) 2015. *Disaster management and private sectors: Challenges and potentials* (Springer).

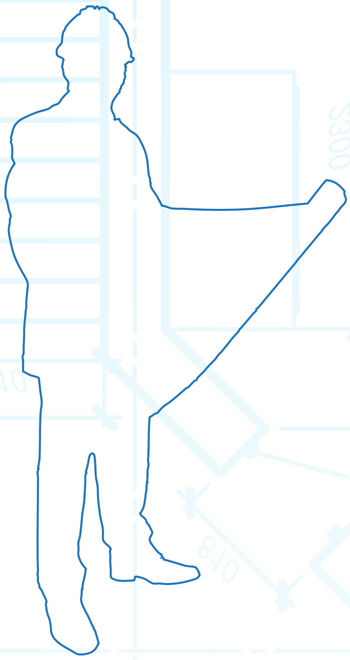
Kyaw, K. 2015. "Myanmar govt seeks private sector cooperation", in *Asean & Beyond*, 10 Sep. Available at: http://www.nationmultimedia.com/asean&beyon/Myanmar-govt-seeks-private-sector-cooperation-30268481.html 4 Oct. 2016.

Malaysian Buddhist Co-operative Society Berhad. 2016. *A Guide to a Proper Buddhist Funeral* (Buddha Dharma Education Association). Available at: http://www.buddhanet.net/pdf_file/buddhist_funeral.pdf 25 Nov. 2016.

McKinsey Global Institute (MGI). 2013. *Myanmar's moment: Unique opportunities, major challenges.* http://www.mckinsey.com/global-themes/asia-pacific/myanmars-moment 4 Dec. 2016.

Meikle, J. 2014. "Myanmar: A changing role for microfinance after natural disaster", in *CGAP,* 18 Aug. Available at: https://www.cgap.org/blog/myanmar-changing-role-microfinance-after-natural-disaster 13 Oct. 2016.

Mg Oo, T. 2015a. "MFF struggles to save fish farms amid floods", in *Myanmar Business Today,* 18 Aug. Available at: http://www.mmbiztoday.com/articles/mff-struggles-save-fish-farms-amid-floods 5 Oct. 2016.



–. 2015b. “Rice Federation looks toward Swiss crop insurance”, in *Myanmar Business Today,* 11 Aug. Available at: https://www.mmbiztoday.com/articles/rice-federation-looks-toward-swiss-crop-insurance 15 Oct. 2016.

Ministry of Social Welfare, Relief and Resettlement (MSOWRR). 2013. National Disaster Management Law. Available at: http://www.themimu.info/sites/themimu.info/files/documents/Natural_Disaster_Management_Law_2013_ENG.pdf 12 Oct. 2016.

Mon, K. H. 2016. “Govt, Rice Federation prepare contingency for paddy flooding”, in *The Irrawaddy,* 8 Aug. Available at: http://www.irrawaddy.com/business/govt-rice-federation-prepare-contingency-for-paddy-flooding.html 13 Oct. 2016.

Myanmar Information Management Unit (MIMU). 2016a. About the MIMU. Available at: http://www.themimu.info/about-us 12 Oct. 2016.

–. 2016b. Disaster Risk Reduction Sector. Available at: http://www.themimu.info/sector/disaster-risk-reduction 12 Oct. 2016.

Myanmar Business Executives Association (MBE). 2016a. About MBE. Available at: http://www.mbemyanmar.com/about/about-mbe/ 5 Oct. 2016.

–. 2016b. Milestones. Available at: http://www.mbemyanmar.com/about/milestones/ 3 Oct. 2016.

Myanmar NGO Contingency Working Group. 2011. Myanmar NGO Contingency Plan (MNGO – CP): Version (No. 2). Available at: http://www.themimu.info/sites/themimu.info/files/documents/RefDoc_Contingency_Planning_v2.0_MNGO_Jul11.pdf 8 Oct. 2016.

Myanmar Rice Federation. 2016. “About MRF”. Available at: http://myanmarricefederation.org/content/about-myanmar-rice-federation-mrf 4 Oct. 2016.

Oxford Business Group. 2014. *The Report: Myanmar 2014.* Available at: https://www.oxfordbusinessgroup.com/myanmar-2014 4 Oct. 2016.

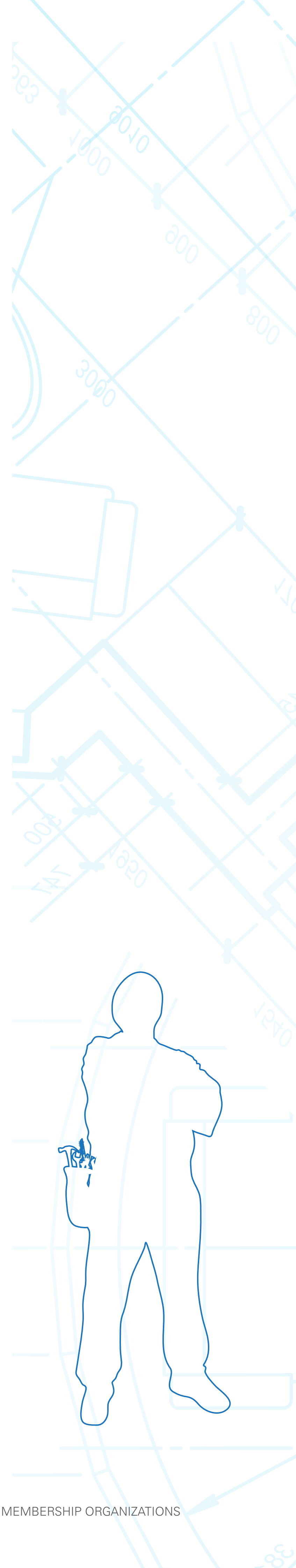
–. 2016. “Industry and Retail”, *The Report: Myanmar 2016.* Available at: https://www.oxfordbusinessgroup.com/myanmar-2016/industry-retail 1 Dec. 2016.

Philippine Disaster Recovery Foundation. 2015. *The Role of Business in Disaster Response in the Philippines,* presentation at the 9th APEC Senior Disaster Management Officials Forum, Iloilo, Philippines, 22-23 September (Asia-Pacific Economic Cooperation (APEC)). Available at: http://www.apec-epwg.org/public/uploadfile/act/7b57acfa4100811a4d83f77e71572df7.pdf 24 Nov. 2016.

PreventionWeb. 2012. “Myanmar: Earthquake risk assessment for three cities launched”, 24 Dec. Available at: http://www.preventionweb.net/news/view/30193 12 Oct. 2016.

Rottach, P. 2010. *Background and Components of Disaster Risk Reduction* (Diakonie Katastrophenhilfe). Available at: http://www.preventionweb.net/files/24122_24122backgroundcomponentsofdrractdi.pdf 13 Oct. 2016.

Support Myanmar. 2015a. “National Disaster Management Committee and the UMFCCI held the National Disaster Recovery Forum”, 9 Sep. 2016.



–. 2015b. Support Myanmar: An Initiative of Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI).

Swiss Capacity Building Facility (SCBF). 2016. "Product up-scaling support, Factsheet: Pact Global Microfinance Fund - Claims Optimization for the Beneficiary Welfare Fund". Available at: http://scbf.ch/wp-content/uploads/2011/03/2016-03-Fact-Sheet-Myanmar-Stonestep-PACT.pdf 13 Oct. 2016.

Trocaire. 2011. *Private sector and humanitarian relief in Myanmar: A study of recent practices of business engagement in humanitarian relief to assess the potential, modalities and areas for future cooperation.* Available at: http://www.burmalibrary.org/docs13/Private_Sector+Humanitarian_Response.pdf 1 Oct. 2016.

Tun, A. and Lone, W. 2016. "Myanmar monsoon floods kill eight, disrupt lives of 400,000", *Reuters,* 15 Aug. Available at: http://www.reuters.com/article/us-myanmar-environment-idUSKCN10Q12J 13 Oct. 2016.

Republic of the Union of the Myanmar Federation of Chambers of Commerce and Industry (UMFCCI). 2015. "National Disaster Management Committee and the UMFCCI held the National Disaster Recovery Forum", 9 Sep. Available at: http://supportmyanmar.umfcci.org.mm/2015/09/09/national-disaster-management-committee-and-the-umfcci-held-the-national-disaster-recovery-forum/ 7 Oct. 2016.

–. 2016a. "About UMFCCI". Available at: http://www.umfcci.com.mm/about-umfcci/ 3 Oct. 2016.

–. 2016b. "Top-tier of Myanmar private sector forms disaster networking group", Media release, 11 Aug. Available at: http://www.umfcci.com.mm/top-tier-of-myanmar-private-sector-forms-disaster-networking-group/ 14 Oct. 2016.

United Nations. 2016a. "Agenda for Humanity: Platform for Action, Commitments and Transformation". Available at: http://www.agendaforhumanity.org 24 Nov. 2016.

United Nations. 2016b. *Natural disasters and climate change: managing risks & crises differently.* High-Level Leaders' Roundtable, Core Responsibility Four of the Agenda for Humanity, World Humanitarian Summit, Istanbul, 23-24 May 2016. Available at: https://www.worldhumanitariansummit.org/key-documents 24 Nov. 2016.

United Nations Development Programme (UNDP). 2015. *Human Development Report: Work for Human Development* (New York). Available at: http://hdr.undp.org/sites/default/files/2015_human_development_report.pdf 24 Nov. 2016.

UNDP, ADPC and Myanmar Engineering Society. 2011. *Multi hazard risk assessment in the Rakhine State of Myanmar: Final Report.* Available at: http://www.adpc.net/igo/contents/Publications/publications-Details.asp?pid=277#sthash.DWMUJwg6.dpbs 31 Jan. 2016.

United Nations Office for Disaster Risk Reduction (UNISDR). 2009. "Terminology on Disaster Risk Reduction". Available at: https://www.unisdr.org/we/inform/terminology#letter-r 20 Oct. 2016.

–. 2016a. "Chart of the Sendai Framework for Disaster Risk Reduction 2015-2030". Available at: http://www.unisdr.org/files/44983_sendaiframeworksimplifiedchart.pdf 2 Oct. 2016.

–. 2016b. “Private Sector”. Available at: https://www.unisdr.org/partners/private-sector 2 Oct. 2016.

United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA). 2012. *Inter-Agency Contingency Plan (IA-CP): Myanmar (Version No. 3).* Available at: http://www.themimu.info/sites/themimu.info/files/documents/RefDoc_Myanmar%20Inter-Agency%20ContingencyPlanning(2012-13)v3.0_OCHA_Jun13.pdf 8 Oct. 2016.

UNOCHA, UMFCCI and UNDP, 2016. *Briefing Note: Supporting the Myanmar private sector on disaster preparedness, response and recovery.* 1 Apr. Available at: http://www.earlyrecovery.global/sites/default/files/Briefing%20note%20Private%20Sector%20Engagement%20Final%20(002).pdf 12 Oct. 2016.

UNSPIDER. 2015. “Myanmar Disaster Preparedness Agency (MDPA)”. Available at: http://www.un-spider.org/links-and-resources/institutions/myanmar-disaster-preparedness-agency-mdpa 12 Oct. 2016.

US Chamber of Commerce Foundation. 2008. “More than $67 million from business for disaster response this month”, 28 May. Available at: https://www.uschamberfoundation.org/blog/post/more-67-million-business-disaster-response-month/31400 5 Oct. 2016.

Voanews. 2009. “Indian forecasters gave Burma advance warning of Cyclone Nargis”, 27 Oct. Available at: http://www.voanews.com/a/a-13-2008-05-07-voa32-66819297/374351.html 5 Dec. 2016.

Waidyanatha, N. 2008. “Cyclone ‘Nargis’ – time series before, during, and after”, LIRNEasia, 9 May. Available at: http://lirneasia.net/2008/05/cyclone-nargis-–-time-series-before-during-and-after/ 8 Dec. 2016.

Wai, K. S. and Aung, H. L. 2015. “Muse traders flout rice exports ban”, in *Myanmar Times,* 2 Sep. Available at: http://www.mmtimes.com/index.php/business/16269-muse-traders-flout-rice-exports-ban.html 8 Oct. 2016.

Win, S. P. and Aung, H. L. 2015a. “Rice exports suspended as 500,000 acres flood” in *Myanmar Times,* 5 Aug. Available at: http://www.mmtimes.com/index.php/business/15837-rice-exports-suspended-as-500-000-acres-flood.html 3 Oct. 2016.

–. 2015b. “Rice federation draws up emergency plans for imports”, in *Myanmar Times,* 10 Aug. Available at: http://www.mmtimes.com/index.php/business/15894-rice-federation-draws-up-emergency-plans-for-imports.html 10 October 2016.

World Bank. 2016. “World Bank Open Data”. Available at: http://data.worldbank.org/ 13 Oct. 2016.

–. 2017. “Doing Business: Economy Rankings”. Available at: http://www.doingbusiness.org/rankings 10 October 2016.

Youcaring. 2016. “Myanmar Flood Emergency Response”. Available at: https://www.youcaring.com/myanmar-flood-victims-in-ayeyarwaddy-delta-area-406896 5 Oct. 2016.

Appendix I. List of UMFCCI members

Sectoral business association members of the UMFCCI

1 Myanmar Automobile Manufacturer and Distributor Association
2. Myanmar Computer Industry Association
3. Myanmar Container Trucks Association
4. Myanmar Construction Entrepreneurs Association
5. Myanmar Customs Brokers Association
6. Myanmar Edible Oil Dealers' Association
7. Myanmar Farm Crop Producer's Association
8. Myanmar Federation of Mining Association
9. Myanmar Fertilizer Seed and Pesticides Entrepreneurs Association
10. Myanmar Fisheries Federation
11. Myanmar Food Processors and Exporters Association
12. Myanmar Fruit, Flower and Vegetable Producer and Exporter Association
13. Myanmar Garment Manufacturers Association
14. Myanmar Gems and Jewelry Entrepreneurs Association
15. Myanmar Gold Entrepreneurs Association
16. Myanmar Hotelier Association
17. Myanmar Industries Association
18. Myanmar International Freight Forwarders' Association
19. Myanmar Livestock Federation
20. Myanmar Marine Engineers Association
21. Myanmar Mercantile Marine Development Association
22. Myanmar Oil Palm Producers' Association
23. Myanmar Onion, Garlic and Culinary Crops Production and Exporting Association
24. Myanmar Paddy Producer Association
25. Myanmar Perennial Crop Producers' Association
26. Myanmar Petroleum Trade Association
27. Myanmar Pharmaceuticals and Medical Equipment Entrepreneurs Association
28. Myanmar Plastic Industries Association
29. Myanmar Printers and Publishers Association
30. Myanmar Publishers and Booksellers Association
31. Myanmar Pulp and Paper Industry Association
32. Myanmar Pulses, Beans and Sesame Seeds Merchants Association
33. Myanmar Real Estate Services Association
34. Myanmar Retailers Association
35. Myanmar Rice and Paddy Traders Association
36. Myanmar Rice Federation
37. Myanmar Rice Miller's Association
38. Myanmar Rubber Planters and Producers' Association
39. Myanmar Seafarer Employment Services Federation
40. Myanmar Sugar Cane and Sugar Related Products Merchants and Manufacturers Association
41. Myanmar Timber Merchants Association
42. Myanmar Tourism Federation
43. Myanmar Travel Association
44. Myanmar Wheat Association
45. Myanmar Women Entrepreneurs Association
46. Myanmar Young Entrepreneurs Association
47. The Highway Freight Transportation Services Association

Regional Business Membership Organizations

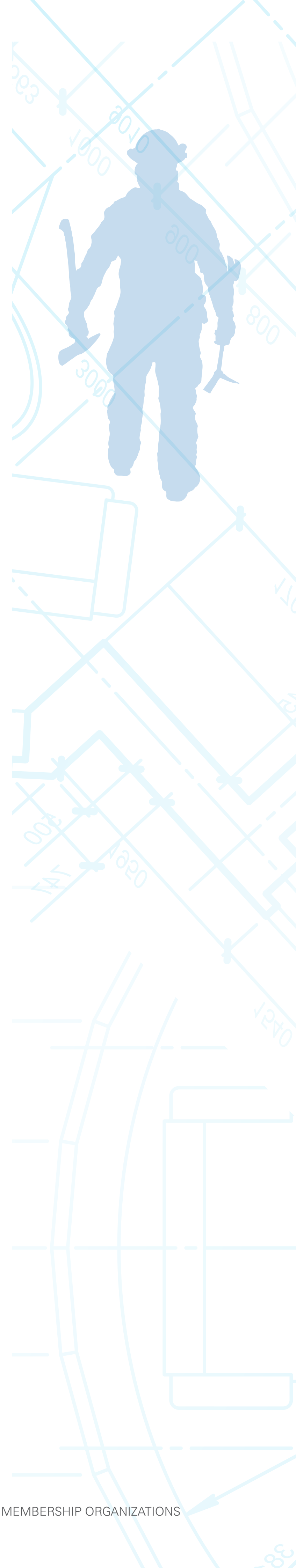
1. Ayeyarwaddy Region Chambers of Commerce and Industry
2. Bago East Region Chambers of Commerce and Industry
3. Bago West Region Chambers of Commerce and Industry
4. Magway Region Chambers of Commerce and Industry
5. Mandalay Region Chambers of Commerce and Industry
6. Sagaing Region Chambers of Commerce and Industry
7. Tanintharyi Region Chambers of Commerce and Industry
8. Yangon Region Chambers of Commerce and Industry

State Business Membership Organizations

1. Chin State Chambers of Commerce and Industry
2. Kachin State Chambers of Commerce and Industry
3. Kayah State Chambers of Commerce and Industry
4. Kayin State Chambers of Commerce and Industry
5. Mon State Chambers of Commerce and Industry
6. Northern Shan State Chambers of Commerce and Industry
7. Rakhine State Chambers of Commerce and Industry
8. Southern Shan State Chambers of Commerce and Industry

Border Business Membership Organizations

1. Bhamaw-Loijee Border Trade Chamber of Commerce (Myanmar-China Border)
2. Kalay-Tamu Border Trade Chamber of Commerce (Myanmar-India Border)
3. Kaw Thaung Border Trade Chamber of Commerce (Myanmar-Thai Border)
4. Kunlon-Laukkhine Border Trade Chamber of Commerce (Myanmar-China Border)
5. Kyaington-Tachileik Border Trade Chamber of Commerce (Myanmar-Thai Border)
6. Maung-Daw Border Trade Chamber of Commerce (Myanmar-Bangladesh Border)
7. Muse Namkham Border Trade Chamber of Commerce (Myanmar-China Border)
8. Myawaddy Border Trade Chamber of Commerce (Myanmar-Thai Border)
9. Myeik District Chamber of Commerce and Industry (Myanmar-Thai Border)



Appendix II. List of interviewees

The following stakeholders were interviewed in Yangon between 3 and 12 November 2016.

1. Mr. Aung San, Chief Executive Officer, Myanmar Rice Federation (MRF)
2. Mr. Khin Soe, Senior Advisor, Myanmar Rice Federation (MRF)
3. Mr. Win Myint, Secretary General, Myanmar Livestock Federation (MLF)
4. Mr. Myint Thu, Vice Chairman (2), Myanmar Livestock Federation (MLF)
5. Mr. Win Win Naing, Vice Chairman (2), Myanmar Automobile Manufacturers and Distributors Association (MADMA)
6. Mr. Myo Zin Win, Secretary General, Myanmar Automobile Manufacturers and Distributors Association (MADMA)
7. Mr. Aung Win Than, Joint Secretary, Myanmar Automobile Manufacturers and Distributors Association (MADMA)
8. Ms. Toe Nardar Tin, Chairperson, Myanmar Fisheries Federation (MFF)
9. Mr. Win Kejaing, Secretary General, Myanmar Fisheries Federation (MFF)
10. Mr. Han Tun, Chief Executive Officer, Myanmar Fisheries Federation (MFF)
11. Ms. Lynn Lynn Tin Htun, Vice President (1), Myanmar Business Executives Association (MBE)
12. Ms. Min Min Myitzu, Secretary General, Myanmar Business Executives Association (MBE)
13. Ms. Helena Mazarro, Humanitarian Affairs Officer, United Nations Office for the Coordination of Humaritarian Affairs (UNOCHA)
14. Ms. Lat Lat Aye, Team Leader of Environmental Governance and Disaster Resilience, United Nations Development Programme (UNDP)
15. Ms. Khin Pyait Wonn Thaw Tar, Associate of Corporate Responsibility, Telenor
16. Mr. Alex Nyi Nyi Aung, Senior Expert of Corporate Communications, Telenor
17. Ms. Yu Wai Maung, Head of the CSR Department, KBZ Bank, Brighter Future Myanmar Foundation
18. Ms. Wint Wint Htun, Managing Director, Diamond Mercury Wood Products Ltd.
19. Ms. Ya Min Tun, Executive Director, Diamond Mercury Wood Products Ltd.
20. Mr. Soe Win Maung, Consultant, Myanmar Pulses, Beans and Sesame Seeds Merchants Association (MPBSMA)
21. Mr. Aung Zaw Oo, Joint Secretary General, Republic of the Union of the Myanmar Federation of Chambers of Commerce and Industry (UMFCCI)
22. Mr. Win She, Regional Director, Relief and Resettlement Department Yangon Region
23. Mr. Kyaio Thu Htike, Staff Officer, Relief and Resettlement Department Yangon Region

ACT/EMP
The Bureau for Employers' Activities

Bureau for Employers' Activities (ACT/EMP)
International Labour Office
Route des Morillons 4
CH-1211 Geneva 22
Switzerland
Email: actemp@ilo.org