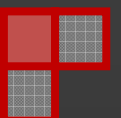


2009

INSTITUTIONAL ARRANGEMENTS
FOR
DISASTER MANAGEMENT IN
MYANMAR



EXECUTIVE SUMMARY

Background to this document:

This document on '*Institutional Arrangements for Disaster Management in Myanmar*' is developed as part of process of development of the 'Myanmar Action Plan for Disaster Risk Reduction' [MAPDRR] of the Government of the Union of Myanmar. The aim of the document is to provide an overview of the existing institutional system for disaster management in the country at all administrative levels from national to the local.

Methodology for development of this document:

This document has been jointly developed by the Relief and Resettlement Department of the Ministry of Social Welfare, Relief and Resettlement of the Government of the Union of Myanmar in partnership with the Asian Disaster Preparedness Center [ADPC]. The document has been developed through desk review of existing literature of the Government such as the Disaster Preparedness Plan, Standing Orders and as well as the information available at the websites of various Ministries and Departments. The document has great benefited from the experiences shared by officials from various Ministries/ Departments, State and Division, District and Township level. Representatives from Myanmar Red Cross Society and NGOs have also contributed to the document.

The document has been reviewed by the three-member review committee comprising of General Administration Department, Relief and Resettlement Department and Social Welfare Department. The inter-ministerial committee formed during the development of the MAPDRR and chaired by the Director-General, Relief and Resettlement Department have also extensively reviewed the document and provided their inputs. Comments and suggestions received from partner agencies such as ASEAN, UN Agencies and civil society organizations have added great value to the document.

Content of the document:

The document is divided into nine chapters as follows:

Chapter One provides an overview of the geographical location of Myanmar, description of administrative units and information on population, physical features, climate and economy.

Chapter Two profiles nine hazards, namely Fire including Forest Fire, Earthquake, Cyclone, Storm surge, Tsunami, Landslide, Floods and Drought, to which Myanmar is vulnerable. The profiling includes identification of highly vulnerable areas, major past disasters and hazard maps.

Chapter Three captures commitment of the Government of the Union of Myanmar to global and regional declarations on Disaster Management, including the Hyogo Framework for Action [HFA] and the Asean Agreement on Disaster Management and Emergency Response [AADMER]. It also includes the Myanmar's participation in global and regional Conferences

on Disaster Management including World Conference on Disaster Reduction, Kobe, January 2005 and meetings of the ASEAN Committee on Disaster Management since 2003. The 13th ACDM meeting was held in Nay Pyi Taw, Myanmar and Union of Myanmar is the current chair (2009) of the ACDM.

Chapter Four forms the main body of the document and describes the existing institutional arrangement at the national level for disaster management including the National Disaster Preparedness Central Committee [NDPCC], the National Disaster Preparedness Management Working Committee and its ten Sub-committees. It also describes the role of the Executive Committee for Disaster Management under each of the Ministry.

Chapter Five profiles selected Ministries and Departments in context of disaster management. It includes brief overview of the Ministry and its department, objective of the Ministry and department, roles & responsibilities and description of interventions related to disaster management. The following Ministries along with its concerned departments have been captured; Ministry of Social Welfare, Relief and Resettlement, Ministry of Transport, Ministry of Agriculture & Irrigation, Ministry of Forestry, Ministry of Construction, Ministry of Education and Ministry of Planning & Economic Development.

Chapter Six deals with institutional arrangement for disaster management at the Divisional level. Two Divisions namely Yangon in Lower Myanmar and Mandalay in Central Myanmar have been studied and documented. It includes the composition of Yangon Division Disaster Preparedness Executive Working Committee and Mandalay Division Natural Disaster Management Committee, its roles and responsibilities, Sub-committees constituted under the committee along with their roles and responsibilities.

Chapter Seven captures the institution arrangement for disaster management at the district level and existing set up in two districts namely Labutta and Pyapon have been documented including the formation of the District Disaster Preparedness Committee [DPC] and various Working Committees under it.

Chapter Eight profiles the institutional set-up for disaster management at township level and eight townships namely Kungyangone, Pyapon, Ngaputaw, Labutta, Bogale and Maubin in Nargis affected areas and Amarapura and Magway Townships on non-Nargis affected areas have been included. It captures composition of the Disaster Management Committee, Working Committees and Sub-committees and their roles and responsibilities. A section on current Reconstruction and Rehabilitation tasks in the aftermath of Cyclone Nargis have been included for selected townships.

Chapter Nine is the concluding section which includes overview of the institutional arrangements for disaster management in Myanmar at national, division, state, district, township and village tract levels. It also includes recommendations for further strengthening of the existing institutional arrangements for disaster management.

Purpose of the document:

The purpose of this document is to provide a comprehensive overview of existing institutional arrangement for disaster management in Myanmar at all levels with an aim to make information available to all stakeholders involved in disaster risk management in Myanmar.

For stakeholders working at the national level, this would provide better understanding of institutional structure at the national level and roles and responsibilities of various Ministries, which would enable the partners to engage more effectively in implementation of disaster risk management programs and projects.

For partners working at the community level, the description of the institutional set up at the township and village tract level would help in better understanding of the existing system effectively build partnerships for reducing disaster risk at local level.

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LIST OF ABBREVIATIONS AND ACRONYMS

AADMER	:	ASEAN Agreement on Disaster Management and Emergency Response
ACDM	:	ASEAN Centre on Disaster Management
ADPC	:	Asian Disaster Preparedness Center
ARPDM	:	ASEAN Regional Program on Disaster Management
ASEAN	:	Association of South East Asian Nations
CBDM	:	Community Based Disaster Management
CBFA	:	Community Based Flood Awareness
DPC	:	Disaster Preparedness Committee
DDPC	:	District Disaster Preparedness Committee
DDPCC	:	District Disaster Preparedness Central Committee
DPMC	:	Disaster Preparedness Management Committee
DDPMC	:	District Disaster Preparedness Management Committee
DEPT	:	Department of Education Planning & Training
DFID	:	Department for International Development
DMC	:	Disaster Management Committee
DMH	:	Department of Meteorology and Hydrology
DPRE	:	Disaster Preparedness and Response Education
DRR	:	Disaster Risk Reduction
ECHO	:	European Commission for Humanitarian Office
ERAT	:	Emergency Rapid Assessment Team
FSD	:	Fire Services Department
GAD	:	General Administration Department
HFA	:	Hyogo Framework for Action
IEC	:	Information, Education and Communication
MAS	:	Myanma Agriculture Services
MMCCA	:	Myanmar Maternal and Child Care Association
MES	:	Myanmar Engineering Society
MGS	:	Myanmar Geosciences Society

MPF	:	Myanmar Police Force
MPPE	:	Myanma Petroleum Product Enterprise
MRCs	:	Myanmar Red Cross Society
MRTV	:	Myanma Radio and Television
MSWRR	:	Ministry of Social Welfare, Relief and Resettlement
MWAF	:	Myanmar Women Affairs Federation
MWD	:	Myawaddy Television
NAG	:	Nargis Action Group
NAPA	:	National Adaptation Plan of Action
NCEA	:	National Commission for Environmental Affairs
NDPCC	:	National Disaster Preparedness Central Committee
NGO	:	Non-Government Organization
RCC	:	Regional Consultative Committee on Disaster Management
RRD	:	Relief and Resettlement Department
SLRD	:	Settlement and Land Records Department
SPDC	:	State Peace and Development Council
TDPC	:	Township Disaster Preparedness Committee
TDPCC	:	Township Disaster Preparedness Central Committee
TDPMC	:	Township Disaster Preparedness Management Committee
TRRRC	:	Township Relief, Resettlement and Rehabilitation Committee
UNESCO	:	United Nations Educational Scientific and Cultural Organization
USDA	:	Union Solidarity and Development Association
VT	:	Village Tract

CHAPTER 1

OVERVIEW OF UNION OF MYANMAR

1.1 Location

The Union of Myanmar, located between latitudes 9°32' N & 28°31' N and longitudes 92°10'E & 101°11'E, with a total area of 676,578 sq. kms.¹ is the largest country in mainland Southeast Asia. It's north-south length is 2,200 kms. while the east-west breadth is 925 kms. It is surrounded by China in the north and north east, the Lao PDR and Thailand in the east and southeast, India and Bangladesh in the west while the Bay of Bengal and the Andaman sea are in the west and the south.

1.2 Administrative units²

The country is administratively divided into 7 Divisions and 7 States. The Divisions and States are sub-divided into Districts, Districts into Townships, Townships into Wards and Village Tracts. A Village Tract comprises villages. Table 1.1 shows the State-wise/Division-wise number of districts, townships, sub-townships, wards, village tracts and villages.

Table 1.1 Administrative units of Myanmar

Division/State	Districts	Townships	Sub-townships	Wards	Village Tracts	Villages
Kachin State	4	18	9	143	597	2583
Kayah State	2	7	1	31	79	620
Kayin State	3	7	6	74	374	2161
Chin State	2	9	3	37	471	1352
Mon State	2	10	2	80	383	1200
Rakhine State	4	17	3	133	1040	3860
Shan State	12	55	20	432	1629	15387
Bago Division	4	28	-	254	1423	6452
Sagaing Division	8	37	3	187	1768	6087
Tanintharyi Division	3	10	6	83	264	1230
Magway Division	5	25	1	163	1541	4771
Mandalay Division	8	36	2	297	1597	5424
Yangon Division	4	45	1	742	620	2089
Ayeyarwady Division	6	26	7	235	1912	11701
TOTAL	67	330	64	2,891	13,698	64,917

¹ <http://www.myanmars.net/myanmar/myanmar-states-divisions.htm>

² List of Districts, Townships, Cities/Towns, Wards, Village Groups and Villages in Union of Myanmar published by Ministry of Home Affairs, Government of Union of Myanmar on April 30, 2009



1.3 Demography

The estimated population of Myanmar is 56.52 million³ in 2006-07, registering a growth rate of 2.02 percent over the previous year. Approximately 70 percent of the population resides in rural areas. The population density is 77 per km² and it ranges from 595 persons per km² in Yangon Division to 14 per km² in Chin State. The number of males per 100 female is 98.87. The population above 60 years is 4.74 million which is 8.39 percent of the total population while children below 14 years number 18.38 million, which is 32.5 percent.

1.4 Physical Features

Myanmar can be divided into five major physiographic units⁴, namely

- I. The Indo-Myanmar Ranges
- II. The Arakan Coastal Lowlands
- III. The Sino- Myanmar Ranges
- IV. The Inner Myanmar Basin
- V. The Eastern Himalayas

The first four units runs more or less north to south while the fifth unit i.e. the Eastern Himalayas, runs west to east in the northernmost part of the country. The Indo- Myanmar Ranges decreases in altitude and spreads out towards the south and extends up to the Andamans. The narrow Arakan Coastal Lowlands on the Bay of Bengal are geographically part of the Indo- Myanmar Ranges. The Sino- Myanmar Ranges are in the eastern part of Myanmar. The Inner Myanmar Basin lies between the Indo- Myanmar Ranges and Sino- Myanmar Ranges and it widens towards the south.

1.5 Climate

Myanmar has a tropical climate with three seasons, namely the Rainy Season, Winter and Summer. The rainy season comes with the southwest monsoon, lasting from mid-May to mid-October, followed by Winter from mid-October to mid-February while Summer is from mid-February to mid-May.

The average annual rainfall in the coastal regions of Rakhine and Tanintharyi ranges from 4,000 to 5,600 mm, while in the Ayeyarwady Delta it is approximately 3,300 mm. The extreme north receives between 1800 mm and 2400 mm of rain while the hills of the east receives between 1200 mm and 1400 mm. The central dry zone has between 600 and 1400 mm of rain. The average temperature in the delta ranges from 22°C to 32°C, while in the central region it is between 20°C and 34°C. The temperature in the hilly regions is between 16°C and 29°C.

³ Statistical Yearbook, 2006, Central Statistical Organization, 2008

⁴ Agriculture Development and Rehabilitation Development in the Dry zone project, Food and Agriculture Organization of the United Nations, Yangon, Myanmar (page 18)



1.6 Economy⁵

Myanmar is regarded as an agriculture-based country as agriculture accounts for 40.2 percent of the GDP and employs 64.1 percent of the work force. Livestock-breeding and fishery, and forestry contribute 9.9 percent while services and trade contribute 11.7 percent and 23 percent respectively.

1.7 People and Religion⁶

The Union of Myanmar is made up of 135 national groups speaking over 100 languages and dialects. The major ethnic groups are Kachin, Kayah, Kayin, Chin, Mon, Bamar, Rakhine and Shan. About 89.4 percent of the population consisting mainly of Bamars, Shans, Mons, Rakhines and some Kayins are Buddhists. The rest are Christians, Muslims, Hindus and Animists.

⁵ The Development Study on Sustainable Agriculture and Rural Development for Poverty Reduction Programme in the Central Dry Zone, Sanyu Consultants Inc. (page 1)

⁶ Country Profile, Ministry of Health, Union of Myanmar



CHAPTER 2

HAZARD PROFILE OF UNION OF MYANMAR

The Union of Myanmar is vulnerable to multiple natural hazards including Fire, Forest Fire, Earthquake, Cyclone, Storm surge, Tsunami, Landslide, Floods and Drought.

2.1 Cyclone

Myanmar is prone to cyclones having a long coastline along the Bay of Bengal, which is considered to be highly vulnerable to cyclones. April, May and October are considered to be cyclone months as per the last 100-year record. In the last four decades, five major cyclones hit Myanmar: in 1968 (Sittwe cyclone), 1975 (Patheingyi cyclone), 1982 (Gwa cyclone), 1994 (Maundaw cyclone), 2006 (cyclone Mala) and 2008 (cyclone Nargis). The Sittwe cyclone led to the loss of 1037 lives, Patheingyi cyclone claimed 304 lives and Nargis, the most devastating in the living memory of Myanmar, led to the loss of 138,373 lives, while affected 2.4 million population while the damage and destruction to properties to the tune of USD 4.1 billion⁷ were sustained.

2.2 Dry Zone/Drought

The Dry Zone of Myanmar is located in the central part of the country in Magway, Mandalay and Sagaing (Lower) Divisions and covers approximately 10 percent of the total area of the country. It falls under arid to semi-arid zone as per different zonation and criteria. While it is located in rain fed area, the average annual precipitation is below 1000mm. Approximately 51 townships spread across 13 Districts in 3 Divisions fall under the Dry Zone as per the Dry Zone Greening Department. Some other reports identify 60 townships under the Dry Zone. The deterioration of natural resources such as soil erosion and deforestation has made the agricultural production base unstable. The main reasons include increased human as well as cattle population, demand of fuel wood for domestic as well as industrial use, etc.

2.3 Earthquake

Earthquakes in Myanmar usually have two main causes:

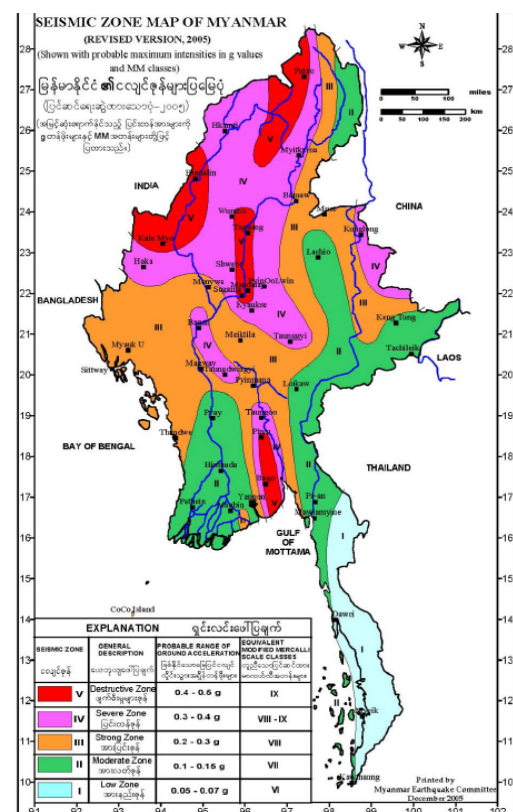
- Result of collision between the northward moving Indian Plate underneath the Burma Plate
- The northward movement of the Burma Plate from a spreading center in the Andaman Sea.

⁷ Implementation of the Hyogo framework for action in Asia and the Pacific: follow-up to the outcome of the third Asian ministerial conference on disaster risk reduction: from the regional to the global platform, UNESCAP, December 2008



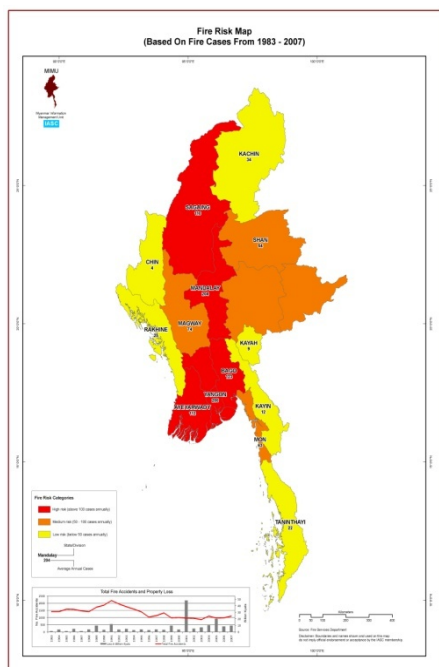
Figure 2.1 Seismic zone map, Myanmar

Myanmar can be divided into three seismically active regions namely: the Northwestern Region, the Central Lowland, and the Shan Plateau-Yunnan Region. The subduction and collision caused many shallow and intermediate earthquakes with considerable magnitude. During the 20th Century, at least 18 large earthquakes happened in the Central Lowlands where the well-known Sagaing Fault passes through. Another large seismogenic fault called Kyaukkyan Fault is about 500 km long in the western part of the Shan Plateau. The largest recorded earthquake so far has the magnitude 8.0 in the Richter Scale and occurred on the northern segment of this fault on 23 May 1912. Shan Plateau-Yunan is also seismically active region.



2.4 Fire

Figure 2.2 Fire hazard map



The Fire hazard is the most frequent in terms of frequency, which accounts for approximately 70 percent of the disasters. The number of fire cases is decreasing while the losses due to fire have an increasing trend. The high incidences of fire cases are concentrated mainly in Yangon, Mandalay, Ayeyarwady, Sagaing and Bago. These Divisions account for 63 percent of the total fire cases of the country, while the financial loss is approximately 38 percent. The main causes of fire are kitchen related fires and negligence which together account for 83 percent of the cases. The period from January to May is the high season for fires⁸. The average annual fire cases run to 900, and the loss of properties is to the tune of 1 billion kyats or 0.91 million USD⁹.

⁸ Call for public cooperation to help prevent house fires, By Nang San Noom, Myanmar Times <http://www.myanmar.gov.mm/myanmartimes/no156/myanmartimes8-156/New/22.htm>

⁹ An exchange rate of 1100 kyats=1 US Dollar has been used.

2.5 Forest Fire

The forest fires in Myanmar are normally surface fires, most frequent during the dry season, starting around December until May. They occur in almost all States and Divisions sporadically, but are more common in upland regions, namely, Bago, Chin, Kayah, Kachin, Mandalay, Rakhine and Shan. They cause haze problems and have negative impact on the community.

2.6 Floods

Flooding has always been one of the major hazards in Myanmar, accounting for 11 percent of all disasters, second only to fire. Between 1910 and 2000, there were 12 major floods. Flooding leads to loss of lives and property, damage to critical infrastructure, economic loss and health-related problems such as outbreak of water-borne diseases when the lakes, ponds and reservoirs become contaminated.

The country receives practically all its rainfall between mid-May and October, the rainy season, during which flooding and landslides are common. In Myanmar, the threat of flooding usually occurs in three waves each year: June, August and late September to October with biggest danger arriving in August as peak monsoon rains occur around that time. Throughout the rainy season, riverine floods are common in the river deltas while flash floods and landslides frequent in the upper reaches of the river systems, which are normally the mountainous areas, whereas the coastal areas experience intermittent flooding from cyclones¹⁰. Tropical storms from the Bay of Bengal trigger storm surges and cause floods along the Rakhine coastline in the pre and post monsoon months.

In cities and towns, localized floods occur from time to time due to a combination of cloudburst, saturated soil, poor infiltration rates and inadequate or poorly built infrastructure (such as blocked drains). In the rural areas, breakage of water resistant structures as dams, dykes and levees destroy valuable farmlands. Flash floods are frequent in the large and medium rivers, caused by the heavy rainfall striking at head water regions for a considerable period of 1-3 days. In the central part and the delta region in the south of the country, accidents caused by river bank erosions are frequent occurrences.

2.7 Landslide

The landslides of various scales occur in mountainous regions especially in the Western Ranges and some localities in the Eastern Highland of Myanmar. The Western ranges experience all types of landslides and earth movements such as rock falls, rock slides, soil avalanches and mud flows. Due to the sparsity of population, landslides in this region damage infrastructure rather than human settlements.

¹⁰ "Figure 2: Distribution of rivers and streams in Myanmar" – Source: Power-point presentation by the Ministry of Health at "National workshop on Communicating Risks", Yangon, Myanmar, 30-31 May 2006



2.8 Storm surge

Myanmar has a very long coastline and the densely settled low-lying lands are particularly vulnerable to rising sea levels. Even diminutive rises in sea level vertically can lead to enormous erosion horizontally. As per the IPCC report, a rise in sea level of one centimeter can result in beach erosion of one meter horizontally. The low-lying areas of Myanmar's Ayeyarwady Delta, interspersed with many tidal waterways, are naturally exposed to storms and monsoon winds blowing from the southwest. Rising sea levels, stronger cyclones and ecosystem degradation mutually reinforce each other, exacerbating the fallout from seaward disasters. During Cyclone Nargis, according to Alan Sharp of the Australian Government Bureau of Meteorology, 90 percent of deaths were caused as a direct consequence of the storm surge.

2.9 Tsunami

Myanmar coastline is about 1,900 kilometers long, which can be divided into three parts, namely the Rakine coastal area in the west, the Ayeyarwady Delta in the middle, and the Taninthayi coastal area in the south. The intensity of the Indian Ocean Tsunami (2004) in terms of round-up and the extent of the inundation was comparatively lower than those in other countries around the Indian Ocean and the casualty and damage was also lesser. This is because the tsunami amplitudes are relatively smaller along the Myanmar coast. The amplitudes are slightly large off the Ayeyarwady delta, because the shallow delta extends offshore to cause concentration of tsunami energy. Another reason for the smaller tsunami is due to the fact that the coast of Taninthayi Division is protected by the offshore islands of the Myeik Archipelago trending in the north-south direction.



CHAPTER 3

GLOBAL AND REGIONAL COMMITMENTS OF MYANMAR

The Union of Myanmar is committed to various global and regional Frameworks and Declarations on Disaster Management/Disaster Risk Reduction. Myanmar is a member of several global and regional committees and groups constituted for Disaster Management/Disaster Risk Reduction.

3.1 Hyogo Framework for Action [HFA]

The Union Myanmar along with 167 other countries has endorsed the Hyogo Framework for Action [HFA] and is committed to the five Priorities of HFA namely: Making disaster risk reduction a priority, Improving risk information and early warning, Building a culture of safety and resilience, Reducing the risks in key sectors and Strengthening preparedness for response. The Ministry of Social Welfare, Relief and Resettlement has constituted an inter-ministerial Task Force, with technical support from ADPC, to draft the Myanmar Action Plan on Disaster Risk Reduction, which will help in achieving HFA Priorities. Myanmar participated in the World Conference on Disaster Reduction held in Kobe, Japan in 2005.

3.2 Asian Ministerial Conference on Disaster Risk Reduction

The Asian Ministerial Conferences on Disaster Risk Reduction, are organized every two years since 2005 and they provides a forum for Ministers in charge of disaster management from the Asia and Pacific region to reaffirm their commitment to HFA implementation and to share experiences. The first conference was organized in Beijing by the Government of China in 2005 with the objective of promoting the newly-adopted HFA. The second Conference was held in India in 2007, where Governments reaffirmed their commitment to HFA. The third conference was held in Kuala Lumpur in December 2008 with the theme of 'Multi-Stakeholder Partnership for Disaster Risk Reduction, from National to Local'. The overarching goal was to exchange knowledge on the practical ways of implementing disaster risk reduction efforts effectively at national and local levels. Myanmar has been actively involved in and attending these Asian Ministerial Conferences.

3.3 ASEAN Committee on Disaster Management [ACDM]¹¹

The ASEAN Committee on Disaster Management (ACDM) was established in early 2003, thus elevating regional cooperation on disaster management which was earlier carried out by an experts group. The ACDM is guided by the ASEAN Regional Program on Disaster

¹¹ <http://www.aseansec.org/21558.pdf>



Management (ARPD) in implementing the regional activities. The ASEAN Agreement on Disaster Management and Emergency Response (AADMER) provides a regional comprehensive framework to strengthen preventive, monitoring and mitigation measures to reduce losses due to disasters in the region.

ACDM consists of heads of national agencies/organizations responsible for disaster management from ASEAN Member Countries. It meets at least once a year and the chairmanship rotates among ASEAN Member Countries every year. Myanmar is the current (Feb 2009) chair of the ACDM and the 13th meeting was held in Nay Pyi Taw, Myanmar, in February 2009. The ACDM organized, constituted and deployed for the first time its ASEAN Emergency Rapid Assessment Team (ERAT) with representatives from Brunei Darussalam, Malaysia, the Philippines, Singapore and the ASEAN Secretariat in the aftermath of Cyclone Nargis. The mandate of the team was to gather and analyze assessment findings through consultations with senior government officials and field assessments in order to provide recommendations on the way forward in addressing the support for the Government of Myanmar.

3.4 ASEAN Agreements on Disaster Management and Emergency Response (AADMER)¹²

The Agreement provides a regional comprehensive framework to strengthen preventive, monitoring and mitigation measures to reduce disaster losses in the region. It also provides for the setting up of an ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre), and an ASEAN Disaster Management and Emergency Relief Fund. It was signed by the Foreign Ministers of ASEAN during the 38th ASEAN Ministerial Meeting on 26 July 2005 in Vientiane, Lao PDR. The Union of Myanmar has ratified the AADMER and the Agreement will enter into force upon ratification by all ASEAN Member Countries. The Asean Emergency Rapid Assessment Team was organized on the principles of AADMER in the aftermath of Cyclone Nargis.

3.5 ADPC Regional Consultative Committee on Disaster Management (RCC)

Myanmar is a member of the ADPC Regional Consultative Committee on Disaster Management (RCC) since its establishment in 2000. It participates in annual RCC meetings and is one of the 26 RCC member countries that adopted the Hanoi RCC-5 Statement in 2005, that guides the implementation of the RCC program on mainstreaming DRR into development in Asia (RCC/MDRD).

¹² http://acdm-online.net/index.php?option=com_content&task=view&id=39&Itemid=57#aadmer



CHAPTER 4

INSTITUTIONAL ARRANGEMENTS AT NATIONAL LEVEL

4.1 Introduction to the Master Plan for Disaster Preparedness¹³

The Union of Myanmar has drafted the Action Plan on Disaster Risk Reduction, Preparedness, Relief and Rehabilitation. The objectives of the Action Plan are as follows:

- To formulate a programs/action plan for Disaster Risk Reduction in consolidated manner
- To carry out search and rescue activities in a speedy manner in the aftermath of disasters and organize mock drills for improved disaster response
- To undertake reconstruction and rehabilitation activities systematically
- To protect the resources of the nation effectively from disaster

The strategies to achieve the objective are as follows:

- Formation of the National Disaster Preparedness Central Committee
- Formation of the Management Working Committee and Sub-Committees based on activities
- Formation of the National Disaster Preparedness Management Working Committees at different levels (State/Division, District, Township and Ward/Village Tracts)
- To obtain input for the preparation of the Action Plan by Sub-committees, by Ministries, by States/Divisions, Districts/ Townships
 - To identify existing vulnerabilities and draw action plan to mitigate them as much as possible
 - To establish/upgrade the early warning system for Disaster Communication
 - To draw up plans, coordinate and implement Disaster Preparedness activities
 - To prepare an action plan on tasks to be performed as soon as early warning is received by Teams/Committees at various levels, to coordinate among teams/committees and to undertake mock drills.
 - To prepare action plan on tasks to be performed during and after disaster and also to conduct mock drills.
 - To prepare action plan for relief, resettlement and rehabilitation in the aftermath of disaster, and also to conduct mock drills.

¹³ Action Plan on Disaster Risk Reduction, Preparedness, Relief and Rehabilitation, NDPCC, Union of Myanmar (page 5-6)



- To establish systems and organizations for systematic receiving and distribution of local and foreign aid including food, drugs, etc.
- To stock materials including vehicles, machineries, food, etc which will be required during emergency periods
- To conduct mock drills and make revisions in the action plan based on the findings of the mock drill.
- To study the past disasters of Myanmar and other countries to draw lessons.
- To collect information on disaster management and establish a database which may be used at various levels.

4.2 National Disaster Preparedness Central Committee [NDPCC] : Composition and Roles and Responsibilities

The National Disaster Preparedness Central Committee, constituted in 2005, is a thirty-seven member committee chaired by the Prime Minister. Table 4.1 shows the membership of the Central Committee¹⁴.

Table 4.1 **Composition of NDPCC**

Sr. No.	Member	Designation
1	Prime Minister	Chairman
2	Secretary (1), State Peace and Development Council	Co-Chairman
3	Chairman, Kachin State Peace and Development Council	Member
4	Chairman, Kayah State Peace and Development Council	Member
5	Chairman, Kayin State Peace and Development Council	Member
6	Chairman, Mon State Peace and Development Council	Member
7	Chairman, Chin State Peace and Development Council	Member
8	Chairman, Shan State (North) Peace and Development Council	Member
9	Chairman, Shan State (East) Peace and Development Council	Member
10	Chairman, Shan State (South) Peace and Development Council	Member
11	Chairman, Tanintharyi Division Peace and Development Council	Member
12	Chairman, Rakhine State Peace and Development Council	Member
13	Chairman, Sagaing Division Peace and Development Council	Member
14	Chairman, Mandalay Division Peace and Development Council	Member
15	Chairman, Bago Division Peace and Development Council	Member
16	Chairman, Ayeyarwady Division Peace and Development Council	Member
17	Chairman of Yangon Division Peace and Development Council	Member
18	Chairman of Magway Division Peace and Development Council	Member
19	Minister for Rail Transportation	Member
20	Minister for Energy	Member
21	Minister for Home Affairs	Member
22	Minister for Health	Member
23	Minister for Foreign Affairs	Member
24	Minister for Information	Member
25	Minister for National Planning and Economic Development	Member
26	Minister for Construction	Member

¹⁴ Action Plan on Disaster Risk Reduction, Preparedness, Relief and Rehabilitation, NDPCC, Union of Myanmar (Annexure: I)



27	Minister for Education	Member
28	Minister for Communications, Posts and Telegraphs	Member
29	Minister for Transport	Member
30	Minister for Commerce	Member
31	Minister for Progress of Border Areas & National Races & Development Affairs	Member
32	Minister for Finance and Revenue	Member
33	Minister for Agriculture and Irrigation	Member
34	Chairman, Yangon City Development Council	Member
35	Chairman, Mandalay City Development Council	Member
36	Minister for Social Welfare, Relief and Resettlement	Secretary
37	Deputy Minister for Home Affairs	Joint-Secretary

Roles and responsibilities¹⁵: The roles and responsibilities of the NDPCC are as follows:

- To constitute committees at various levels for the implementation of Disaster Management, lay down Disaster Management Policy, Guidelines and Review progress
- To formulate Policy and Guidelines for the utilization of national resources for emergency relief measures
- To provide basic principles for receiving foreign aid
- To provide relief assistance where it is necessary by managing State budgets and resources
- To enact/issue Laws, Acts, Decrees, Rules & Regulations for effective disaster management activities

4.3 National Disaster Preparedness Management Working Committee: Composition and Roles and Responsibilities

The 36-member National Disaster Preparedness Management Working Committee is chaired by the Secretary (I) and composition is shown in Table 4.2. It has been constituted to supervise the implementation of disaster management activities in accordance with NDPCC and also to coordinate the activities of NDPCC.

Table 4.2 National Disaster Preparedness Management Working Committee

Sr. No.	Member	Designation
1	Secretary (I), State Peace and Development Council	Chairman
2	Minister, Ministry of Social Welfare, Relief and Resettlement	Co-Chairman
3	Minister, Ministry of Home Affairs	Co-Chairman
4	Minister, Education	Member
5	Minister, Information	Member
6	Chairman, Sub-Committees (10)	Member
7	Representative of State/Division Peace and Development Councils (16)	Member
8	Representative of Defense Ministry	Member
9	Chairman, Yangon City Development Council	Member

¹⁵ 'Disaster Management System in Myanmar' presented by Relief and Resettlement Department



10	Chairman, Mandalay City Development Council	Member
11	Deputy Minister, Ministry of Home Affairs	Secretary
12	Deputy Minister, Ministry of Social Welfare, Relief and Resettlement	Joint-Secretary

Roles and responsibilities: The roles and responsibilities of the National Disaster Preparedness Management Working Committees are as follows:

- Formulate plans for four identified phases namely mitigation and prevention phase, Receiving early warning period, Disaster period and Reconstruction & rehabilitation phase; Implement Guidelines laid down by higher authorities
- Management of foreign and local aid for Relief, Resettlement and Rehabilitation
- To educate people on disaster preparedness & organize and implement programs for improvement to motivate people
- Prepare and submit quarterly report to NDPCC
- To set up Early Warning System and ensure dissemination of early warning to the grassroots level
- Assign tasks to Ministries and Organizations depending on the intensity of the disaster
- To identify Departments, Organizations, Persons for reporting and reporting system
- To supervise functioning of Sub-committees and facilitate coordination among the Sub-committees
- To directly supervise management of Relief and Resettlement during disasters

Figure 4.1 shows the organizational structure for Disaster Management in Myanmar

Figure: 4.1 Organizational Structures for Disaster Management, Myanmar



4.4 Sub-Committees: Composition and Roles and Responsibilities

Ten Sub-committees have been constituted for effective implementation of activities laid down by the National Disaster Preparedness Management Working Committee, namely: The composition and roles and responsibilities of each Sub-committee are as follows:

4.4.1 Information and Education Sub-committee

The Information and Education Sub-Committee is chaired by the Minister, Ministry of Information. Table 4.3 shows its composition

Table 4.3 Information and Education Sub-Committee

Sr. No.	Members	Designation
1	Minister, Information	Chairman
2	Deputy Minister, Foreign Affairs	Member
3	Deputy Minister, Education	Member
4	Deputy Minister, Construction	Member
5	Deputy Minister, Health	Member
6	Director General, News and Periodical Enterprise	Member
7	Director General, Department of Meteorology and Hydrology	Member
8	Director General, Fire Services Department	Member
9	Director General, Myanma Radio and Television	Member
10	Deputy Minister, Information	Secretary
11	To be assigned by chairman of sub-committee	Joint-Secretary

The

roles and responsibilities are as follows:

- To educate people on disaster preparedness by various means such as curriculum, newspaper, journal, magazine, television broadcasting and radio transmission
- To disseminate the information during different phases namely before-disaster, during-disaster and after-disaster to the concerned masses; Release news after verification
- To disseminate information on hazard prone areas and forecast on likely situation to the concerned masses
- To review the awareness activities on disaster preparedness and make it more effective
- To oversee and manage the information and educating activities organized at various levels
- To make arrangements for the timely communication of necessary disaster news and information to people in disaster prone regions through printed materials, airplanes & helicopters, and through radio broadcasts.

4.4.2 Emergency Communication Sub-committee

The seven-member Emergency Communication Sub-committee is chaired by the Minister, Communication, Posts & Telegraphs. The composition is shown in Table 4.4.



Table 4.4 **Emergency Communication Sub-Committee**

Sr. No.	Members	Designation
1	Minister, Communications, Posts and Telegraphs	Chairman
2	Deputy Minister, Home Affairs	Member
3	Deputy Minister, Transportation	Member
4	Representative from Ministry of Defense	Member
5	Director General, Department of Meteorology and Hydrology	Member
6	Director General, Posts and Telecommunications Department	Secretary
7	To be assigned by chairman of sub-committee	Joint-Secretary

The roles and responsibilities are as follows:

- To set up an emergency communication system and occasionally conduct mock drills
- To impart training on communication for the concerned organizations
- To maintain records of mobile phone numbers, fax numbers and technical terms and frequencies of communication facilities and provide it to the responsible persons
- To make arrangements for immediate communication as soon as early warning is received
- Besides the existing communication system, if it is necessary, an auxiliary communication system should be set up to get continuous weather forecast from neighboring countries and international Meteorology and Hydrology departments during the emergency period
- To set up a communication system which will be used by the supervisory organizations of the central committee to contact vertically and horizontally during their field trip to the disaster affected areas

4.4.3 Search and Rescue Sub-committee

The Search and Rescue Sub-Committee is chaired by the Minister of Transportation and its composition is shown in Table 4.5.

Table: 4.5 **Search and Rescue Sub-Committee**

Sr. No.	Members	Designation
1	Minister, Transportation	Chairman
2	Deputy Minister, Home Affairs	Member
3	Deputy Minister, Foreign Affairs	Member
4	Deputy Minister, Rail Transportation	Member
5	Deputy Minister, Social Welfare, Relief & Resettlement	Member
6	Deputy Minister, Construction	Member
7	Representative from Ministry of Defense	Member
8	Director General, Department of Transport Planning	Member
9	Director General, General Administration Department	Member
10	Representative from Social Organizations	Member
11	Deputy Minister, Transportation	Secretary
12	To be assigned by chairman of sub-committee	Joint-Secretary



The roles and responsibilities are as follows :

- To prepare for search and rescue activities in the disaster prone regions, based on population and types of disasters (flood, storm, tsunami, fire, earthquake), and offshore islands, flooded plains, low plains, the shelter for victims, immediate relief materials, food and materials for live-saving.
- To constitute and train Regional Search and Rescue Teams
- To constitute Regional Teams of boats and assign duties to each member; Assign and dispatch Teams to the flood-prone regions
- To prepare and train Team members on rescue during fires and earthquakes
- To organize and train special teams on rescue from the collapsed buildings during earthquakes; To keep machines, tools and emergency life-saving tools in a state of readiness.

4.4.4 Information of Losses and Emergency Assistance Sub-committee

The Information of Losses and Emergency Assistance Sub-Committee is chaired by Minister, Commerce. The composition of sub-committee is shown in Table 4.6.

Table: 4.6 Information of Losses and Emergency Assistance Sub-Committee

Sr. No.	Members	Designation
1	Minister, Commerce	Chairman
2	Deputy Minister, Social Welfare, Relief and Resettlement	Member
3	Deputy Minister, Agriculture and Irrigation	Member
4	Deputy Minister, Livestock Breeding & Fisheries	Member
5	Deputy Minister, Health	Member
6	Deputy Minister, Industry No.(1)	Member
7	Deputy Minister, Transportation	Member
8	Deputy Minister, Rail Transportation	Member
9	Deputy Minister, Foreign Affairs	Member
10	Deputy Minister, Forestry	Member
11	Director General, Co-operative	Member
12	Director General, General Administration Department	Member
13	Police Major General , Myanmar Police Force	Member
14	Chairman, Union of Myanmar Federation of Chamber of Commerce and Industry	Member
15	Representative from Social Organizations	Member
16	Deputy Minister, Commerce	Secretary
17	To be assigned by chairman of sub-committee	Joint-Secretary

The roles and responsibilities are as follows:

- Assess damage and losses of the affected region through satellite imagery, aerial photographs, reports from aviation and from the field
- Assess the need for relief materials based on the type of disasters and prepare for emergency period and regional transportation arrangements



- To make arrangements for distribution of relief materials in coordination with Regional authorities, Security forces and Police forces
- To systematically constitute relief materials distribution teams at Township Wards/Village Tracts levels
- To ensure availability of drinking water, water, fuel and emergency medicines
- To get data on human death toll, losses and damages
- To make arrangements for Emergency treatment, cremation, restoration of family units and other social activities

4.4.5 Assessment of Losses Sub-committee

The Assessment of Losses Sub-Committee is chaired by the Minister, National Planning & Economic Development. The composition shown in Table 4.7.

Table: 4.7 Assessment of Losses Sub-committee

Sr. No.	Members	Designation
1	Minister, National Planning & Economic Development	Chairman
2	Deputy Minister, Finance & Revenue	Member
3	Deputy Minister, Construction	Member
4	Deputy Minister, Agriculture & Irrigation	Member
5	Deputy Minister, Immigration & Population	Member
6	Director General, General Administration Department	Member
7	Director General, National Archive Department	Secretary
8	To be assigned by chairman of sub-committee	Joint-Secretary

The roles and responsibilities are as follows:

- To collect, analyze and confirm data on death, damage and losses
- To estimate and verify data on requirement of relief and rehabilitation activities
- To keep record of long-term damage such as farms flooded by salt water

4.4.6 Route Clearance and Transportation Sub-committee

The Route Clearance and Transportation Sub-Committee is chaired by the Minister, Rail Transport and composition of Sub-committee is as shown in Table 4.8.

Table: 4.8 Route Clearance and Transportation Sub-Committee

Sr. No.	Members	Designation
1	Minister, Rail Transportation	Chairman
2	Deputy Minister, Transportation	Member
3	Deputy Minister, Energy	Member
4	Deputy Minister, Construction	Member
5	Deputy Minister, Finance and Revenue	Member
6	Deputy Minister, Social Welfare, Relief & Resettlement	Member
7	Director General, General Administration Department	Member
8	Director General, Communication, Posts and Telegraphs	Member



9	Deputy Minister, Rail Transportation	Secretary
10	To be assigned by chairman of sub-committee	Joint-Secretary

The roles and responsibilities are as follows:

- To maintain lists of regional transportation vehicles, boats and equipment and machinery for use in emergencies, to manage transportation facilities assigned by the higher level.
- To maintain lists of approach roads and auxiliary approach roads and monitor their condition and carry out maintenance work as necessary.
- To study main water way and approach water ways.
- To keep lists of airports and heli-pads.
- To make arrangements for fuel at the right place and in the amounts required.
- To identify vehicles stops check-points and communication machine.
- To provide a communication device for each vehicle group.
- To maintain lists of Vehicles, Water tank vehicles, Fuel tank vehicles, Ambulances, etc.

4.4.7 Mitigation and Establishment of Emergency Shelter Sub-committee

The Mitigation and Establishment of Emergency Shelter Sub-Committee is chaired by the Minister, Cooperative. The composition is shown in Table 4.9.

Table : 4.9 Mitigation and Establishment of Emergency Shelter sub-committee

Sr. No.	Members	Designation
1	Minister, Co-operative	Chairman
2	Deputy Minister, Progress of Border Areas & National Races & Development Affairs	Member
3	Deputy Minister, Construction	Member
4	Deputy Minister, Social Welfare, Relief and Resettlement	Member
5	Deputy Minister, Agriculture & Irrigation	Member
6	Deputy Minister, Health	Member
7	Director General, Co-operative	Secretary
8	To be assigned by chairman of sub-committee	Joint-Secretary

The roles and responsibilities of Sub-committee are as follows

- To identify activities to be performed for Disaster Risk Reduction
- To select emergency shelter to be used during disaster.

4.4.8 Health Sub-Committee

The Health Sub-Committee is chaired by the Minister, Health and composition of Sub-committee is shown in Table 4.10



Table: 4.10 Health Sub-committee

Sr. No.	Members	Designation
1	Minister of Health	Chairman
2	Deputy Minister, Home Affairs	Member
3	Deputy Minister, Social Welfare, Relief & Resettlement	Member
4	Chairman, Myanmar Red Cross Society	Member
5	Representative from Health Organization	Member
6	Deputy Minister, Health	Secretary
7	To be assigned by chairman of sub-committee	Joint-Secretary

The roles and responsibilities are as follows:

- To formulate and take action for emergency health care
- To prepare emergency hospitals/ clinics/ mobile clinics for affected regions
- To impart necessary trainings on emergency health care
- To stock necessary drugs and to have plan for storage and distribution.
- To prepare for epidemic prevention

4.4.9 Rehabilitation and Re-construction Sub-committee

The Rehabilitation and Re-construction Sub-Committee is chaired by Minister, Social Welfare, Relief and Resettlement. The composition is shown in Table 4.11.

Table: 4.11 Rehabilitation and Re-construction Sub-Committee

Sr. No.	Members	Designation
1	Minister, Social Welfare, Relief and Resettlement	Chairman
2	Deputy Minister, Construction	Member
3	Deputy Minister, Finance and Revenue	Member
4	Deputy Minister, Agriculture and Irrigation	Member
5	Deputy Minister, Home Affairs	Member
6	Deputy Minister, Health	Member
7	Deputy Minister, Industry No.(1)	Member
8	Deputy Minister, National Planning and Economic Development	Member
9	Director General, National Archives Department	Member
10	Director General, General Administration Department	Member
11	Representative from Myanmar Engineering Society	Member
12	Deputy Minister, Social Welfare, Relief & Resettlement	Secretary
13	To be assigned by chairman of sub-committee	Joint-Secretary

The roles and responsibilities are as follows:

- To collect data on damage and losses
- To clear debris and undertake relief activities
- To coordinate on repair, reconstruction activities of education, health, agriculture and other sectors
- To give technical advice to disaster prone factories, work stations, building, roads and bridges on having early warning system and emergency plan



4.4.10 Security Sub-committee

The Security Sub-Committee is chaired by the Minister, Home Affairs and composition is shown in Table 4.12.

Table: 4.12 Security Sub-committee

Sr. No.	Members	Designation
1	Minister, Home Affairs	Chairman
2	Deputy Minister, Information	Member
3	Deputy Minister, Immigration and Population	Member
4	Police Major General , Myanmar Police Force	Member
5	Representative from Military Defense	Member
6	People Force (USDA, Red Cross, AFP)	Member
7	Deputy Minister, Home Affairs	Secretary
8	To be assigned by chairman of sub-committee	Joint-Secretary

The roles and responsibilities are as follows:

- To perform security measures/ activities in disaster affected areas
- To organize mock drills
- To prepare action plans on security
- In emergency, to report and act under Regional Authorities

4.5 Disaster Preparedness Management Committees of Ministries

Under each Ministry, the Management Committee of the Ministry is created for disaster preparedness as per the Action Plan on Disaster Risk Reduction, Preparedness, Relief and Rehabilitation of NDPCC. The roles and responsibilities of the Disaster Preparedness Management Committee of Ministry are determined by the concerned Ministry. The objective of this committee is to undertake effective risk reduction and preparedness activities and to perform necessary activities during an emergency period continuously.

4.6 Post-Nargis Ministerial Supervision¹⁶

The National Disaster Preparedness Central Committee held a meeting on 3rd May 2008 to review and issue directions for effective response. The Prime Minister was based in Yangon for close supervision and coordination of Nargis response activities. The Fire Services Department Headquarters served as the secretariat and 12 Front offices, 9 middle offices and 3 back-up support offices were set-up for monitoring and coordination. Eight ministers were assigned one township each for the Post-Nargis recovery overall supervision and coordination. The list of Ministers along with Townships is shown in Table 4.13.

¹⁶ Note titled 'Disaster Management Activities, Relief and Resettlement Department, Ministry of Social Welfare, Relief and Resettlement' Relief and Resettlement Department (page 4-5)



Table: 4.13 Ministers in-charge of Townships for Nargis Recovery

	Minister In-charge	Township
1	Minister, Co-operative	Labutta
2	Minister, Rail Transport	Dedaye
3	Minister, Hotel and Tourism	Pyapon
4	Minister, Transportation	Kangyidaunt
5	Minister, Energy	Kyaungyon
6	Minister, Mines	Ngapudaw
7	Minister, Forestry	Bogale
8	Minister, Progress of Border Areas and National Races and Development Affairs	Mawlamyinegyun

4.7 Standing Order¹⁷

4.7.1 National Disaster Preparedness Standing Order Drafting Committee

A 33-member National Disaster Preparedness Standing Order Drafting Committee was formed on 29th September 2008 as per the direction of the Prime Minister’s Office to discuss, coordinate and draft the Standing Order. The Committee is chaired by Minister for Transport, and Deputy Minister for Rail Transport is Secretary while Director General, Relief and Resettlement Department and Director-General, Transport Department are Joint Secretary (1) and (2), respectively. Other members are drawn from the Ministries and Departments concerned. The Standing Order (SO) was finalized in January 2009 by the Drafting Committee.

4.7.2 Scope

The Standing Order covers the duties and responsibilities to be carried out at the national level and State/division level in the different phases of disaster, namely: pre-disaster, during disaster, relief, rehabilitation and reconstruction period. The duties described in the Standing Order are also grouped by types of disasters such as flood, storm, fire, and earthquake. In the Standing Order, it is also mentioned that National Disaster Management Committee, Inter-Ministerial Disaster Management Coordination Committee, and National Disaster Management Advisory Committee are to be formed.

¹⁷ Minutes of the Coordination Meeting No. (1/2008) of the Drafting Standing Order for Natural Disaster Prevention Committee



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- Discussion with Relief and Resettlement Department on 27th December 2008
- Note titled 'Disaster Management Activities, Relief and Resettlement Department, Ministry of Social Welfare, Relief and Resettlement' Relief and Resettlement Department
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CHAPTER 5

DISASTER MANAGEMENT RELATED MINISTRIES AND DEPARTMENTS

Disaster Management is a cross-cutting as well as stand-alone theme and involves almost all Government Ministries and Departments. However, the level of involvement varies from high to low. The institutional arrangements along with roles and responsibilities in the context of disaster management of the selected Ministries and Departments are given below.

MINISTRY OF AGRICULTURE AND IRRIGATION

5.1 Ministry of Agriculture and Irrigation

Myanmar is primarily an agriculture-based country as agriculture accounts for 34 percent of GDP and employs 64.1 percent of the work force¹⁸. The Ministry of Agriculture and Irrigation has been setup with the main objective *To Increase Crop Production* through five strategies:

- Exploitation and expansion of agricultural land resources
- Sufficient provision of irrigation water
- Increase use of agricultural machinery
- Improved technology
- Production and use of improved crop varieties and quality seeds

The Ministry of Agriculture and Irrigation comprises 11 departments as follows:

- Irrigation Department
- Department of Agricultural Planning
- Myanmar Agriculture Service
- Agricultural Mechanization Department
- Settlement and Land Records Department
- Water Resources Utilization Department
- Myanmar Agricultural Development Bank
- Department of Agriculture Research
- Survey Department
- Yezin Agricultural University
- Myanmar Industrial Crops Development Enterprise

¹⁸ The Development Study on Sustainable Agriculture and Rural Development for Poverty Reduction Programme in the Central Dry Zone of the Union of Myanmar, Sanyu Consultants Inc. (page 1)



5.1.1 Irrigation Department

The primary objectives of Irrigation Department are:

- To carry out the hydrological and, geological investigations, and topographic surveys of works currently under implementation and other prospective major projects; and to draw designs; based on data and information collected.
- To undertake planning and construction of new projects.
- To perform operation and maintenance of the existing irrigation, drainage and flood protection works, and
- To provide technological assistance to rural irrigation works, rural uplift of Border Areas and National Races Development.

Organizational Structure: The department comprises six primary branches, namely Geology, Hydrology, Survey, Investigation, Drilling & Blasting and Hydropower, and five other correlating branches, namely: Administration, Accounts, Procurement, Planning and Works Design, Works Inspection. Apart from Headquarter, there are (16) Maintenance Divisions: each for every State/ Division.

Initiatives for Disaster Management/Risk Reduction: It systematically monitors the strength of dams and irrigation facilities and carries out renovations as necessary. It works closely with the Forest Department for the following activities.

- Construction of check dams for controlling sedimentation, the establishment of weirs for trapping the movement of sediments in the watersheds, and the clearing of water channels and floating gardens.
- Greening of (9) arid zones in Central Myanmar, with the construction of small weirs and tanks.

5.1.2 Department of Agricultural Planning

The Department of Agricultural Planning is responsible for the following functions:-

- Assistance in adopting agriculture policies
- Formulation of various agricultural plan
- Relation with international organizations and governments
- Strengthening cooperation and coordination among inter-agencies
- Agricultural trade and business management
- Reporting and compilation of agricultural statistics
- Conducting surveys
- Recommendation for further development of agriculture sector
- Technical and professional training through State Agricultural Institutes



5.1.3 Myanmar Agricultural Services

Myanmar Agriculture Service (MAS) under the Ministry of Agriculture and Irrigation is responsible for agricultural research and extension developments. It has more than 8000 extension agents down to the village level in the whole country. MAS produces primary statistics on procurement, distribution and use of agricultural inputs. It also cooperates with Settlements and Land Records Department in the collection of crop statistics. The main functions of MAS are as follows:

- Transfer of appropriate technology
- Development of pest control
- Development of land utilization
- Cooperation and coordination with Department of Agricultural Research in research and development activities
- Distribution of quality seeds

5.1.4 Settlement and Land Records Department

The main functions of Settlement and Land Records Department are as follows:

- Updating of maps and registers
- Land surveys and map productions
- Collection and compilation of timely and reliable crop statistics
- Collection and compilation of land use statistics
- Land administration and decision on agricultural land disputes
- Conducting agricultural socio-economic surveys.

MINISTRY OF CONSTRUCTION

5.2 Ministry of Construction

The Ministry of Construction's primary function is the construction, maintenance and upgrading of the roads and bridges. In addition to this, the Ministry also undertakes the construction and maintenance of the budgeted works of buildings and establishments assigned by other ministries and departments. The Ministry comprises one enterprise and two departments as follows:

- Public Works
- Department of Human Settlement and Housing Development (DHSHD)
- Department of Works Inspection



5.2.1 Public Works

Public Works is guided by a management board, which is presided over by a managing director, assisted by three deputy managing directors. It has 13 divisions which undertake various functions. It is responsible for roads, bridges and buildings.

The enterprise mentions that the construction of public buildings, high-rise buildings and other buildings should be in line with building codes which incorporated for earthquake, wind, flood resistant measures. It can also be a guiding organization for including fire prevention and preparedness facilities in construction of public and private buildings, factories, etc. It is responsible for construction of hillocks, storm-shelters and renovation of roads and bridges which are important part of mitigation and preparedness activities.

5.2.2 Department of Human Settlement and Housing Development

Housing Department was reorganized as Department of Human Settlement and Housing Development (DHSHD) in 1990. The main responsibilities of DHSHD are:

- To draw up the feasibility and implementation of the urban and regional planning of the whole country
- To draw up the feasibility and implementation of the property development of the whole country
- To manage and maintain the Government land in the Yangon City Development Area
- To manage the Government Buildings and Housing Estates
- To carry out the feasibility study, detail design and planning of the water sanitation of the whole country
- Controlling of the Yangon City Under Ground Water Resources
- Controlling of Budget of the Department
- Border Area Development Schemes
- Implementation of the projects as laid down by the Central Authority

Disaster Management: The Department recognizes that the responsibility of management of town plan for urban and rural area plays an important role for disaster management. Systematic establishment of new towns as well as post disaster resettlement of victims in towns in accordance with town plan can reduce vulnerabilities for future disasters such as fire and flood, etc.



MINISTRY OF EDUCATION

5.3 Ministry of Education

The Ministry of Education, with the vision 'To create an education system that can generate a learning society capable of facing the challenges of the Knowledge Age', is responsible for education in Myanmar. The Ministry consists of nine departments namely:

- Department of Basic Education No. (1)
- Department of Basic Education No. (2)
- Department of Basic Education No.(3)
- Department of Educational Planning and Training
- Department of Myanmar Educational Research Bureau
- Department of Higher Education (Lower Myanmar)
- Department of Higher Education (Upper Myanmar)
- Department of Myanmar Language Commission
- Myanmar Board of Examinations

The Ministry of Education is responsible for the school system and in conjunction and in coordination with twelve other Ministries who shares the responsibility for Higher Education Institutions (Universities & Colleges).

5.3.1 Department of Educational Planning and Training (DEPT)

Department of Educational Planning and Training is mainly responsible for formulation and implementation of basic education plans in coordination with other basic education departments, development of school curriculum and supervision of teacher education. There is a standing order by the Ministry of Education for schools and education colleges to make an institutional plan for minimizing the negative impacts of natural disasters. In collaboration with the Departments of Basic Education and the Disaster Preparedness and Response Education (DPRE) Working Group convened by UNESCO, it has collected and translated a range of suitable guidelines and support materials in order for schools to individually and independently conduct school based risk assessments, generate School Preparedness Plans, develop appropriate drills, support teaching learning activities and advise on approaches to psycho-social recovery and support. The resource pack also includes a radio for early warning. Before monsoon 2009, two thousand resource packs are being distributed in 7 townships in Ayeyarwady, and one township each in Yangon and Mandalay Divisions. Eventually, DPRE will be introduced in all schools throughout Myanmar.



MINISTRY OF FORESTRY

5.4 Ministry of Forestry¹⁹

The Ministry of Forestry was carved out from Ministry of Agriculture and Forestry in 1992 and it has six departments namely

- Minister's Office
- Planning and Statistics Department (PSD)
- Forest Department
- National Commission for Environmental Affairs (NCEA)
- Dry Zone Greening Department (DZGD)
- Myanmar Timber Enterprise (MTE)

The six objectives of Ministry of Forestry are :

- *Protection:* Protection of soil, water, wildlife, bio-diversity and environment
- *Sustainability:* Sustainability of forest resources to ensure perceptual supply of both tangible and intangible benefits accrued from the forests for the present and future generations
- *Fulfilling the basic needs of the people:* To fulfill the basic needs of the people, for fuel, shelter, food and recreation
- *Efficiency:* to harness, in the socio-environmentally friendly manner, the full economic potential of the forest resources
- *Participation of the people:* Participation of the people in the conservation and utilization of the forests
- *Public awareness on the forests:* Public awareness about the vital role of the forests in the well being and socio-economic development of the nation

5.4.1 Dry Zone Greening Department

The Dry Zone Greening Department (DZGD) was created in 1997 for Dry zone Greening Project, which was launched by Ministry of Forestry in 1994. The scope of project was extended to 13 districts from 9 districts located in Sagaing, Magway and Mandalay Divisions.

The key activities undertaken by DZGD are as follows:

- To substitute the fuel wood utilization, fuel briquette is distributed
- As another alternative for fuel wood, utilization of residues of agricultural crops such as stalks of sesame, pea, cotton, peanut husks and etc are also encouraged

¹⁹ Ministry of Forestry http://www.yangoncity.com.mm/ministry/ministry_of_forestry.asp



- Implement the development of water resources program in which ponds and check dams to collect rain water are constructed; tube wells to tap underground water; and river water pumping stations to pump water from Ayeyarwady river

5.4.2 Forest Department

The Forest Department is responsible for conservation of forests as well as meeting the people's basic needs for timber, fuel, wood, bamboo and other forest products using the methods of extraction with the least impact on the natural environment. It follows Exploitation-cum-Cultural System known as the Myanmar Selection System (MSS) in order to assure the sustainability of natural forests in perpetuity.

The objectives are

- To achieve sustainable forest management and for its endurance to protect areas under forest reserve and protect public forest and extend them for sustenance
- To pursue sound programs of forest development through re-generation and rehabilitation operations to optimize productivity from natural forests
- To promote efficient harvesting and sustainable utilization of all forms of forest produce
- To evolve a system of balanced and complimentary land use under which land is only diverted to use where it would produce most and deteriorate least
- To promote research activities on forestry , forest products and socioeconomic aspect for sustainable development of forest resources
- To systematically prepare development plans for the forestry sector
- To regulate tree felling and extraction according to the existing law and rules and to protect forest offences.

5.4.3 National Commission for Environmental Affairs [NCEA]

NCEA's main mission is to ensure sustainable use of environmental resources and to promote environmentally sound practices in industry and in other economic activities. It formulates broad policies on natural resource management, prepares environmental legislation (standards and regulations) for pollution control, monitors an enforcement, promotes environmental awareness through public education and acts as liaison with international organizations and foreign governments in environmental matters.

Organizational Structure: NCEA has a Chairman, a Secretary and a Joint Secretary. It has nineteen members, all of whom are heads of departments from various sectoral ministries. This theoretically ensures multi-agency representation from the other sectors of the economy. There are four sub-committees operating within the NCEA: the Committee on Conservation of Natural Resources; the Committee on Control of Pollution; the Committee



on Research, Information and Education; and the Committee on International Cooperation. Each of these sub-committees is chaired by a Director-General or the Head of a relevant government department. The operational functions of the NCEA are conducted and coordinated by a secretariat called the NCEA Office, which was established in 1992. This is headed by a Director, who liaises directly with the NCEA Chairman, Secretary and Joint Secretary.

Roles and responsibilities of NCEA: It was involved in formulating the National Environment Policy (NEP) 1994, which is Myanmar's principal policy document on environmental protection and the Myanmar Agenda 21, which contains programmes and activities that will promote environmental protection and prevent environmental degradation. These programmes are social, economic, institutional and infrastructural strengthening programmes as well as environmental protection and conservation programmes that will put the country onto the sustainable development path.

The NCEA is currently implementing Initial National Communication (INC) Project and National Adaptation Plan of Action (NAPA) Project in collaboration with relevant departments. The project activities include calculation of Greenhouse Gases (GHGs) and Emission and formulation of climate change mitigation measures. The NCEA is also attempting to implement the following projects which are recommended in Myanmar Agenda 21:

- Forest Fire and Haze Monitoring System
- Integrated Approach for Achieving Sustainable Development in Dry Zone Areas
- Assessment on Landslide, Land Degradation and Soil Erosion in mountainous regions.

MINISTRY OF HEALTH

5.5 Ministry of Health

The Ministry of Health is the nodal Ministry for Health facilities in Myanmar. It comprises 7 departments including Department of Health and Department of Medical Sciences, which are headed by the Director Generals like other departments. The Department of Health is responsible of providing health services and it has 7 Divisions namely Public Health, Planning, Administration, Medical Care, Food and Drug Administration, National Health Laboratory, Disease Control, Occupational Health and Nursing. The Department of Medical Sciences is responsible for human resource development of health personnel.



5.5.1 Roles and responsibilities²⁰ on Disaster Management

The Ministry of Health has categorized the roles and responsibilities related to disaster/emergency management under three broad heads namely Before Disaster, During Disaster and After Disaster.

The phase-wise responsibilities are as follows:

Before Disaster:

- To keep updated of the early warning and timely reporting of the warning
- To identify hazard prone areas, its population, usual occurrence of communicable diseases, etc
- To prepare for necessary health services in the event of any disaster
- Regional and international cooperation with UN Agencies, ASEAN, etc
- Establishment/ Operationalization of Emergency Operation Center
- Development of GIS based Disaster Management Information System
- Capacity building of Health personnel
- To undertake Community based preparedness program
- To identify safe buildings and secure areas for providing emergency health services
- Identify suitable places for hospital, clinics, staff
- Constitution and training of Mobile service squads at various levels and also organizing mock drill
- To assess and modify the current Ambulance System
- To train health staff, NGOs and community on first-aid and emergency relief
- Preparedness for surveillance of communicable and other diseases
- Plan for identification of dead and the autopsy

During Disaster

- Coordination with other Sub-committees for search, rescue and relief
- Provision of health care through Emergency clinics and Mobile medical Squads
- Prioritization of patients in surgical and general cases
- Provision of health care in emergency shelter
- To collect, monitor and keep data on injured, dead, missing and diseases
- Immunization, if required
- Chlorination of safe drinking water and sanitations
- Management of sanitary waste disposal
- Cooperation with Police surgeon for identification of dead

²⁰ Presentation on Natural Disaster Preparedness and Response Management Plan by Health Care Service Committee



After Disaster

- To coordinate with other departments and agencies for rehabilitation and reconstruction activities
- To evaluate the health care activities undertaken during disaster
- To prevent the probable social and health problems in emergency relief shelter with other sub-committees
- To report to National Disaster Preparedness Central Committee on activities undertaken to prevent loss of lives and properties
- To analyze the impact of natural disaster

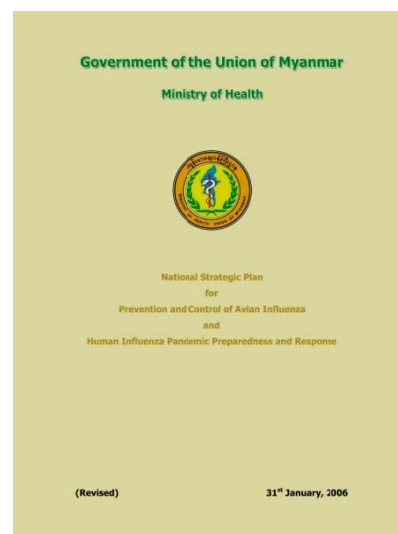
5.5.2 Learning's from the past disasters

In order to learn from the past disasters, the deliberation/workshops are organized in the aftermath of disaster on the activities undertaken as part of health response during the disaster. One such one-day workshop titled 'Evaluation of Health Sector Performance in Cyclone Nargis' was organized by Ministry of Health on 22nd December 2008 at Nay Pyi Taw. The workshop agenda included Cyclone Nargis Disaster Management Experience from Ayeyarwady and Yangon Division, Prevention of Control of Communicable diseases, Public Health Activities, Human Resource Deployment, Drugs and Logistics Supply, Response by different departments of Ministry of Health and Recommendation for future Disaster Management. Also, as learning from the past disaster, the material of triage band has changed from paper to plastic or film-coated paper.

5.5.3 Plan for Prevention and Control of Avian Influenza and Human Influenza Pandemic Preparedness and Response

The Ministry of Health in consultation with Ministry of Livestock and Fisheries prepared National Strategic Plan for Prevention and Control of Avian Influenza and Human Influenza Pandemic Preparedness and Response since January 2004. The plan was prepared as a pro-active measure in the aftermath of outbreak of SARS in Southeast Asia in 2003 (fortunately Myanmar was not affected). The plan includes five chapters namely Background, National Preparedness and Response on Avian Influenza, Prevention and Control of Avian Influenza and Human Influenza Pandemic Preparedness and Response, Conclusion and Budgetary Requirement. In Prevention and Control of Avian Influenza and Human Influenza Pandemic Preparedness and Response chapter, the response has been divided in five phases namely Inter Pandemic Phase, Avian

Figure 5.1 Avian Influenza Plan



Influenza Phase (Pandemic Alter Phase I), Human Influenza Pandemic Alter Phase II, Human Influenza Pandemic Phase and Post Pandemic Phase.

5.5.4 Emergency Management Action Plan , Yangon General Hospital

The Yangon General Hospital has a 5-member Hospital Management Committee chaired by the Hospital Superintendent and other members including Professor, Medicine; Professor, Surgery and Head Administration.

The Emergency Management Action Plan of Yangon General Hospital is in existence over 15 years and regularly updated. It is considered as the Model Plan by other hospitals of the country. The plan describes Emergency situation as a situation when more than 10 persons have been seriously injured and for 200-bed hospital the emergency can be declared when more than 3 are seriously injured. A 15-member Emergency Period Supervisory Committee has been constituted and composition is shown in Table 5.1.

Table 5.1 Composition of Emergency Period Supervisory Committee

Sr. No.	Members
1	Medical Superintendent/ Supervisor (Medical Coordination)
2	Orthopedic Surgeon, Professor/ Head of department
3	Neurological Surgeon, Professor/ Head of department
4	Surgeon, Professor
5	Orthopedic Surgeon, Professor
6	Physician, Professor
7	Anesthesia Specialist, Head of department
8	Oral Surgeon, Head of department
9	Radiologist, Head of department
10	Disease Specialist, Head of department
11	Law-medicine, Head of department
12	Head of Hospital
13	Dy. Head of Hospital
14	Matron
15	Assistant Director (Administration)

The roles and responsibilities of the committee are as follows:

- To prepare Mass Casualty Plan for response in emergency
- To share Mass Casualty Plan with other staffs
- To be aware of the individual roles and responsibilities
- To maintain the human resources as well as medicine stock as per the Plan
- To review and update the Plan annually.

The Yangon General Hospital is part of the 'Network Hospitals' so that in case of mass casualty some patients can be shifted to other Network Hospitals. The New Yangon Hospital and Institute of Medicine acts as back-up for the Yangon General Hospital under 'Network Hospitals'.



The hospital has constituted two mobile teams and each team comprises General Surgeon, Orthopedic Surgeon, Physician, T/N (GI) and Menial. The plan includes 'Triage' and it affected people in four categorizes namely Critical- Priority I, Severe-Priority II , Moderate or Minor Injury-Priority III and Dead-Mortuary. It also conducts ward-wise mock drills to check preparedness and identify areas of improvement.

MINISTRY OF HOME AFFAIRS

5.6 Ministry of Home Affairs

The Ministry of Home Affairs is established with the aim of creating stable and modern state. The Ministry is mainly responsible for the following main tasks: Security, Prevalence of Law and Order, and Peace and Tranquility.

In addition, in line with the guidance from the Head of the State, the Ministry serves to supplement activity of public welfare. The four departments under the Ministry of Home Affairs are:

- Myanmar Police Force
- General Administration Department
- Bureau of Special Investigation
- Correctional Department

5.6.1 General Administration Department

The main objectives of General Administration Department (GAD) are: to ensure the rule of law, prevalence of peace and tranquility, regional development, to serve public interest

To achieve the objectives, GAD performs the following responsibility:

- Uplift of morality and spirit de corps
- Constant training programme
- Welfare of members
- Correct administration system

Directors of GAD are the members of State/Division Peace and Development Council. At district and township level, the officers from GAD are the head of the administrative body.

Role of GAD in DRR: With the guidance of NDPCC, Disaster Preparedness Committee (DPC) at different levels have been formed. The officers from GAD at state/division, district/township levels are the members of DPC at state/division level, while district and township level committees are chaired by GAD. GAD is involved in identification the location of relief camps, arrangement for disaster management training, dissemination of early warning to grass-root level at district and township levels.



MINISTRY OF NATIONAL PLANNING AND ECONOMIC DEVELOPMENT

5.7 Ministry of National Planning and Economic Development

The Ministry of National Planning and Economic Development is responsible for social and economic development policy of the nation. It has seven departments including Planning Department. The key responsibilities of the Ministry are:

- To perform regular review on economic, financial and social changes of the internal and external circumstances of the country and submit appropriate suggestion to the government
- To evaluate the conditions of the country and submit recommendations to the government in order to lay down appropriate social economic policies
- To formulate the national plans within the framework of the policy and evaluate the implementation of the plans and submit sound suggestion to the state
- To serve as focal point for mobilization of external resources and development assistance in the forms of loans, aids, grants and technical assistance from international organizations for national development
- To co-ordinate and appraise plans drawn up within the framework of the policy for the promotions of local and foreign investment
- To collect and register the basis data of the social and economic statistics of the country.

5.7.1 Planning Department

Planning Department is one of the seven departments under the Ministry of National Planning and Economic Development. Throughout the country, there are 17 offices at state/division level, and 66 offices at district level and 326 offices at Township level. Planning Department plays an important role in Disaster Management structure of Myanmar since, at township level, the head of Township Planning Department serves as the secretary of Township Disaster Preparedness Committee. Similarly, at district and state/division level, officials of respective Planning Department Office are key persons in the respective Disaster Preparedness Committees.

The Planning Department has the following objectives:

- Ensuring the effective contribution to the socio-economic development of the State expeditiously
- Uplift of the work efficiency
- Uplift of capacity building of the service personnel
- Application and utilization of the ICT effectively



- Respect and observance of the rules of conduct and disciplines in order to ensure that the service personnel/department shall have trustworthiness of the people.

Planning Department plays a key role in formulating national social and economic policy.

The Department performs the following functions:

- To formulate short-term, long-term and annual development plans for national level, sectoral level, ministerial level and regional level by coordinating and cooperation with the respective ministries and regional authorities
- To compile, analyse and review the plan performance on monthly and quarterly basis
- To measure the wealth of the Nation, compute and estimate the progress of the economy, and review the existing situation
- To compile data on exports and imports of goods and services and submit to the higher authorities
- To formulate and analyse Balance of Payment by coordinating with respective ministries and lay down Foreign Exchange Policy
- To analyse the budget position of the Nation
- To compile prices of commodities
- To compile and analyse the financial, economic and social conditions of the country and economic development
- To give technical assistance to the organizations concerned for plan implementation by the Planning Offices at various levels.

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http://www.yangoncity.com.mm/ministry/ministry_of_forestry.asp



MINISTRY OF SOCIAL WELFARE, RELIEF AND RESETTLEMENT

5.8 Ministry of Social Welfare, Relief and Resettlement

The Ministry of Social Welfare, Relief and Resettlement was established in 1953 with following objectives:

- To assist the vulnerable groups so as to reintegrate into the society through social work methods
- To resettle and rehabilitate victims of disasters
- To make our country free from fire hazard
- To encourage the non-governmental organizations to participate in national movement for social development
- To train and form the fire service personnel, and voluntary fire-men to become the reserve force to safeguard peace and stability of the state.

The Ministry comprises of three departments, namely: Relief and Resettlement Department, Fire Services Department and Department of Social Welfare.

The Minister, Social Welfare, Relief and Resettlement is the Secretary of NDPCC, Co-chair of the National Disaster Preparedness Management Working Committee and Chair of the Rehabilitation and Reconstruction Sub-committee.

5.8.1 Relief and Resettlement Department

Introduction

The Relief and Resettlement Department (RRD) was established with the objectives to provide relief for victims of natural disasters to ease their sufferings and take precautionary steps so as to minimize loss of lives and property of the victims of natural disasters. The major tasks are as follows :

- To deliver relief to people, monks and nuns who face disasters such as fire, flood, strong wind, earthquake and armed insurgency to ease their sufferings.
- To deliver relief to those who caught a storm in a river or a sea and for those who are stranded in far-flung regions or in foreign countries because of their vessels whose engines are in disorder.
- To provide aid for those who had to leave their regions due to armed insurgency and for those who have been shifted to safe regions from the areas where armed insurgents are active.
- To provide aid for those who face hunger owing to severe drought, great change of climate or destroyed agricultural fields by pests and animals.

Also, on behalf of the government of the Union of Myanmar, RRD sends relief to disaster affected areas in foreign countries and disaster relief bodies under the United Nations. It is



disaster management issues. The total duration of training has been kept intact. The resource persons for training are drawn from the government departments and MRCS.

This training is conducted three times in year, however in 2008, 14 trainings were conducted. In January 2008, this course was conducted in Kayin State and the Chairman of the State Peace and Development Council (SPDC), Kayin State found it to be handy during the floods of July 2008. ²²The training was again conducted in Kayin State in October 2008 on the request of Chairman, SPDC, Kayin State. Some of the trained members organized Disaster Management groups.

5.8.2 Fire Services Department

Introduction

Fire Services Department, under the Ministry of Social Welfare, Relief and Resettlement, is the nodal department for fire hazards. Earlier, various kinds of Fire Services such as Government Fire Services Directorate, the Municipal and local bodies Fire Services and the Voluntary Fire Services were existing throughout the country. The coordination and co-operation among these agencies was missing. Hence, the Fire Service Act, 1963 amalgamated all the Municipal Fire Brigades, the Voluntary Fire Services and Government Fire Services Directorate into a single organization, under the supervision of Fire Services Department²³.

Aim and Duties

The aim is to protect and to prevent from fire disaster and natural disasters which incur losses and endanger to the lives and property of the people, the state owned capital investment. It also aims to form and train fire service personnel and voluntary firemen in such a way that they become the reserve force of the State Peace and Development. The main duties are:

- Fire precaution
- Fire prevention
- Fire extinguishing
- Social humanitarian services and
- To form and train the firemen to become the reserve force of the State Peace and Development.

Responsibilities and Reporting

The infrastructure of Fire Services Department is upto township level. The Fire Brigade comprises of three groups namely Government Fire Brigades, Auxiliary Fire Brigade and Reserve Fire Brigade of factories, industries, etc. It has 550 fire stations of which 222 are government fire stations while 328 are auxiliary fire stations. The strength of fire brigade

²² As per discussion with Officers of Relief and Resettlement Department on 27th December 2008.

²³ Extracts of Report on Fire Services Department History, Ministry of Social Welfare, Relief and Resettlement, 2005



includes 3680 fire personnel, 230,000 auxiliary firemen and 1608 fire appliances. The Central Fire Services Training School is at Pyin Oo Lwin, which conducts 11 types of courses ranging from 4-week Rescue (life saving) course to 24-week Fire officer course. The Fire Services Training School, Yangon conducts 24 types of training courses including basic and advanced fire fighting training courses, vehicle driving, office clerk training, rescue technique course, refresher course for volunteer, aircraft fire fighting and rescue training course. The Head quarter is at Yangon and it has three Controls namely Upper Myanmar, Lower Myanmar and Nay Pyi Taw.

The Fire Services Department reports every month on its activities to the Ministry of Social Welfare, Relief and Resettlement for information and extension of relief to the victims. The Relief and Resettlement Department, under the Ministry of Social Welfare, Relief and Resettlement, grants relief in cash and kind based on the recommendation of the local authorities and severity of the cases²⁴.

5.8.3 Department of Social Welfare

The Department of Social Welfare was established in 1953. It is responsible for implementing activities that aims at helping towards a mutual adjustment of individuals and their social environment. The Department of Social Welfare is currently undertaking the following activities :

- Child Welfare Services
- Youth Welfare Services
- Women Welfare Services
- Care of the Aged
- Rehabilitation of the Disabled
- Grants and Aids in Voluntary Organization
- Resettlement and Rehabilitation of Vagrants
- Rehabilitation of the Ex-Drugs Addicts

It implements social welfare programs for the protection of the most vulnerable people: physically challenged, children, women and aged people.

MINISTRY OF TRANSPORT

5.9 Ministry of Transport

The Ministry of Waterways and Civil Aviation and Ministry of Transport, Posts and Telecommunications was formed when Myanmar gained independence. The Ministry of Transport was carved out in 1992 with 4 departments, 5 enterprises and 1 training institute. Currently there are 5 departments namely Department of Transport, Department of Civil Aviation, Department of Marine Administration, Department of Meteorology and

²⁴ Statistical Year Book, 2006 [page 415], Central Statistical Organization, Nay Pyi Taw, Myanmar, 2008



Hydrology and Directorate of Water Resources and Improvement of River Systems. It has 5 enterprises namely Inland Water Transport, Myanma Airways, Myanma Five Star Line, Myanma Port Authority and Myanma Shipyards apart from Institute of Marine Technology and Myanma Maritime University.

5.9.1 Department of Meteorology and Hydrology

The Department of Meteorology and Hydrology [DMH] was setup in 1937 as Burma Meteorological Department and later renamed to DMH and this department is under Ministry of Transport since 1999. The department is responsible for provision of services on all aspects of meteorology, hydrology, aviation-meteorology, agro-meteorology and seismology. It renders technical services on all aspects of meteorology, hydrology, agro-meteorology, seismology and their related subjects, in the form of data, information, knowledge, advices, consultancy services, forecasts, warnings, joint survey and investigation, etc.

The objectives of DMH are:

- To take precautionary measures against and to minimize the effects of natural disasters.
- To promote safety, comfort, efficiency and regularity of air, land (rail and road), sea and inland water transportation.
- To promote agriculture and food production.
- To assist in all National projects.
- To support for environmental protection and sustainable production of natural resources.
- To undertake international collaboration in the fields of research and public awareness and education on various aspects of meteorology, hydrology and seismology.

The Role of DMH in DRR: DMH plays an active role in disaster risk reduction of Myanmar, particularly in Early Warning Dissemination. DMH, by collecting information from various sources including internal and external, issues weather forecast four times daily at 700hrs, 1200hrs, 1600hrs and 2000hrs. Usually, the weather news is broadcast by Myanma Radio and Television (MRTV) after National News Programme at 20:00 every day. In case of any approaching disaster, special weather report is broadcasted more than one time.

From the storm season of 2009, the stage /intensity of cyclone is identified by colour.

- Yellow Stage
The time when tropical storm starts in Bay of Bengal is identified as Yellow Stage. Weather report should be broadcast 2 to 3 times by Myanma Radio and City FM, and



as daily weather report by MRTV and Myawaddy (MWD) Television. In the yellow stage, the location of the storm in the Andaman Sea or in which part of Bay of Bengal should be mentioned. Maritime Weather Forecast and Storm Warning should be received by a Myanmar Five-Star Line Ship at Yangon Harbour.

- Orange Stage

The time when a storm moves leading to Myanmar coastal area after outbreak in Bay of Bengal and Andaman Sea is identified as orange stage. Weather report should be broadcast 3 to 4 times by Myanmar radio. MRTV-4 and MWD should broadcast updated weather news in a flash sentence during other broadcasting programmes and occasional weather news in-between of other programmes. The facts which should be included in the weather report are the stage (intensity of the storm), location, forecast on direction, time and location that the storm hits the ground, forecast on rain and wind, and tidal surge due to the storm.

- Red Stage

(12) hours before a storm hits Myanmar coastal line is identified as red stage. Weather report should be broadcast 3 to 6 times by Myanmar radio. MRTV-4 and MWD should broadcast updated weather news in a flash sentence during other broadcasting programmes, and frequent weather report should be broadcast in-between of other programmes. The facts which should be included in the weather report are the stage (intensity of the storm), location that the storm hits the ground, forecast on direction, forecast on rain due to the storm.

- Green Stage

The time when a storm becomes weak and diminishes is identified as green stage. After the storm passes, weather report should be broadcast 2 to 3 times frequently by Myanmar radio. MRTV-4 and MWD should broadcast the weather news in a flash sentence during other broadcasting programmes and weather news in-between of other programmes.

Since 2008, DMH also issues the advisory message on onset of a storm. The message includes such message as the vessels and fishing boats should avoid going into the sea during 48 hours from a certain point of time. It helps the community people to better understand for their safety.



CHAPTER 6

INSTITUTIONAL ARRANGEMENTS AT STATE/DIVISION LEVEL

6.1 Mandalay Division

6.1.1 Introduction

Mandalay Division is located in the center of Myanmar, bordered by Sagaing and Magway Divisions to the west, Shan State to the east and Bago Division to the south. The divisional capital is Mandalay city, the second largest city and the last royal capital of Myanmar. Nay Pyi Taw, the current capital of Myanmar, is also located within the Mandalay Division. The Division consists of eight districts, sub-divided into 33 townships and 1,617 village tracts. The district-wise list of townships is shown in Table 6.1.



Accounting for 15 percent of the national economy, Mandalay Division is increasingly becoming an strategic economic centre in Myanmar. The Division is situated around 700 km north of Yangon, on the east bank of the Ayeyarwady River. Agriculture is the primary economical source of livelihood, followed by other industries such as textile (silk and cotton weaving), sugar mills and gem mines. In addition to the Ayeyarwady river, other famous rivers as Dotehtawady, Myitnge and Zawgyi also flow through the Division.

Table 6.1 Districts and Townships in Mandalay Division

Districts	Townships
Bagan	Bagan
Kyaukse	Kyaukse, Myit Thar, Sint Kaing, Tada-U
Mandalay	Amarapura, Aung Myay Thar Zan, Chan Mya Thar Si, Chan Aye Thar Zan, Mahar Aung Myay, Patheingyi, Pyi Gyi Tan Kon
Meikhtila	Mahlaing, Meikhtila, Thazi, Wundwin
Myingyan	Kyaukpadaung, Myingyan, Nahtogyi, Nganzun, Taungtha
Nyaung-U	Nyaung-U
Pyin Oo Lwin	Madaya, Mogok, Pyin Oo Lwin, Singu, Thabeikkyin
Yamethin	Lewe, Pyawbwe, Pyinmana, Tatkon, Yamethin



6.1.2 Disaster Situation in Mandalay Division

Three hazards namely, fire, flood and earthquake, are identified in the existing Mandalay Division Disaster Management Plan as the most frequently occurring in the Division. In terms of past episodes, following table highlights the major incidents.

Table 6.2 Past hazard incidents in Mandalay Division

Type of Hazard	Year of Incident	Place of incident	Estimated amount of damage and loss	
			No. of houses, families and people	Economic loss in terms of kyats (x 1,000,000)
Fire	1984	3 townships in Mandalay city	2,368 buildings destroyed, 4,585 households and 22,324 persons affected	780
	1991	Meikhtila Town	3,261 houses destroyed, 5,026 families and 25,377 persons affected	685
	2007	263 times in entire division		433
	2008	Ya-da-na-pone Market, Mandalay city	1,558 stores destroyed, 21 persons injured	2,645
Flood	July, 2001	6 wards and 6 villages in Wundwin Township	463 houses destroyed, 2,127 persons made homeless and 42 people passed away	
	July 2004	Along Ayeyarwady River	No significant damages and losses occurred.	
	June 2008	3 places in Moe-goke Town	18 houses destroyed, 11 people passed away	39
Earthquake	July 1975	Bagan - Naung Oo (World Heritage Site)	Pagodas and other religious buildings destroyed, 2 deaths and 15 injured	Immeasurable

Within Mandalay city, 6 townships and 25 exact locations are identified in the Plan as flood prone. In the past few decades, the growth rate of Mandalay City and its surrounding areas has been exponential, making it one of the most populated cities in the country. The potential devastating impact of a major earthquake or fire or flooding from any of the rivers in the vicinity is a major cause of concern for the divisional authority. Consequently, the Division Peace and Development Council has developed a comprehensive, multi-hazard Mandalay Division Natural Disaster Management Plan.

6.1.3 Action Plan on Disaster Management of Mandalay Division

The Action Plan on Disaster Management of Mandalay Division has been in place since 2005 as per the decree issued by the National Disaster Preparedness Central Committee [NDPCC] to all states and divisions, instructing them to develop comprehensive disaster



management plans for each locality. The Action Plan has been updated annually and was last revised in December 2008.

The goal of the action plan is to be able to carry out preparedness, mitigation, rescue, rehabilitation and reconstruction activities systematically at both local and national levels. In order to achieve the goal, activities will be implemented in two phases:

- to manage activities at the local level depending on the intensity of the hazard,
- to manage activities at the national level if the impact is overwhelming.

Under each phase, four major areas of actions are planned as follows:

- i. *Formation of committees and sub-committees (from divisional down to village tract level)* : Detailed information on the disaster management committees and sub-committees with their specific roles and responsibilities are provided in the next two sections of this report.
- ii. *Before any impending hazard, to undertake preparedness activities:* This area indicates what to do before flood, fire or earthquake.
- iii. *To undertake appropriate activities during hazard:* Here the emphasis is on what to do during flood, fire or earthquake.
- iv. *To undertake rehabilitation and resettlement activities after the hazard :* This area highlights what to do after flood, fire or earthquake.

In the annex to the document, the roles and responsibilities of all government departments and civil society organizations ²⁵ within the Division are specified.

6.1.4 Disaster Management Committee of Mandalay Division

The Disaster Management Committee of Mandalay Division [Mandalay DMC] was constituted as per the directions of the National Disaster Preparedness Central Committee [NDPCC]. The 34-member Committee is made up of representatives from various departments as described in Table 6.3.²⁶

Table 6.3 Composition of Mandalay DMC

No.	Membership	Designation
1.	Divisional Commander, Central Military Command	Honorary Chairman
2.	Mayor, Mandalay City Development Committee	Honorary Chairman
3.	Deputy Divisional Commander, Central Military Command	Chairman
4.	Colonel, Divisional Chief, Central Military Command	Co- Chairman
5.	Lieutenant Colonel, Central Military Command	Co- Chairman

²⁵ Government Departments include Basic Education, City Development Council, Development Affairs, Fire Services, Forestry, General Administration, Health, Information, Irrigation, Livestock Breeding and Veterinary, Marine Administration, Myanmar Maternal and Child Welfare Association, Meteorology and Hydrology, Myanmar Red Cross, Planning, Public Works, Posts and Telecommunications, Relief and Resettlement, Settlement and Housing Development, Social Security and Water Resources and Improvement of River Systems.

²⁶ Reference: Mandalay Division Natural Disaster Management Plan, dated December 2008.



6.	Colonel, Artillery and Tank Training School, Meikhtila	Member
7.	Colonel, Airways Training Base, Meikhtila	Member
8.	Director General, Higher Education Department	Member
9.	Member (1), Peace and Development Council, Mandalay Division	Member
10.	Member (2), Peace and Development Council, Mandalay Division	Member
11.	Secretary, Mandalay City Development Committee	Member
12.	Secretary, Union Solidarity and Development Association, Mandalay Division	Member
13.	Chief Engineer, Public Works	Member
14.	Director, Development Affairs, Mandalay Division	Member
15.	Deputy General Manager, Myanma Timber Enterprise	Member
16.	Chairman of Health Care Sub-committee	Member
17.	Director, Department of Marine Administration	Member
18.	Divisional Manager, Myanma Agricultural Produce Trading	Member
19.	Chairman of Transportation and Road Clearance Sub-committee	Member
20.	Deputy Director, Irrigation Department, Mandalay Division	Member
21.	Director, Directorate of Industrial Supervision and Inspection, Mandalay Division	Member
22.	Deputy Director, Transport Planning	Member
23.	Deputy Director, Water Resources and Improvement of River Systems	Member
24.	Head of Fire Services Department, Mandalay Division	Member
25.	Head of Mandalay Division, Water Resources and Improvement of River Systems	Member
26.	Head of Mandalay Division, Settlements and Land Records Department	Member
27.	Divisional Manager, Myanma Agricultural Services	Members
28.	Myanmar Red Cross Society, Mandalay Division	Member
29.	Responsible Person, No. (2) Mining Enterprise	Member
30.	Chief Editor, News Agency	Member
31.	Chairmen, District Peace and Development Councils	Members
32.	Secretary, Peace and Development Council, Mandalay Division/ Executive Officer, General Administration (Division)/ Chairman, Risk Reduction and Emergency Shelter Sub-committee	Secretary
33.	Divisional Chief Officer, Relief and Resettlement Department	Joint-secretary
34.	Deputy Director, Social Welfare Department, Mandalay Division	Joint-secretary



6.1.5 Constitution of Sub-Committees

Under the leadership of the Mandalay Divisional Committee, there are ten sub-committees formed to effectively undertake specific disaster management activities, instructed by the Divisional Committee and the details are given in Table 6.4.

Table 6.4 Composition of Sub-committees, Mandalay Division

Sub-committees	Membership	Designation
Information & Education	1) Member (2), Division Peace & Development Council 2) Member, Mandalay City Development Committee 3) Joint-secretary, Division Union Solidarity & Development Association (USDA) 4) Head of Education Department (Division) 5) Head of Health Department (Division) 6) Assistant Director, DMH 7) Head of Fire Services Department (Division) 8) Chief Editor, News Agency 9) Head of Information and Public Relations Department (Division)	1) Chairman 2) Member 3) Member 4) Member 5) Member 6) Member 7) Member 8) Secretary 9) Joint-secretary
Emergency Communication	1) Deputy General Manager, Myanma Posts and Telecommunications (Division) 2) Battalion Commander, No.(111) Communication Battalion 3) Assistant Director, DMH 4) Director, Department of Marine Administration 5) Head of Road Transport (Division) 6) Staff Officer, General Administration Department (Division) 7) Assistant Engineer, Myanma Posts and Telecommunications (Division) 8) Assistant Engineer, Myanma Posts and Telecommunications (Division)	1) Chairman 2) Member 3) Member 4) Member 5) Member 6) Member 7) Secretary 8) Joint-secretary
Search and Rescue	1) Lieutenant Colonel, Central Military Command 2) Director, Department of Marine Administration 3) Lieutenant Colonel, Public Force, Central Command 4) Joint Secretary, Union Solidarity and Development Association, Mandalay Division 5) Manager, Inland Water Transport (Division) 6) Staff Officer, Fire Services Department (Division) 7) Assistant Director, DMH 8) Chief Engineer, Public Works 9) Red Cross, Mandalay Division 10) Deputy Director, Transport Planning 11) Staff Officer, Dept. of Social Welfare (Division) 12) Staff Officer, General Administration Department 13) Divisional Chief Officer, Dept. of Social Welfare 14) Deputy Chief of Police, Mandalay	1) Chairman 2) Member 3) Member 4) Member 5) Member 6) Member 7) Member 8) Member 9) Member 10) Member 11) Member 12) Member 13) Secretary 14) Joint-secretary
Information of losses and Emergence Assistance	1) Secretary, Division Peace and Development Council 2) Director, Co-operative Dept., Mandalay Division 3) Divisional Manager, Myanma Agricultural Services 4) Staff Officer, Agricultural Mechanization Dept. 5) Staff Officer, Livestock Breeding and Veterinary Dept.	1) Chairman 2) Member 3) Member 4) Member 5) Member



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	6) Staff Officer, Health Department (Division) 7) Director, Directorate of Industrial Supervision & Inspection 8) Chairman, Myanmar Rice and Paddy Wholesalers Association, Mandalay Division 9) Chairman, Myanmar Rice Millers Association, Mandalay Division 10) Departmental Manager, Myanma Airways 11) Divisional Manager, Myanma Railways 12) Deputy General Manager, Myanma Timber Enterprise 13) Chief of Police, Myanmar Police Force, Mandalay Division 14) Chairman, Union of Myanmar Federation of Chamber of Commerce and Industry, Mandalay Division 15) Secretary, Union Solidarity and Development Association, Mandalay Division 16) Deputy Divisional Manager, Myanma Agricultural Produce Trading 17) Staff Officer, General Administration Department 18) Divisional Manager, Myanmar Agricultural Produces Trading 19) Staff Officer, Relief and Resettlement Department	6) Member 7) Member 8) Member 9) Member 10) Member 11) Member 12) Member 13) Member 14) Member 15) Member 16) Member 17) Member 18) Secretary 19) Joint-secretary
Assessment of Losses	1) Member (2), Peace and Development Council, Mandalay Division 2) Executive Officer, Union Solidarity and Development Association, Mandalay Division 3) Staff Officer, Internal Revenue (Division) 4) Chief Engineer, Public Works 5) Deputy Director, Irrigation Dept., Mandalay Division 6) Head, Immigration Department (Division) 7) Staff Officer, General Administration Department 8) Director, Office of the Auditor General 9) Deputy Director, Planning Department	1) Chairman 2) Member 3) Member 4) Member 5) Member 6) Member 7) Member 8) Secretary 9) Joint-secretary
Route Clearance & Transportation	1) Assistant General Manager, Myanma Railways (Division-3) 2) Lieutenant Colonel, Central Command 3) Deputy Supervisor, Myanmar Police Force 4) Staff Officer, Fire Services Department 5) Head, Road Transport (Division) 6) Head of Section, Road Transport 7) Chairman, Transport Supervision Committee (outside Mandalay) 8) Chairman, Transport Supervision Committee (within Mandalay) 9) Chief Engineer, Myanmar Shipyard 10) Departmental Manager, Myanma Airways 11) Sale Officer, Myanmar Petroleum Product Enterprise 12) Divisional Manager, Myanmar Agricultural Produce Trading 13) Staff Officer, General Administration Department, Mandalay Division 14) Deputy Director, Posts and Telecommunications,	1) Chairman 2) Member 3) Member 4) Member 5) Member 6) Member 7) Member 8) Member 9) Member 10) Member 11) Member 12) Member 13) Member 14) Secretary



	Mandalay Division 15) Deputy Director, Department of Social Welfare, Mandalay Division	15) Joint-secretary
Mitigation & Establishment of Emergency Shelter	1) Secretary, Peace and Development Council, Mandalay Division 2) Director, Development Affairs, Mandalay Division 3) Head, Dept. of Human Settlement and Housing Development (Division) 4) Head, Relief and Resettlement Department (Division) 5) Deputy Director, Water Resources Utilization 6) Head of Education Department 7) Head, Religious Affairs Department (Division) 8) Joint-Secretary, Union Solidarity and Development Association, Mandalay Division 9) Deputy Head, Health Dept (Division) 10) Assistant Director, General Administration Department 11) Chief Engineer, Electricity Power, Public Works	1) Chairman 2) Member 3) Member 4) Member 5) Member 6) Member 7) Member 8) Member 9) Member 10) Secretary 11) Joint-secretary
Health	1) Head, Health Dept. (Division) 2) Red Cross, Mandalay Division 3) Chairman, Myanmar Medical Association 4) Assistant Director, General Administration Dept. 5) Head of Hospital, General Hospital 6) Deputy Director, Department of Social Welfare (Division) 7) Secretary, Myanmar Women's Affairs Federation 8) Joint-secretary, Myanmar Maternal and Child Welfare Association (Division) 9) Deputy Head, Health Dept. (Division) 10) Myanmar Red Cross Society, Mandalay Division	1) Chairman 2) Member 3) Member 4) Member 5) Member 6) Member 7) Member 8) Member 9) Secretary 10) Joint-secretary
Rehabilitation and Reconstruction	1) Chief Engineer, Public Works (Division) 2) Director, Development Affairs Dept. (Division) 3) Head, Department of Social Welfare (Division) 4) Deputy General Manager, Myanmar Timber Enterprise 5) Divisional Manager, Myanma Agricultural Services 6) Divisional Manager, Myanma Investment and Commercial Bank 7) Head, Settlement and Land Records Dept. 8) Director, Prison Department 9) Head of Hospital, General Hospital 10) Engineer, Electricity Power Department 11) Head of Beverage Factory 12) Secretary, Myanmar Women's Affairs Federation 13) Myanmar Maternal and Child Welfare Association 14) Staff Officer, General Administration Det. 15) Chairmen, Township PDCs 16) Head, Relief and Resettlement Department (Division) 17) Staff Officer, Fire Services Department	1) Chairman 2) Member 3) Member 4) Member 5) Member 6) Member 7) Member 8) Member 9) Member 10) Member 11) Member 12) Member 13) Member 14) Member 15) Members 16) Secretary 17) Joint-secretary
Security	1) Chief, Myanmar Police Force, Mandalay Division 2) Lieutenant Colonel, Central Command 3) Secretary, Union Solidarity and Development	1) Chairman 2) Member 3) Member



	Association, Mandalay Division	
	4) Red Cross, Mandalay Division	4)Member
	5) Head, Fire Services Department (Division)	5)Member
	6) Police Major, Myanmar Police Force, Mandalay	6)Secretary
	7) Police Lieutenant, Myanmar Police Force, Mandalay	7)Joint-secretary

6.1.6 Roles and Responsibility of Disaster Management Committee of Mandalay Division

As mentioned in the Action Plan, the following roles have been identified for the Disaster Management Committee of Mandalay Division:

- i. To perform natural disaster mitigation activities, plans, directives, such as disaster mitigation, preparedness, relief, rehabilitation and resettlement, as assigned by higher authorities.
- ii. To manage local assistance and support for relief, resettlement and reconstruction as well as international aids if and when directed by the Central Committee and the Committee on Ministerial Cooperation in Natural Disaster Management.
- iii. To plan for organizing public education schemes and for participation of general public in natural disaster management.
- iv. To periodically report to the Central Committee and the Committee on Ministerial Cooperation in Natural Disaster Management of the operations of Mandalay Division Natural Disaster Management Committee.
- v. To set up a forecasting and early warning system for natural disaster and to arrange for dissemination of early warnings to the ground level.
- vi. To delegate tasks to agencies and departments concerned depending on the intensity of a hazard.
- vii. To identify responsible persons and agencies and to establish a reporting system.
- viii. To specify roles and responsibilities of each sub-committees and to facilitate their collaboration.
- ix. To report every four months to the Committee on Ministerial Cooperation in Natural Disaster Management on the work progress of Mandalay Division Natural Disaster Management Committee.
- x. To closely monitor and supervise relief and resettlement work.

6.1.7 Compositions of District, Township and Ward/ Village Tract Disaster Management Committees

The Action Plan on Disaster Management of Mandalay Division also spells out the compositions of Disaster Management Committees at the district, township and ward/ village tract levels as per the directions of the Disaster Management Committee of Mandalay Division. At the district level, the structure as per the plan is shown in Table 6.5.



Table 6.5 Composition of District Level Natural DMC, Mandalay Division

No.	Membership	Designation
1.	Chairman, District Peace and Development Council	Chairman
2.	Representative, Central Military Command	Member
3.	Secretary, District Peace and Development Council	Member
4.	Chairman, District Information & Education Sub-committee	Member
5.	Chairman, District Emergency Communication Sub-committee	Member
6.	Chairman, District Information of Losses and Emergence Assistance Sub-committee	Member
7.	Chairman, District Assessment of Losses Sub-committee	Member
8.	Chairman, District Route Clearance & Transportation Sub-committee	Member
9.	Chairman, District Health Sub-committee	Member
10.	Chairman, District Rehabilitation and Reconstruction Sub-committee	Member
11.	Chairman, District Search and Rescue Sub-committee	Member
12.	Chairman, District Security Sub-committee	Member
13.	Representative, Transport Planning Department	Member
14.	Representative, Department of Marine Administration	Member
15.	Representative, Department of Meteorology and Hydrology	Member
16.	Head of Education Department (District)	Member
17.	Head of Fire Services Department (District)	Member
18.	Chairman, District Red Cross	Member
19.	Head, Settlement and Land Records Department (District)	Member
20.	District Manager, Myanma Agriculture Services	Member
21.	Head, Irrigation Department (District)	Member
22.	Representative, Water Resources & Improvement of River Systems Dept.	Member
23.	Representative, Water Resources Utilization Department	Member
24.	Chief Engineer, Public Works (District)	Member
25.	Representative, Myanma Timber Enterprise	Members
26.	Representative, Department of Mines	Member
27.	Representative, Progress of Border Areas and National Races Dept.	Member
28.	Representative, Department of Industrial Supervision & Inspection	Member
29.	Chairmen, Township Peace and Development Councils	Members
30.	Secretary, District Union Solidarity and Development Association	Member
31.	Chairman, War Veterans Association (District)	Member
32.	Member (1), District Peace and Development Council/ Executive Officer, District General Administration Dept./ Chairman, Mitigation and Establishment of Emergency Shelter Sub-committee	Secretary



At the township level, the structure as per the plan is shown in Table 6.6.²⁷

Table 6.6 Composition of Township Level DMC, Mandalay Division

No.	Membership	Designation
1.	Chairman, Township Peace and Development Council	Chairman
2.	Regional Military Commander	Member
3.	Secretary, Township Peace and Development Council	Member
4.	Chairman, Township Information and Education Sub-committee	Member
5.	Chairman, Township Emergency Communication Sub-committee	Member
6.	Chairman, Township Information Losses and Emergence Assistance Sub-committee	Member
7.	Chairman, Township Assessment of Losses Sub-committee	Member
8.	Chairman, Township Route Clearance and Transportation Sub-committee	Member
9.	Chairman, Township Health Sub-committee	Member
10.	Chairman, Township Mitigation and Establishment of Emergency Shelter Sub-committee	Member
11.	Chairman, Township Rehabilitation and Reconstruction Sub-committee	Member
12.	Chairman, Township Security Sub-committee	Member
13.	Representative, Transport Planning Department	Member
14.	Representative, Department of Marine Administration	Member
15.	Head of Education Department (Township)	Member
16.	Representative, Township Red Cross	Member
17.	Staff Officer, Settlement and Land Records Department (Township)	Member
18.	Township Manager, Myanmar Agriculture Services	Member
19.	Staff Officer, Irrigation Department (Township)	Member
20.	Representative, Water Resources & Improvement of River Systems Dept.	Member
21.	Representative, Water Resources Utilization Department	Member
22.	Chief Engineer, Public Works (Township)	Member
23.	Representative, Myanmar Timber Enterprise	Members
24.	Representative, Department of Mines	Member
25.	Executive Officer, Department of Development Affairs (Township)	Member
26.	Representative, Department of Industrial Supervision & Inspection	Member
27.	Head of Electricity Power Department (Township)	Member
28.	Chairmen, Ward/ Village Tract Peace and Development Councils	Member
29.	Secretary, Township Union Solidarity and Development Association	Member
30.	Chairman, War Veterans Association (Township)	Member
31.	Representative, Department of Meteorology and Hydrology	Member
32.	District Chief, Fire Services Department	Secretary

²⁷ The existing structure in Amarapura Township is different from the planned one. There are only 14 members opposed to the 32 members committee mentioned here with 5 sub-committees.



At the ward/ village tract level, the structure as per the plan is shown in Table 6.7

Table 6.7 Composition of Ward/ Village Tract Level DMC, Mandalay Division

No.	Membership	Designation
1.	Chairman, Ward/ Village Tract Peace and Development Council	Chairman
2.	Organizer, Union Solidarity and Development Association	Member
3.	Chief, Auxiliary Fire Brigade	Member
4.	Chief, Red Cross	Member
5.	Chairperson, Myanmar Maternal and Child Welfare Association	Member
6.	Chairperson, Myanmar Women's Affairs Federation	Member
7.	One Representative from the Community	Member
8.	Officer, Ward/ Village Tract Peace and Development Council	Secretary

Reference:

- *Action Plan on Disaster Management of Mandalay Division, dated December 2008.*
- *Visit to Mandalay and discussion with Relief and Resettlement Department officials on 3 February 2009*



6.2 Yangon Division

6.2.1 Introduction

Figure 6.2 Yangon Division



Yangon Division is an administrative division of Myanmar. It is bordered by Bago Division in the north and the east, the Gulf of Mottama in the south, and Ayeyarwady Division in the west. Yangon Division is situated between latitudes 16° 20' north and 17° 50' north and longitudes 95° 45' east and 96° 46' east in the southernmost part of the central plains. The division's area is 3,927.15 square miles. The Coco Archipelago located in the Bay of Bengal is also part of Yangon Division. Yangon Division is the most developed area of the country and the main international gateway. Most of the country's industrial zones are located in this division. At least 14 light industrial zones ring Yangon.

6.2.2 Standing Order on Disaster Preparedness

The Standing Order on Disaster Preparedness is issued with the aim to enable quick and effective action in case of future disasters. It can be achieved only through advance planning involving responsible officials at Division, District, Township, Ward and Village Tract levels. The immediate relief activities, and systematic, speedy reconstruction & rehabilitation activities in the aftermath of a disaster can be achieved only when disaster risk reduction and preparedness action plan is in place and implemented.

The Standing Order has identified following hazards for Yangon Division:

- Fire
- Flood
- Tsunami
- Storm
- Earthquake
- Drought

6.2.3 Yangon Division Disaster Preparedness Management Working Committee

The Yangon Division Disaster Preparedness Management Working Committee [YDDPMWC] is chaired by Chairman, Division Peace & Development Council, Yangon and committee composition is shown in Table 6.8.



Table 6.8 Yangon Division Disaster Preparedness Management Working Committee

Sr. No.	Members	Designation
1	Chairman of Division Peace and Development Council	Chairman
2	Mayor of Yangon City Development Committee	Co-Chairman
3	Deputy Mayor of Yangon City Development Committee	Member
4	Deputy Commander of Yangon Division Military Headquarters	Member
5	Chairman of Yangon City Electricity Distribution Board	Member
6	Brigade Commander of No.(11) Infantry Headquarters	Member
7	Brigade Commander of No.(77) Infantry Headquarters	Member
8	Head of Ayeyarwady Naval Base Headquarters	Member
9	Head of Mingaladon Air Force Base Headquarters	Member
10	Commanders of Cantonments	Member
11	General Staff Colonel of Yangon Division Military Headquarters	Member
12	Military Area Commanders, Yangon Division Military Headquarters	Member
13	General Staff (Grade 1) of Yangon Division Military Headquarters	Member
14	Division Head of Myanmar Police Force	Member
15	Division Head of Planning Department	Member
16	Deputy Chief Engineer of Public Works	Member
17	Director of Department of Development Affairs	Member
18	Division Manager of Myanmar Posts and Telecommunications	Member
19	Division Head of Transport Planning Department	Member
20	Division Manager of Inland Water Transport Department	Member
21	Division Manager of Myanmar Railways	Member
22	Division Head of Department of Health	Member
23	Division Head of Traditional Medicine Department	Member
24	Director of No.(3) Basic Education Department	Member
25	Division Head of Irrigation Department	Member
26	Division Head of Settlement and Land Records Department	Member
27	Division Manager of Myanmar Agriculture Services	Member
28	Division Head of Agriculture Mechanization Department	Member
29	Division Manager of Agricultural Development Bank	Member
30	Division Head of Livestock Breeding and Veterinary Department	Member
31	Division Head of Department of Fisheries	Member
32	Division Head of Information and Public Relation Department	Member
33	Division Head of Fire Services Department	Member
34	Division Head of Department of Social Welfare	Member
35	Division Head, Factories & General Labour Laws Inspection Department	Member
36	Division Head of Directorate of Industrial Supervision and Inspection	Member
37	Chairman, District Peace and Development Council (all)	Member
38	Secretary, Union Solidarity & Development Association, Yangon Division	Member
39	Secretary, Yangon Division Peace and Development Council	Secretary

6.2.4 Roles and Responsibilities

The roles and responsibilities of Yangon Division Disaster Preparedness Management Working Committee are as follows:



- To perform disaster preparedness activities such as mitigation, preparedness, relief activities during disaster, rehabilitation and reconstruction activities
- To make arrangements for public education programmes on DRR, and public participation programmes.
- To make arrangements to establish Forecasting System on disaster and Early Warning System, and to disseminate information to grass root level when early warning is received.
- To delegate departments and organizations based on the magnitude (size) of the disaster.
- To supervise on activities of working committees, and to coordinate among working committees.
- To supervise during disaster period and on relief and rehabilitation activities.

6.2.5 Disaster Preparedness Management Committee at sub-Division levels

Disaster Preparedness Management Committees are constituted at District, Township and Ward/Village Tract levels. There are 4 districts in Yangon Division and composition of the District Disaster Preparedness Management Committees is shown in Table 6.9

Table 6.9 District Disaster Preparedness Management Committee

No.	Member	Designation
1	Chairman, District Peace & Development Council	Chairman
2	District Police Officer, Myanmar Police Force	Member
3	District Education Officer, Dept of Education	Member
4	District Engineer, Public Works	Member
5	District Executive Officer, Yangon City Electricity Distribution Board	Member
6	District Health Officer, Dept of Health	Member
7	District Officer, Fire Services Department	Member
8	District Officer, Immigration and National Registration Department	Member
9	District Executive Officer, Yangon City Development Council	Member
10	District Officer, Information & Public Relation Department	Member
11	Secretary, District Union Solidarity and Development Association	Member
12	District Transportation Supervision Committee	Member
13	District Head, Red Cross Society	Member
14	District Officer, Forest Dept	Member
15	Chairman TDPC (All)	Member
16	Secretary, Peace & Development Council	Secretary

The composition of Township Disaster Preparedness Management Committees is shown in Table 6.10.

Table 6.10 Township Disaster Preparedness Management Committee

No.	Member	Designation
1	Chairman, Township Peace & Development Council	Chairman
2	Township Police Officer, Myanmar Police Force	Member
3	Township Education Officer, Dept of Education	Member
4	District Engineer, Public Works	Member
5	Township Executive Officer, Yangon City Electricity Distribution Board	Member
6	Township Health Officer, Dept of Health	Member



7	Township Officer, Fire Services Department	Member
8	Township Officer, Immigration and National Registration Department	Member
9	Township Executive Officer, Yangon City Development Council	Member
10	Township Officer, Information & Public Relation Department	Member
11	Secretary, Township Union Solidarity and Development Association	Member
12	District Transportation Supervision Committee	Member
13	Head of Red Cross Company, Township Red Cross Society	Member
14	Secretary, Peace & Development Council	Secretary

The composition of Ward/Village Tract Disaster Preparedness Management Committees is shown in Table 6.11.

Table 6.11 **Ward/Village Tract Disaster Preparedness Management Committee**

Sr. No.	Member	Designation
1	Chairman, Ward/Village Tract Township Peace & Development Council	Chairman
2	Ward/Village Tract Organizer, Union Solidarity and Development Association	Member
3	Head, 100 Houses	Member
4	Representative from Auxiliary Fire Brigade	Member
5	Representative from Red Cross Society	Member
6	Secretary, Ward/Village Tract Peace & Development Council	Secretary

6.2.6 Constitution of Working Committees

Ten Working Committees have been constituted under the Yangon Division Disaster Preparedness Management Working Committee. The composition and roles & responsibilities of each working committee are as follows:

Table 6.12 **Information & Education Working Committee**

Sr. No.	Members	Designation
1	Division Head of Information and Public Relations Department	Chairman
2	One Representative from No.(3) Basic Education Department	Member
3	Deputy Chief Engineer of Public Works	Member
4	Division Head of Department of Health	Member
5	Division Head of Fire Services Department	Member
6	The person assigned by Chairman	Secretary

Roles & responsibilities:

- To educate public on disaster for better preparedness
- To disseminate information quickly before, during & after disaster and to release news only after review
- To report, at the earliest, regarding site of disaster occurrence and possible situation for disasters which can be forecasted
- To educate regarding health care, information and education activities at various level

Table 6.13 **Emergency Communication Working Committee**

Sr. No.	Members	Designation
1	Division Manager of Myanmar Posts and Telecommunications	Chairman
2	Division Head of Transport Planning Department	Member



3	Representative from Department of Meteorology and Hydrology	Member
4	One Representative from Army (Regional)	Member
5	One Representative from Myanmar Police Force (Regional)	Member
6	Person assigned by Chairman	Secretary

Roles & responsibilities:

- To practice Emergency Communication System
- To maintain a list of contact numbers (telephone, fax and mobile) of responsible officers of division, district and township Management Committees who may be contacted in case of emergency
- On receipt of early warning, to disseminate information immediately
- To carry out horizontal and vertical supervision of communication system

Table 6.14 Search and Rescue Working Committee

Sr. No.	Members	Designation
1	Division Head of Fire Services Department	Chairman
2	One Representative from Army (Regional)	Member
3	Division Head of Transport Planning Department	Member
4	Divisional Head, Immigration & National Registration Department	Member
5	Deputy Chief Engineer of Public Works, Yangon Division	Member
6	Representative, General Administration Department, Yangon Division	Member
7	Non-Government Organizations	Member
8	Person assigned by Chairman	Secretary

Roles & responsibilities:

- To collect data on population of affected area for search & rescue purpose
- To constitute search & rescue teams & arrange vehicles by region and delegate duties related to the deployment of the teams and vehicles to hazard prone regions

Table 6.15 Information of Losses and Emergence Assistance Working Committee

Sr. No.	Members	Designation
1	Division Head of Department of Social Welfare	Chairman
2	Division Head of Myanma Agriculture Services	Member
3	Division Head of Irrigation Department	Member
4	Division Head of Livestock Breeding and Veterinary Department	Member
5	Division Head of Department of Health	Member
6	Division Head of Transport Planning Department	Member
7	One Representative from General Administration Department, Yangon Division	Member
8	One Representative from Myanmar Police Force (Regional)	Member
9	One Representative from Myanmar Rice Traders' Association	Member
10	One Representative from Myanmar Oil Traders' Association	Member
11	One Representative from Non-Government Organizations	Member
12	The person assigned by Chairman	Secretary

Roles & responsibilities:

- To estimate damage and losses in affected areas based on photographs, video, field data, etc
- To make arrangement for readily availability of relief materials and mobilization arrangement for them



- To coordinate with authorities, security forces and police forces for systematic distribution of emergency relief materials
- To form distribution team for systematic distribution of relief materials at township, ward/village tracts.
- To check availability of drinking water, water for other purpose, fuel and emergency drugs and other needs
- To collect and report on death tolls, damage and losses and assist in other social activities

Table 6.16 Assessment of Losses Working Committee

Sr. No.	Members	Designation
1	Division Head of Planning Department	Chairman
2	Deputy Chief Engineer of Public Works	Member
3	Division Manager of Myanmar Agriculture Services	Member
4	Division Head of Irrigation Department	Member
5	Division Head of Immigration and National Registration Department	Member
6	Representative, General Administration Department, Yangon Division	Member
7	Person assigned by Chairman	Secretary

Roles & responsibilities:

- To verify data related to death tolls, damage & loss
- To estimate, calculate and verify data on requirement of relief and rehabilitation activities
- To keep record of damage such as farms flooded by salt water, fishery industry and related facilities

Table 6.17 Route Clearance and Transportation Working Committee

Sr. No.	Members	Designation
1	Division Head of Transport Planning Department	Chairman
2	Division Merchandising Officer, Myanmar Petroleum Product Enterprise	Member
3	Deputy Chief Engineer of Public Works	Member
4	Division Manager of Myanmar Posts and Telecommunications	Member
5	Division Head of Department of Social Welfare	Member
6	Representative, General Administration Department, Yangon Division	Member
7	One Representative from Myanmar Police Force (Regional)	Member
8	The person assigned by Chairman	Secretary

Roles & responsibilities:

- To carry out arrangement of vehicles, boats, machinery and transportation
- To plan alternative routes if roads and bridges are damaged or under renovation/repair
- To report on the condition of roads
- To make arrangement for fuel
- To report and coordinate for taking action against those who refused to provide vehicle for disaster management
- To establish stop and report stations along the roads and keep communication system



- To get the list of places where relief including food materials are to be distributed and to have supervisory team and police forces for protection
- To ensure availability of machinery, vehicles/trucks for water, fuel and ambulance
- To make administrative arrangement in advance for transportation and route clearance

Table 6.18 Mitigation and Establishment of Emergency Shelter Working Committee

Sr. No.	Members	Designation
1	Director of Development Affairs Department, Yangon Division	Chairman
2	Executive Engineer of Public Works, Yangon Division	Member
3	Assistant Director of General Administration Department, Yangon Division	Member
4	Division Head of Department of Social Welfare	Member
5	Division Manager of Myanmar Agriculture Services	Member
6	Division Head of Department of Health	Member
7	The person assigned by Chairman	Secretary

Roles & responsibilities:

- To identify risk mitigation activities
- To identify safe locations/buildings to be used as emergency shelter, in case disaster hits

Table 6.19 Health Working Committee

Sr. No.	Members	Designation
1	Divisional Head of Department of Health	Chairman
2	Divisional Head of Department of Traditional Medicine	Member
3	One Representative from Myanmar Red Cross Society	Member
4	Representative, General Administration Department, Yangon Division	Member
5	Division Head of Department of Social Welfare	Member
6	One Representative from NGOs concerned with Health Sector	Member
7	The person assigned by Chairman	Secretary

Roles & responsibilities:

- To prepare Action Plan for emergency health care
- To prepare for setting up emergency hospitals and clinics
- To prepare plans for the collection, storage and distribution of necessary medicines
- To prepare for prevention of epidemics

Table 6.20 Rehabilitation and Reconstruction Working Committee

Sr. No.	Members	Designation
1	Division Head of Department of Social Welfare	Chairman
2	Deputy Chief Engineer of Public Works, Yangon Division	Member
3	Division Head of Planning Department	Member
4	Division Manager of Myanmar Agriculture Services	Member
5	Division Head of Irrigation Department	Member
6	Division Head of Department of Health	Member
7	Director of Development Affairs Department, Yangon Division	Member
8	Representative, General Administration Department, Yangon Division	Member
9	The person assigned by Chairman	Secretary



Roles & responsibilities:

- To collect data on damage and loss
- To carry out debris disposal and relief activities
- To coordinate for reconstruction, education, health, agriculture and other rehabilitation activities
- To draw emergency plan and establish early warning for vulnerable factories, plant, building, roads, bridges, etc.

Table 6.21 Security Working Committee

Sr. No.	Members	Designation
1	Division Commander of Myanmar Police Force	Chairman
2	Assistant Director, General Administration Dept, Yangon Division	Member
3	Township Police Head of Myanmar Police Force (Regional)	Member
4	Secretary, Union Solidarity & Development Association, Yangon Division	Member
5	Person assigned by Chairman	Secretary

Roles & responsibilities:

- To make security arrangement for affected area
- To draw action plan on security
- To report to higher authorities, if disaster hits

6.2.7 Disaster Management Activities in three phases

The disaster preparedness activities before disaster, activities during disaster and relief and rehabilitation activities after disaster are as follows:

Before Disaster

- To disseminate weather forecast to local people
- To use mass media for educating public on disaster preparedness
- In association with Transport Ministry, to monitor the water ways regarding flooding
- To constitute emergency rescue team, to give necessary training and stock necessary tools and equipment
- To make necessary arrangement in advance for communication, transportation and health
- To develop posters for warning, distribute pamphlets to educate public in disaster prone areas
- To mark danger level at river bank and dams, which can be easily noticed
- To identify safer sites (higher locations) which work as evacuation centre for human, animals and materials
- As soon as warning is received from Department of Meteorology and Hydrology, to inform up to Ward and Village Tract levels by local authority



- To collect data related to population, household, etc which are located in coastal areas or near the river banks
- To construct important buildings only in safe locations

During Disaster

- To collect information/data by concerned authorities on disaster situation, damage & losses, homeless people, and report to higher authorities
- To mobilize Auxiliary Fire Force, Red Cross, USDA, etc
- To set-up relief camp for food and security
- To disseminate daily weather report of DMH to the concerned people periodically
- To check the danger level of rivers, dams, reservoirs, etc and repair them with cooperation of the public
- In case of disruption to electric supply and communication network, to coordinate with the concerned departments for restoration
- To assign security to Myanmar Police Force for buildings, materials, etc left by affected people

After Disaster:

- To verify data on damage and loss of population, houses, households, etc affected by disasters and report to higher authorities
- To arrange food, security, health facilities and rehabilitation for affected people
- To coordinate with Department of Health and carry out sanitation activities, pure water, epidemic prevention, etc
- To collect data of affected houses, farm lands, fishery, and arrange for speedy rehabilitation
- To reconstruct Schools and Monasteries in coordination with concerned departments

Reference:

Standing Order on Disaster Preparedness, Yangon Division Peace and Development Council, 4th November 2008



CHAPTER 7

INSTITUTIONAL ARRANGEMENTS AT DISTRICT LEVEL

7.1 Introduction to Labutta District, Ayeyarwady Division

The Labutta district is located in the southernmost part of Ayeyarwady Division and covers a total area of 2,136.90 square miles. It is a relatively new district and comprises two townships and two sub-townships. The total population is 767,731. Labutta District is surrounded by Pyapon District in the east, the Bay of Bengal and Patheingyi District in the west, Myaungmya District in the north and the Bay of Bengal in the south.

7.1.1 Composition of Labutta District Disaster Preparedness Management Committee

The 15-member District Disaster Preparedness Management Committee (DDPMC) of Labutta is constituted under the chair of Peace & Development Council. The composition is shown in Table 7.1.

Table 7.1 Composition of District DPMC, Labutta

Sr. No.	Members	Designation
1	Chairman, District Peace and Development Council	Chairman
2	District Police Officer, Myanmar Police Force	Member
3	District Engineer, Public Works	Member
4	Staff Officer, Irrigation Department	Member
5	District Manager, Myanmar Agriculture Services	Member
6	District Engineer, Electric Power Enterprise	Member
7	District Officer, Department of Health	Member
8	Executive Officer, Department of Development Affairs	Member
9	Staff Officer, Myanmar Posts and Telecommunications	Member
10	Staff Officer, Forest Department	Member
11	District Education Officer, Department of Education	Member
12	District Manager, Myanmar Agricultural Produce Trading	Member
13	Chairman, Supervision Committee for Transportation	Member
14	Chairman, Township/Sub-Township Peace & Development Council	Member
15	Secretary, District Peace and Development Council	Secretary

7.1.2 Roles and responsibilities

The roles and responsibilities of the District Disaster Preparedness Management Committee are as follows:

- To formulate Action Plan on Disaster Preparedness Activities in advance
- To identify shelter for disaster period in advance and to collect, assess and confirm data on disaster victims, and loss and damage
- If it is necessary, to issue directives/decrees to ensure law and order restoration during the disaster



- To coordinate with other partner organizations in the wards and village tracts after the disaster
- To make arrangement for provision of relief materials to the disaster affected areas
- To review the affected areas in line with procedures, and resettle them with the approval of the higher authorities,
- To prepare and submit a disaster report in line with procedures, and to make an assessment of and report on weaknesses and strengthes.

7.1.3 Roles & responsibilities of Working Committees

Fourteen Working Committees based on specific tasks have been constituted to facilitate DDPC in discharging its duties. The composition of working committees along with roles and responsibilities are as follows:

Table 7.2 Information Collection Working Committee, Labutta District

Sr. No.	Member	Designation
1	District Police Officer of Myanmar Police Force	Chairman
2	District Education Officer of District Education Department	Member
3	Chairman of Township Peace and Development Council concerned	Member
4	Staff Officer of District Information & Public Relation Department	Member
5	District Officer of District Immigration & National Registration Department	Member
6	Officer of District Information Brigade, Myanmar Police Force	Secretary

Roles and responsibilities:

- Getting information/data/forecast through daily news from DMH and other local and foreign sources
- To give order for temporary closure of public places, when disaster alert is received
- When a disaster breaks out, to get information immediately and report to higher authorities through telephone, telegram and in person
- After disaster, to get information on damage and loss from local authorities, government departments and other related organizations.

Table 7.3 Information Dissemination Working Committee, Labutta District

Sr. No.	Member	Designation
1	District Law Officer of District Attorney General Office	Chairman
2	Staff Officer of Myanma Posts & Telecommunications	Member
3	Staff Officer of District Sports & Physical Education Department	Member
4	Chairman of Township/Sub-Township of Peace & Development Council	Member
5	Staff Officer of Information & Public Relation Department	Secretary

Roles and responsibilities:



- To educate public on disaster preparedness through various means, and to coordinate with other departments in the townships if required
- To perform public awareness programmes
- To request and report the delivery of relief materials
- To make timely reports to departments concerned about the occurrence and situation of the disaster, and release information after verification
- To inform the public in disaster prone areas on the do's and don'ts
- To provide reading materials for libraries in Wards and Village Tracts
- To conduct drills on the use of the emergency communication system
- To provide training on the use of the communication facilities
- To maintain an emergency contact list (phone, fax, mobile)
- To compile damage and loss data systematically
- To give prompt instructions to subordinates for disaster preparedness
- To report on disaster occurrence and action taken according to the instructions of higher authorities

Table 7.4 Communication Working Committee, Labutta District

Sr. No.	Member	Designation
1	Staff Officer of Myanma Posts & Telecommunications	Chairman
2	Chairman of Township/Sub-Township (all)	Member
3	Staff Officer of Myanma Posts and Telecommunications (Post Office)	Member
4	Executive Officer of Development Affair Department	Member
5	Staff Officer of Fire Services Department	Secretary

Roles and responsibilities:

- To maintain and upgrade the telecommunication facilities including access of CDMA at the village level
- To disconnect telecommunication facilities temporarily during disasters to prevent damage, if required
- To have lists of communication facilities in each ward/village, and build suitable communication lines where there are no communication facilities
- To help wards/villages use iron rods/hand-phones as emergency alarms
- To re-connect the telecommunication facilities as soon as a disaster is over

Table 7.5 Transportation Working Committee, Labutta District

Sr. No.	Member	Designation
1	District Police Officer of Myanmar Police Force	Chairman
2	Manager of Inland Water Transport	Member
3	Traffic Control Unit	Member
4	Staff Officer of District General Administration Department	Member
5	Chairman of Township/Sub-Township Peace & Development Council	Member
6	Chairman of District Supervision Committee for Transportation	Secretary

Roles and responsibilities:



- To maintain a list of vehicles by type and to form teams of vehicle based on types of vehicle and on region. Also ensure that vehicles reach the disaster sites in time
- To maintain a list of sufficiently deep waterways in rivers, approach ways and harbors
- To identify and make a list of places to be used as heli-pads
- To identify the meeting stations, stop-stations, and place for reporting along the path of relief activities
- Formation of supervisory teams and security teams for relief vehicles
- Arrangements of vehicles, machinery and fuel to be used for relief activities
- Arrangements for clearing ways and transportation
- To issue decrees for taking action on those against arrangement for vehicles
- In case disaster hits, to arrange necessary vehicles immediately in line with the instruction
- After disaster, to arrange vehicles for rehabilitation activities as per instructions of the higher authorities

Table 7.6 Relief and Resettlement Working Committee, Labutta District

Sr. No.	Member	Designation
1	Engineer, Public Works	Chairman
2	District Engineer, Myanma Electric Power Enterprise	Member
3	Staff Officer, Myanma Posts & Telecommunications	Member
4	Staff Officer, District Planning Department	Member
5	Manager, Myanma Petroleum Product Trade Enterprise	Member
6	Secretary, District Union Solidarity and Development Association	Member
7	District Staff Officer, District Health Department	Member
8	Chairman, Township/ Sub-Township Peace and Development Council	Member
9	Staff Officer, Fire Services Department	Secretary

Roles and responsibilities:

- To collect data on population in the region, to study offshore islands, flood plains and low lands and identify shelter places to be used by the community for life saving and food
- To form relief teams and conduct drills
- To form vehicle teams and assign duties in advance
- To give trainings and provide necessary tools for systematic rescue of victims
- To ensure availability of emergency machines, tools, and conduct drills on mobilization
- Based on ground information, to collect data on damage and loss
- To prepare for immediate supply of relief materials
- To prepare and coordinate to ensure the effective distribution system of relief materials



- To collect and report data on death toll, damage and loss
- To make arrangements in advance for emergency treatment, cremation, and family restoration activities
- To carry out debris clearance and rescue work
- To identify suitable places for relief camps and maintain records on them
- To assign duties to NGOs (Red Cross, Auxiliary Fire Brigade, USDA, Veteran Association, etc.) to ensure effective use of their resources

Table 7.7 Emergency Relief Working Committee, Labutta District

Sr. No.	Member	Designation
1	Deputy Director, District Planning Department	Chairman
2	Staff Officer, District Irrigation Department	Member
3	District Engineer, District Public Works	Member
4	District Electrical Engineer, District Electric Power Enterprise	Member
5	District Manager, Myanmar Agriculture Services	Member
6	District Staff Officer, District Settlement and Land Records Department	Member
7	Staff Officer, Myanmar Posts and Telecommunications	Member
8	District Staff Officer, District Transport Planning Department	Member
9	District Manager, Myanmar Petroleum Product Enterprise	Member
10	Secretary, District Union Solidarity and Development Association	Member
11	District Staff Officer, District Health Department	Member
12	District Staff Officer, District Fire Services Department	Member
13	Staff Office, District Planning Department	Secretary

Roles and responsibilities:

- To collect data on damage and loss from ground information
- To plan for immediate supply of relief materials
- To plan and coordinate for effective distribution system of relief materials
- To collect and report data on death toll, damage and loss
- To make arrangements in advance for emergency treatment, cremation, and family restoration activities
- To carry out debris clearance and rescue work
- To keep record of suitable places for relief camps
- To assign duties to NGOs (Red Cross, Auxiliary Fire Brigade, USDA, War Veterans' Organization, etc.) to ensure effective use of their resources.

Table 7.8 Health Working Committee, Labutta District

Sr. No.	Member	Designation
1	District Staff Officer of District Health Department	Chairman
2	District Staff Officer of District Traditional Medicine Department	Member
3	Chairman of Township/Sub-Township Peace and Development Council (all)	Member
4	District Staff Officer of Veterinary Department	Member
5	Executive Officer of District Development Affairs	Member
6	Commander of District Myanmar Red Cross Society	Secretary



Roles and responsibilities:

- To form emergency mobile health teams, to conduct drills and to collect medicines
- To prepare hazard maps based on past disasters
- To take into account environmental sanitation, pure water availability and use of latrines
- To make arrangement on hospitals, clinics, medicines and staff
- To arrange vehicles, ambulance, facilities for patient transfer
- To coordinate with health staff and volunteers
- To conduct First Aid training
- To prepare for epidemic & diseases control, pure drinking water
- To coordinate with Department of Health and skilled agencies for life saving activities
- To set up Emergency Relief Camps for medical treatment
- To prepare and maintain data on death toll, injured, and in-patients
- To educate people on disease control, personal hygiene, and health
- To give psycho-social care, immunization if necessary
- To distribute drinking water, to arrange waste and garbage systems, prevention for epidemics, extermination of insects, rats and snakes, to educate on the prevention of drowning, to evacuate the animals to a safe place.

Table 7.9 Education Working Committee, Labutta District

Sr. No.	Member	Designation
1	District Education Officer of District Education Officer	Chairman
2	Headmaster of Relevant High/ Middle/ Primary School	Member
3	Engineer of District Public Works	Member
4	Relevant Township/Sub-Township Peace and Development Council	Member
5	Deputy Education Officer of District Education Department	Secretary

Roles and responsibilities

- To educate students on disasters during school assembly
- To create awareness among students on Do's and Don'ts through signboards
- To educate the students comprehensively on how to behave during disaster, to find safe shelter, and to report
- To make temporary teaching arrangements in the aftermath of the disaster
- To post relief and life-saving information at the easily seen locations in schools
- To close schools temporarily during disaster

- To instruct students/teachers not to take shelter in old buildings and under big trees during disaster
- To maintain records on damage, reports and photographs
- To report to higher authorities and obtain assistance for affected students
- To reconstruct/repair the damaged buildings
- To rehabilitate the education activities as per the instructions of the higher authorities
- To assist in arranging shelter

Table 7.10 Establishment of Emergency Shelter Working Committee, Labutta District

Sr. No.	Member	Designation
1	Executive Officer of District Development Affairs Department	Chairman
2	District Manager of District Agriculture Services	Member
3	Secretary of District Union Solidarity and Development Association	Member
4	District Officer of District Health Department	Member
5	District Officer of Fire Services Department	Member
6	Staff Officer of District Co-operative Department	Secretary

Roles and responsibilities

- To create and maintain a database on disaster preparedness, and management
- To prepare likely scenarios in the event of a disaster and prepare a plan for mitigation accordingly
- To forecast post-disaster situation based on assumptions

Table 7.11 Rehabilitation & Reconstruction Working Committee, Labutta District

Sr. No.	Member	Designation
Re-plantation Working Committee		
1	District Manager of Myanmar Agriculture Services	Chairman
2	District Staff Officer of District Settlement and Land Records Department	Member
3	Staff Officer of Irrigation Department	Member
4	District Manager of Myanmar Agriculture Produce Trading	Member
5	District Manager of Myanmar Agricultural Bank	Member
6	Chairman of Township/ Sub-Township Peace and Development Council	Member
7	Staff Officer of District Agricultural Mechanization Department	Secretary
Repair of Roads and Bridges Working Committee		
1	Member of District Peace and Development Council	Chairman
2	District staff Officer of District Forest Department	Member
3	Manager of Myanmar Timber Enterprise	Member
4	Staff Officer of District General Administration Department	Member
5	Engineer of District Development Affairs Department	Member
6	Chairman of Township/Sub-Township Peace and Development Council (all)	Member
7	Engineer of District Public Works	Secretary



Roles & responsibilities:

- To collection information on crops including paddy affected by floods
- To collect information on animals and agricultural equipments
- To clean fields flooded by saline water
- To prepare action plan for re-plantation
- To distribute seeds, saplings, pesticides, fertilizers
- To replant paddy on a priority basis
- To provide assistance in ploughing
- To provide required human resources, disinfectants and machinery to prevent pest attack
- To drain out water from the field
- To make arrangement for immunization of animals and give treatment
- To maintain record of roads based on its type and repair the damaged part
- For temporary repair, sand and stones may be used
- Ready-mixed tar may be used for repairs
- In case of any damage, immediately inform the ministry concerned

Table 7.12 Food Provision Working Committee, Labutta District

Sr. No.	Member	Designation
1	Executive Officer of District Development Affairs Department	Chairman
2	District Manager of Myanma Agriculture Services	Member
3	Staff Officer of Internal Revenue Department	Member
4	Staff Officer of District General Administration Department	Member
5	District Manager of Myanmar Agriculture Produce Trading	Member
6	Chairman, Rice Traders' Association	Member
7	Town-elders	Member
8	Chairman of Transport Co-ordination Committee	Secretary

Roles & responsibilities:

- To prepare a list of donors and make necessary arrangement for food in advance
- To make arrangement for food, medicine and drinking water
- To estimate food requirement and distance to be covered for distribution
- To rehabilitate the affected areas and collect data on damage and losses

Table 7.13 Assessment of Losses Working Committee, Labutta District

Sr. No.	Member	Designation
1	Deputy Director of District Planning Department	Chairman
2	Staff Officer of District Irrigation Department	Member
3	Engineer of District Public Works	Member
4	District Staff Officer of Immigration & National Registration Department	Member
5	Staff Officer of Internal Revenue Department	Member
6	Staff Officer of District Planning Department	Secretary



Roles and responsibilities:

- To compile data on the loss and damage caused by past disasters in order to generate data on probable impact of disaster in the township
- When disaster hits, to collect data and information on the cause of disaster, death toll, homeless households, damaged buildings, infrastructure, boats, shipyards, and to assist in the field visit of sub-committee of the central committee
- To collect actual data on death toll by conducting field survey
- To collect actual data on damaged schools, hospitals, buildings by conducting field survey
- To collect actual data on electricity, communication facilities, factories and productive resources by conducting field survey
- To calculate and report on repair and reconstruction of infrastructure by professionals
- To calculate and report for re-plantation of crops damaged by flood
- To collect data on the flooding of farmland, damage by saline water, pests, etc. and report on the requirements for mid-term and long-term rehabilitation.

Table 7.14 Relief Materials and Fund Working Committee, Labutta District

Sr. No.	Member	Designation
1	Staff Officer of District Revenue Department	Chairman
2	Commander of District Red Cross Society	Member
3	Staff Officer of District General Administration Department	Member
4	Secretary of District Union Solidarity and Development Association	Member
5	Chairman of Township/ Sub-Township PDC	Member
6	Staff Officer of Internal Revenue Department	Secretary

Roles and responsibilities:

- To request 6 relief materials from Ministry of Social Welfare, Relief and Resettlement and receive them systematically
- To receive donations (fund and materials) from the local people, NGOs and Army, and keep records systematically
- In case of assistance received from foreign NGOs and contacts, inform the higher authorities for approval
- To prevent wastage and misuse of funds and donated relief materials
- To prepare for account clearance after distribution.

Table 7.15 Security Working Committee, Labutta District

Sr. No.	Member	Designation
1	District Police Officer of Myanmar Police Force	Chairman
2	District Staff Officer of District Fire Services Department	Member
3	Commander of District Red Cross	Member
4	Chairman of Township/ Sub-Township Peace and Development Council	Member
5	Deputy Police Officer of District Police Office	Secretary



Roles & responsibilities:

- To organize mock drills for systematic security response in disaster period
- To organize teams in advance with the involvement of other organizations including NGOs
- To prepare a contingency plan for emergency period
- To take instructions from higher authority in case of emergency
- To have tight security to prevent robbery and crime.

7.1.4 Administration

The salient features of the administrative arrangement are as follows:

- State Peace and Development Council, Ministry of Social Welfare, Relief & Resettlement and Ministry of Information should be informed.
- District Disaster Preparedness Committee shall work as directed by the higher authorities.
- The financial assistance shall be accepted after the permission has been obtained from National level.
- DDPC delegates its functions to the working committee for smooth discharge of the duty.
- DDPC monitors and directs the activities of the Township Disaster Preparedness Committee.

Reference:

- Standing Order, District level Disaster Management Arrangement, 1st October 2008
- Discussion with the Chairman, District Disaster Preparedness Committee, Labutta District on 15th January 2009
- Discussion with UNOCHA Hub Office, Labutta on 15th January 2009



7.2 Pyapon District, Ayeyarwady Division

7.2.1 Introduction to Pyapon District

The Pyapon district is an economic hub as it has good agriculture, large forest and fishing and prawn business. It comprises 4 townships, namely Pyapon, Dedaye, Bogale and Kyaik Lat, 39 wards, 300 Village Tracts and 1518 villages. Its population is 913,697 and total number of households is 186,300. It is situated 8.2 feet above the sea level and receives an average annual rainfall of 2965 mm. The Standing Order is prepared to take action systematically and in a planned manner in case of disaster such as heavy rain, storm and storm surge.

7.2.2 Objective & Strategy

Pyapon is prone to fire, storm, flood, storm surge and hence, a well-planned and systematic approach for action during disaster is important. It is also required that Central committee and working-committees should strictly follow their assigned roles and responsibilities.

The strategies are as follows:

- Constitution of District Disaster Preparedness Central Committee
- Constitution of Working Committees
- Activities to be performed before disaster
- Activities to be performed during disaster
- Activities to be performed after disaster

7.2.3 Composition of Pyapon District Disaster Preparedness Central Committee

The 14-member District Disaster Preparedness Central Committee (DDPCC) of Pyapon district has been constituted under the chair of Peace & Development Council, Pyapon district. The composition of committee is shown in Table 7.16.

Table 7.16 Composition of DDPCC, Pyapon District

Sr. No.	Members	Designation
1	Chairman, District Peace and Development Council	Chairman
2	District Police Officer, Myanmar Police Force	Member
3	Executive Engineer, District Public Works	Member
4	Staff Officer, District Irrigation Department	Member
5	District Manager, Myanma Agriculture Services	Member
6	District Engineer, Myanma Electric Power Enterprise	Member
7	District Officer, Department of Health	Member
8	District Executive Officer, Development Affairs Department	Member
9	Manager, Myanma Posts and Telecommunications	Member
10	District Officer, Forest Department	Member
11	District Education Officer, Department of Education	Member
12	District Manager, Myanma Agriculture Produce Trading	Member
13	District Officer, Transport Planning Department	Member
14	Secretary, District Peace and Development Council	Secretary



7.2.4 Roles and Responsibilities

The roles and responsibilities of the District Disaster Preparedness Central Committee have been divided into three categories: before, during and after disasters, as follows:

Before disaster

- To disseminate early warning received from television, the Internet, radio and newspaper to the grassroots level
- Arrangement for growing of shady trees and mangrove
- To develop mounds and hillocks in proportion to the population
- Try to have RCC buildings (two buildings for accommodating 100 people while five buildings for 200 people), also to have RCC school buildings, monasteries
- To give directions and supervise to have pure drinking water, go-downs for paddy & rice and food & drugs for humans and livestock
- Ensure to have life-saving equipments (Lifejackets, etc) in boats and houses in proportionate to the population
- To constitute Team of local people in advance
- To arrange sand bags, bamboos, bamboo partition sheet, plastic bags, etc in the dam area
- To arrange educational programs, workshops and drills for public and responsible persons of various committee
- To arrange sufficient vehicles for Village Tracts and Wards
- To arrange loud speakers, generators, torch, etc and identify open areas & play-grounds
- To constitute Working committees and draw detailed action plan of the committees
- To setup a network to disseminate/update information promptly
- In proportionate to the population, to organize Information, Education and Communication [IEC] campaign on preparedness
- To ensure timely early warning dissemination to the community
- Evacuation shelter shall be identified and kept in the state of readiness.
- The data related to disaster shall be collected and updated regularly

During-disaster

- To evacuate children, elderly people and other public, cooperative and private properties on a priority basis and provide security for them.
- To supervise the rescue by teams constituted before disasters and provide facilities (public address system)



- To ensure security for important areas, depute watchmen and conduct regular checks, and make necessary restrictions
- To make arrangements for meeting stations, temporary shelters and arrange evacuation by vehicles or on foot
- To make a photographic and video record of disasters

After-disaster

- To collect data, record and estimate damage and losses
- Distribution of relief materials at relief camps and construction material
- To control epidemic and to manage for availability of pure drinking water and sanitation
- Rehabilitation and reconstruction of damaged building and crops
- For newly constructed village, establish model village having 20 feet wide streets, gutters along the road, fences, latrines and vegetable patches (Kitchen garden) in houses
- To take steps so that agriculture area is not reduced
- To enhance the regional development works
- To review the risk reduction/mitigation activities and strategies may be modified
- To coordinate among the working committees
- To work systematically and maintain records of relief distribution and donation systematically for audit purposes
- To make arrangement for implementation of directions from higher authorities

7.2.5 Working Committees

As per the Standing Order, 13 Working Committees have been constituted to perform specific tasks. The composition of committee along with roles and responsibilities are as follows.

Table 7.17 Information Collection Working Committee, Pyapon District

Sr. No.	Member	Designation
1	District Police Officer of Myanmar Police Force	Chairman
2	Secretary of District Union Solidarity & Development Association	Member
3	Responsible Person, Information Unit, Myanmar Police Force	Member
4	Executive Officer, Development Affairs Department	Member
5	District Education Officer, Department of Education	Member
6	District Officer, Immigration & National Registration Department	Member
7	Chairman, District Video Association	Member
8	Responsible person from Bureau of Special Investigation	Member
9	Staff Officer, District Information & Public Relation Department	Secretary



Roles and responsibilities:

Before Disaster

- To collect disaster related information and disseminate to grass root-level through the existing information dissemination network.
- To report regularly to the higher authority
- To report to the Central Committee by the Working Groups concerned
- To report on disaster preparedness to the Central Committee

During Disaster

- To report on magnitude of disaster, damage & losses and existing capacity to the Central Committee
- To arrange temporary shelter for the affected people and disseminate information to public

After Disaster

- To collect data to estimate damage and losses
- To collect information on people staying at relief camps
- To report regarding illegal foreigners and other persons or organizations
- To collect information on distribution of relief materials
- To report on the status of health facilities for affected people
- To collect information regarding orphans and make arrangement for them
- To report on rehabilitation
- To carryout tasks as assigned by the higher authorities

Table 7.18 Information Dissemination Working Committee, Pyapon District

Sr. No.	Member	Designation
1	District Law Officer, District Attorney General Office	Chairman
2	Staff Officer, Myanmar Posts & Telecommunication	Member
3	Staff Officer, District Sports & Physical Education Department	Member
4	Staff Officer, Information & Public Relation Department	Secretary

Roles and responsibilities:

Before disaster

- To coordinate with other working committees and township authorities, if required, to disseminate information to the public
- Issue and inform guidelines to the public
- The libraries may be consulted to collect information
- To organize mock drill for emergency response
- To organize training programs on disaster preparedness
- To maintain records and keep communication systems in order

During Disaster

- To send information for obtaining shelter as practiced in mock drills



After Disaster

- To share the approved information with the departments concerned
- To disseminate Do's and Don'ts to the affected people
- To enhance awareness on the rules and regulations related to receiving assistance and work to give comfort to the affected people

Table 7.19 Communication Working Committee, Pyapon District

Sr. No.	Member	Designation
1	Responsible Persons(District) Myanmar Posts & Telecommunications	Chairman
2	Deputy Police Major, Myanmar Police Force	Member
3	District Officer, Transport Planning Department	Secretary

Roles and responsibilities:

Before Disaster

- To have emergency communication system in place and conduct drills
- To impart training on the usage of communication systems
- To maintain a list of telephone, fax, frequency charge, etc so that during an emergency communications can be sent immediately

During Disaster

- To coordinate with working groups to utilize the communication systems effectively

After Disaster

- To carry out relief and resettlement activities harmoniously and report reliable data to the higher authorities

Table 7.20 Transportation Working Committee, Pyapon District

Sr. No.	Member	Designation
1	District Police Officer, Myanmar Police Force	Chairman
2	Manager of Inland Water Transport	Member
3	Traffic Control Unit, Myanmar Police Force	Member
4	Staff Officer, District General Administration Department	Member
5	Staff Officer, District Transport Planning Department	Secretary

Roles and responsibilities:

Before Disaster

- To maintain a list of vehicles by types and to form teams of vehicle based on types of vehicle and region. Also ensure that vehicles reach disaster sites in time
- To maintain a list of the deep waterways of the river, approach ways and harbors
- To identify a list for places to be used as helicopter-pads
- To identify the meeting stations, stop-stations, and place for reporting along the path for relief activities



- Formation of supervising teams and security teams for relief vehicles
- Arrangements of machinery and fuel
- Arrangements for route clearance and transportation
- To issue orders for taking action against those who hinder the use of vehicles
- In case of disaster, arrange necessary vehicles in time in line with the instructions
- After disaster, to arrange vehicles for rehabilitation activities as per instructions of higher levels

During Disaster

- To deploy vehicles at sites wherever required
- To maintain record of vehicles and fuel used
- To ensure smooth traffic for public and movement of goods and animals

After Disaster

- To systematically evacuate people, animals and goods to identified locations
- The people should be shifted, when the shelter is systematically prepared
- To prepare and submit report on activities of the Working Committee
- To prepare financial report of fuel and other expenditure for audit purposes

Table 7.21 Relief and Resettlement Working Committee, Pyapon District

Sr. No.	Member	Designation
1	Executive Engineer, Public Works	Chairman
2	Electrical Engineer, Myanma Electric Power Enterprise	Member
3	District Officer, District Transport Planning Department	Member
4	District Manager, Myanma Petroleum Products Enterprise	Member
5	Secretary, District Union Solidarity and Development Association	Member
6	District Officer, District Department of Health	Member
7	District Officer, Fire Services Department	Secretary

Roles and responsibilities:

Before Disaster

- To collect data on population in the region, to study offshore islands, flood plains and low lands and identify the shelter places to be used by affected people for life saving and food
- To form relief teams and conduct drills
- To form teams, identify vehicles and assign duties in advance
- To give trainings and provide necessary tools for systematic rescue of victims
- To ensure availability of emergency machines, tools, and conduct drills on mobilization
- To prepare and coordinate to ensure the effective distribution of relief materials



- To identify and maintain record of suitable places for relief camps
- To assign duties to NGOs (Red Cross, Auxiliary Fire Brigade, USDA, Veteran Association, etc.) to ensure effective use of their resources

During Disaster

- To collect and report data on death toll, damage and loss
- To make arrangements in advance for emergency treatment, cremation, and family restoration activities

After Disaster

- Based on ground information, to collect data on damage and loss
- To prepare for immediate supply of relief materials
- To carry out debris clearance and rescue work

Table 7.22 Emergency Assistance Working Committee, Pyapon District

Sr. No.	Member	Designation
1	Assistant Director, District Planning Department	Chairman
2	Staff Officer, District Irrigation Department	Member
3	Executive Engineer, District Public Works	Member
4	District Electrical Engineer, District Myanmar Electric Power Enterprise	Member
5	Assistant Manager, Myanmar Agriculture Services	Member
6	District Officer, District Settlement and Land Records Department	Member
7	Responsible Persons from Myanmar Posts and Telecommunications	Member
8	District Officer, District Transport Planning Department	Member
9	Manager, Myanmar Petroleum Product Enterprise	Member
10	Executive Committee Member, District USDA	Member
11	District Officer, Department of Health	Member
12	District Officer, Fire Services Department	Member
13	Staff Officer, District Planning Department	Secretary

Roles and responsibilities

Before Disaster

- To collect data on damage and loss
- To plan for immediate supply of relief materials
- To make arrangements in advance for emergency treatment, cremation, and family restoration activities

After Disaster

- To carry out debris clearance and rescue work
- To keep record of suitable places for relief camps
- To assign duties to NGOs (Red Cross, Auxiliary Fire Brigade, USDA, Veteran Association, etc.) to ensure effective use of their resources
- To plan and coordinate for effective distribution of relief materials
- To collect and report data on death toll, damage and loss



Table 7.23 Health Working Committee, Pyapon District

Sr. No.	Member	Designation
1	District Officer, Department of Health	Chairman
2	District Officer, Livestock Breeding and Veterinary Department	Member
3	District Officer, Department of Traditional Medicine	Member
4	District Officer, Department of Education	Member
5	District Supervision Committee of Red Cross	Secretary

Roles and responsibilities:

Before Disaster

- To form emergency mobile health teams, to conduct drills and collect medicines
- To prepare hazard maps based on past disasters
- To take into account environmental sanitation, pure water availability and use of latrines
- To make arrangements for hospitals, clinics, medicines, ambulance and staff
- To coordinate with health staff and volunteers
- To conduct First Aid training

During Disaster

- To prepare/collect data of injured, dead and share it with hospitals, clinics and veterinary hospitals

After Disaster

- To monitor epidemic and prepare for immunization
- To arrange the cremation of the dead

Table 7.24 Education Working Committee, Pyapon District

Sr. No.	Member	Designation
1	District Education Officer, Department of Education	Chairman
2	District Officer, Department of Health	Member
3	District Officer, Department of Traditional Medicine	Member
4	Secretary, Union Solidarity and Development Association	Member
5	Assistant Education Officer, Department of Education	Secretary

Roles and responsibilities:

Before Disaster

- To educate students on disasters during school assembly
- To create awareness among students on Do's and Don'ts through signboards
- To educate on how to avoid disaster and location of shelter

During Disaster

- To protect students and school buildings & materials by all possible means

After Disaster

- To provide stationery, furniture and space for school at the earliest
- To make available sufficient teaching staff
- To ensure teaching as per the curriculum
- To open teaching classes for illiterate adult

Table 7.25 Mitigation & Establishment of Emergency Shelter Working Committee, Pyapon District

Sr. No.	Member	Designation
1	District Executive Officer, District Development Affairs Department	Chairman
2	District Manager, Myanma Agriculture Services	Member
3	Executive Committee Member, Union Solidarity and Development Association	Member
4	District Officer, Department of Health	Member
5	District Officer, Fire Services Department	Member
6	Staff Officer of District Co-operative Department	Secretary

Roles and responsibilities

Before Disaster

- To create and maintain the database of affected people
- To comprehend the likely situation in the event of disaster and prepare plan for mitigation accordingly
- To draw action plan for post -disaster situation based on assumptions
- To arrange temporary shelter, hillocks in advance

During Disaster

- To systematically find out shelter as done during mock drill
- To systematically maintain record of people living in shelter, and to supervise and provide health facilities, drinking water, and sanitation.

After Disaster

- To arrange food, health care, education, welfare and social needs as per the data

Table 7.26 Rehabilitation & Reconstruction Working Committee, Pyapon District

Sr. No.	Member	Designation
1	District Officer, Irrigation Department	Chairman
2	Chairman of Township/ Sub-Township Peace and Development Council (all)	Member
3	District Officer, Agricultural Mechanization Department	Member
4	District Officer, Fire services Department	Member
5	Secretary, Union Solidarity and Development Association	Member
6	Chairman, District Supervision Committee of Red Cross	Member
7	District Officer, Settlement and Land Records Department	Secretary

Roles and responsibilities:

Before Disaster



- To inspect and report on dams, sluices and reservoirs of Irrigation Department
- To monitor water ways of rivers and creeks yearly
- In flood prone areas, to enhance community awareness by posters, pamphlets and other programmes.
- To inform public on the danger level of river
- To assign check stations along the dams and reservoirs which can be directly affected by Ayeyarwady river and stock preventive tools
- To grow mangrove trees and wind-break trees near dams and sluices

During Disaster

- To check damage of dams, sluice, buildings, airports, wind break trees and to use the safe buildings as shelter

After Disaster

- To immediately start the repair of damaged dam, sluices, buildings and take up permanent repair
- To undertake relief and rehabilitation work using adequate manpower, machine and technology in order to achieve success without delay

Table 7.27 Assessment of Losses Working Committee, Pyapon District

Sr. No.	Member	Designation
1	Assistant Director, District Planning Department	Chairman
2	Staff Officer, District Irrigation Department	Member
3	Executive Engineer, Public Works	Member
4	District Auditor, District Auditor's Office	Member
5	Staff Officer, National Immigration & National Registration Department	Member
6	Staff Officer, District Internal Revenue Department	Member
7	Staff Officer, District General Administration Department	Member
8	Staff Officer, District Planning Department	Secretary

Roles and responsibilities

Before Disaster

- To prepare a list of donors and make necessary arrangements for food in advance
- To estimate food requirements and the distance to be covered for distribution

During Disaster

- To collect information on food requirements

After Disaster

- To rehabilitate the affected areas and collect data on damage and losses
- To make arrangement for food, medicine and drinking water

Table 7.28 Relief Materials and Fund Management Working Committee, Pyapon District

Sr. No.	Member	Designation
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1	District Officer, General Administration Department	Chairman
2	Assistant Director, District Planning Department	Member
3	District Officer, Transport Planning Department	Member
4	Secretary of District Union Solidarity and Development Association	Member
5	Chairman of Township/ Sub-Township Peace and Development Council	Member
6	Staff Officer, District Internal Revenue Department	Secretary

Roles & responsibilities:

Before Disaster

- To make systematic arrangements to avoid wastage of relief materials and funds. Also make arrangement for warehouses and bank account

During Disaster

- To quickly arrange relief materials for the affected people

After Disaster

- To ensure availability of 6 relief materials supplied by Relief and Resettlement Department
- To receive donations from local people, NGOs and Army
- If INGOs request for information, information approved by the higher authority can be provided

Table 7.29 Security Working Committee, Pyapon District

Sr. No.	Member	Designation
1	District Police Officer, Myanmar Police Force	Chairman
2	District Officer, Fire Services Department	Member
3	Responsible Person from District Red Cross	Member
4	Staff Officer, District General Administration Department	Member
5	Deputy Police Officer, Myanmar Police Force	Secretary

Roles & responsibilities:

Before Disaster

- To organize mock drills for systematic response during disasters
- To draw action plan for involvement of other organizations including NGOs
- To draw action plan for emergency which can occur

During Disaster

- In case of emergency, the activities should be followed systematically

After Disaster

- To systematically provide security of affected people, properties and visiting VIPs
- To ensure security of relief materials

Reference:

- Standing Order, District Disaster Preparedness Central Committee, Peace & Development Council, Pyapon District, Ayeyawady Division, 10 October 2008
- Discussion with the Officials of Pyapaon, on 3rd February 2009



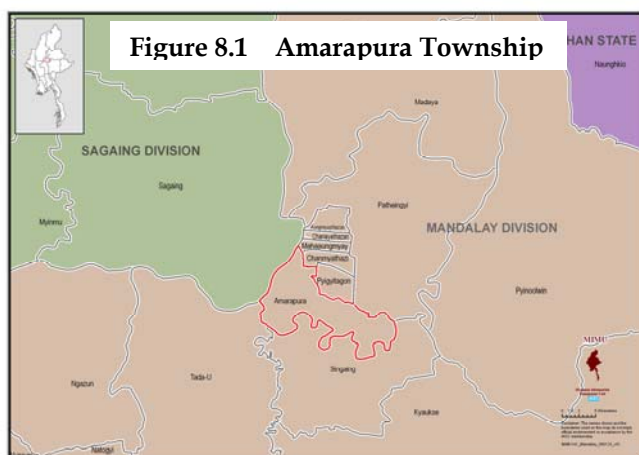
CHAPTER 8

INSTITUTIONAL ARRANGEMENTS AT TOWNSHIP AND VILLAGE TRACT LEVEL

8.1 Amarapura Township, Mandalay Division

8.1.1 Introduction to Amarapura Township

Amarapura Township is situated about 11 km south of Mandalay in Mandalay Division. The city Amarapura, meaning “city of immorality”, is one of the capitals of the third



Myanmar Empire. Famous Taungthaman Lake is the key tourist attraction in the township and the city is located at the confluence of Ayeyarwady and Dotehtawady rivers. It is often referred to as Taungmyo (Southern City) in relation to Mandalay but nowadays the two have become continuous as a result of urban sprawl.

Amarapura Township consists of 9 wards, 52 village tracts and 166 villages. There are 1.6 million inhabitants economically depending on agriculture, silk and cotton weaving and livestock breeding industries. From east to west, the township is 14 miles wide and 6.06 miles long from north to south.

8.1.2 Natural Disaster Situation in Amarapura Township

The location of the Township makes it vulnerable to flood hazards from the two rivers: Ayeyarwady and Dotehtawady. Built since around 18th century, the Tadarphyu (white bridge) water gate can prevent the rising water of Ayeyarwady river from reaching the villages. However, simultaneous high water levels in both rivers put 23 villages out of 166 at risk of flooding. In this case, the excessive water from Dotehtawady River enters Taungthaman Lake and Tadarphyu gate has to be opened to release the pressure and let some of places submerged.

Flooding in Amarapura is an annual recurring event and many communities living in the area are aware of what they need to do and where to go as soon as they receive any warning. In 2006 October, the flood waters spilled over the road and destroyed a considerable area of farmland. It lasted for about a week, inundating the highway between Yangon and Mandalay. At the same time, the communities living along the river realize the importance of annual Ayeyarwady river floods and believe that the floods replenish the



soils with nutrients carried from the upriver, making the land rich and fertile. Also, the fish ponds see better spawning after these annual events.

8.1.3 Amarapura Township Disaster Prevention Action Plan

As per the directions provided in the Mandalay Division Peace and Development Council letter no. 5/43-008/Oo 6(2426), dated 28 June 2007, Amarapura Township has developed its own Disaster Prevention Action Plan. It is updated annually and the 2009 Action Plan was produced on 3 February 2009. Its focus is on flood prevention.

The Action Plan is developed with the objectives

- To prevent damages to the roads (the circular road around Mandalay, Yangon-Mandalay highway, Myitnge-Sagaing highway, main roads in the city) and levees from Ayeyarwady-Dotehtawady flood.
- To prevent flood damage and loss to the lives and properties of the communities and government.

The Action Plan consists of five main sections namely Introduction, Objective, Detailed Activities, Constitution of Committees and sub-committees (detailed information provided in the next section) and Key Contact (that of the Chairman, Magway Township Peace and Development Council).

The township planning process feeds into the district planning process with Amarapura submitting its Action Plans (both flood and fire) in the first quarter of the month to the Mandalay District. The district then prepares its own Action Plan based on the township Action Plans and in turn submits its Action Plan to Mandalay Division Peace and Development Council. At the ward/ village tract levels, the Action Plans exist mainly in the form of meeting minutes when the disaster management committee at those levels meets. In Amarapura Township, the disaster management planning activities are operational mostly at the township level, providing instructions to the ward/village levels and at the same time supporting the district and divisional level planning by timely submission of township action plans.

A similar action plan for fire hazard management also exists, supervised by the same members of the committee as mentioned in the next section. The Action Plan basically consists of how to prepare for fire hazards such as conducting regular inspections, limiting the time for usage of fire, setting up of guard stations for fire watch duty and preparing and arranging of ponds for emergency use. Standing Orders are also issued for specific activities.

8.1.4 Disaster Preparedness Arrangements

The key Committee on disaster management is named 'Township Disaster Management Supervisory Group' and its membership is shown in Table 8.1.



Table 8.1 Township Disaster Management Supervisory Group, Amarapura

No.	Membership	Designation
1.	Lieutenant Colonel, Central Command	Supervisor
2.	Chairman, Township Peace and Development Council	Chairman
3.	Member (1), Township Peace and Development Council	Member
4.	Secretary, Union Solidarity and Development Association	Member
5.	Executive Officer, Development Affairs Department	Member
6.	Township Engineer, Public Works	Member
7.	Staff Officer, Information Department	Member
8.	Township Medical Officer, Health Department	Member
9.	Township Education Officer	Member
10.	Staff Officer, Fire Services Department	Member
11.	Staff Officer, Central Inland Freight Handling Committee	Member
12.	Chairman, Truck Association	Member
13.	Chairman, No. (8) Transport	Member
14.	Secretary, Township Peace and Development Council	Secretary

Under the leadership of the Supervisory Group, five supporting Sub-committees are constituted and details are shown in Table 8.2.

Table 8.2 Sub-Committees, Amarapura Township

No.	Sub-Committee	Membership	Designation
1.	Transportation	1) Secretary, Township Peace and Development Council 2) Chairman, Truck Association 3) Chairman, No. (8) Transport 4) Staff Officer, Central Inland Freight Handling Committee	1) Chairman 2) Member 3) Member 4) Member
2.	Resettlement	1) Secretary, Township Peace and Development Council 2) Executive Officer, Development Affairs Department 3) Township Education Officer 4) Township Engineer, Public Works 5) Secretary, Union Solidarity and Development Association 6) Social Security Board 7) Township Engineer, Myanma Electric Power Enterprise	1) Chairman 2) Member 3) Member 4) Member 5) Member 6) Member 7) Member
3.	Health	1) Township Staff Officer, Health Dept. 2) Staff Officer, Livestock Breeding and Veterinary 3) Red Cross 4) Social Security Board	1) Chairman 2) Member 3) Member 4) Member
4.	Security	1) Township Police Officer	1) Chairman



		2) Army Representative 3) Staff Officer, Fire Services Department 4) Chairman, Ward Peace and Development Council (all) 5) Head of Amarapura Police Station 6) Head of Myitnge Police Station	2)Member 3)Member 4)Member 5)Member 6)Member
5.	Information	1) Chief Officer, Information Department 2) News and Periodicals 3) Deputy Staff Officer, GAD	1) Chairman 2) Member 3) Member

8.1.5 Responsibility of Township Disaster Management Supervisory Group

The following roles have been identified for Township Disaster Management Supervisory Group.

- To make arrangements to undertake preparedness activities for flood, wind and fire hazards in the township.
- To identify and prepare safe areas for affected communities to evacuate in case of emergencies.
- To inform the public on the impending hazards through various government agencies as well as by making public announcement using loudspeakers.
- To plan in advance for food provision and living arrangements at the safe areas.
- To arrange for provision of health and medical cares.
- At the safe areas, to closely collaborate with the Health Department to educate public on proper disposal of rubbish, boiling of water before drinking, sanitation (usage of clean toilets), avoiding possible contaminated food, etc.
- To arrange for safe return of the affected communities to their homes.
- To support the affected communities to regain their normal lives.

8.1.6 Implementation of Disaster Management Activities in Amarapura Township

As a flood preparedness scheme, the outer-rim road, running along the outskirts of the Amarapura city and the Taungthaman Lake, acts as a levee since it was built in 2002. During flood, the road also serves as safe higher ground for communities from affected villages to take refuge on. In 2009, plans are underway to raise the road surface to a level higher than 2004 flood.

Particularly for precautionary aspects, following activities are undertaken before rainy season in the township

- Deployment of guards at dangerous points (at 7 strategic locations, all of them major roads or intersections of roads and bridges).
- Prevention of the levees from being damaged and to collect sand bags (at 4 vulnerable locations).



- Formation of lookout groups (at 4 different places, indicating how many groups, how many people and how many sand bags).
- Transportation of sand bags in case of emergency.
- Evacuation of the communities when danger flood level is reached and to conduct survey (for 7 villages, each with its own specific safe areas).
- Distribution of food and other relief materials.
- Provision of healthcare (at 3 villages with medical personnel and Red Cross).
- Provision of security (in 4 villages).
- To carry out rehabilitation works once the water recedes.

Reference:

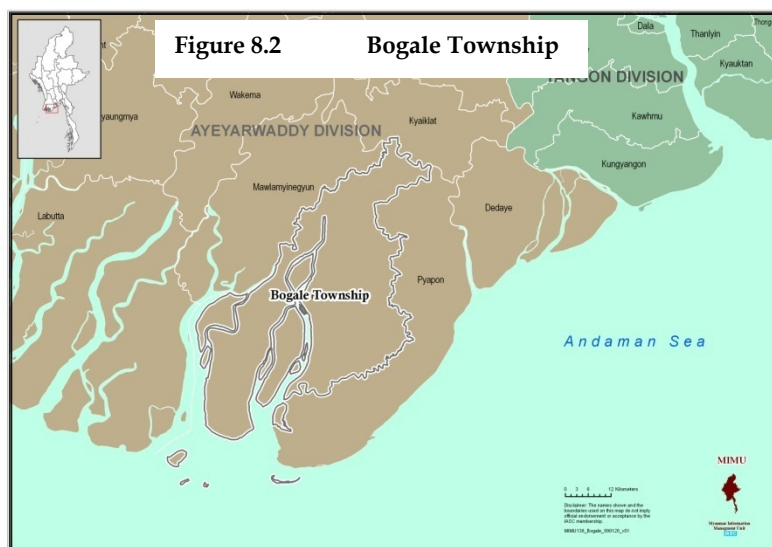
- Interviews with officials from the General Administration Department, Amarapura Township on 4 February 2009.
- Documents provided by Township Authority on Disaster Management system



8.2 Bogale Township, Ayeyarwady Division

8.2.1 Introduction to Bogale Township²⁸

The Bogale Township is located in Pyapon District of Ayeyarwady Division between



latitudes 15° 40'N and 16° 30'N and longitudes 95°15'E and 95°30'E. It is located approximately 8.2 feet above the sea level. The total area is 808.02 sq. miles and the total population is 275,546 of which 234,442 live in rural areas. Bogale is surrounded by Pyapon in the east, Ahmar Sub-Township in the south, Labutta and

Mawlamyaingyun Town-ships in the west and Kyaiklat and Mawlamyaingyun Townships in the north. The Bogale Township comprises 10 wards, 71 Village Tracts and 551 Villages. It has a hot and humid climate. On average, it has 130 rainy days a year and the rainfall is approximately 2286 mm.

8.2.2 Disaster prone areas of Bogale Township

The plan has categorized all 71 Village Tracts into three categories for prioritization as per the proneness. The priority-wise number of Village Tracts is shown in Table 8.3.

Table 8.3 Prioritization of Village Tracts

Sr. No.	Priority	No. of Village Tracts
1	Priority I (Very High)	20
2	Priority II (High)	18
3	Priority III (Medium)	33
Total		71

8.2.3 Objective & Strategy

A systematic approach with cooperation of all stakeholders concerned including the public along with modern strategy and mechanism is necessary. It also requires that committees and sub-committees should strictly follow their assigned roles and responsibilities. The strategies are as follows:

- To constitute Working Committees
- To constitute Sub-Committees based on activities

²⁸ Standing Order, Township Disaster Preparedness Executive Committee, Bogale Township Peace and Development Council, Pyapon District (page 1-3)

- To undertake measures for mitigation, disaster risk reduction and preparedness
- To take action on receipt of warning from Early Warning System
- To undertake duties during disaster
- To perform rehabilitation and reconstruction activities

8.2.4 Bogale Township Disaster Preparedness Management Committee and Working Committees

The Township Disaster Preparedness Management Committee [TDPMC] of Bogale Township is chaired by the Chairman, Township Peace and Development Council. The committee has 15 members and the membership list is shown in Table 8.4.

Table 8.4 Composition of TDPMC, Bogale

Sr. No.	Membership	Designation
1	Chairman, Township Peace and Development Council	Chairman
2	Township Police Officer, Myanmar Police Force	Member
3	Manager, Myanmar Agriculture Services	Member
4	Township Engineer, Myanma Electricity Power Enterprise	Member
5	Township Education Officer	Member
6	Township Medical Officer, Health department	Member
7	Township Executive Officer, Development Affairs Department	Member
8	Chairman, Transportation Supervision Committee	Member
9	Township Engineer, Public Works	Member
10	Responsible person, Myanma Posts and Telecommunications	Member
11	Manager, Myanmar Agriculture Produce Trading	Member
12	Chairmen, Ward/Village Tract Peace and Development Council	Member
13	Staff Officer, Forest Department	Member
14	Staff Officer, Irrigation Department	Member
15	Staff Officer, Planning Department	Secretary

In addition to the Management committee, two working committees, namely Fire and Storm Preparedness Working Committees, Flood and Earthquake Preparedness Working Committees have been constituted. The compositions are shown in Table 8.5 and Table 8.6.

Table 8.5 Flood and Earthquake Preparedness Working Committee

Sr. No.	Membership	Designation
1	Staff Officer, Planning Department	Chairman
2	Township Engineer, Public Works	Member
3	Staff Officer, Irrigation Department	Member
4	Staff Officer, Fire Services Department	Member
5	Staff Officer, Internal Revenue Department	Member
6	Manager, Myanmar Agriculture Services	Member
7	Township Engineer, Myanma Electric Power Enterprise	Member
8	Township Medical Officer, Department of Health	Member
9	Township Executive Officer, Development Affairs Department	Member
10	Responsible Person, Myanma Posts and Telecommunications	Member



11	Staff officer, Department of Forest	Member
12	Township Education Officer	Member
13	Manager, Myanmar Agriculture Produce Trading	Member
14	Chairman, Transportation Supervision Committee	Member
15	Secretary, Union Solidarity and Development Association	Member
16	Chairman, Ward/Village Tract Peace & Development Council (all)	Member
17	Deputy Staff Officer, General Administration Department	Secretary

Table 8.6 Fire and Storm Preparedness Working Committee

Sr. No.	Membership	Designation
1	Township Police Officer, Myanmar Police Force	Chairman
2	Township Engineer, Public Works	Member
3	Staff Officer, Irrigation Department	Member
4	Staff Officer, Fire Services Department	Member
5	Staff Officer, Internal Revenue Department	Member
6	Manager, Myanmar Agriculture Services	Member
7	Township Engineer, Myanma Electric Power Enterprise	Member
8	Township Medical Officer, Department of Health	Member
9	Township Executive Officer, Development Affairs Department	Member
10	Responsible Person, Myanma Posts and Telecommunications	Member
11	Staff officer, Department of Forest	Member
12	Township Education Officer	Member
13	Manager, Myanmar Agriculture Produce Trading	Member
14	Chairman, Transportation Supervision Committee	Member
15	Secretary, Union Solidarity and Development Association	Member
16	Chairman, Ward/Village Tract Peace & Development Council (all)	Member
17	Deputy Township Police Officer, Myanmar Police Force	Secretary

8.2.5 Sub-committees of TDPMC

The sub-committees have been constituted for carrying out the specific tasks and a total of 11 sub-committees have been constituted. The list of sub-committees along with their membership is shown in Table 8.7.

Table 8.7 Composition of Sub-committee

Sr. No.	Name of sub-committees	Chairman	Members	Secretary
1	Information	Law Officer, Township Law Office	1) Responsible Person, Myanma Posts and Telecommunications 2) Staff Officer, Department of Sports and Physical Education 3) Chairman, Ward/Village Tract Peace and Development Council (all)	Staff Officer, Information and Public Relation Department
2	Emergency Communication	Responsible Person, Myanma Posts & Telecommunications	1) Township Police Officer, Myanmar Police Force 2) Head of Post Office, Myanma Posts and Telecommunications	Staff Officer, Department of Inland Water Transport
3	Relief and Resettlement	Township Engineer, Public	1) Township Engineer, Myanma Electric Power Enterprise	Staff Officer, Fire Services



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		Works	<ol style="list-style-type: none"> 2) Responsible Person, Myanma Posts and Telecommunications 3) Staff Officer, Planning Department 4) Manager, Myanmar Petroleum Product Enterprise 5) Secretary, Union Solidarity and Development Association 6) Township Medical Officer, Department of Health 7) Chairman, Ward/Village Tract Peace and Development Council (all) 	Department
4	Information of Losses and Emergency Assistance	Staff Officer, Planning Department	<ol style="list-style-type: none"> 1) Staff Officer, Irrigation Department 2) Township Engineer, Public Works 3) Township Engineer, Myanma Electric Power Enterprise 4) Assistant Manager, Myanma Agriculture Services 5) Staff Officer, Settlement & Land Records Department 6) Responsible Person, Myanma Posts and Telecommunications 7) Manager, Department of Inland Water Transport 8) Manager, Myanma Petroleum Product Enterprise 9) Secretary, Union Solidarity and Development Association 10) Township Medical Officer, Department of Health 11) Staff Officer, Fire Services Department 	Deputy Staff Officer, Planning Department
5	Assessment of Losses	Staff Officer, Planning Department	<ol style="list-style-type: none"> 1) Staff Officer, Irrigation Department 2) Township Engineer, Public Works 3) Township Executive Officer, Development Affairs Department 4) Staff Officer, Immigration and National Registration Department 5) Staff Officer, Internal Revenue Department 6) Deputy Staff Officer, General Administration Department 	Deputy Staff Officer, Planning Department
6	Transportation	Township Police Officer, Myanmar Police Force	<ol style="list-style-type: none"> 1) Manager, Department of Inland Water Transport 2) Traffic Controlling Police Force 3) Deputy Staff Officer, General Administration Department 4) Chairman, Ward/Village Tract Peace and Development Council (all) 	Chairman, Transportation Supervision Committee
7	Mitigation and Establishment of	Township Executive Officer,	<ol style="list-style-type: none"> 1) Manager, Myanmar Agriculture Services 	Staff Officer, Township



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	Emergency Shelter	Development Affairs Department	<ol style="list-style-type: none"> 2) Secretary, Union Solidarity and Development Association 3) Township Medical Officer, Department of Health 4) Staff Officer, Fire Services Department 5) Deputy Commander, Township Myanmar Red Cross Society 	Cooperatives Department
8	Health and Education	Township Medical Officer, Department of Health	<ol style="list-style-type: none"> 1) Staff Officer, Township Traditional Medicine Department 2) Township Education Officer 3) Chairman, Ward/Village Tract Peace and Development Council (all) 	Deputy Commander, Township Myanmar Red Cross Society
9	<p>Rehabilitation and Reconstruction</p> <p>a) Dams and Reservoirs Maintenance and Repairing in Emergency Period Sub-Committee</p> <p>b) Replantation Sub-Committee</p> <p>Repairing Roads and Bridges Sub-Committee</p>	<p>Staff Officer, Irrigation Department</p> <p>Manager, Myanmar Agriculture Services</p> <p>Member, Township Peace and Development Council</p>	<ol style="list-style-type: none"> 1) Chairman, Ward/Village Tract Peace and Development Council (all) 2) Staff Officer, Township Agricultural Mechanization Department 3) Staff Officer, Fire Services Department 4) Secretary, Union Solidarity and Development Association 5) Deputy Commander, Township Myanmar Red Cross Society 1) Staff Officer, Settlement and Land Records Department 2) Staff Officer, Irrigation Department 3) Manager, Myanmar Agriculture Produce Trading 4) Manager, Myanmar Agricultural Development Bank 5) Chairman, Ward/Village Tract Peace and Development Council (all) 1) Staff Officer, Forest Department 2) Shop Manager, Myanmar Timber Enterprise 3) Deputy Staff Officer, General Administration Department 4) Engineer, Development Affairs Department 5) Chairman, Ward/Village Tract Peace and Development Councils (all) 	<p>Deputy Staff Officer, Irrigation Department</p> <p>Staff Officer, Township Agricultural Mechanization Department</p> <p>Engineer, Public Works</p>
10	Accepting Relief Materials and Fund	Staff Officer, Internal Revenue Department	<ol style="list-style-type: none"> 1) Deputy Commander, Township Red Cross 2) Deputy Staff Officer, General Administration Department 	Deputy Staff Officer, Internal Revenue



			3) Secretary, Union Solidarity and Development Association 4) Chairman, Ward/Village Tract Peace and Development Councils (all)	Department
11	Security	Township Police Officer, Myanmar Police Force	1) Staff Officer, Fire Services Department 2) Deputy Commander, Township Red Cross Society 3) Chairman, Ward/Village Tract Peace and Development Councils (all)	Deputy Head of Police Station, Myanmar Police Force

8.2.6 Village Tract/Ward Disaster Preparedness Committee : Composition and roles and responsibilities

The Village Tract/ Ward Disaster Preparedness Committee is constituted at Village Tract/Ward level and the Chairman is the Chairman of Village Tract/Ward Peace and Development Council . The composition is shown in Table 8.8.

Table 8.8 Village Tract/Ward Disaster Preparedness Committee

Sr. No.	Member	Designation
1	Chairman, Village Tract/Ward Peace and Development Councils	Chairman
2	Clerk, Settlement and Land Records Department	Member
3	Member, Myanmar Red Cross Society	Member
4	Member of Auxiliary Fire Brigade	Member
5	Head, Police Sub-Station, Ward/Village Tract, Myanmar Police Force	Member
6	Organizer, Union Solidarity and Development Association	Member
7	Member, Veterans' Association	Member
8	Member of Myanmar Women Affairs Federation	Member
9	Member of Myanmar Maternal and Child Welfare Association	Member
10	Primary school teachers	Member
11	Respected personnel from Village Tract/ Ward	Secretary
12	Clerk Village Tract/Ward Peace and Development Council, General Administration Department	Secretary

The roles and responsibilities of the Village Tract/Ward Disaster Preparedness Committee are as follows:

- To implement the guidelines and instructions of the Township level committee.
- To coordinate with NGOs and mobilize human resources for relief and rescue.
- To arrange for emergency shelter and evacuation.
- To coordinate with departments.
- To transport and distribute relief materials.
- To disseminate Do's and Don'ts on disasters to the public.
- To arrange for the rescue training.
- To arrange for continuous practice on relief activities.



8.2.7 Post Nargis Activities²⁹

Implementation Phase and Guidelines: Bogale Township was one of the worst affected townships during Cyclone Nargis and the restoration of normalcy is in progress through a four-phase approach, namely: Relief, Rehabilitation, Reconstruction and Preparedness and Preventive measures. The following Guidelines have been issued:

- To formulate well plans for survivors to be sure for their future life in relief activities
- To renovate the schools, clinics and develop farming, fishery and salt production to restore normal condition in rehabilitation activities
- To provide cattle, farming machines and paddy seeds mainly needed for agriculture and to establish the tractor stations in main villages
- To provide fishing-boats, fishing nets, plastics, nylon ropes needed for the recovery of the fishery sector
- To construct embankments of 20-30 ft high at critical places of villages close to the sea so as to escape from higher tide
- To construct storm shelters high enough to escape from higher tide and to serve as emergency shelter
- To build village-to-village roads with required height from 20 to 30 feet in villages close to the sea
- To distribute sufficient plastics sheets for temporary shelter during rainy season and to arrange for construction of low-cost houses during the fine-weather season
- To establish mass plantations of mangrove species along the seashore and near the villages to prevent soil erosion

Coordination mechanism for Reconstruction and Rehabilitation: The Cluster approach has been adopted for the coordination of the reconstruction and rehabilitation mechanism in Bogale. The 'General Meeting' is held on first Friday of every month in which all agencies involved in the reconstruction and rehabilitation share information related to their projects and coordinate the planned activities. The 'Cluster Meeting' is held once in a fortnight for detailed discussion and information exchange on the specific sector. The 'Cluster Lead Meeting' is also held once in a fortnight for ensuring cooperation and coordination among the clusters. Approximately 8-10 members, one from each cluster, attend the meeting. In order to ensure coordination between government and UN Agencies and I/NGOs, the 'Government Coordination Meeting' is held every Friday in which all government departments involve in reconstruction and rehabilitation activities, UN agencies and I/NGOs are invited.

²⁹ Copy of the presentation on 'Activities in Rehabilitation, Reconstruction and Preparedness of Bogale, Township, 10th February 2009



Preparedness and preventive measures: For preparedness and prevention of disasters, the following measures are being undertaken:

- Man-made hillocks: In order to mitigate the risk from storm surge and other natural disasters, nine man-made hillocks is being constructed, one each in nine villages.
- Cyclone Shelter: Four cyclone shelters one each at Kadon-kani, Ayeyar, Kyein-chaung-gyi and Pa-dae-Kaw villages are being constructed through private companies and FREDAs.
- Mangrove plantation is being undertaken on 10,000 acres in Kadonakani Reserve. The Wind breaking plantations such as seedlings of Eucalyptus, Marlarlucar, Acacia, Alexandrian, Thame, Byu and Kanazo are being planted around Kyein-chaung-gyi and Satsan villages.

Reference:

- *Standing Order*, Township Disaster Preparedness Management Committee, Bogale Township Peace and Development Council, Pyapon District, 9 October 2008
- Field visit and discussion with Members of Township Disaster Preparedness Management Committee, Bogale Township on 10th February 2009
- Copy of the presentation on '*Activities in Rehabilitation, Reconstruction and Preparedness of Bogale Township*', 10th February 2009



8.3 Kungyangone Township, Yangon Division

8.3.1 Introduction to Kungyangone Township

Kungyangone Township is located in Yangon Southern District of Yangon Division at 16° 26'N and 96° 01'E. It has an area of 288.27 sq. miles of which 100,413 sq. miles is agricultural land and 1,352 sq. miles under forest cover.

The population is 113,775 of which 58,698 are women [52 percent]. It has moderate

Figure 8.3 Kungyangone Township



temperatures and high rainfall from May to October³⁰. Kungyangone is surrounded by Dedaye Township, Ayeyarwady Division in the west, Kawhmu Township, Yangon Division in the north and Andaman Sea in the south and the east³¹ (Figure 8.1). Located at approximately 80 kms from Yangon City, it comprises one town, 7 wards, 43 village tracts and 118 villages.

8.3.2 Kungyangone Township Disaster Preparedness Committee

The Kungyangone Township Disaster Preparedness Committee [DPC] was constituted as per the directions of the National Disaster Preparedness Central Committee [NDPCC], 2005³². The committee has 19 members and the membership list is shown in Table 8.9.

Table : 8.9 Composition of DPC, Kungyangone Township

Sr. No.	Membership	Designation
1	Chairman, Township Peace and Development Council	Chairman
2	Township Police Officer, Myanmar Police Force	Member
3	Township Executive Officer, Development Affairs Department	Member
4	Township Executive Officer, Yangon Electricity Supply Board	Member
5	Township Education Officer	Member
6	Township Health Officer	Member
7	Staff Officer, Township Fisheries Department	Member
8	Staff Officer, Township Immigration & National Registration Department	Member
9	Township Engineer, Public Works	Member
10	Township Executive Officer Myanma Post & Telecommunications	Member
11	Staff Officer, Fire Services Department	Member
12	Secretary, Union Solidarity and Development Association	Member

³⁰ Report on Implementation of Relief and Rehabilitation, Kungyangone Township, Yangon Southern District, Yangon Division, 22nd December 2008 (page 1-3)

³¹ MIMU040_3W_Nutrition_081223_v04, Myanmar Information Management Unit [MIMU], Inter-Agency Standing Committee, 18th December 2008

³² As per discussion with Disaster Preparedness Committee, Kungyangone Township, 5th January 2009



13	Township Officer, Forest Department	Member
14	Staff Officer, Information & Public Relations Department	Member
15	Township Officer, Account Office	Member
16	Township Officer, Law Office	Member
17	Township Officer, Judicial Office	Member
18	Township Officer, Settlement & Land Records Department	Member
19	Staff Officer, Planning Department	Secretary

8.3.3 Responsibilities of Township Disaster Preparedness Committee³³

The Disaster Preparedness Committee can constitute sub-committees and extend the membership of committee to discharge its duties as per its Action Plan. The responsibilities of the Committee are as follows:

- Information & awareness campaign for preparedness
- The early warning dissemination to masses shall be ensured and kept updated.
- Relief camps shall be identified and kept in the state of readiness.
- The data related to disaster shall be collected and updated regularly.
- Shift people to evacuation shelter in case of any impending disaster.
- Animals including cows, buffaloes, etc to be evacuated to safer place during floods or other disasters.
- Search and rescue operation shall be undertaken at the earliest.
- Medical response shall be started at the earliest.
- Relief assistance shall be started immediately.
- It shall be ensured that the law and order and security is maintained.
- Dead bodies shall be disposed of properly.
- Damage and loss due to disaster shall be recorded including photographs.
- Higher authority shall be informed at the earliest.
- Rehabilitation shall be undertaken after rescue activities.

8.3.4 Sub-Committees under Kungyangone Township Disaster Preparedness Committee

The DPC, Kungyangone Township has six sub-committees and the list of sub-committees³⁴ along with respective Chairman, Members and Secretary is shown in Table 8.10.

Table : 8.10 Sub-committees of DPC, Kungyangone Township

Sub-committee	Chairman	Members	Secretary
Search and Rescue	Staff Officer, Settlement and Land Records Department	i. Auxiliary Fire Brigade ii. MRCS iii. Secretary, USDA iv. Health Dept	Staff Officer, Irrigation Department
Health	Staff Officer, Health Department	i. Myanmar Maternal and Child Welfare Association	Township Officer, Livestock Breeding and Veterinary

³³Kungyangone Township, *Action Plan of Disaster Preparedness Committee*, 6th October 2008 (page12-13)

³⁴ Kungyangone Township, *Action Plan of Disaster Preparedness Committee*, 6th October 2008 (page11-12)



		<ul style="list-style-type: none"> ii. Myanmar Woman Affairs Federation iii. MRCS iv. Staff Officer, Traditional Medicine Dept 	Department
Transportation	Staff Officer, Fishery Department	<ul style="list-style-type: none"> i. Township Boat Association ii. Chairman, Township Transportation Association iii. Representative, TDPC iv. Township Executive Officer, Development Affairs Department 	Deputy Staff Officer, General Administration Department
Relief Materials and Fund Management	Township Auditor	<ul style="list-style-type: none"> i. Town-elder ii. Manager, Myanmar Economic Bank iii. Staff Officer, Internal Revenue Department iv. Manager, Myanmar Agricultural Development Bank 	Staff Officer, Cooperative Department
Security	Township Police Officer, Myanmar Police Force	<ul style="list-style-type: none"> i. Judge ii. Judicial Officer iii. Staff Officer, Fire Services Department iv. Civil Defense 	Deputy Staff Officer, General Administration Department
Information	Staff Officer, Information and Public Relations Department	<ul style="list-style-type: none"> i. Deputy Staff Officer, General Administration Department 	Assistant Township Education Officer

Apart from the Government Departments, representatives from the Myanmar Red Cross Society [MRCS], Union Solidarity and Development Association [USDA], Myanmar Maternal and Child Welfare Association [MMCWA] and Myanmar Women Affairs Federation [MWAF] are members of the sub-committees.

The committee is guided and supervised by the Yangon Southern District Disaster Preparedness Committee. It was also mentioned that the members of line departments in the committee serve as a link between their respective departments and the Committee.

8.3.5 Village Tract Disaster Preparedness Committee

The Action Plan of Kungyangone Township Disaster Preparedness Committee includes constitution of Village Tract Disaster Preparedness Committees. The composition³⁵ of Village Tract DPC is shown in Table 8.11.

³⁵ Kungyangone Township, *Action Plan of Disaster Preparedness Committee*, 6th October 2008 (page11)



Table : 8.11 Composition of Village Tract DPC

Sr. No.	Membership	Designation
1	Chairman, Village Tract Peace and Development Council	Chairman
2	Myanmar Police Force (if Police Sub-station is in Village Tract)	Member
3	Health Department	Member
4	Member, Village Tract Peace & Development Council	Member
5	Education Department	Member
6	Union Solidarity and Development Association	Member
7	Auxiliary Fire Brigade	Member
8	Myanmar Red Cross Society	Member
9	Civil Defense (<i>Pyi Thu Sit</i>)	Member
10	Myanmar Maternal and Child Welfare Association	Member
11	Myanmar Women Affairs Federation	Member
12	Clerk, Village Tract Peace & Development Council	Secretary

It is supervised and guided by the Kungyangone Township DPC. The list of Public Call Offices [PCOs] located in Village Tracts/Villages is maintained by the DPC and used for information dissemination including early warning³⁶.

8.3.6 Current Interventions

The township administration is currently focused on the reconstruction and rehabilitation activities, which are being undertaken in the aftermath of Cyclone Nargis. Supervision Team on Township Relief and Rehabilitation is constituted and guided by the Minister for Energy. Also, Township Relief, Resettlement & Rehabilitation Committee has been constituted under the chairmanship of Chairman, Township Peace and Development Council and the secretary is staff officer, Planning Department. Other members include representative from 25 line Departments, five NGOs, three town-elders and three private firms. Under the Committee, 10 Sub-committees have been formed for various tasks of R&R. The list of Sub-committee 37 along with Chairman, Members and Secretary is shown in Table: 8.12.

Table : 8.12 Sub-committees for Relief, Resettlement & Rehabilitation

S. N.	Sub-committee	Chairman	Members	Secretary
1	Search and Rescue	Deputy Police Major	i. Staff Officer, Fire Services Department ii. Township MRCS iii. Representative, USDA iv. Chairmen of VT/ Ward PDCs	Staff Officer, General Administration Department
2	Health	Township Health Officer	i. Township Veterinarian Officer ii. Representative Myanmar Maternal and Child Welfare Association	Township MRCS

³⁶ As per discussion with Disaster Preparedness Committee, Kungyangone Township, 5th January 2009.

³⁷ Kungyangone Township, Yangon Southern District, Yangon Division, *Report on Implementation of Relief and Rehabilitation Works*, 22nd December 2008(page6)



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			iii. Representative Myanmar Women Affairs Federation	
3	Collection Data	Secretary of Township Peace and Development Council	<ul style="list-style-type: none"> i. Staff Officer, Immigration Officer ii. Manager, Myanmar Agriculture Services iii. Staff Officer, Settlement and Land Records Department iv. Wards/Village Tract Chairman (PDC) v. Wards/Village Tracts Clerk (PDC) 	Township Auditor
4	Receiving and Transfer of Relief Materials and Fund	Township Auditor	<ul style="list-style-type: none"> i. Bank Manager ii. Town-elders iii. NGO iv. Private Businessman 	Department of Religious Affairs
5	Maintaining and Distribution of Relief Materials	Secretary of Township Peace and Development Council	<ul style="list-style-type: none"> i. Township Auditor ii. Township Education Officer iii. Town-elders iv. Town-elders v. Town-elders vi. Chairman, Transportation Supervision Committee vii. Chairman of Motorboat Association viii. Secretary, USDA ix. Head of Township Police Station, Myanmar Police Force x. Myanmar Small Loans Enterprise xi. Fire Services Department xii. Deputy Staff Office, General Administration Department xiii. Myanmar Agriculture Produce Trading 	Law Officer
6	Reconstruction	Township Engineer, Public Works	<ul style="list-style-type: none"> i. Township Electrical Engineer ii. Staff Officer, Forest Department iii. Staff Officers, all line Departments iv. Asia World Company Limited 	Engineer, Irrigation Department
7	Transportation	Chairman, Township Peace & Development Council	<ul style="list-style-type: none"> i. Township Boat Association ii. Shop Manager (Petroleum) iii. Head of Township Police Station, Myanmar Police Force 	Township Transportation Association
8	Resettlement	Chairman, Township Peace and	<ul style="list-style-type: none"> i. Township Judge ii. Law Officer iii. Head of Township Police 	Officer of Development Affair



		Development Council	<ul style="list-style-type: none"> Station, Myanmar Police Force iv. Township Engineer, Public Works v. Chairmen, Ward/Village Tract Peace and Development Councils vi. Staff Officer, Settlement and Land Records Department 	Department
9	Rehabilitation	Chairman of Township Peace and Development Council	<ul style="list-style-type: none"> i. Manager, Myanma Agriculture Services ii. Township Education Officer iii. Township Health Officer iv. Township Officer, Development Affairs Department v. Private Businessman vi. Myanmar Maternal and Child Welfare Association 	Staff Officer, Fire Services Department
10	Security	Deputy Police Major, Myanmar Police Force	<ul style="list-style-type: none"> i. Township Judge ii. Staff Officer, Fire Services Department iii. Immigration Officer iv. Head of Police Station, Myanmar Police Force v. Chairmen, Ward/VT PDCs 	Law Officer

Rescue and Relief during Cyclone Nargis

In aftermath of cyclone, two relief centers at City Hall and Monastery were opened which catered to approximately 18,000 people. The relief materials reached Kungyangone Township within a couple of days and for initial few days the community kitchen was started through the help of local rice mill owners and traders. Boiled rice was served at relief centers and it continued for over a month. UNICEF in association with Ministry of Health was undertaking a sanitation programme for last two years under which water purification tablets were distributed through schools and hospitals. These stocks were useful for initial sanitation response. Myanmar Red Cross Society assisted Ministry of Health in providing medical aid. The serious cases were referred to the city hospital. The orphans and widows, due to the cyclone Nargis, have been adopted by their relatives as per the tradition of Myanmar.

[Based on discussion with Kungyangone Disaster Preparedness Committee]

Restoration of affected houses: The assistance for repair or reconstruction of affected houses includes three types of packages, namely: Package I for repair of houses, Package II for reconstruction of houses and Package III for landless people, as per discussion with



members of DPC. Some private firms³⁸ are also involved in reconstruction of houses in Kungyangone Township and the list is shown in Table 8.13.

Table : 8.13 Involvement of Private Companies

Sr. No.	Name of the Company	No. of houses
1	Asia World	356
2	Petronas	52
3	Rimbunan Petrogas Limited	32
4	Myanmar Ah Hla	50

The DPC Members mentioned that the houses designed initially for the affected people were upgraded in terms of materials. Both types of houses are at figure 8.4.



Construction of raised platform³⁹ (De Ye Lut Kin Ah Myint Shii Taung Gone): Seven raised platforms have been planned to be constructed above the highest tide level. Details are shown in Table 8.14.

Table : 8.14 Involvement of Private Companies

Sr. No.	Location	Dimension in feet (LengthXBreadthXHeight)
1	Thone Kwa Village Tract	190X150X15
2	Wah Kauk Taw Village tract	190X150X18
3	Taw Kha Yan Lay Village Tract	190X150X12
4	Kawk Dunn and Kya Khat Kone Gyi Village Tracts (Between)	170X130X10
5	Kya Khat Kone Gyi Village Tract and Let Khoat Kone Village Tract (Between)	170X130X10
6	Ka Nyin Kone Village Tract	170X130X10
7	Kya Khat Kone Lay Village Tract	170X130X10

³⁸ Report on Implementation of Relief and Rehabilitation Works, Kungyangone Township, Yangon Southern District, Yangon Division, 22nd December 2008(page7)

³⁹ Report on Implementation of Relief and Rehabilitation Works, Kungyangone Township, Yangon Southern District, Yangon Division, , 22nd December 2008(page 12)

Training and capacity building⁴⁰ : Kungyangone Township DPC, organized training programs on Disaster Management at village tract and village level. The trainers are from various government departments who have been trained under Disaster Management training programs conducted jointly by Relief and Resettlement Department and the Division/State Disaster Preparedness Committees. It covers History of disasters in Myanmar, Disaster Management Terminologies and Causes, Impact, Preparedness Measures at various levels on Earthquake, Flood, Fire, Cyclone, etc. The training materials used in the training at village tract or village levels are adapted from the training material provided to the trainers during their training at Division/State level.

Reference:

- *Report on Implementation of Relief and Rehabilitation Works, Kungyangone Township, 22nd December 2008*
- *Extracts of report on Kungyangone Township, Action Plan of Disaster Preparedness Committee, 6th October 2008*
- *Action Plan on Disaster Mitigation, Preparedness, Relief and Resettlement of National Disaster Preparedness Central Committee*
- *Field visit and discussion with Members of Kungyangone Township Disaster Preparedness Committee on 5th January 2009*

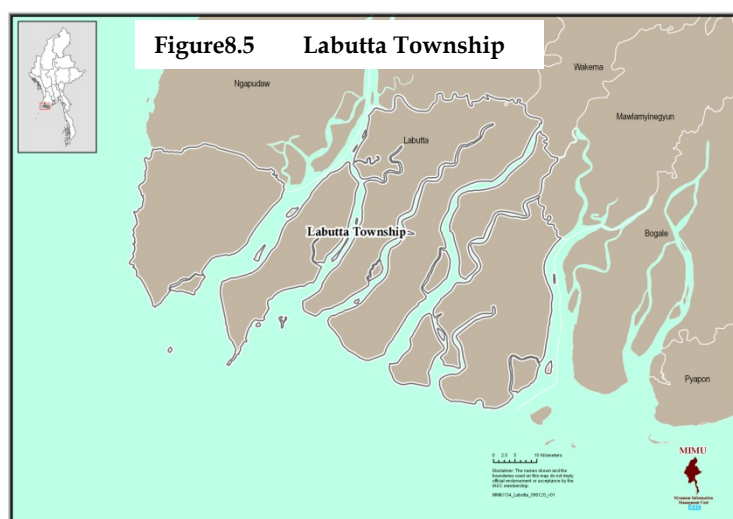
⁴⁰ As per discussion with Disaster Preparedness Committee, Kungyangone Township during field visit on 5th January 2009 and subsequent telephonic conversations with DPC Members.



8.4 Labutta Township, Ayeyarwady Division

8.4.1 Introduction to Labutta Township

The Labutta Township is located in Labutta District in the southwest of Ayeyarwady



Division between latitudes 25°44'30'' N and 16°23' N and longitudes 94°3' E and 95° 4' E. It shares a boundary with Ngaputaw Township and Myangmya Township in the north, Wakema Township, Mawlamyaingyun Township and Bogale Township in the east and Andaman Sea in the south and the west⁴¹. It comprises two sub-townships namely Pyinsalu and

Hainggyikyun, (13) wards, (98) Village Tracts and (579) villages. It has a total area of 1653.05 sq. miles having a population of 468,105. Agriculture, Fishery and Salt farming are key occupations.

8.4.2 Hazard profile of Labutta township

Labutta Township is prone to multiple hazards such as flood, cyclone, earthquake, storm surge, fire, tsunami, etc. Some of past disasters faced by Labutta Township⁴² are shown in Table 8.15.

Table : 8.15 Past Disasters in Labutta Township

Type of Disaster	Affected Area	Date	Financial loss <i>In million kyats</i>
Fire	5/6 Ward	10-01-2004	13.50
Tsunami and Tsunami induced floods	Pyinsalu sub-township	26-12-2004	51.45
Fire	Hlwa Zar Village	24-01-2007	0.70
Fire	Te Pin Kine Village	23-03-2007	0.15

8.4.3 Objective and Strategy

The objective and strategy for disaster risk reduction and preparedness have been defined⁴³ as follows: In order to achieve the objective 'To reduce the loss of human lives, animals and properties due to natural disasters in future' the three-pronged strategy has been formulated:

⁴¹ Myanmar Information Management Unit [MIMU], Cyclone Nargis 3 W Agriculture, 22nd December 2008

⁴² Action Plan on Disaster Preparedness (page 3) , Labutta Township, 28th June 2007

⁴³Report on 'Natural Disaster Preparedness Arrangement', (page 1) Township Natural Disaster Preparedness Committee, Labutta Township, 3rd October 2008



- Constitution of Sub-Committees
- Undertaking Disaster preparedness activities
- Performing rehabilitation activities

8.4.4 Township Disaster Preparedness Central Committee

Labutta Township Disaster Preparedness Central Committee [TDPCC] was constituted as per the directions of National Disaster Preparedness Central Committee [NDPCC]. It has 14 members from line departments present at township level, apart from the Heads of Peace and Development Council of Ward/ Village Tracts in Labutta Township. The membership list⁴⁴ is shown in Table 8.16.

Table : 8.16 Composition of TDPCC, Labutta

Sr. No.	Membership	Designation
1	Chairman, Township Peace and Development Council	Chairman
2	Township Police Officer, Myanmar Police Force	Member
3	Township Engineer, Public Works	Member
4	Township Officer, Irrigation Department	Member
5	Manager, Myanma Agriculture Services	Member
6	Township Engineer, Electric Power Enterprise	Member
7	Township Officer, Health Department	Member
8	Executive Officer, Development Affairs Department	Member
9	Township Head, Myanma Posts and Telecommunications	Member
10	Staff Officer, Forest Department	Member
11	Staff Officer, Fire Services Department	Member
12	Manager, Myanmar Agriculture Produce Trading	Member
13	Township Officer, Department of Education	Member
14*	Chairman of Peace and Development Council of Ward/ Village Tract (all)	Member
15	Secretary, Township Peace and Development Council	Secretary

*Except Heads of Peace and Development Council of Ward/ Village Tract, other 14 members were in Disaster Preparedness Committee as per the plan prepared in 2007.

**The Chairman, Transportation Committee; Deputy Staff Officer, General Administration Department and In-charge for Labutta from Military (*Sit Kyuang Mhmu*) were in Disaster Preparedness Committee as per the 2007 plan.

8.4.5 Roles and responsibilities⁴⁵

The roles and responsibilities of Labutta TDPCC have been defined separately for the three phases of Disaster Management i.e. before disaster, during disaster and after disaster. It has also been entrusted to constitute Working Committees for smooth discharge of the roles

⁴⁴ Report on 'Natural Disaster Preparedness Arrangement', (page 2) Labutta Township Natural Disaster Preparedness Committee, 3rd October 2008

⁴⁵ Report on 'Natural Disaster Preparedness Arrangement', (page 3-4) Labutta Township Natural Disaster Preparedness Committee, 3rd October 2008



and responsibilities of TDPCC. It can also extend the membership of committee and include some additional members as per the need.

Labutta TDPCC has following roles and responsibilities:

i. Before disaster

- Prepare hazard profile, including past disasters, of the region and identify priority areas. Disseminate information on hazard prone areas to masses through posters
- Educate people of disaster prone areas on insurance schemes
- Disaster preparedness activities shall be conducted and reviewed by experts.
- Buildings shall be maintained and renovated for strengthening
- Build embankments/dams to prevent saltwater
- Identify hills or other higher location for evacuation purpose
- Plan for emergency rescue team, tools and vehicles with fuel
- Educate people regarding plantation of trees which can be used as floating device such as banana and bamboo.
- Prepare plan for debris disposal, resettlement, security, health and food security after floods.
- To construct storm shelter embankments through villagers in storm and low lying flood prone areas
- Prepare emergency response plan and identify roles and responsibilities of the rescue team
- Setup early warning dissemination system to the community
- Constitute function-wise teams for emergency response and assign duties
- Ensure buildings in low lying areas are flood-resistant
- Prepare plan for temporary camps
- Prepare plan for sanitation, resettlement and rehabilitation after any disasters
- Organize mock drills to check effectiveness of the plan

ii. During disaster

- Disseminate early warning to the working committees and public
- Office of the Committee (TDPCC) shall be functional 24X7 and working committees shall perform the assigned duties
- Issue instructions for evacuation as per the disaster
- Collect information from other agencies and make arrangement for relief, resettlement, health and security for the affected people.

iii. After disaster

- Collect and compile data on death toll, damage and loss, affected people



- Dispose debris and shift injured people
- Receive and distribute relief materials and medicines at relief camps
- Prepare for additional activities as per the experience of disaster
- To monitor and document the response and update the Disaster Management Plan based on learning of the past disaster.

8.4.6 Working Committees

In order to assist the TDPCC, 14 Working Committees have been constituted for various activities to be undertaken in different phases of disaster management cycle. Some of the working committees include Myanmar Red Cross Society, and Union Solidarity and Development Association [USDA] apart from the government departments. Myanmar Red Cross Society is the Secretary of the Working Committees on Education and Health. The list of working committees along with their composition is shown in Table 8.17.

Table : 8.17 Working-committees of TDPCC, Labutta

SN	Working-committee	Chairman	⁴⁶ Members	Secretary
1	Information Collection	Chairman, Township Peace and Development Council	i. Chief of Township, Myanmar Police Force ii. Staff Officer, Information & Public Relations Department iii. Township Officer, Judicial Office iv. Head of Township, Bureau of Special Investigation	Head, Information Brigade, Myanmar Police Force
2	Information Dissemination	Township Officer, Judicial Office	i. Staff Officer, Myanma Posts and Telecommunications ii. Township Staff Officer, Sports and Physical Education Department iii. Chairman, Ward/ Village Tract PDC (all)	Head, Information and Public Relations Department
3	Communication	Responsible Person, Myanma Posts and Telecommunications	i. Head of Police Station, Myanmar Police Force ii. Commander of Communication Battalion	Staff Officer, Transport Planning Department
4	Transportation	Head of Police Station, Myanmar Police Force	i. Manager, Inland Water Transport ii. Traffic Control Police Force iii. Deputy Staff Officer, Township General Administration Department iv. Chairman, Ward/ Village Tract PDC (all)	Chairman, Transportation Supervision Committee
5	Relief and	Engineer, Public	i. Township Engineer, Myanma	Staff Officer,

⁴⁶ Report on 'Natural Disaster Preparedness Arrangement', (page 6-14) Township Natural Disaster Preparedness Committee, Labutta Township, 3rd October 2008



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	Resettlement	Works	<ul style="list-style-type: none"> ii. Electric Power Enterprise Staff Officer, Myanmar Communication iii. Executive Officer, Township Planning Department iv. Manager, Myanmar Petroleum Product Enterprise v. Secretary, Union Solidarity and Development Association vi. Township Health Officer vii. Chairman, Ward/ Village Tract PDC (all) 	Fire Services Department
6	Emergency Assistance	Staff Officer, Planning Department	<ul style="list-style-type: none"> i. Staff Officer, Irrigation Department ii. Engineer, Public Works iii. Electrical Engineer, Myanmar Electric Power Enterprise iv. Deputy General Manager, Myanmar Agriculture Services v. Staff Officer, Settlement and Land Records Department vi. Responsible Person, Myanmar Posts and Communications vii. Staff Officer, Transport Planning Department viii. Merchandising Officer, Myanmar Petroleum Product Enterprise ix. Secretary, Union Solidarity and Development Association x. Township Officer, Health Department xi. Staff Officer, Fire Services Department 	Deputy Staff Officer, Planning Department
7	Health	Staff Officer, Department of Health	<ul style="list-style-type: none"> i. Staff Officer, Traditional Medicine Department ii. Township Education Officer iii. Chairman, Ward/ Village Tract PDC (all) 	Deputy Battalion Commander, Township MRCS
8	Education	Officer, Township Education	<ul style="list-style-type: none"> i. Staff Officer, Traditional Medicine Department ii. Staff Officer, Department of Health iii. Chairman of Ward/ Village Tract PDC (all) 	Deputy Battalion Commander, Township MRCS
9	Emergency Shelter	Executive Officer of Township Development Affairs Department	<ul style="list-style-type: none"> i. Manager, Myanmar Agriculture Services ii. Secretary, USDA iii. Staff Officer, Department of Health iv. Staff Officer, Fire Services Department 	Staff Officer, Township Co-operative Department



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			v. Staff Officer, Social Welfare Department	
10	<p>Rehabilitation and Reconstruction</p> <p>a. Maintenance and Renovation of Dams sub-committee</p> <p>b. Replantation Agriculture</p> <p>c. Road and Bridges Renovation</p>	<p>Staff Officer of Township Irrigation Department</p> <p>Manager of Myanmar Agriculture Services</p> <p>Member (1) of Township Peace and Development Council</p>	<p>i. Chairman, Ward/ Village Tract PDC (all)</p> <p>ii. Staff Officer, Agricultural Mechanization Department</p> <p>iii. Staff Officer, Fire Services Department</p> <p>iv. Secretary, Union Solidarity and Development Association</p> <p>v. Deputy Battalion Commander, MRCS</p> <p>i. Staff Officer, Settlement and Land Records Department</p> <p>ii. Staff Officer, Irrigation Department</p> <p>iii. Manager, Myanmar Agricultural Produce Trading</p> <p>iv. Manager, Myanmar Agriculture Development Bank</p> <p>v. Chairman, Ward/ Village Tract PDC (all)</p> <p>i. Staff Officer, Forest Department</p> <p>ii. Shop Manager, Myanmar Timber Enterprise</p> <p>iii. Deputy Staff Officer, General Administration Department</p> <p>iv. Engineer, Township Development Affairs Department</p> <p>v. Chairman of Ward/ Village Tract PDC (all)</p>	<p>Deputy Staff Officer, Township Irrigation Department</p> <p>Staff Officer, Agricultural Mechanization Department</p> <p>Engineer, Township Public Works</p>
11	Food Provision	Township Auditor, Auditor General Office	<p>i. Staff Officer, Planning Department</p> <p>ii. Staff Officer, Irrigation Department</p> <p>iii. Engineer, Public Works</p> <p>iv. Electrical Engineer, Myanma Electric Power Enterprise</p> <p>v. Assistant General Manager, Myanma Agriculture Services</p> <p>vi. Staff Officer, Settlement and Land Records Department</p>	Staff Officer, Internal Revenue Department



			<ul style="list-style-type: none"> vii. Responsible Person, Myanma Posts and Communications viii. Staff Officer, Transport Planning Department ix. Secretary, Myanma Petroleum Product Enterprise x. Township USDA 	
12	Assessment of Losses	Staff Officer, Township Planning Department	<ul style="list-style-type: none"> i. Staff Officer, Irrigation Department ii. Engineer, Public Works iii. Staff Officer, Department of Human Settlement and Housing Development iv. Staff Officer, Immigration and National Registration Department v. Staff Officer, Township Internal Revenue Department vi. Deputy Staff Officer, General Administration Department 	Deputy Staff Officer, Planning Department
13	Receiving Relief Materials and Fund	Staff Officer, Internal Revenue Department	<ul style="list-style-type: none"> i. Deputy Battalion Commander, MRCS ii. Deputy Staff Officer, General Administration Department iii. Secretary, Township Union Solidarity and Development Association iv. Chairman, Ward/ Village Tract PDC (all) 	Deputy Staff Officer, Internal Revenue Department
14	Security	Head of Police Station, Myanmar Police Force	<ul style="list-style-type: none"> i. Staff Officer, Fire Services Department ii. Deputy Battalion Commander, MRCS iii. Chairman, Ward/ Village Tract (PDC) (all) 	Deputy Township Police Commander, Myanmar Police Force

The roles and responsibilities of each working committee have been defined which include duties pre-disaster, during and after disaster. For example, duties of the working committee on Health include constitution of Emergency Mobile Health Team, conducting mock drills, organizing first-aid training and ensuring sanitation at relief camp.

8.4.7 Disaster Management Initiatives⁴⁷

The Township Disaster Preparedness Committee is involved in Disaster Management activities which include Preparation/Updation of Report on Natural Disaster Preparedness Arrangement, Training and Awareness Generation.

⁴⁷ Based on discussion with the Labutta District Disaster Preparedness Committee and Labutta Township Disaster Preparedness Committee on 15th January 2009.

Training: The training programs at township level are conducted through the trained government staff, who have been trained at division level, under the Training of Trainers (ToT) program organized jointly by Relief and Resettlement Department and Division Peace and Development Council. The training material and schedule at township are drawn from the divisional level training.

Awareness: Some mass awareness activities on Do's and Don'ts related to different disasters are being undertaken. These activities are tied up with some cultural activities of village tracts or village level functions.

Preparation/Updation of Report on Natural Disaster Preparedness Arrangement Plan: The TDPCC has prepared and updated report on Natural Disaster Preparedness Arrangement Plan of Labutta Township as per the guidelines of the Labutta District Disaster Preparedness Committee, by involving the line departments. General Administration Department and Planning Department have been the focal points for compilation of plans of the individual departments. The report was prepared on 28th June 2007. The updated version is dated 3rd October 2008. The plan has identified high risk zone for prioritization, which includes 22 Village Tracts in Hainggyikyun Sub-Township, 16 Village Tracts in Pyinsalu Sub-Towship and 10 Village Tracts in Labutta under Priority I, while 50 Village Tracts of Labutta are under the priority II.

As per the Natural Disaster Preparedness Arrangement Plan, Labutta TDPCC works as per the directions of the Ayeyarwady Division Disaster Preparedness Committee and Labutta District Disaster Preparedness Committee. Labutta Township Peace and Development Council also closely supervises it. During discussion, TDPCC Member mentioned that the representatives of line departments in the committee, serve as a link between the departments and Labutta TDPCC as per the discussion. The Village Tract Disaster Preparedness Committees of village Tracts of Labutta Township are supervised, monitored and guided by Labutta TDPC.

Reference:

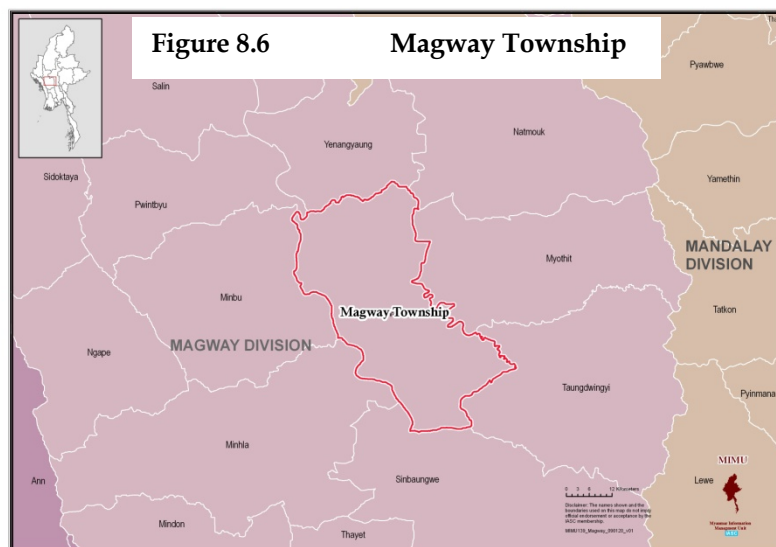
- Report on 'Natural Disaster Preparedness Arrangement', Township Natural Disaster Preparedness Committee, Labutta Township, 3rd October 2008
- 'Action Plan on Disaster Preparedness' Peace and Development Council, Labutta Township, Myaungmya District, Ayeyarwady Division, 28th June 2007
- Discussion with the Secretary, Disaster Preparedness Committee, Labutta Township on 15th January 2009
- Discussion with Disaster Preparedness Committee, Labutta District on 15th January 2009



8.5 Magway Township, Magway Division

8.5.1 Introduction to Magway Township

Located on the eastern bank of the Ayeyarwady River, Magway Township is over 300 miles away from Yangon by ship and around 330 miles by road. It lies in the central dry zone of the country and it is surrounded by eight townships. Its broad valley collects rivers and streams from both western and eastern hills that flow into the Ayeyarwady River but



many of them have almost no water in the dry season. The local vegetation consists mainly of shrubs, bushes and small trees.

The hot season is long with temperatures reaching as high as 40°C. It usually starts in February and lasts until the beginning of July. Though the rainy season is considered to be from July to October, usually the

rainfall is low. From November to January, the weather is normally cool and pleasant. The main economic activities in the township are farming and extensive irrigation systems have to be used due to low rainfall.

8.5.2 Disaster Situation in Magway Township⁴⁸

According to the Standing Order for Disaster Preparedness (1/2008) dated 12 December 2008, the vulnerable areas are shown in Table 8.18.

Table 8.18 Vulnerable areas of Magway Township

Hazards	Vulnerable Locations
Flood	Myay Nu Village, Kyun Pyat Village
Earthquake	14 wards, 61 village tracts in Magway Township
Drought	14 wards, 61 village tracts in Magway Township
Fire	14 wards, 61 village tracts in Magway Township

The Ayeyarwady River is believed to be the narrowest near Magway Township and therefore, the township does not suffer much flooding except in the two villages mentioned in the above table which are situated on the island in the middle of the river. In 1997 and 2004, the villages experienced extensive flooding. Drought does not pose a big problem though it is considered one of the potential hazards. Since 1980s, when strict regulations preventing cutting of forest were issued and campaigns on trees plantation initiated, there has been significant reduction in drought occurrences. However, due to its low rainfall,

⁴⁸ Standing Order for Disaster Preparedness (1/2008), dated 12 December 2008

patterns of human settlement, i.e. increased in population within the township and the use of traditional construction materials (thatch, bamboo and wood), fire is considered most dangerous in the area. Its preparedness and prevention works is carried out all year round.

8.5.3 Existing Documentations on Disaster Management

The Constitution Order for Magway Township Disaster Preparedness, Prevention, Relief and Rehabilitation Committee⁴⁹ is issued by the Township Peace and Development Council of Magway, as per the order of Disaster Preparedness Central Committee [NDPCC]. The Order officially announces the constitution of the Township Committee and its Working Groups and outlines the roles and responsibilities of the Committee. The document is circulated to all the members of the Committee and the Working Groups. The Order is revised when there is a change in the membership.

Standing Order on Disaster Preparedness (1/2008), dated 12 December 2008⁵⁰

The existing Standing Order on Disaster Preparedness was updated last on 12 December 2008. It is issued by the Township General Administration Department. The Standing Order provides directions on how to prepare response and recover from the four main hazards as mentioned in Table 8.18. Under the Standing Order, activities with respect to each hazard are to be carried out in four distinct periods namely:

- Preparedness activities during normal time
- Warning activities before the occurrence of hazardous event
- Activities during hazardous event
- Rehabilitation and reconstruction activities after the hazardous event.

The Standing Order also specifically points out the stockpiling of essential emergency relief materials as follows to minimize the damages and losses in the township.

- Rice, oil, salt
- Clothing for men and women, blankets, mosquito nets, towels
- Pots and pans
- Construction materials

It is also directed that every concerned relief agency needs to arrange for reservation of tarpaulin sheets, plastic sheets, tents, water bottles and medicines. The Standing Order also provides general directives for PDCs of wards and village tracts.

Documentation on Fire Preparedness

In Magway Township, fire prevention is highly prioritized and every ward and village tract as well as every government department has to prepare its own fire preparedness

⁴⁹ *Committee Constitution and Work Assignment Order*, letter no. 3/2-37/Oo 6, dated 21 December 2008

⁵⁰ Standing Orders are issued when there are specific activities to be carried out. For specific hazard related Standing Order, Township Peace and Development Council is the signatory while the general Standing Order is produced by Township General Administration Department.



plans. Every year, around September, the Divisional body issues a directive to districts which in turn instructs the townships to draft the Fire Preparedness Plan. The townships then either issues a directive or conveys the message at the regular (every 2 weeks) meetings of Peace and Development Councils, of ward and village tract chairmen and secretaries and representatives from township government departments.

The plans from ward and village tracts are submitted to Township Peace and Development Council once completed. These plans are integrated into the Township’s plan which is then submitted to the district and finally to the divisional authority. Within the township, Township Peace and Development Council issues a directive to Peace and Development Councils of wards and village tracts to carry out fire preparedness initiatives. It basically provides instructions on the constitution of auxiliary fire brigades, deployment of watch stations and to warn the general public with regards to the usage of fire including kitchen fire and other habits. It is normally followed by directives to carry out inspection in wards and village tracts to ensure necessary fire preparedness materials are being made ready at every village.

8.5.4 Magway Township Disaster Preparedness, Prevention, Relief and Rehabilitation Committee

Township Disaster Preparedness, Prevention, Relief and Rehabilitation Committee [TDPPRR] of Magway is constituted as per the directions of the National Disaster Preparedness Central Committee [NDPCC]. Its 25-member Committee is made up of the representatives from various departments as described in Table 8.19.

Table 8.19 Composition of TDPPRRC, Magway Township

No.	Membership	Designation
1.	Chairman, Township Peace and Development Council	Chairman
2.	Township Police Officer, Myanmar Police Force	Member
3.	Township Judge	Member
4.	Township Law Officer	Member
5.	Township Executive Officer, Development Affairs Department	Member
6.	Staff Officer, Fisheries Department (Township)	Member
7.	Staff Officer, Department of Labour	Member
8.	Staff Officer, Department of Human Settlement and Housing Development	Member
9.	Sports and Physical Education Department (Township)	Member
10.	Staff Officer, Immigration Department (Township)	Member
11.	Staff Officer, Forest Department (Township)	Member
12.	Township Medical Officer	Member
13.	Myanma Electrical Power Enterprise (Township)	Member
14.	Livestock Breeding and Veterinary Department(Township)	Member



15.	Township Auditor, Audit Office	Member
16.	Myanmar Posts and Telecommunications (Township)	Member
17.	Information and Public Relation Department (Township)	Member
18.	Education Department (Township)	Member
19.	Staff Officer, Fire Services Department (Township)	Member
20.	Union Solidarity and Development Association (Township)	Member
21.	Myanma Agriculture Services (Township)	Member
22.	Myanmar Red Cross Society(Township)	Member
23.	Staff Officer, Cooperatives Department (Township)	Member
24.	Chairman, Ward Peace and Development Councils (all)	Members
25.	Secretary, Township Peace and Development Council	Secretary

Under the leadership of Township Committee, there are ten Working Groups assigned to undertake specific disaster management activities. Table 8.9 provides their memberships in detail.

Table 8.20 **Composition of Working Groups**

Working Group	Membership	Designation
Information and Education	Information and Public Relation Department	Chairman
	Education Department	Member
	Department of Health	Member
	Department of Meteorology and Hydrology	Member
	Staff Officer, Fire Services Department	Secretary
Emergency Communication	Responsible Person, Posts and Telecommunications	Chairman
	Police Captain, Myanmar Police Force	Member
	Department of Labour	Member
	Responsible Person, Myanmar Posts and Telecommunications	Secretary
Search and Rescue	Assistant Director, Divisional Social Welfare Department	Chairman
	Police Captain, Myanmar Police Force	Member
	Staff Officer, Fire Services Dept.	Member
	Township Engineer, Public Works	Member
	Deputy Staff Officer, General Administration Dept.	Member
	Myanmar Red Cross Society	Secretary
Information of Losses and Emergency Assistance	Staff Officer, Irrigation Dept.	Chairman
	Staff Officer, Township Agricultural Mechanization Department	Member
	Staff Officer, Livestock Breeding and Veterinary Department	Member
	Department of Health	Member
	Chairman, Transportation Supervising Committee	Member
	Township USDA	Secretary
	Staff Officer, Planning Dept.	Chairman



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Assessment of Losses	Staff Officer, Internal Revenue Department	Member
	Township Engineer, Public Works	Member
	Manager, Myanma Agriculture Services	Member
	Staff Officer, Immigration Dept	Secretary
Clearing Ways and Transportation	Assistant Director, Development Affairs Dept.	Chairman
	Staff Officer, Irrigation Department	Member
	Township Manager, Cotton and Sericulture Department	Member
	Township Engineer, Myanma Electric Power Enterprise	Member
	Township Police Officer, Myanmar Police Force	Secretary
Risk Mitigation and Establishment of Emergency Shelter	Staff Officer, General Administration Dept.	Chairman
	Law Officer, Township Law Office	Member
	Staff Officer, Development Affairs Department	Member
	Staff Officer, Central Inland Freight Handling Committee	Member
	Deputy Staff Officer, General Administration Dept	Member
	USDA	Secretary
Health	Department of Health (Township)	Chairman
	Township Myanmar Red Cross Society	Member
	Township Social Security Board	Member
	Township Manager, Myanma Agricultural Development Bank	Member
	Township Traditional Medicine Department	Secretary
Rehabilitation and Reconstruction	Secretary, Township Peace and Development Council	Chairman
	Township Engineer, Public Works	Member
	Township Fisheries Department	Member
	Deputy Staff Officer, General Administration Dept. (Township)	Member
	Staff Officer, Fire Services Department (Township)	Secretary
Security	Deputy Police Major, Myanmar Police Force	Chairman
	Myanmar Red Cross Society	Member
	Head of Police Station No. 2, Myanmar Police Force	Member
	Head of Police Station, No. 1 Myanmar Police Force	Secretary



8.5.5 Roles and Responsibility of Magway Township Disaster Preparedness, Prevention, Relief and Rehabilitation Committee

As maintained in the Committee Constitution Order, the following roles have been identified for the Magway Township Disaster Preparedness, Prevention, Relief and Rehabilitation Committee.

- i. Flood preparedness, prevention and resettlement activities to be undertaken through establishment of working groups at district/ ward/ village tract levels,
- ii. For relief, resettlement and reconstruction, to manage ward/ village working groups,
- iii. Flood forecast and warning: to disseminate flood warning information in time to the ground level when the news is received,
- iv. To arrange for public education and public participation in flood preparedness and prevention activities,
- v. For relief provision during flood, resettlement, reconstruction and execution directives issued from concerned departments,
- vi. During river-flood, to assign necessary tasks to respective departments, social groups and surrounding villages,
- vii. To conduct appropriate drills and exercises before the flood season.

8.5.6 Implementation of Disaster Management Activities in Magway Township

The key departments involved in disaster management activities in Magway Township are General Administration Department, Fire Services Department, Relief and Resettlement Department and Department of Health. General Administration Department and Township Peace and Development Council are the key agencies overseeing the general disaster management activities within the township while Fire Services Department is the lead agency in fire preparedness activities, particularly in public awareness raising and education works. As clearly stated in the Decree and Standing Order on Fire Preparedness, all the government departments that are members of Township Peace and Development Council are responsible for conducting inspections in all villages, wards and townships.

The current plan is to conduct auxiliary fire brigade trainings in all the villages within Magway Township. The 10-day training course consists of such modules as cause of fire, different types of fire and how to handle various kind of fire extinguishing equipment. It is planned to complete the trainings in 10 townships in Magway city by the end of February 2009. The trainings are conducted in partnership with Myanmar Police Force and existing Auxiliary Fire Brigades. The participants of these trainings will be future trainers for multiplier courses at ward and village tract levels.

In terms of public awareness raising, the usual activities include organizing of public seminars and installation of posters and billboards in public places. In certain villages, fire watch towers are built for better supervision of the situation, particularly in the afternoon



which is identified as the time of the day when most fire incidents occur. However, due to these measures, commenced sometimes around 1975, fire hazards have been considerably reduced in the township.

Relief and Resettlement Department in Magway Township also organizes trainings, particularly Disaster Management Courses, for members of Magway Township Disaster Preparedness Committee and representatives of such organizations as Union Solidarity and Development Association and Myanmar Red Cross Society. Between 2007 and 2008, three courses have been conducted. INGOs such as Save the Children, PACT Myanmar, UNDP and WFP are working in the township on issues varying from agriculture to micro-finance.

Reference:

- *Decree to carry out fire preparedness initiatives*, letter no. 3/2-37/Oo 6, dated 23 October 200
- *Directives on conducting fire preparedness inspections*, letter no. 3/2-37/Oo6, dated 24 December 2008
- Reference: *Committee Constitution and Work Assignment Order*, Letter no. 3/2-37/Oo 6, dated 21 December 2008
- *Standing Order for Disaster Preparedness (1/2008)*, dated 12 December 2008.
- *Standing Order on fire preparedness (1/2009)*, dated 4 February 2009
- The interviews with responsible officials from the General Administration Department, Fire Services Department and the Department of Relief and Resettlement of Magway Township on 4 February 2009



8.6 Maubin Township, Ayeyarwady Division

8.6.1 Introduction to Maubin Township

Maubin township is located in the Ayeyarwady Delta, within the Ayeyarwady Division, on the western bank of the Toe River, one of the main tributaries of the Ayeyarwady River. It is 35 miles away from Yangon in the westernly direction. Maubin shares its border with

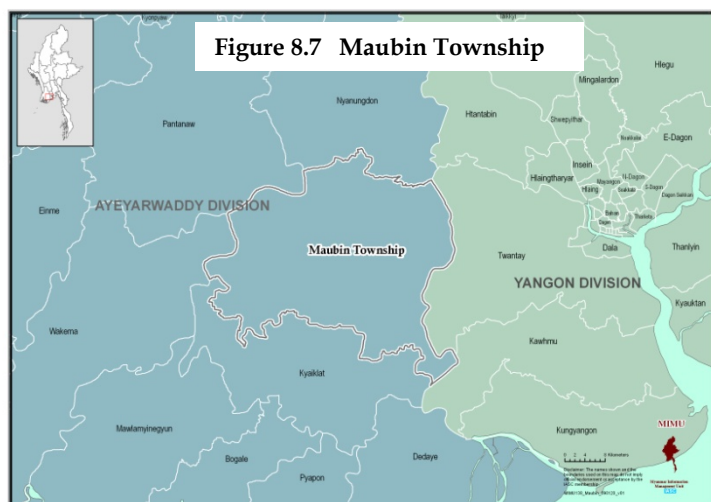


Figure 8.7 Maubin Township

Twante Township and Yangon Division in the east, Nyaungdon Township in the north, Pantanaw and Wakema in the west and Kyaitlat in the south, the last three belonging to Ayeyarwady Division.

The majority of the population in the township rely on farming for their income and Maubin is also well known for the existence of the largest number of fish ponds

in the entire Division. Maubin Township is under the administrative supervision of Maubin District and it consists of 88 village tracts, 10 of which are identified as flood prone.

8.6.2 Disaster Situation in Maubin Township

Maubin Township is susceptible to two natural hazards, namely flood (during rainy season) and fire (during summer), though from 2003 to 2008, the township has not experienced any major disaster. One advantage of Maubin Township is that it is situated at the upstream of the Toe River and as a result, when the river overflows during the monsoon, the excessive flood water travels quickly downstream, sparing the township any devastating consequences with regards to riverine flooding.

Most of the incidents that have occurred in the past years involved flooding due to failure of dykes and levees, constructed with sandy soil. They are mainly caused by structural failures or the pressure of rising flood water in the river ⁵¹or water leakage brought about by the penetration of the roots of growing trees along the structures. River bank erosion is also considered another problem that has negative impact on the development of the township.

8.6.3 Documentations on Disaster Management and Implementation of Activities

Disaster Preparedness Action Plan: A Disaster Preparedness Action Plan exists at the township level that lays down the compositions of Township Disaster Preparedness

⁵¹ Dykes and levees are built along the bank of the Toe River throughout the township.

Committee of Maubin and its sub-committees. The Action Plan is updated yearly but specific activities are instructed through Standing Orders to the ward and village tract levels.

Standing Order on Disaster Preparedness: The Standing Order on Disaster Preparedness also documents the structure of District and Township Disaster Preparedness Committees, their sub-committee and their specific duties. The Standing Order is being known to have existed for more than 50 years since 1956 with periodic updates, focusing mainly on flood relief and response works. The latest and more comprehensive version of the document was finalized in October 2008 covering all potential natural hazards within the township.

Though disaster preparedness action plans are updated annually, Standing Orders are issued only when there are specific activities to be carried out under the circumstances of an imminent hazard. For specific hazard related Standing Order, Township Peace and Development Council is the signatory while the general Standing Order is produced by Township General Administration Department.

8.6.4 Township Disaster Preparedness Committee

Township Disaster Preparedness Committee of Maubin [Maubin TDPC] was constituted as per the directions of National Disaster Preparedness Central Committee [NDPCC]. Its 19 member-Committee is made up of the representatives from various departments as described in the Table 8.21⁵².

Table 8.21 Township Disaster Preparedness Committee, Maubin Township

No.	Membership	Designation
1.	Chairman, Township Peace and Development Council	Chairman
2.	Township Police Officer, Myanmar Police Force	Member
3.	Township Engineer, Public Works	Member
4.	Staff Officer, Irrigation Department (Township)	Member
5.	Staff Officer, Myanma Agricultural Services (Township)	Member
6.	Staff Officer, Myanma Electric Power Enterprise (Township)	Member
7.	Township Health Officer	Member
8.	Township Executive Officer, Development Affairs Department	Member
9.	Staff Officer, Planning Department (Township)	Member
10.	Staff Officer, Fire Service Department (Township)	Member
11.	Staff Officer, Internal Revenue Department (Township)	Member
12.	Deputy Staff Officer, General Administration Department	Member
13.	Deputy Head of Township Myanmar Police Force	Member
14.	Responsible Person, Myanma Posts and Telecommunications	Member
15.	Staff Officer, Forest Department (Township)	Member

⁵² Reference: Standing Order on Disaster Preparedness, Maubin TDPC, dated October 2008



16.	Township Education Officer	Member
17.	Township Manager, Myanmar Agricultural Produce Trading	Member
18.	Chairman, Transportation Supervision Committee	Member
19.	Chairman, Township Peace and Development Council	Member

Under the leadership of Township Disaster Preparedness Committee, there are (13) sub-committees with specifically assigned tasks, as reflected in their titles, as follows:

1. Information Collection Sub-committee
2. Information Dissemination Sub-committee
3. Emergency Communication Sub-committee
4. Transportation Sub-committee
5. Relief and Resettlement Sub-committee
6. Information of Losses and Emergency Assistance Sub-committee
7. Health Sub-committee
8. Education Sub-committee
9. Establishment of Emergency Shelter Sub-committee
10. Construction and Rehabilitation Sub-committee
11. Assessment of Losses Sub-committee
12. Accepting Relief Materials and Fund Sub-committee
13. Security Sub-committee

These sub-committees are immediately deployed when there is an emergency but during normal time, they remain inert though respective departments have their own mandates and roles which they carry out regularly. For instance, Irrigation Department does its customary dyke/ levees repair works while Department of Health undertakes regular public awareness raising works, focusing on water borne diseases, in the flood prone areas before every rainy season.

8.6.5 Roles and Responsibility of Maubin Township Disaster Preparedness Committee

As maintained in the Standing Order, the following roles have been identified for TDPC of Maubin.

- To collect information from the affected locations.
- To identify priority activities and to inform respective committees of these activities.
- To ensure activities are carried out as per the Standing Order.
- To undertake the identification of the needs of machinery and relief materials and their movement.
- To make sure respective committees are providing necessary food and other household items as well as health care to the affected communities.
- To meet, comfort and care for the affected communities.



- To issue necessary directives and orders for reigning of peace, law and order.
- To report to the higher authority in case the committee cannot resolve certain matters.
- To investigate the cause of a hazard and if it is caused by human, to take necessary actions as dictated by law and regulations.
- To provide access to water and sanitation facilities in the affected areas.
- To respond to donors from abroad, non-government agencies and individual only with the permission from the national level.
- To respond to questions from magazines and journals as per instructions from the national level authority.
- To support the affected communities to resettle and to recover.
- To complete the tasks and to submit completion reports.

8.6.6 Implementation of Disaster Management Activities in Maubin Township

At the township level, there are two departmental activities: Flood Management and Fire Prevention, carried out annually as part of the regular disaster management interventions. The “Fire Prevention Activity” takes place usually from February to May, during the dry season, with Township Fire Services Department in the lead role. The Program involves organizing public awareness campaigns on what kind of fire extinguishing equipment every household should keep to ward off fire hazards⁵³, installing educational posters in crowded areas, organizing mock drills for Fire Services Department and Auxiliary Fire Brigades and carrying out regular safety inspections.

Meanwhile, Township Irrigation Department heads the effort on “Flood Management Activity”. With the support of both human and machinery, they perform customary evaluation of the dykes and levees during the dry season and repair and reinforce the structures throughout the year.

It has to be noted that these two programs are not exactly implemented by TDPC. They are departmental level initiatives and have been implemented long before TDPC was put in place. The Standing Order, all the same, captures the usual steps taken to manage particularly the flood, and the deployment of all the sub-committees will take place in case the scale of a certain hazard is widespread and considered an emergency at the township level.

The Standing Order comes into practice if there is an imminent hazard threatening the entire township. For instance, during monsoon, flooding of the Toe River is considered a township level event and during that time, the meetings are held regularly to assess the

⁵³ A bucket, a hook, a long pole with a metal card attached at the top are the essential elements that every ward/village tract/village need to keep ready as well as regular 24 hour fire look-out stations.



flood situation. Government officials are assigned watch duties at various locations (vulnerable locations) and the before, during and after activities, stated in the Standing Order, are carefully followed.

8.6.7 Post Nargis Activities

Immediately after Nargis Cyclone in May 2008, Maubin Township, except for the villages in the far west and south, did not suffer extensive damage from the floods nor the strong wind caused by the Cyclone. There were 12 deaths altogether in the entire township due to fallen trees, some 100 schools were damaged and houses in a few villages, in the extreme south of the township, were destroyed. Maubin was not identified as an affected area and as a result, was not entitled to any financial nor material support.

Yet, because of its proximity to the heavily affected townships such as Kyaiklat, Maubin was given the responsibility to organize and manage refugee camps within the city limit. For about two months from May to July 2008, TDPC hosted eight camps at selected locations (mainly schools and monasteries) for about 8,000 refugees from the surrounding affected townships. The camps were effectively managed by the respective sub-committees of TDPC in all aspects from collection of food and relief items to their distribution to providing financial and material support to the affected communities living in the camps before helping them return to their villages. In addition, the township also opened and managed a temporary orphanage. Around 11 township officials including the Deputy Director of District General Administration Office were sent to Nargis affected areas to assist in relief and response works for a month, in particular in collecting damage data. Irrigation Department also conducts trainings and demonstrations on maintenance of dykes and levees every year for its up and coming officials in the township. Fire Service Department also provides regular trainings for its Auxiliary Fire Brigades in the villages.

In Maubin Township, international non-government agencies as Save the Children and other organizations, such as Union Solidarity and Development Associations (USDA), are currently working on disaster management related works, such as rebuilding of damaged schools and reconstruction of houses in cyclone affected villages (after Nargis).

Myanmar Red Cross Society in Maubin Township conducts disaster related trainings for its volunteers and general public. Before Nargis, the trainings took place within the Maubin Township and later extended other townships of the district. The Trainings of Trainers on Community Based Flood Awareness (CBFA) and Community Based Disaster Management (CBDM) have been organized.

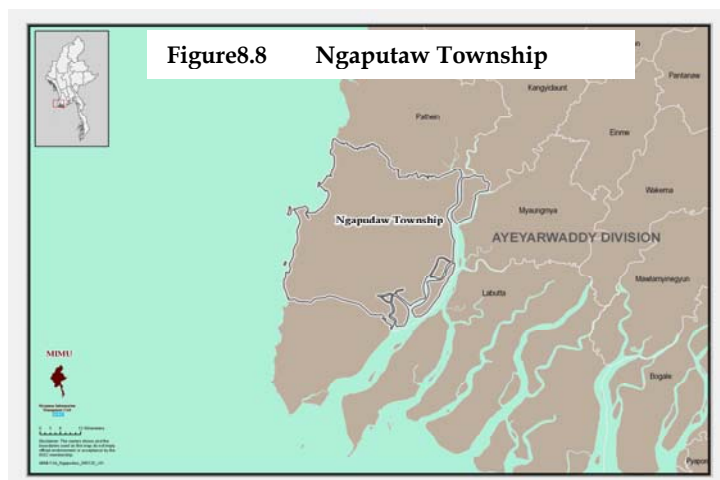
Reference:

- Interviews with officials from the General Administration Department of Maubin District and Maubin Township as well as with the members of Maubin Township Disaster Preparedness Committee on 30 January 2009



8.7 Ngaputaw Township, Ayeyarwady Division

8.7.1 Introduction to Ngaputaw Township



Ngaputaw Township is located in Ayeyarwady Division and surrounded by Patheingyi in the north, Myingmya in the east, Labutta in the east and partially in the south and the Bay of Bengal in the west⁵⁴. It comprises 2 townships, 4 Wards and 45 Village Tracts. It has a total population of 139,938 and 25,046 houses. It is approximately 30.28 feet above the sea level.

The average annual rainfall is approximately 2,520 mm and rainy days range from 81 to 119. The township is prone to fire, flood, storm surge, earthquake and Tsunami.

8.7.2 Objective and Strategy⁵⁵

The Standing Order has been prepared with the objective to perform activities systematically if disaster hits Ngaputaw in future. It will also help in reducing loss of lives and property and protecting the gains of momentum of development. The following strategy shall be undertaken

- Constitution of Working Committees
- Constitution of Sub-Committees based on activity
- Undertaking measures for reducing risk and increase preparedness
- Taking action at the time of Early Warning
- Undertaking necessary response action
- Performing rehabilitation and reconstruction activities

8.7.3 Hazard prone areas

The hazard prone areas of Ngaputaw have been identified as follows:

- a. *Both Flood and Storm prone*
Nga Yoke Kaung Sub-Township
Ngaputaw Town
Village Tracts
- b. *Flood prone*
Nga Yoke Kaung Sub-Township

⁵⁴ MIMU134_Ngaputaw_090120_v01

⁵⁵ Standing Order, Disaster Preparedness Executive Committee, Ngaputaw Township Peace and Development Council, 27 February 2009 (page3-4)

- Ten Village Tracts
- c. *Tsunami and storm surge prone*
Ngaputaw Sub-Township
Ten Village Tracts

8.7.4 Township Disaster Preparedness Central Committee⁵⁶

The 15-member Township Disaster Preparedness Central Committee [TDPCC] has been constituted under the Chair of Township Peace and Development Council, Chairman. The composition of committee is shown in Table 8.22.

Table : 8.22 Composition of TDPCC, Ngaputaw Township

Sr. No.	Membership	Designation
1	Chairman, Township Peace and Development Council	Chairman
2	Township Police Officer, Myanmar Police Force	Member
3	Manager, Myanma Agriculture Services	Member
4	Township Engineer, Myanma Electric Power Enterprise	Member
5	Township Education Officer	Member
6	Township Medical Officer, Department of Health	Member
7	Township Executive Officer, Development Affairs Department	Member
8	Chairman, Transportation Supervision Committee	Member
9	Township Engineer, Public Works	Member
10	Township Head, Myanma Posts & Telecommunications	Member
11	Responsible person, Myanma Agriculture Produce Trading	Member
12	Chairman, Ward/Village Tract PDC (all)	Member
13	Staff Officer, Forest Department	Member
14	Staff Officer, Irrigation Department	Member
15	Secretary, Township Peace and Development Council	Secretary

8.7.5 Roles and Responsibilities

The roles and responsibilities of TDPCC in all the three phases of Disaster Risk Reduction i.e. before disaster, during disaster and after disaster have been identified and defined. The TDPCC has the following roles and responsibilities:

- i. *Before disaster*
 - To disseminate early warning information received from television, internet, radio and newspaper upto grass root level
 - To arrangement for plantation of shady trees and mangrove
 - To develop mounds and hillocks in proportionate to the population
 - Try to have RCC buildings (two buildings for accommodating 100 people while five buildings for 200 people), Also to have RCC school buildings, monasteries

⁵⁶ Standing Order, Disaster Preparedness Executive Committee, Ngaputaw Township Peace and Development Council, , 27 February 2009 (page 6)



- To give directions and supervise to have pure drinking water, godowns for paddy & rice and food and drugs for humans and animals
- Try to have life saving equipment (Lifejackets, etc) in boat and house in proportionate to the population
- To constitute a team of local people
- To arrange sand bags, bamboos, bamboo partition sheet, plastic bags, etc in the dam area
- To arrange educational programs, workshops for public and responsible persons of various committees
- To arrange sufficient vehicles for Village Tracts and Wards
- To arrange loud speakers, generators, torch, etc and identify open areas and playgrounds
- To constitute Working committees and draw detailed action plan of the committees
- To set up information network to disseminate/update information promptly
- In proportion to the population, organize Information, Education and Communication [IEC] campaign on preparedness for public to make it more disaster resilient.
- The early warning dissemination to masses shall be ensured and kept updated.
- Evacuation shelter shall be identified and kept in the state of readiness.
- The data related to disaster shall be collected and updated regularly

ii. *During disaster*

- To evacuate children, elderly people and other people. To take care of the public/cooperative and private properties on a priority basis
- To supervise the rescue by teams constituted before disasters and provide facilities (public address system)
- To prevent damage, depute watchman at dam and conduct regular check at key areas
- To make arrangement for at temporary shelter place and shifted by vehicle
- To maintain photographic and video record of disasters

iii. *After disaster*

- To collect data, records and estimate damage and losses
- Distribution of relief materials at relief camps and construction material
- To control epidemic, pure dinking water and sanitation
- Rehabilitation and reconstruction of damaged building and crops



- For newly constructed village, establish model village having 20 feet wide streets, gutters along the road, fences, latrines and vegetable patches (Kitchen garden) in houses
- To take steps so that agriculture area is not reduced
- To enhance the regional development works
- To review the risk reduction/mitigation activities and strategies may be modified
- To coordinate among the working committees
- To work systematically and maintain records of relief distribution and donation
- To make arrangement for implementation as per the directions of higher authorities

8.7.6 Working Committees⁵⁷

Thirteen working committees have been constituted on specific activities. The activity wise composition of working committees is shown in Table 8.23.

Table 8.23 Working Committees of TDPCC, Ngaputaw

Working committee	Chair	Members	Secretary
Information Collection	Township Police Officer, Myanmar Police Force	1) Secretary, USDA 2) Head of Information Brigade, Myanmar Police Force 3) Responsible person, Special Bureau for Investigation, Myanmar Police Force 4) Township Executive Officer, Development Affairs Department 5) Township Education Officer, Department of Education 6) Staff Officer, Immigration and National Registration Department 7) Chairman, Association for Video rental services	Staff Officer, Information and Public Relation Department
Information Dissemination	Law Officer, Township Law Office	1) Responsible person, Myanma Posts and Telecommunications 2) Supervisor, Department of Sports and Physical Education	Staff Officer, Public Relation Department
Communication	Responsible person, Myanma Posts and Tele-communications	1) Deputy Police Captain, Ngaputaw Police Station, Myanmar Police Force 2) Deputy Staff Officer, General	Department of Transport Planning

⁵⁷ Standing Order, Disaster Preparedness Executive Committee, Ngaputaw Township Peace and Development Council, , 27 February 2009 (page 8-25)



Institutional Arrangements for Disaster Management in Myanmar

		Administration Department	
Transportation	Township Police Officer, Myanmar Police Force	1) Head of Ngaputaw Police Station, Myanmar Police Force 2) Deputy Staff Officer, General Administration Department	Deputy Staff Officer, General Administration Department
Relief and Resettlement	Township Executive Officer, Development Affairs Department	1) Township Engineer, Myanmar Electric Power Enterprise 2) Deputy Staff Officer, General Administration Department 3) Secretary, USDA 4) Township Medical Officer, Department of Health	Deputy Battalion Commander, Regional Auxiliary Fire Brigade
Emergency Assistance	Staff Officer, Planning Department	1) Staff Officer, Irrigation Department 2) Township Engineer, Public Works 3) Township Engineer, Electric Power Enterprise 4) Manager, Myanma Agriculture Services 5) Staff Officer, Township Settlement and Land Records Department 6) Responsible Person, Myanmar Posts and Telecommunications 7) Responsible person, Transport Supervision Committee 8) Executive Committee member, USDA 9) Township Medical Officer, Department of Health	Deputy Staff Officer, Planning Department
Health	Township Medical Officer, Department of Health	1) Staff Officer, Livestock Breeding and Veterinary Department 2) Head of Clinic, Department of Traditional Medicine 3) Township Education Officer, Department of Education	MRCS Supervision Committee
Education	Township Education Officer, Department of Education	1) Township Medical Officer, Department of Health 2) Head of Clinic, Department of Traditional Medicine 3) Secretary, USDA	Assistant Township Education Officer, Department of Education
Mitigation and Establishment of Emergency Shelter	Township Executive Officer, Development Affairs Department	1) Manager, Myanma Agriculture Services 2) Executive Committee member, USDA 3) Township Medical Officer,	Staff Officer, Township Co-operative Department



Institutional Arrangements for Disaster Management in Myanmar

		Department of Health	
Rehabilitation and Reconstruction	Engineer, Public Works	<ol style="list-style-type: none"> 1) Chairman, Ward/Village Tract Peace and Development Council 2) Staff Officer, Township Agricultural Mechanization Department 3) Deputy Battalion Commander, Auxiliary Fire Brigade 4) Secretary, Union Solidarity and Development Association 5) Chairman, MRCS Supervision Committee 	Staff Officer, Irrigation Department
Assessment of Losses	Staff Officer, Planning Department	<ol style="list-style-type: none"> 1) Staff Officer, Irrigation Department 2) Engineer, Public Works 3) Township Auditor 4) Staff Officer, Immigration and National Registration Department 	Deputy Staff Officer, Planning Department
Accepting and Transfer of Relief Materials and Fund	Township Executive Officer, General Administration Department	<ol style="list-style-type: none"> 1) Staff Officer, Planning Department 2) Responsible Person, Township Transportation Coordination Committee 3) Secretary, Union Solidarity and Development Association 	Staff Officer, Internal Revenue Department
Security	Township Police Officer, Myanmar Police Force	<ol style="list-style-type: none"> 1) Deputy Battalion Commander, Regional Auxiliary Fire Brigade 2) Responsible Person, Township MRCS 3) Deputy Staff Officer, General Administration Department 	Deputy Township Police Officer, Myanmar Police Force

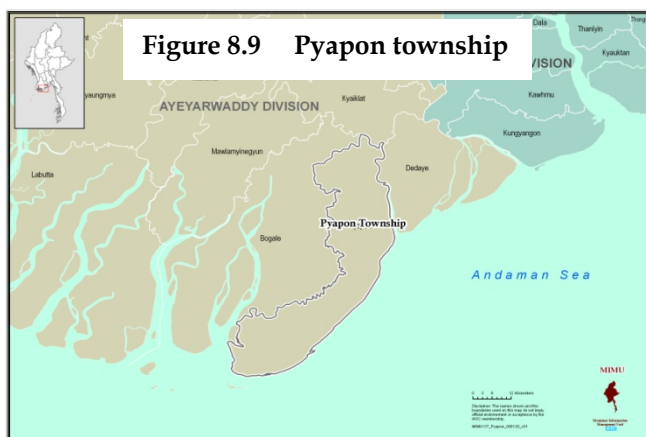
Reference:

- *Standing Order*, Disaster Preparedness Executive Committee, Ngaputaw Township Peace and Development Council, , 27 February 2009
- Discussion with Relief and Resettlement Department, Pathein, Ayeyarwady Division on 5th March 2009



8.8 Pyapon Township, Ayeyarwady Division

8.8.1 Introduction to Pyapon Township



Pyapon Township is located in the southeast of Ayeyarwady Division. It shares a boundary with Bogale Township in the west, Kyaiklat Township in the north, Dedaye Township in the east and the Andaman Sea in the south. It comprises 17 wards, 43 village tracts and 137 villages. It has a total population of 162,704.

8.8.2 Pyapon Township Relief, Resettlement and Rehabilitation Committee

The Township Relief, Resettlement and Rehabilitation Committee (TRRRC) has been constituted⁵⁸ to carry out emergency activities systematically, if a disaster breaks out in Pyapon Township. The composition of the Committee is shown in Table 8.24.

Table : 8.24 Composition of TRRRC

Sr. No.	Membership	Designation
1	Chairman, Township Peace and Development Council	Chairman
2	Township Police Officer, Myanmar Police Force	Member
3	Township Engineer, Public Works	Member
4	Township Executive Officer, Development Affairs Department	Member
5	Township Manager, Myanma Electric Power Enterprise	Member
6	Township Manager, Myanma Agriculture Services	Member
7	Township Manager, Myanma Petroleum Product Enterprise	Member
8	Township Officer, Transport Planning Department	Member
9	Owners of Rice Mill	Member
10	Trader for Rice	Member
11	Trader for Timber	Member
12	Owner of ice plant	Member
13	Businessman, Fisheries	Member
14	Businessman, Construction materials	Member
15	Engineer, Pyi Phyo Kyaw Construction Company	Member
16	Engineer, Yuzana Construction Company	Member
17	Engineer, Dagon Construction Company	Member
18	Secretary, Township Union Solidarity and Development Association	Member
19	Battalion Commander, Civil Force	Member
20	Head of Battalion, Myanmar Red Cross Society	Member
21	Head of Company, Auxiliary Fire Brigade	Member

⁵⁸ Standing Order - 1/2008 dated 1st October 2008, Letter No. 4/31-2U/6, Township Peace and Development Council, Pyapon Township



8.8.3 Roles and responsibilities of TRRRC

The roles and responsibilities of the Township Relief, Resettlement and Rehabilitation Committee are

- i. To perform search and rescue
- ii. To provide health care and prevention of epidemic for the rescued person
- iii. To arrange food
- iv. To arrange shelter
- v. To repair roofs and walls of houses
- vi. To repair schools
- vii. To repair health centre and construct, if not existed before, and open as health centre
- viii. To re-start primary school in temporary shelter
- ix. To provide school furniture with the help of construction companies
- x. To prepare report on number of students and teachers and identify teaching staff to fill the gap
- xi. To provide bags, books, textbooks and stationeries to students
- xii. To prepare list of orphan students and report to the central level
- xiii. To plan for opening a school for orphans
- xiv. To repair damaged buildings and reconstruct totally collapsed buildings
- xv. To settle the disputes on land, farm and land settlement by the village committee
- xvi. To compile information on agriculture, livestock and fisheries required by military commanders and to supervise the committee's function
- xvii. To provide sufficient ration for battalions, companies of Army and Police Forces at their own arrangement
- xviii. To maintain updated information & records on relief, resettlement and rehabilitation of the committees and sub-committees
- xix. Law and order restoration, mobilization of people and security activities should be performed collectively by army, police and auxiliary forces
- xx. To have effective transportation and communication system vertically and horizontally

**Figure 8.10 Discussion with Committee Members
Pyapon Township**



8.8.4 Sub-Committees

Ten sub-committees have been constituted and duties of each sub-committee have been specified in the Standing Order. Also, the sub-committee has to report to the Committee⁵⁹. The list of sub-committees along with composition and duties are as follows:

Search and Rescue Sub-committee: Chief, Township Police Officer is the Team Leader and composition & duties are shown in Table 8.25.

Table 8.25 Search and Rescue Sub-committee

Members		Duties	
I.	Staff Officer, Fire Services Department	I.	To carry out emergency rescue
II.	Battalion Commander, MRCS	II.	To provide foods in emergency period
III.	Secretary, Township Union Solidarity and Development Association	III.	To provide emergency shelter
IV.	Deputy Staff Officer, General Administration Department	IV.	To search and help lost victims
V.	Chairmen, Village Tracts/ Wards Peace and Development Council	V.	To clear debris
		VI.	To arrange cremation for dead victims.
		VII.	To counsel with left families and provide assistance as needed.

Health Care: Township Medical Officer is the Team Leader and composition & duties are shown in Table 8.26.

Table 8.26 Health Sub-committee

Members		Duties	
I.	Veterinary Officer	I.	To provide health care for victims
II.	Battalion Officer of Red Cross	II.	To provide emergency temporary clinics
III.	Myanmar Maternal and Child Welfare Association	III.	To provide carry out emergency treatments
IV.	Myanmar Women Affairs Federation	IV.	To give immunization to prevent epidemics
V.	Medical Officer, Village Tracts/ Wards Medical Sub-Department	V.	To put Chlorine in wells & ponds
		VI.	To make arrangement for sufficient drinking water in each village and provide assistance as needed.

Data Collection Sub-committee: Secretary of Pyapon Township Peace and Development Council is the Team Leader and composition and duties are shown in Table 8.27.

Table 8.27 Data Collection Sub-committee

Members		Duties	
I.	Staff Officer, Immigration Department	I.	To compile data on damage and loss by building type
II.	Staff Officer, Settlement and Land Records Department	II.	To compile data on dead people and animals
III.	Manager, Agricultural Department	III.	To compile detailed data on loss of each business
IV.	Assistant Education Officer, Education Department	IV.	To compile data on private and religious damaged buildings
V.	Staff Officer, Internal Revenue Dept		
VI.	Sales Manager, Myanma Agriculture		

⁵⁹ Standing Order - 1/2008 (page 3-9) dated 1st October 2008, Letter No. 4/31-2U/6, Township Peace and Development Council, Pyapon Township



VII. Produce Trading Auditor, Township Audit Office VIII. Chairman, Village Tracts/ Wards Peace & Development Council (all) IX. Respected person, Village Tracts /Wards Peace and Development Council	V. To provide data as per the requirement of the higher authority VI. Coordination with others for data availability.
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Accepting & Transfer of Relief Materials and Fund sub-Committee: Township Auditor is the Team Leader and composition and duties are shown in Table 8.28.

Table 8.28 Accepting & Transfer of Relief Materials and Fund sub-Committee

Members	Duties
I. Staff Officer of Township Immigration Department II. Manager of Myanmar Economic Bank III. Deputy Township Staff Officer of General Administration Department IV. Town-elders V. Union Solidarity & Development Association	I. Systematic registration for donation II. To open an account at Myanmar Economic Bank III. To record in a cashbook IV. To allow withdrawal for expenditure permitted by Minister's Office V. To transfer donated materials to Management & Distribution of Relief Materials sub-Committee.

Management & Distribution of Relief Materials sub-Committee: Secretary, Township Peace and Development Council is the Team Leader and composition and duties are shown in Table 8.29.

Table 8.29 Management and Distribution of Relief Materials Sub-committee

Members	Duties
I. Township Auditor II. Staff Officer, Township Co-operative Department III. Senior Clerk, General Administration Department IV. Staff Officer, Water Resources V. Staff Officer, Transport Supervision Committee VI. Respected Person from Township Union Solidarity and Development Association VII. Staff Officer, Transport Department VIII. Deputy Township Police Officer	I. To accept and maintain donated materials which are transferred from "Accept & Transfer Sub-Committee" II. Distribute donated materials to Village Tracts/ Wards and other organizations as decided by regional responsible Minister III. Based on type of materials, first come, first serve basis to be practiced for distribution IV. To maintain the materials systematically based on type of materials to prevent from damage.

Reconstruction sub-Committee: Township Engineer, Public Works is the Team Leader and composition & duties are shown in Table 8.30.

Table 8.30 Reconstruction Sub-committee

Members		Duties	
I.	Staff Officer, Irrigation Department	I.	To perform reconstruction for totally collapsed villages at the guidance of Minister
II.	Township Electrical Engineer	II.	To supervise on construction work of new houses and villages by the Minister's guidance and permission.
III.	Staff Officer, Forest Department	III.	To identify public buildings which should be reconstructed and to report to Minister.
IV.	Executive Officer, Township Development Affairs		
V.	Staff Officer, Inland Fridge Handling Department		
VI.	Staff Officer, Department of Fisheries		
VII.	Manager, Myanma Agriculture Services		
VIII.	Assistant Engineer, Myanma Posts and Telecommunications		
IX.	Assistant Engineer, Under Water Cable		
X.	Township Education Officer		
XI.	Engineer of Pyae Phyto Kyaw Construction Company		
XII.	Engineer of Yuzana Construction Company		
XIII.	Engineer of Dagon Construction Company		

Resettlement sub-Committee: Chairman, Township Peace and Development Council is the Team Leader and composition and duties are shown in Table 8.31.

Table 8.31 Resettlement Sub-committee.

Members		Duties	
I.	Township Judge	I.	To provide resettlement of houses for totally collapsed villages
II.	Township Law Officer	II.	To resettle homeless victims in affected villages
III.	Head of Myoma Police Station, Myanmar Police Force	III.	To settle disputes on land
IV.	Township Engineer, Public Works	IV.	To coordinate and settle issues related to inter-department for collapsed departmental buildings/ compounds.
XIV.	Township Executive Officer, Development Affairs Department	V.	To implement as per the instructions of the Minister
XV.	Staff Officer, Settlement and Land Records Department		
XVI.	Chairman, Village Tract/ Ward Peace and Development Council (all)		

Rehabilitation sub-Committee: Chairman, Township Peace and Development Council is the Team Leader and composition & duties are shown in Table 8.32.

Table 8.32 Rehabilitation Sub-committee

Members		Duties	
I.	Manager, Myanma Agriculture Services	I.	To take rehabilitation activities for restoration of normal operation of departments (Government Offices) as the first priority.
II.	Township Education Officer	II.	To perform rehabilitation for education and health.
III.	District Health Officer	III.	To perform rehabilitation for roads transportation and security.
IV.	Township Executive Officer, Development Affairs Department	IV.	To perform rehabilitation for paddy fields and related works.
V.	Township Engineer, Public Works		
VI.	Staff Officer, Irrigation Department		
VII.	Township Electrical Engineer		
VIII.	Staff Officer, Forest Department		
IX.	Staff Officer, Fisheries Department		



X. Staff Officer, Livestock Breeding and Veterinary Department XI. Assistant Engineer, Myanma Posts and Telecommunications XII. Assistant Engineer, Under Water Cable XIII. Fisheries Entrepreneur XIV. Respected person from Myanmar Maternal & Child Welfare Association	V. To perform rehabilitation for fisheries. VI. To perform rehabilitation for salt firms VII. To implement as per the instructions of the Minister
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Security sub-Committee: Township Police Officer, Myanmar is the Team Leader and composition and duties are shown in Table 8.33.

Table 8.33 Security Sub-committee

Members	Duties
I. Township Judge	I. To maintain township security during emergency relief period.
II. Township Law Officer	II. To coordinate with public forces and NGOs for Wards/ Village Tracts security.
III. Head, Township Fire Services Dept	III. To ensure safety of offices and properties of regional authority and departments.
IV. Staff Officer, Immigration Department	IV. To provide security for the committee and sub-committees
V. Head, of Myoma Police Station	
VI. Chairman, Village Tracts/ Wards Peace and Development Council	

Transportation sub-Committee: Deputy Staff Officer, General Administration Department is the Team Leader and composition and duties are shown in Table 8.34.

Table 8.34 Transportation Sub-committee

Members	Duties
I. Staff Officer, Transport	I. To accept and deliver systematically materials sent by NDPCC.
II. Boat Association	II. To arrange vehicles and boats for field trips of the committee and Sub-Committees.
III. Big Car Association	III. To coordinate and facilitate local transport for NGOs in performing relief activities.
IV. Small Car Association	IV. To reserve boats and vehicles for emergency use within the township
V. Manager, Myanma Petroleum Product Enterprise	V. To arrange boats and vehicles for delivering relief materials if necessary
VII. Head of Myoma Police Station	

Reference :

- *Standing Order* - 1/2008 dated 1st October 2008, Township Peace and Development Council, Pyapon Township
- Discussion with Members of the Township Relief, Resettlement & Rehabilitation Committee on 3rd February 2009

CHAPTER 9

OVERVIEW OF EXISTING ARRANGEMENTS: NEEDS IDENTIFIED AND RECOMMENDATIONS

9.1 Overview of Institutional Arrangements for Disaster Management in Myanmar

The existing 'Action Plan on Disaster Risk Reduction, Preparedness, Relief and Rehabilitation' (also known as 'Master Plan for Disaster Preparedness') has laid the foundations for the current disaster management institutional arrangements in the Union of Myanmar. The Disaster Preparedness Plans at various levels have been prepared.

9.1.1 Overview of Disaster Preparedness Committees, Myanmar

Myanmar has multi-layered, institutional arrangements for disaster management from National to Village Tract levels. The National Disaster Preparedness Central Committee, under Chairmanship of the Prime Minister, is the apex body, under which National Disaster Preparedness Management Working Committee (NDPMWC) chaired by Secretary (I), State Peace and Development Council has been constituted. Ten thematic Sub-Committees (see section 4.4), each chaired by a Minister have been constituted under NDPMWC.

Ministries and Departments have been involved, in varying degree, in Disaster Management activities. Department of Meteorology and Hydrology is the nodal Department for warning related to all disasters except Fire, which is mandate of the Fire Services Department. Relief and Resettlement Department [RRD] undertakes relief distribution and organize Disaster Management training course. RRD is also the focal point for ASEAN Committee on Disaster Management [ACDM] for Myanmar. Ministry of Agriculture & Irrigation, Ministry of Education, Ministry of Health, etc are other key Ministries involved in Disaster Management. (Refer chapter 5)

Disaster Preparedness Committees have been constituted at Division/State, District, Township and Village Tract levels, which are headed by the Chairman of the Peace & Development Council at the respective level. In addition, Sub-committees and Working Groups, have varyingly, been constituted to carry out specific tasks at various levels to assist the Disaster Preparedness Committees to discharge its duties. (Refer chapter 6, 7 and 8)

9.1.2 Existing Disaster Preparedness Plans

The Disaster Management Plan at National, State, Division, District and Township levels specify the purpose and objectives of the plan and give an overview of the area (country,



State, etc) according to its scope. The plans also give a brief summary of the hazards and disaster risks in the area. It calls for constitution of Disaster Management Committee, Sub-Committees/Working Groups and its composition.

At the National level, the composition of 'National Disaster Preparedness Central Committee, National Disaster Preparedness Management Working Committee and ten Sub-Committees and its responsibilities have been specified. Similarly, in State and Division level plans, the composition of the Disaster Preparedness Committee, Sub-committees, its roles and responsibilities have been specified. At the District, and Township levels, the plans viewed, generally presented similar information: introduction to the area and its hazards, constitution of the disaster preparedness committee and its roles and responsibilities, and constitution of thematic sub-committees.

9.1.3 Standing Order on Disaster Preparedness

A 33-member National Disaster Preparedness Standing Order Drafting Committee under the chairmanship of Minister for Transport prepared the Standing Order (SO) in January 2009. The Standing Order covers the duties and responsibilities to be carried out at the national level and State/division level in the different phases of disaster, namely: pre-disaster, during disaster, relief, rehabilitation and reconstruction period. The duties described are also grouped by types of disasters such as flood, storm, fire, and earthquake. It also calls for constitution of the National Disaster Management Committee, Inter-Ministerial Disaster Management Coordination Committee, and National Disaster Management Advisory Committee. Ministry of Social Welfare, Relief and Resettlement Department in collaboration with ADPC is translating this document in English.

9.2 Activities identified for strengthening current Institutional Arrangements

Although there is a well-laid out systems at all levels for disaster management, the operational capacities for each of the unit and inter and intra coordination mechanisms still needs to be further enhanced. Such strengthening of the Disaster Management System can be done though a disaster management legislation or law ,with various support instruments such as training and capacity building, awareness generation activities, coordination and information exchange , involvement of technical institutions, Private sectors, and civil society organization, etc. The following suggestive steps should be taken up in strengthening the DM system in Myanmar

Legislation and Implementation of Standing Order on Disaster Management

9.2.1 Disaster Management Law

Although the current institutional arrangements lay firm foundations for disaster management activities, appropriate legislation in the form of a national disaster



management law would serve as a legal instrument in support of taking necessary actions and making strategic decisions. Such legislation would assist Government Departments and Ministries to smoothly and quickly discharge their duties related to disaster management would also facilitate enhanced inter-ministerial/departmental coordination. Disaster Management legislation of ASEAN and other countries like India, can be referred.

9.2.2 Identification of Disaster Risk Reduction Mandates of Each Ministry

In order to promote a common approach to disaster risk reduction, the identification of clear disaster management mandate of each Ministry and Department, in accordance to the Action Plan and Standing Order is required. Although the selected Ministries and Departments, (Refer Chapter 5) are engaged, varying degree, in disaster management. there is a need to align Ministerial and Departmental disaster management roles and responsibilities to the 'Action Plan on Disaster Risk Reduction, Preparedness, Relief and Rehabilitation'.

9.2.3 Implementation of the Standing Orders

Following the completion of the National Disaster Preparedness Standing Order in January 2009, there is a need to further disseminate and implement the Standing Order provisions to the various sub-Division/State levels for effective and coordinated disaster response. The operationalisation of the Standing Order has been envisaged from National to Village Tract levels and it requires capacity building of government officers at various levels.

9.2.4 Hazard and Vulnerability Assessments National and sub-national level

It was observed in some of the 'Standing Orders' or 'Reports on Institutional Arrangements or Plans' for disaster preparedness, the hazard prone areas have been identified, with some assessment undertaken. This promising progress could be taken a step further, through greater assessment of hazards in the area, and by identifying people and resources/assets potentially exposed to the hazards. Following this, detailed vulnerability and capacity assessment could be undertaken (including demographic characteristics, means of livelihood, and existing resources among others). The results of this process would assist locate the most vulnerable elements, and therefore facilitate resource and activity prioritization.

9.2.5 Standardization of the Disaster Management terminology

During the process of studying institutional arrangements for disaster management in Myanmar, it was observed that the terms "Standing Order" (Yangon Division), "Arrangements" (Labutta Township), and "Plan" (Mandalay Division) were used interchangeably, at different administrative levels, to refer to disaster preparedness plans. Similarly, "supporting committees" (Amarapura Township), "sub-committee" (Mandalay



Division), and “working committees” (Yangon Division) were used variously to refer to committees constituted under the disaster preparedness committees to undertake disaster management activities. Standardized terms for these plans and committees (and other related terminology) would likely to facilitate better future coordination and information sharing. Also, United Nations International Strategy for Disaster Reduction is promoting the standardization of the disaster management terminologies.

Capacity Building and Training

9.2.6 Training and capacity building for preparedness and mitigation

Myanmar is vulnerable to multiple hazards including earthquake, fire, cyclone and floods and Government’s role is most important in disaster response as spelt out in Standing Order. Training and capacity building of the government officers of committee, sub-committee and working groups is important as Disaster Risk Reduction is emerging sector and a number of strategy and approach is being identified. Also the best practices on Disaster Risk Reduction from region and neighboring countries which are useful for Myanmar shall be shared with committee members. The information exchange among States and Divisions on Disaster Risk Reduction shall be enhanced like the experience sharing workshops organized by the Ministry of Health on sharing of experiences on response during cyclone Nargis. The training and capacity building will help in integrating risk reduction into development planning and implementation of development projects implementation.

9.2.7 Mobilizing Agencies and Resources for Response

The Disaster Preparedness Committees constituted at various levels have representation from concerned line departments. There is a need to strengthen the capacity of the respective ministerial or departmental focal points within disaster preparedness committees at National and Division/State level. By enhancing the capacities and skills of the focal points, the disaster risk reduction roles and responsibilities identified by the disaster preparedness committees (in the “Standing Order”/”Institutional Arrangements”), can more effectively be implemented within the respective ministries and departments. The envisaged activities for capacity building for include conducting technical training, and inter- and cross- departmental visits.

9.2.8 Review of Training course curriculum

Ministry of Social Welfare, Relief and Rehabilitation conducts Disaster Management Course/Training since 1977. These courses were earlier organized three times in year but in 2008 it was organized 14 times which reflects demand. This course needs to be reviewed and enhanced to international standard as participants of the course act as Trainer for training programs at township and village tract levels. There is also need of incorporating



risk reduction and mainstreaming issues in the training. The Ministry of SWRR can tie-up with some regional or international training institute or center.

Disaster Management Training resource kit

The participants of Disaster Management Course /training are provided training materials which includes basic terminologies, disaster history of Myanmar and types of disasters. The resource kit need to be improved and lessons learned from past disasters for region and country, disaster management planning, mainstreaming disaster management in development planning, etc should be included. The resource kit shall be local language. This resource kit will help the participants in conducting the Disaster Management training programs at township, village tracts and village levels.

9.2.9 Strengthening preparedness and mitigation interventions (recommendation – cap building on response activities and better coordination)

The Standing Order or Institutional arrangement for disaster preparedness of some State/Divisions, Districts and Townships have included Sub-committee or working groups on preparedness, which is very important. However, the activities under preparedness, mitigation and prevention needs to be spelt out, which will help in focused intervention and also monitoring.

Better Coordination/Cooperation and Information Sharing

9.2.10 Linkages with Civil Society

The Myanmar Red Cross Society, Auxiliary Fire Services, Union Solidarity and Development Association, Myanmar Women Affairs Federation, Myanmar Fishermen Federation, Maternal and Child Care Association, etc have been included in some of the Disaster Preparedness Committees, Sub-committees and Working groups constituted at various level. The representation of such institutions is an important step and as reach of some of the institutions is more local NGOs should be included and resource should be tapped for optimum utilization.

9.2.11 Information, Education and Communication (IEC)

Mass awareness on Do's and Don'ts of disasters is important. The existing Standing Order or Institutional Arrangement for disaster preparedness of some State/Division, District and Townships has identified IEC as one of the interventions for preparedness (e.g. Yangon Division Information and Education Working Committee). The IEC interventions needs to be further emphasized and elaborated, and activities under IEC need to be identified and specified in Standing Order or Institutional Arrangement for disaster preparedness. The IEC should be hazard specific, area specific, and appropriate for the language and wider cultural context.



Regular Updates of the Disaster Preparedness Plans

9.2.12 Updation of Standing Order/ Institutional arrangement for disaster preparedness

The Standing Order or Institutional arrangement for disaster preparedness is an important document and needs to be updated at periodic interval. The updation should take into the account the response of different committee, sub-committee and working groups during disaster or mock drills. The list of hazard prone areas and resources mentioned also needs to be updated.

9.2.13 Early warning dissemination

As per the Standing Order or Institutional arrangement for disaster preparedness, a sub-committee or working group has been constituted for early warning information dissemination at various levels. The early warning is the most important component of the Disaster Management/Risk Reduction, hence for quick dissemination, the steps for early warning dissemination of shall be spelt out in the Standard Operating Procedure. The linkages with community and their involvement in early warning dissemination needs to clearly identified and mentioned.

9.2.14 Multi-agency mock drill

The Standing Order and Report on Institutional arrangement for disaster preparedness has identified mock drill as one of the activities of the sub-committees or working groups. Mock drill is important as it helps to gauge the prepared level and identifies areas of improvement. During disaster, several sub-committees or agencies work simultaneously, which require coordination. The inter sub-committee or inter-department mock drills should be organized to enhance coordination and reporting mechanism among sub-committees or departments for quick and effective response.



ANNEXES

ANNEX I: LIST OF DOCUMENTS & WEBSITES REFERRED

List of Documents

1. Action Plan on Disaster Preparedness, Labutta Township Peace and Development Council, dated 28th June, 2007
2. Action Plan on Disaster Risk Reduction, Preparedness, Relief and Rehabilitation of National Disaster Preparedness Central Committee
3. Arrangements for Labutta Township Disaster Preparedness, Labutta Township Peace and Development Council, dated 3rd October, 2008
4. 'Disaster Management System in Myanmar' Presentation by Relief and Resettlement Department
5. 'Disaster Management System of Myanmar and Cyclone Nargis Response' presentation by Department of Relief and Resettlement, 16-17 October 2008, Yangon.
6. Emergency Management Action Plan, Yangon General Hospital, Ministry of Health
7. Extracts of report on Action Plan of Disaster Preparedness Committee, Kungyangone Township, dated 6th October 2008
8. Extracts of Report on Fire Services Department History, Ministry of Social Welfare, Relief and Resettlement, 2005
9. Mandalay Division Natural Disaster Management Plan, dated December 2008
10. Minutes of the Coordination Meeting No. (1/2008) of the Standing Order for Natural Disaster Prevention Drafting Committee
11. Note titled 'Disaster Management Activities, Relief and Resettlement Department, Ministry of Social Welfare, Relief and Resettlement' Relief and Resettlement Department
12. Note titled 'Disaster Management Training/Course: Objective of the Course' Relief and Resettlement Department
13. National Strategic Plan for Prevention and Control of Avian Influenza and Human Influenza Pandemic Preparedness and Response, 2006, Ministry of Health
14. Presentation on Natural Disaster Preparedness and Response Management Plan, Health Care Services Committee
15. Report on Implementation of Relief and Rehabilitation Works, Kungyangone Township, dated 22nd December 2008
16. Standing Order, Bogale Township Peace and Development Council (Bogale Township Disaster Preparedness Committee), dated 9th October 2008
17. Standing Order, Labutta District Disaster Preparedness Management Committee, dated 1st October 2008



18. Standing Order on Disaster Preparedness 2008, Yangon Division Peace and Development Council, dated 4th November 2008
19. Standing Order, Pyapon District Peace and Development Council (Disaster Preparedness Committee), dated 1st October 2008
20. Standing Order, Ngapudaw Township Peace and Development Council (Disaster Preparedness Committee), dated 27th February 2009
21. Standing Order on Disaster Preparedness, Maubin Township Disaster Preparedness Committee, dated October 2008
22. Standing Order 1/2008, Pyapon Township Peace and Development Council, dated 1st October 2008

Websites Referred

1. Agricultural Statistics System of Myanmar
2. APCEL Report : Myanmar
<http://sunsite.nus.edu.sg/apcel/dbase/myanmar/reportmy.html>
3. Asian Disaster Preparedness Centre
4. Association for South-east Asian Nation
<http://www.asean.org>
5. Country Report, 2003, Myanmar
http://www.adrc.or.jp/countryreport/MMR/2002/CR_MMR2002.htm
<http://www.mot.gov.mm>
6. Department of Irrigation, Union of Myanmar
<http://www.irrigation.gov.mm/works/default.html>
7. Government and Policy, Ministry of Agriculture and Irrigation
<http://www.modins.net/myanmarinfo/ministry/agriculture.htm>
8. United Nations Development Programme
<http://www.undp.org>
9. United Nations International Strategy for Disaster Reduction (UN/ISDR)
<http://www.unisdr.org>, www.unisdr.org/asiapacific
10. Website of Ministry of Agriculture and Irrigation, Union of Myanmar
<http://www.moai.gov.mm/>
11. Website of Ministry of Construction, Union of Myanmar
<http://www.myanmar.gov.mm/ministry/Construction>
12. Website of Ministry of Education, Union of Myanmar
http://www.myanmar-education.edu.mm/moe_main/
13. Website of Ministry of Health, Union of Myanmar
<http://www.moh.gov.mm/>



14. Website of Ministry of National Planning and Economic Development, Union of Myanmar

<http://www.mnped.gov.mm>

15. Website of Ministry of Social Welfare, Relief and Resettlement, Union of Myanmar

<http://www.myanmar.gov.mm/ministry/MSWRR/index.html>

16. Website of Ministry of Transport, Union of Myanmar

<http://www.mot.gov.mm>

17. Website of Ministry of National Planning and Economic Development, Union of Myanmar

<http://www.mnped.gov.mm>

18. Website of the Official Gateway to Capital City of Myanmar

<http://www.yangoncity.com.mm/>

ANNEX II: DETAILS OF FIELD VISITS

No.	Place visited	Date	Team Member/s
1	Kungyangone Township, Yangon Division	5-01-2009	<ul style="list-style-type: none"> • Daw New Yin Aye, RRD • Mr. Sudhir Kumar, ADPC • Daw Lat Lat Aye, ADPC
2	Labutta Township, Ayeyarwady Division	15-01-2009	<ul style="list-style-type: none"> • U Aung Kyaw Oo, RRD • Mr. Sudhir Kumar, ADPC • Daw Lat Lat Aye, ADPC
3	Maubin Township, Ayeyarwady Division	30-01-2009	<ul style="list-style-type: none"> • Daw Phyu Lei Lei Tun, RRD • Daw Hnin Nwe Win, ADPC • Daw Lat Lat Aye, ADPC
4	Pyapon Township, Ayeyarwady Division	3-02-2009	<ul style="list-style-type: none"> • U Thein Swe, RRD • Mr. Sudhir Kumar, ADPC • Daw Lat Lat Aye, ADPC
5	Mandalay Township, Mandalay Division	3-02-2009	<ul style="list-style-type: none"> • U Soe Naing, RRD • Daw Hnin Nwe Win, ADPC
6	Magwe Township, Magwe Division	4-02-2009	<ul style="list-style-type: none"> • Daw Nu Nu Thein, RRD • Daw Hnin Nwe Win, ADPC
7	Bogale Township, Ayeyarwady Division	10-02-2009	<ul style="list-style-type: none"> • U Thein Swe, RRD • Mr. Sudhir Kumar, ADPC • Daw Lat Lat Aye, ADPC
8	Pathein Township, Ayeyarwady Division	5-03-2009	<ul style="list-style-type: none"> • U Aung Kyaw Oo, RRD • Mr. Sudhir Kumar, ADPC • Daw Lat Lat Aye, ADPC





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