

Disclaimer

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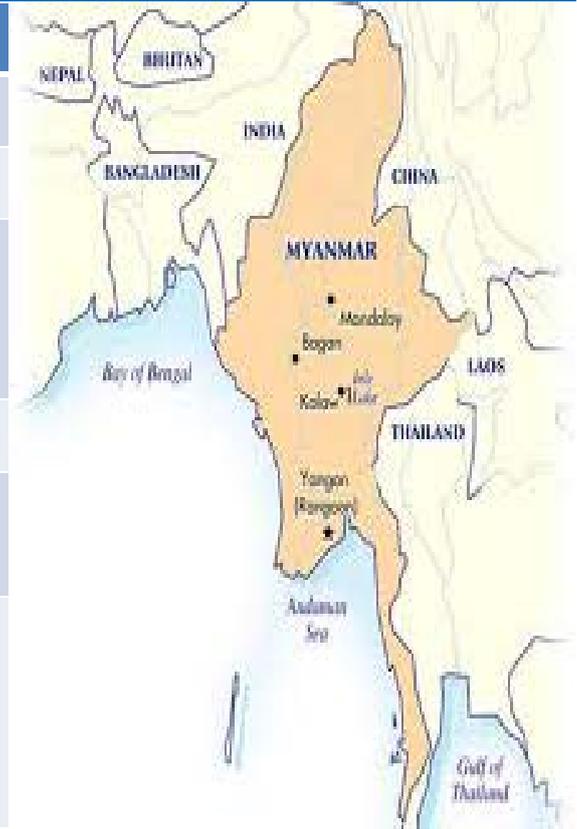


Ms. Thandar Aung
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Relief and Resettlement Department
Ministry of Social Welfare, Relief and Resettlement
Republic of the Union of Myanmar

General Information of Myanmar

Myanmar Overview

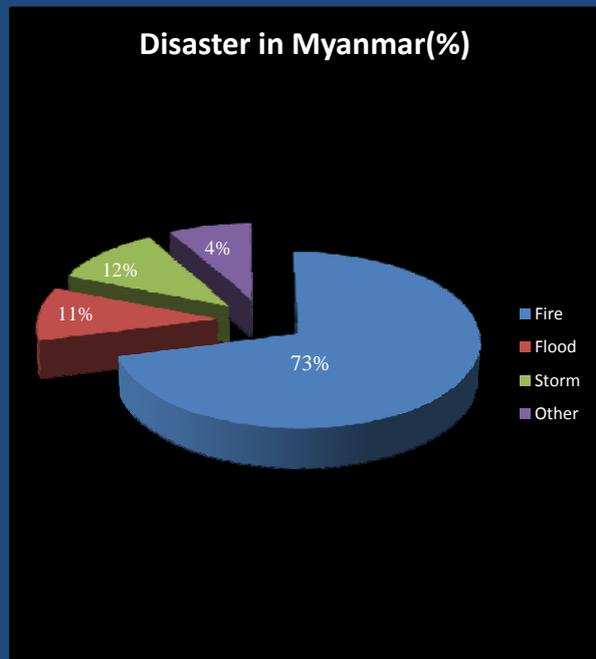
Areas	676,578 sq kms
Latitude	9° 32' and 28° 31' North
Longitude	92° 10' and 101° 11' East
Climate	Summer(Mid-February to Mid-May) Rainy(Mid-May to Mid-October) Winter(Mid-October to Mid-February)
Population	Nearly 60 millions
Major Economy	Agriculture
Administrative System	Divided into Seven states and Seven Regions. The States and Regions has been divided into Districts which in turn have been divided into Townships.



Natural Hazard of Myanmar

Hazard Vulnerability

- Myanmar is prone to multiple natural hazards
- Fire is the most frequent disaster in Myanmar and accounts for 73 %
- 12% land vulnerable to storms – 2,400 KMs of coastline
- 11% land vulnerable to floods
- other disasters including earthquake, landslide, etc accounts for 4%

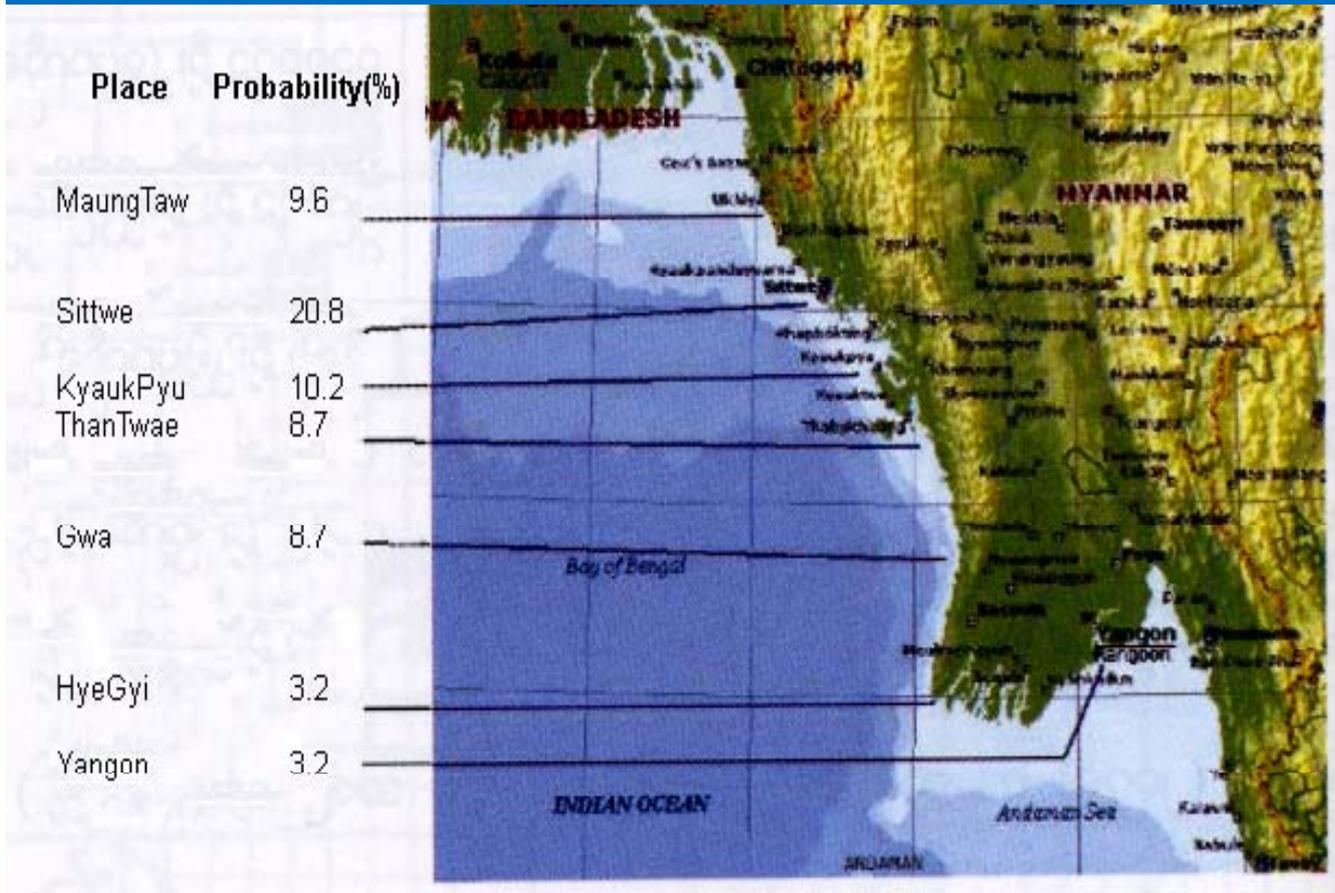


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Area Wise Natural Hazards

- Cyclone - Ayarwady, Yangon and Thnintharyi Region and Rakhine and Mon State
- Tsunami - Rakhine, Ayarwady, Yangon, Mon and Thanintharyi
- Flooding - Along the Ayarwady, Chindwin, Sittaung and Thanlwin Rivers
- Fire and Forest Fire - Across the Country, especially in Dry zone and Densely populated areas
- Drought - Mandalay, Magway and Sagaing Divisions
- Landslide - Kachin, Chin and Shan States and Thanintharyi Division
- Earthquake- All round the country except Thanintharyi

Cyclone Prone Areas in Myanmar



Major Cyclone Disasters

No.	Date	Areas Affected	Value of Total Damage (Kyats)
1	6-8/10/48	Sitwe (Rakhine State)	10 Billions
2	22-24/10/52	Sitwe (Rakhine State)	10 Billions
3	15-18/5/67	Kyaut Pyu (Rakhine State) & Pathein (Ayeyarwady Division)	30 Billions
4	20-24/10/67	Sitwe (Rakhine State)	15 Billions
5	7-10/5/68	Sitwe (Rakhine State)	10 Billions
6	5-7/5/75	Pathein (Ayeyarwady Division)	446.5 Billions
7	12-17/5/78	Kyaut Pyu (Rakhine State)	200 Billions
8	1-4/5/82	Gwa (Rakhine State)	82.4 Billions
9	16-19/5/92	Than Twel (Rakhine State)	150 Billions
10	2/5/94	Maung Taw (Rakhine State)	59 Billions
11	25-29/4/06	Near by Gwa (Rakhine State)	428.56 Billions
12	28/4/08-3/5/08	Ayeyarwady Delta/ Yangon Region	13 Trillions
13	2/5/11(Nargis)	Ayeyarwady Delta/ Yangon Region	4057US\$(mil)
14	22/10/2010	Rakine State	18097.212 Milliøn

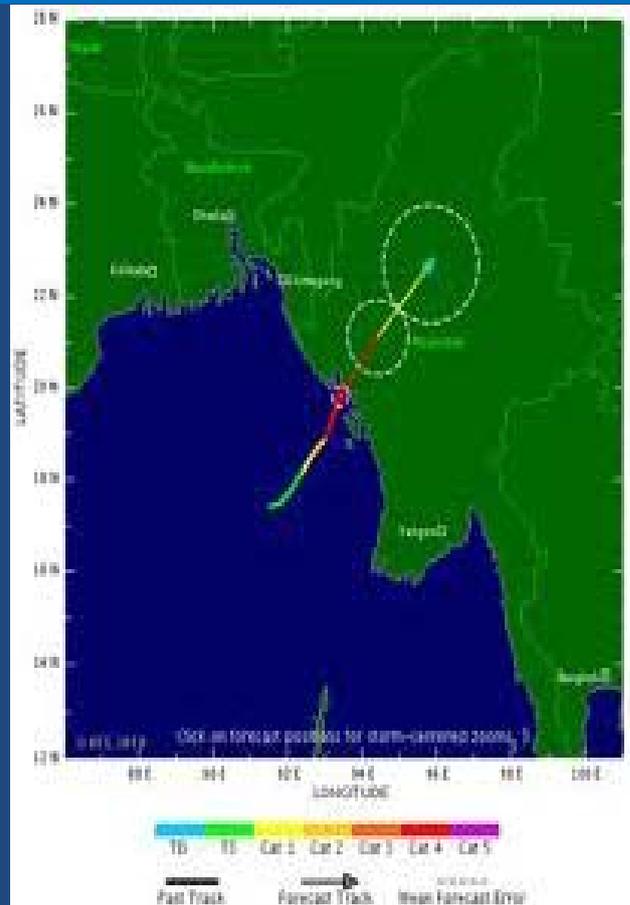
Damages and Losses in Nargis

Landfall Day	May, 2 ,2011
Death toll	84537
Missing	53836
Injured	19359
Totally damaged houses	450000
Partially damaged houses	350000
Damaged school	4000
Health Facilities destroyed	75 %
Farmland damaged (acre)	269530
Affected population	2.4 million
Total damage and Loss	4057 US\$(mil)

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Damages and Losses (GiRi)

Landfall Day	- (22-10-2010)
Wind speed	-(120)Miles/hr
Affected Area	-MyaePon, PaukTaw, Min Pyar, Kyauk Phyu, Ann, Sittwe
Loss of Lives	-35 peoples
Missing	-10 peoples
Estimated Losses	-18097.212 Millions Kyats



Tsunami Damage and Losses in Ayeyarwady Delta (2004)



Flood Prone Areas in Myanmar



■ Flood Prone Areas

Flood Damages and Losses in Myanmar

No.	Date	Location	No. of Affected Village Tracts and Villages	No. Affected House-holds	No. of Affected Families	Affected Population	Death Toll	Loss (x100,000 kyats)
1	8/7/97	Homalin, Sagaing Region	5 villages in 2 wards	9,916	9,950	59,594	-	99(9,000 USD)
2	25/9/97	Homalin, Sagaing Region	63 villages	3,867	3,867	28,399	-	238(21,636 USD)
3	11/7/97	Paungpyin, Sagaing Region	5 villages	6,652	6,652	44,143	2	-
4	13/7/97	Mawlike, Sagaing Region	16 villages	3,622	3,622	21,897	-	-
5	9/7/97	Myintkyina, Kachin State	10 villages	4,254	4,471	30,615	4	33(3,000 USD)
6	7/6/97	Kayan, Yangon Region	-	1,189	1,189	5,878	-	-
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Flood Damages and Losses in Myanmar(cont.,)

No.	Date	Location	No. of Affected Village Tracts and Villages	No. Affected House-holds	No. of Affected Families	Affected Population	Death Toll	Loss (x100,000 kyats)
7	7/7/97	Bago Region	All villages in 6 Townships	6,629	6,629	33,768	50	-
8	1/8/97	Kayin State	All villages in 5 Townships	18,804	18,855	109,804	-	-
9	13/8/91	Hpa-an, Kayin State	6 villages	2,669	2,669	14,488	-	-
10	10/7/97	Kyauktaw, Rakhine State	-	1,030	1,030	5,983	-	50(4,545 USD)
11	2/6/01	Wundwin, Manadalay	Thetaw village	463	1,164	2,172	42	-
12	18/8/02	Monywa, Sagaing Region	-	9,178	9,460	48,746	-	2,535 (213,909 USD) ¹⁴

Flood Damages and Losses in Myanmar(cont.,)

No.	Date	Location	No. of Affected Village Tracts and Villages	No. Affected House-holds	No. of Affected Families	Affected Population	Death Toll	Loss (x100,000 kyats)
13	18/8/02	Salingyi, Sagaing	-	1,647	1,702	10,216	-	-
14	19/8/02	Kani, Sagaing Region	-	2,042	2,207	12,048	-	2,447 (222,454 USD)
15	19/8/02	Kyaikmaraw, Mon State	-	829	829	4,686	-	414 (37,636 USD)
16	8/9/02	Shwepyithar, Yangon Region	-	886	886	4,541	-	-
17	3/7/03	Hkamti, Sagaing Region	-	1,230	1,536	8,131	-	-

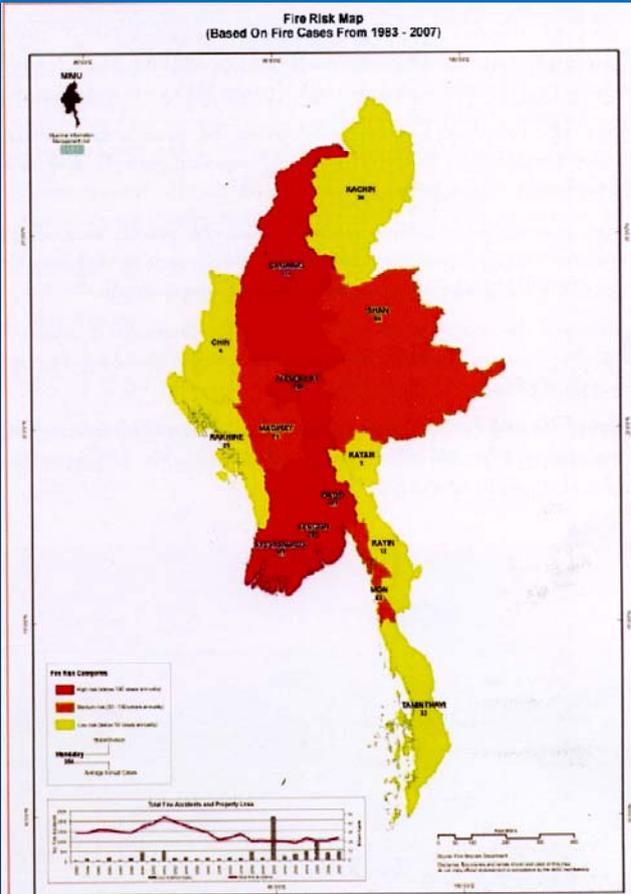
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Flood Damages and Losses in Myanmar(cont.,)

No.	Date	Location	No. of Affected Village Tracts and Villages	No. Affected House-holds	No. of Affected Families	Affected Population	Death Toll	Loss (x100,000 kyats)
18	9/10/06	Kyaukse District, Mandalay Region	All villages in 4 wards	1,443	1,763	7,045	-	351 (31,909 USD)
19	11/9/06	Sagaing Region	6 villages near Yaymyetgyi Lake	770	791	5,372	-	-
20	9/10/06	Kyaukpadaung, Mandalay Region	2 villages	14	18	97	16	-
21	24/7/07	Bhamo, Shwegu, Myitkyina, Kachin State	-	600	600	3,167	-	-

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Fire Prone Areas in Myanmar



Forest Fire Prone Areas in Myanmar



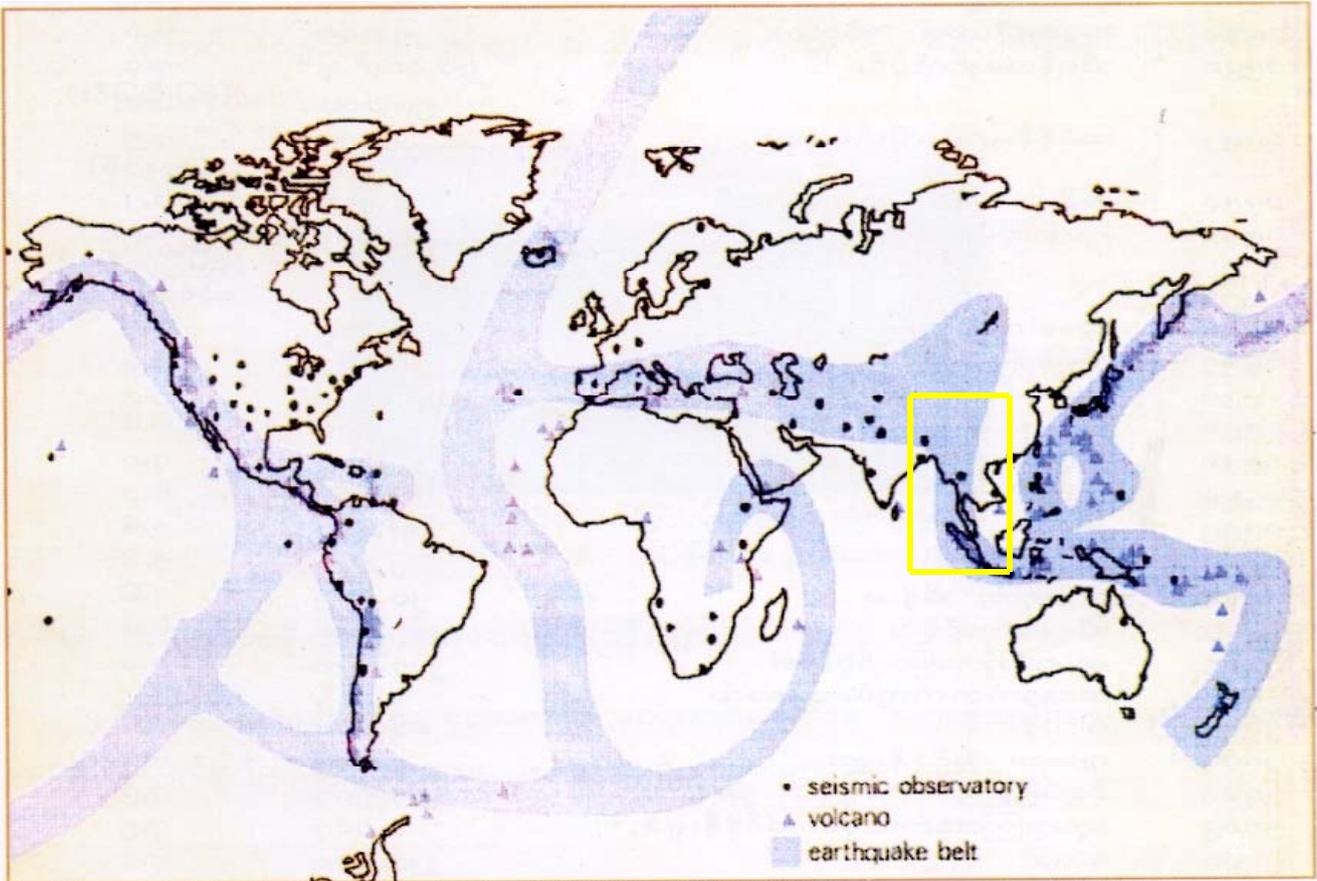
Drought Prone Areas in Myanmar



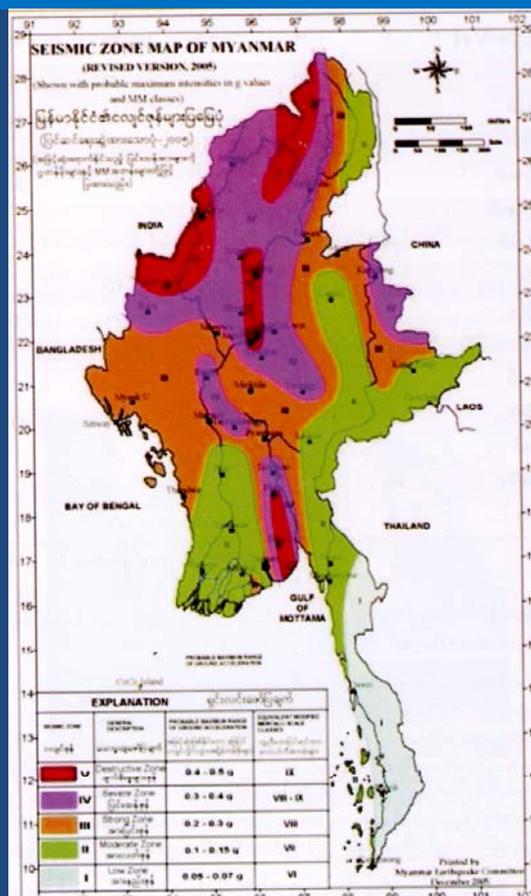
Landslide Prone Areas in Myanmar



Active Fault in Myanmar



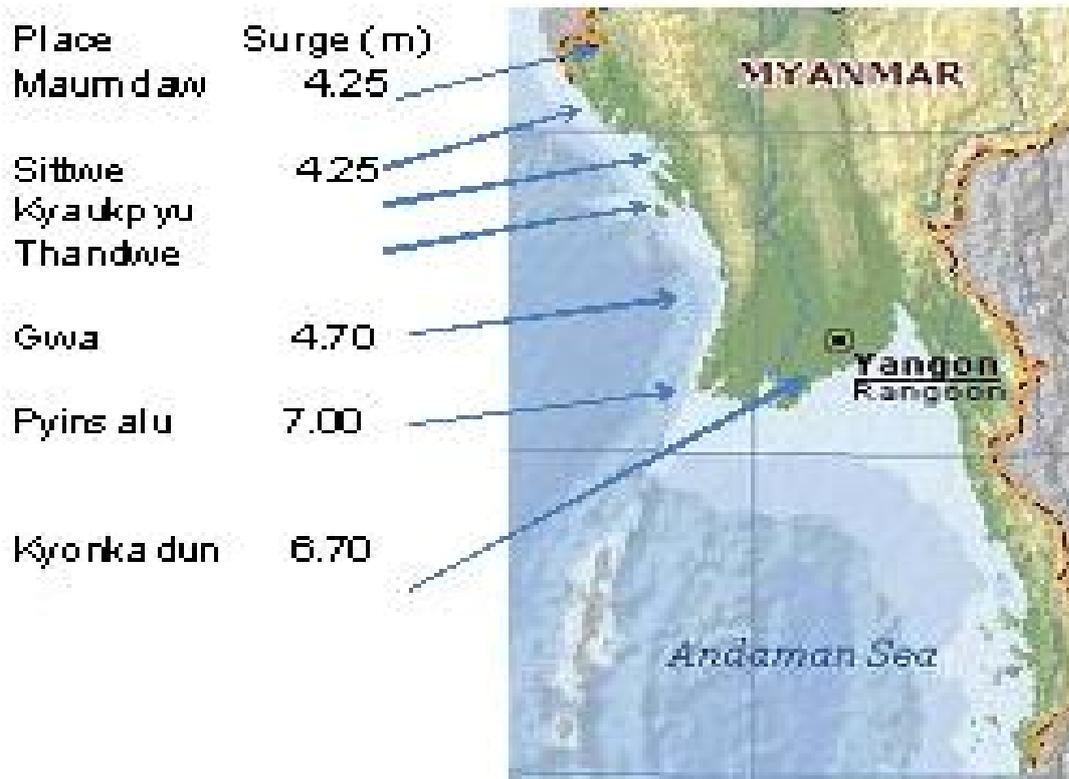
Seismic Zone in Myanmar



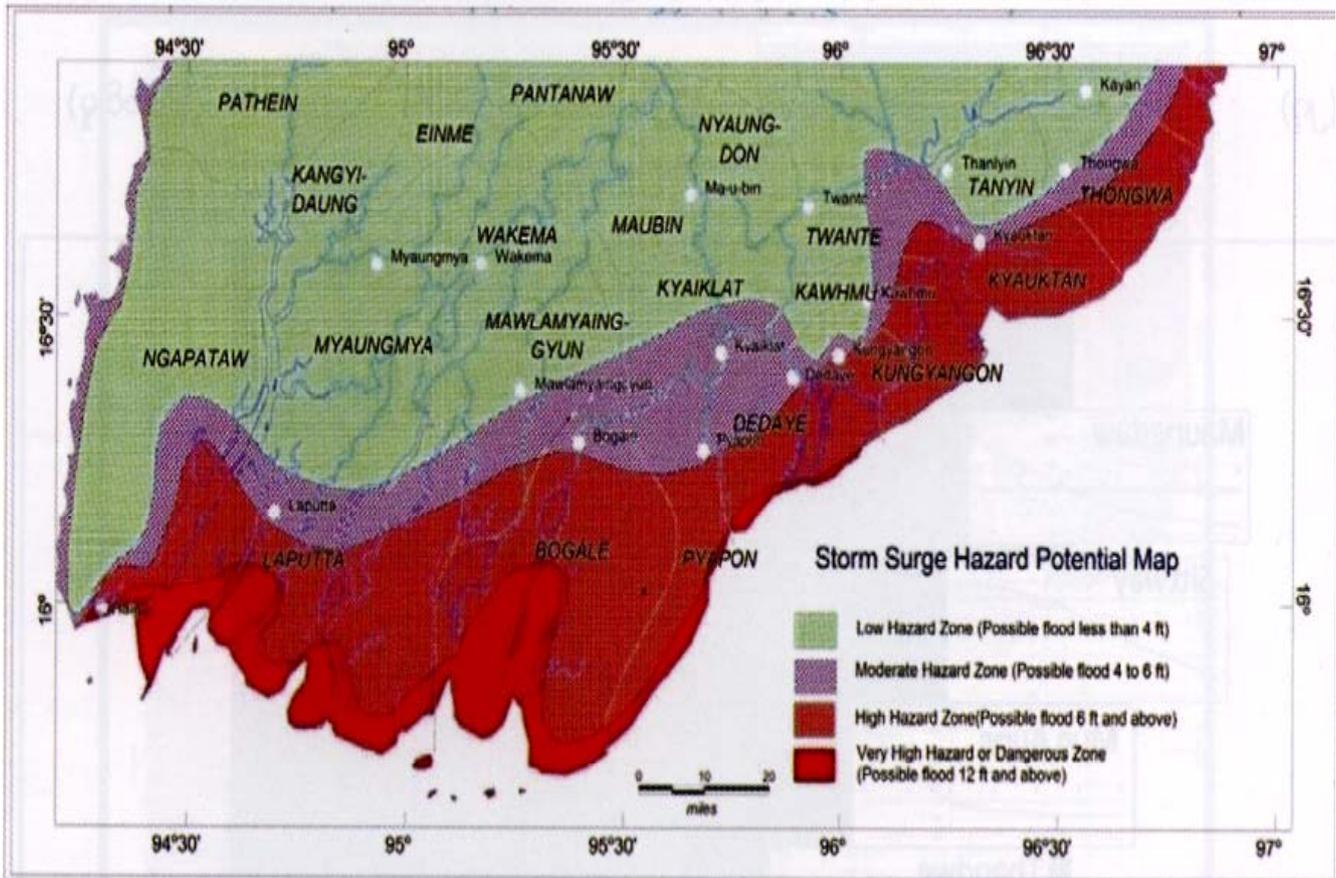
Several Large Earthquakes in Myanmar

- M7.0 Sittwe Earthquake, 2 April 1762
- M7.0 Yangon Earthquake, 17 Dec 1927
- M7.3 Bago Earthquake, 5 May 1930
- M7.3 Phyu Earthquake, 3 Dec 1930
- M7.6 Myintkyina Earthquake, 27 Jan 1931
- M7.5 Takaung Earthquake, 12 Sept 1946
- M7.75 Takaung Earthquake, 12 Sept 1946
- M7.0 Sagaing Earthquake, 16 Jul 1956
- M6.8 Bagan Earthquake, 8 Jul 1976
- M6.8 Taungdwingyi Earthquake, 22 Sept 2003
- M7.0 Tarlay Earthquake, 24 Mar 2011
- M6.8 Thapidekyin Earthquake, 11 Nov 2012

Storm Surge observed along Myanmar Coast(1947-2008)



Storm Surge Prone Areas in Ayeyarwady Delta



Current Disaster Management(DM) in Myanmar

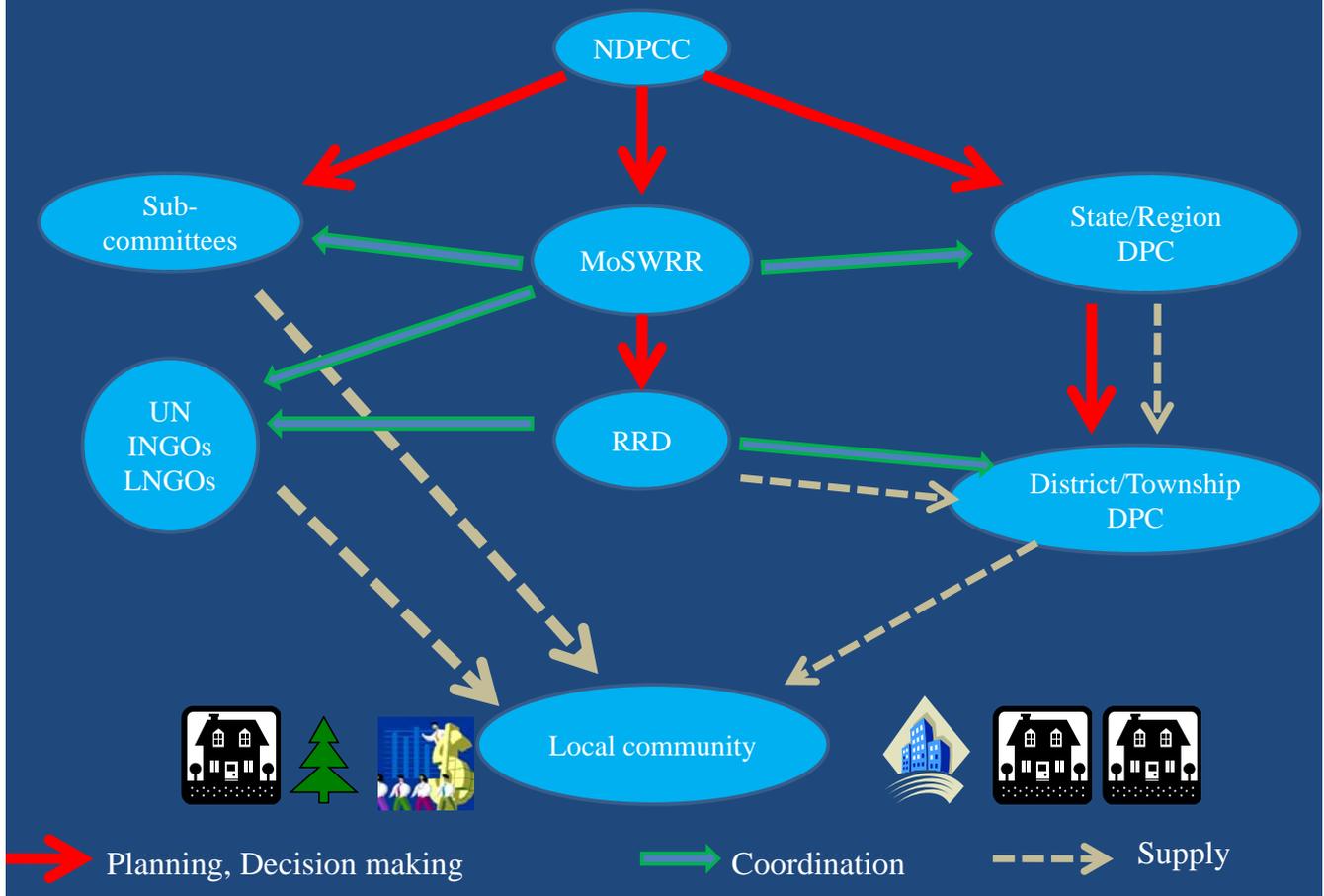
National Mechanism in Disaster Management

- The National Disaster Preparedness Central Committee (NDPCC) chaired by the Vice-President 2 has been formed.
- There are 10 Sub-committees under NDPCC
- State/Division-, District-, Township- and Village Tract-level Disaster Preparedness Committees have also been formed respectively.

Institutional Framework for Disaster Management at National Level



Mechanism of Disaster Response in Myanmar



Responsibilities of RRD in Disaster Reduction

Ministry of Social Welfare, Relief and Resettlement



**Department of
Social Welfare**

**Relief and Resettlement
Department**



Relief and Resettlement Department

Objectives

- To provide relief for victims of natural disasters to ease their sufferings
- To take precautionary steps so as to minimize loss of lives and property of the victims of natural disasters

Relief and Resettlement Department

Major tasks

- 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.

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Relief Assistance

The affected people are provided with Rice for Three to five days and for seven days if necessary According to person.

Each household is provided with Relief such as Longyi, Blanket, Towel, Aluminum pan, Bowl, T-shirt, Soap and a Set of Robes for monks and nuns.

Assist for people who died in disaster-
(Under 18 – 50000 Kyats)
(above 18 – 100000 Kyats)

Progress in Disaster Preparedness

Standing Order on Natural Disaster Management

- Based on the lessons learnt in Cyclone Nargis, the National Disaster Preparedness Central Committee has developed “Standing Order on Disaster Management” in January, 2009 to ensure effective response to future disasters.
- The Standing Order includes national level institutions and their mandates, State/Division Level Disaster Preparedness Committees and their responsibilities, and exact mandates of respective (24) ministries and municipal committees.



Myanmar Action Plan on Disaster Risk Reduction (MAPDRR)2012

Goals

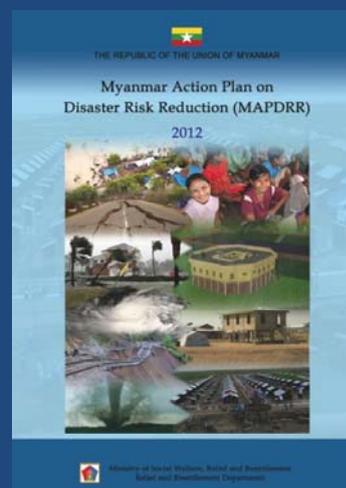
“ To make Myanmar Safer and More Resilient against Natural Hazards, thus Protecting Lives, Livelihood and development Gains”

Objectives

1. To build a more resilient and safer community through conceptualization, development and implementation of appropriate disaster risk reduction programs and culture of safety;
2. To provide a framework for implementing Myanmar’s DRR commitments at the global and regional levels, under HFA and AADMER;
3. To provide a mechanism where the disaster risk reduction

Development of Myanmar Action Plan on Disaster Risk Management (MAPDRR)

Relief and Resettlement Department was endorsed Myanmar Action Plan on Disaster Risk Reduction (MAPDRR) with the technical support from Asian Disaster Preparedness Centre (ADPC) which is based in Bangkok, Thailand in April 2012. MAPDRR includes 7 main components and 65 sub-components. These 65 sub-components will become as future disaster risk reduction projects. MAPDRR is drawn up including priorities of Hyogo Framework for Action (HFA) and ASEAN Agreement on Disaster Management and Emergency Response (AADMER).

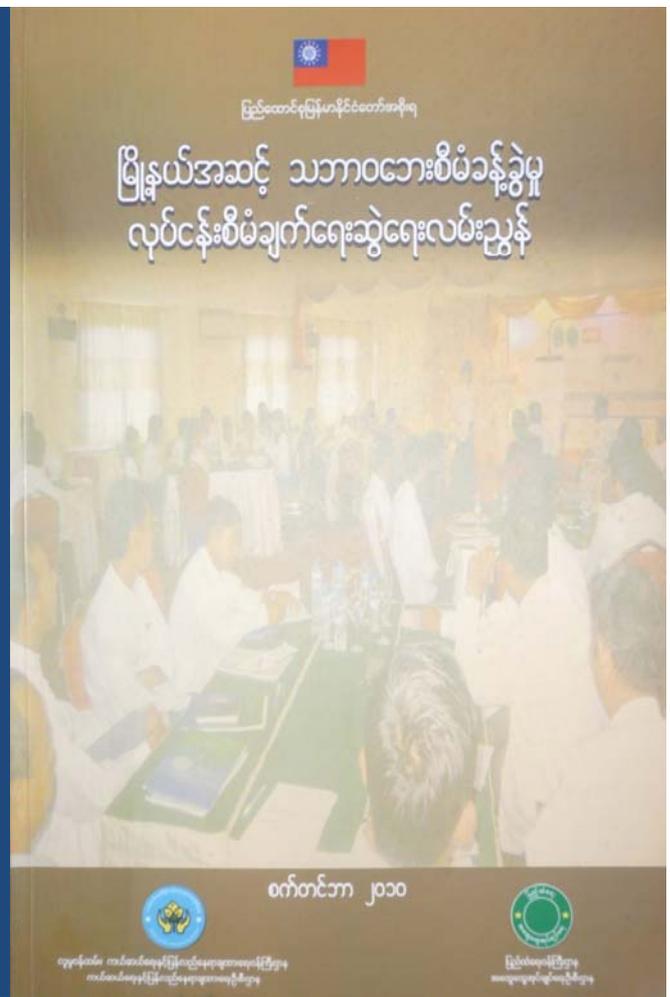


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Seven Components of MAPDRR

S/N	Component	HFA Priorities	AADMER	No. of Projects
1	Component 1: Policy, Institutional Arrangements and Further Institutional development	Priority 1	Article 6,10	4
2	Component 2: Hazard, Vulnerability and Risk Assessment	Priority 2	Article 5	8
3	Component 3: Multi-hazard Early Warning System	Priority 2	Article 7	10
4	Component 4: Preparedness and Response Programs at National, State/Division, District & Township Levels	Priority 5	Article 6,8	10
5	Component 5: Mainstreaming Disaster Risk Reduction into Development	Priority 4	Article 6	13
6	Component 6: Community based Disaster Preparedness and Risk Reduction	Cross-cutting	Article 6,7	9
7	Component 7: Public Awareness, Education and Training	Priority 3	Article 6,7	11
Total				65

Guideline of Township Level Disaster Management Action plan



Disaster Risk Management of capacity Training was Opening in the Myanmar, 1977 to 2013

No	State/ Division	Opening Totle	Population	Remart
1	Kachin State	8	389	
2	Kayah State	5	192	
3	Kayin State	8	380	
4	Chin State	4	154	
5	Sagaing Division	6	270	
6	Taninthary Division	9	430	
7	Bago Division	8	399	
8	Magway Division	9	368	
9	Mandalay Division	6	272	
10	Mon State	10	450	
11	Rakhine State	15	674	
12	Shan State	9	454	
13	Yangon Division	14	615	
14	Ayeyarwady Division	20	879	
	Total	131	5926	

Increasing Public Awareness and Developing Capacities

- Distribution of posters and pamphlets
- Training of Trainers on Disaster Risk Reduction - TOT
- Disaster Management Course – DMC (State and Divisional level)
- Education Talks on Disaster Risk Reduction
- Workshops and seminars (Both local and abroad)
- CBDRR and CBDM training

Development of IEC materials for Public Awareness(in English)



Development of IEC materials for Public Awareness(in Myanmar)



Wall Sheets and Posters

မိုးခင်း

အခြေခံဆိုင်ရာ အသိပညာများ

- ရေကို အသက်ရှင် ရန်အတွက် သောက်ရမည့် ရေကို ရေအိုး၊ ရေအိတ်၊ ရေအိတ်၊ ရေအိတ် ဖြင့် သောက်ရမည်။
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Pamphlets



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Emergency Operation Center-EOC in RRD

- The goal of EOC is to strengthen the region's capacity for disaster management through the adaption and integration of the Incident Command System (ICS) and other components of the U.S National Incident Management System (NIMS) into national and regional disaster system.
- Technical assistances are providing from four pilot countries (Brunei, Indonesia, Philippines and Thailand) as well as support to the ASEAN Coordination Centre for Humanitarian Assistance on disaster management (AHA Centre).
- Presently, EOC members in RRD report daily information that are concerned disaster within Myanmar and Asia countries.
- These information will be get from websites on internet.
- Our organization hope to give more effective information into public.

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Global And Regional Disaster Risk Reduction Commitments

- committed to various global and regional Frameworks and Declarations on Disaster Management and Disaster Risk Reduction.
- endorsed the Hyogo Framework for Action [HFA]
- Asian Ministerial Conferences on Disaster Risk Reduction (AMCDRR),
- The ASEAN Agreement on Disaster Management and Emergency Response (AADMER)
- The Union of Myanmar signed the AADMER in July 2005 and subsequently ratified the AADMER.
- Myanmar has already contributed ADMER Fund and AHA Fund.

Relief and Resettlement Department Cooperation with International and Local Organizations

- ❖ Signed MoU with 8 UN Agencies, INGOs and LNGOs to implement the DRR Activities more effective and efficient.

Current Issues in Myanmar

- ❖ Apply to open Training School on Disaster Management in Hinthada Township, Ayeyarwady Region
- ❖ Plan to apply End-to-End Early Warning System in cooperation with JICA at Ayeyarwady Region and Rakhine State, currently apply it in Ayeyarwady Region
- ❖ Apply to open Emergency Operation Center (EOC)
- ❖ Create damage and losses database in cooperation with UNDP
- ❖ Open Disaster Management Course (DMC)

Obstacles to promote DRR in Myanmar

- ❖ Disaster Awareness Raising in people
- ❖ Promoting Early Warning System (EWS)
- ❖ Keeping exactly budget size for DRR
- ❖ Technology concerning with emergency operation in emergency situations
- ❖ Developing emergency dispatch system

THANK YOU!