



MYANMAR (BURMA)

Disaster Management Reference Handbook

January 2017

Cover and section photo credits

Cover Photo: "Myanmar Bagan" by Roderick Eime is licensed under CC BY 2.0.
<https://www.flickr.com/photos/rodeime/9506943128>

Country Overview Section Photo: Long Neck Tribe (Kayan People in Myanmar). CFE-DM Researcher Personal Photo.

Disaster Overview Section Photo: "Cyclone Nargis" by Neryl Lewis, RRT is licensed under CC BY-2.0. The Department of Foreign Affairs and Trade. A World Food Programme (WFP) Puma helicopter (brought to Myanmar by the Australian Defence Force) transports a water purification unit for CARE Australia to Pyapon, Myanmar where floodwaters isolated villages and inundated drinking wells. CARE Australia provided relief and recovery activities in cyclone-affected villages.
<https://www.flickr.com/photos/dfataustralianaid/10690935033/>

Organizational Structure for Disaster Management Section Photo: "Emergency food, drinking water and shelter to help people displaced in Rakhine State, western Burma" by DFID-UK Department for International Development is licensed under CC BY-SA 2.0.
<https://www.flickr.com/photos/dfid/8288488088/>

Infrastructure Section Photo: "Stilted houses of Inle Lake (Myanmar 2013)" by Paul Arps is licensed under CC BY 2.0.
<https://www.flickr.com/photos/slapers/11772620965>

Health Section Photo: "DSC_0975" by the European Commission DG ECHO is licensed under CC BY-ND 2.0. Photo by Stacey Winston, EU/ECHO 2009.
<https://www.flickr.com/photos/69583224@N05/9243645097>

Women, Peace, and Security Section Photo: Myanmar. Burnet Institute.
https://www.burnet.edu.au/system/asset/file/2383/BURNET11_Myanmar_web_sm.pdf

Conclusion Section Photo: "Pa-Oh woman harvesting Chillies (Myanmar 2013)" by Paul Arps is licensed under CC BY 2.0.
<https://www.flickr.com/photos/slapers/11773018444>

Appendices Section Photo: "IMG_6218" by Anne Dirkse is licensed under CC BY-SA 2.0.
<https://www.flickr.com/photos/annedirkse/11695239873>

Table of Contents

Welcome - Note from the Director.....	9
About the Center for Excellence in Disaster Management & Humanitarian Assistance.....	10
Disaster Management Reference Handbook Series Overview.....	11
Executive Summary.....	12

Country Overview.....14

Culture.....	15
Demographics.....	15
Ethnic Makeup.....	16
Key Population Centers.....	16
Language.....	16
Religion.....	16
Vulnerable Groups.....	16
Economics.....	19
Environment.....	19
Geography.....	19
Borders.....	20
Climate.....	20

Disaster Overview22

Hazards.....	22
Recent History of Natural Disasters.....	22
Climate Change.....	23
Infectious Disease.....	24
Country Risks.....	24

Organizational Structure for Disaster Management	26
Government.....	26
Military.....	26
Lead Government Agencies in Disaster Response	26
Disaster Management Institutional Arrangement.....	27
Disaster Management Organizations in Myanmar.....	28
Community Based Disaster Risk Management in Myanmar	29
International Agencies in Myanmar.....	29
U.S. Government Agencies in Myanmar.....	40
Participation in International Organizations.....	42
Foreign Disaster Relief and Emergency Response.....	43
Laws, Policies, and Plans on Disaster Management	43
Myanmar National Platform and Action Plan on Disaster Risk Reduction.....	44
Education and Training.....	44
Disaster Management Communications.....	45
Early Warning Systems.....	45
Responsible Agencies for Flood and Storm Warning	46
Military Role in Disaster Relief.....	46
Coordination Mechanisms between GoM and Development Partners.....	47

Infrastructure.....	50
Airports.....	50
Seaports	50
Land Routes	50
Roads.....	50
Railways.....	52
Waterways.....	52
Schools	54
Communications.....	54

Utilities.....	55
Power	55
Water and Sanitation.....	57
<hr/>	
Health	60
Health Overview.....	60
Healthcare System.....	60
Challenges in the Healthcare System.....	60
Healthcare Assistance	60
Communicable Diseases	61
Non-Communicable Diseases	62
<hr/>	
Women, Peace, and Security.....	64
<hr/>	
Conclusion.....	66
<hr/>	
Appendices	68
DMHA Engagements in the Past Five Years (FY 2011-2016).....	68
Force Protection/Pre-Deployment Information	68
Passport/Visa.....	68
Emergency Contact Information	69
Currency Information.....	69
Travel Health Information.....	69
Myanmar Government Ministries, Offices and Committees	70
Coordination Teams in Myanmar	76
Hyogo Framework for Action Country Progress Report.....	79
Country Profile.....	82
Acronyms and Abbreviations	93
References (Endnotes)	97

List of Figures

Figure 1: Displaced Population-Myanmar	18
Figure 2: Map of Myanmar and Border Countries	20
Figure 3: Myanmar Disaster Management Institutional Arrangement, 2016.....	27
Figure 4: Community Based Disaster Preparedness and Risk Reduction.....	30
Figure 5: USAID Burma-Complex Emergency Fact Sheet #4	40
Figure 6: Active United States Government Programs for the Burma Response, 2016	41
Figure 7: Joint Coordination and Development Partners Coordination Structures.....	48
Figure 8: Myanmar Airports.....	51
Figure 9: Public Health and Research Projects in Myanmar.....	62
Figure 10: MIMU, Overview of Coordination Teams in Myanmar.....	76
Figure 11: MIMU, Joint Coordination Structures Between GoM and DPs	78
Figure 12: HFA Level of Progress Achieved	79

List of Tables

Table 1: Distribution of Myanmar Population by State/Region.....	16
Table 2: Myanmar's Arterial Highways.....	52
Table 3: Enhancing Electricity Access for Myanmar	56
Table 4: Expected Outcome Indicators of Myanmar Health Vision 2030	60
Table 5: Ministry of Defense Responsibilities Overview.....	68
Table 6: Myanmar National Progress Report on the Implementation of HFA 2009-2011 .	72
Table 7: HFA Country Progress Report Future Outlook Areas, Myanmar	72

List of Photos

Photo 1: Myanmar National Flag	14
Photo 2: Local Myanmar Market in Yangon	15
Photo 3: Buddhist Children in Yangon, Myanmar.....	17
Photo 4: The Many Thousand Temples of Bagan, Myanmar 2015	20
Photo 5: Bird's-Eye-View, Yangon, Myanmar 2016.....	53

Photo 6: Irrawaddy Delta Located in Southern Myanmar 53
Photo 7: WASH Interventions in Rakhine State, Myanmar 57

Disclaimer

This report has been prepared in good faith based primarily on information gathered from open-source material available at the date of publication. Most of the information used was from United States (U.S.) or other government sources and is therefore considered to be in the public domain. Such sources include the Central Intelligence Agency (CIA) Fact Book, U.S. Department of State (DOS), and foreign government's web pages. Where possible, a link to the original electronic source is provided in the endnote (reference) section at the end of the document. Other sources used include Non-Governmental Organization (NGO) home pages, Relief Web, United Nations Development Program (UNDP), United Nations Office for the Coordination of Humanitarian Affairs (OCHA), World Bank, and Asian Development Bank (ADB). While making every attempt to ensure the information is relevant and accurate, Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM) does not guarantee or warrant the accuracy, reliability, completeness or currency of the information in this publication.

Welcome - Note from the Director

Dear Reader,

CFE-DM provides education, training and research about disaster management and humanitarian assistance, particularly in international settings that require coordination between the Department of Defense (DOD) and civilian agencies. In line with its charter, CFE-DM has created reference books on disaster management roles, processes, capabilities and vulnerabilities. This Disaster Management Reference Handbook Series is designed to provide decision makers, planners and responders a baseline of understanding of national disaster management plans and structures, including information on key domestic disaster response entities, basic regional background, and local and international humanitarian organizations present in the region. The Indo-Asia-Pacific region remains the region with the highest number of natural disasters, accounting for over 41 percent of the world's disasters.¹ More disaster related deaths occur in this region (almost 89 percent of the global total)², and more people have been affected by disasters in the region (80 percent of the global total from 2005-2014).³ These handbooks provide a context for country and regional-specific factors that influence disaster management.



Sincerely,

Joseph D. Martin, SES
Director

Information about the Center for Excellence in Disaster Management and Humanitarian Assistance

Overview

CFE-DM is a U.S. DOD organization that was established by U.S. Congress in 1994. The Center is a direct reporting unit to U.S. Pacific Command and is located on Ford Island, Joint Base Pearl Harbor-Hickam, Hawaii.

CFE-DM was founded as part of the late Senator Daniel K. Inouye's vision. The Senator had witnessed the effects of Hurricane Iniki that struck the Hawaiian Islands in 1992, and felt the civil-military coordination in the response could have been more effective. He set about to establish CFE-DM to help bridge understanding between civil and military responders, and to provide a DOD platform for building Disaster Management and Humanitarian Assistance (DMHA) awareness and expertise in U.S. forces, and with partner nations in the Asia-Pacific. While maintaining a global mandate, the Asia-Pacific region is our priority of effort and collaboration is the cornerstone of our operational practice.

Mission

The Center's mission is to advise U.S. Pacific Command leaders; enable focused engagements, education and training; and increase knowledge of best practices and information to enhance U.S. and international civil-military preparedness for disaster management and humanitarian assistance.

Vision

CFE-DM exists to save lives and alleviate human suffering by connecting people, improving coordination and building capacity.

Contact Information

Center for Excellence in Disaster Management
and Humanitarian Assistance
456 Hornet Ave
JBPHH HI 96860-3503
Telephone: (808) 472-0518
<https://www.cfe-dmha.org>

Disaster Management Reference Handbook Series Overview

The Disaster Management Reference Handbook Series is intended to provide decision makers, planners, responders and disaster management practitioners with an overview of the disaster management structure, policies, laws, and plans for each country covered in the series. Natural and man-made threats most likely to affect the country are discussed. The handbooks also provide basic country background information, including cultural, demographic, geographic, infrastructure, and other relevant data.

Conditions such as poverty, water and sanitation, vulnerable groups, and other humanitarian issues are included. A basic overview of the health situation in the country and disease surveillance is also covered. The handbooks include information on key national entities involved in disaster management, disaster response and preparation, and the military's role in disaster relief. Information on United Nation agencies, international NGOs, major local NGOs, and key U.S. agencies and programs in the country, are also provided.

The overall aim is to offer a guide that brings together important information about disaster management and response for each country in an effort to provide a basic understanding for the reader. Information in the handbooks are compiled and based primarily on trusted, reliable, publicly available sources. Much of the information used is from U.S. or other government sources, United Nation sources, NGO websites, scholarly references, foreign government websites, and various media sources. When available, a link to the original internet source is provided.

Each handbook is a working document and will be updated periodically as new, significant information becomes available. We hope that you find these handbooks informative, relevant, reliable, and useful in understanding disaster management and response for this country. We welcome and appreciate your feedback to improve this document and help fill any gaps to enhance its future utility. Feedback, comments, or questions can be emailed to cfe-dmha.fct@pacom.mil. You may also contact the Center for Excellence at: (808) 472-0518. Please visit our website (<https://www.cfe-dmha.org>) to view the latest electronic versions available or to request a hard copy of a disaster management reference handbook.

Executive Summary

Myanmar, also commonly referred to as Burma, is one of the largest countries in South East Asia with 56 million people.⁴ Myanmar shares borders with China, Laos, Thailand, Bangladesh, and India. In the south, Myanmar has marine borders with the Andaman Sea and the Bay of Bengal. Myanmar is ethnically diverse with a majority of the population made up of Barmars. Eight major national ethnic races are present in Myanmar. Each ethnic race is comprised of diverse ethnic groupings (Kachin, Kayah, Kayin, Chin, Mon, Bamar, Rakhine, and Shan). The largest city in Myanmar is Yangon and the capital of Myanmar is Naypyidaw. The predominately spoken language in Myanmar is Burmese and 89 percent of the population is Buddhist.⁵

Myanmar is vulnerable to natural disasters such as flooding, drought, earthquakes, cyclones, and communicable and infectious disease outbreaks. Myanmar ranks as one of the most vulnerable countries to the effects of climate change and the impacts of natural disasters are expected to increase in the immediate future. Floods and landslides in 2015 demonstrated the vulnerability of the country to natural disasters. In addition to natural disasters, Myanmar has been affected by ongoing national conflicts for the past 40 years, which have yielded population displacements and humanitarian crisis including the Rohingya (or Bengali) population.

Myanmar has made significant progress in its disaster management policies, plans, and procedures since 2008, when Cyclone Nargis impacted the country leaving devastation in its aftermath. The Government of Myanmar (GoM) has modified the government structure and created new authorities and plans to improve the effectiveness of disaster management at all levels. While this progress is encouraging and shows the determination of the government to make necessary adjustments, the resources to implement the policy changes have been slower to develop.

In 2011, Myanmar began the stages of its transformation reform and a civil government, led by President Thein Sein was implemented.⁶ In 2016, a democratic government took over when President U Htin Kyaw assumed office on March 30, 2016 after the National League for Democracy party lead by Aung San Suu Kyi won the general election in November 2015.⁷ Aung San Suu Kyi is a prominent political leader of the country and one of the world's most prominent political prisoners as well. She has been offered support of various countries including the U.S. for her efforts to install democracy in Myanmar by peaceful means.

Myanmar is classified by the United Nations (UN) as a Least Developed Country (LDC). The classification of LDC by the UN is based on the following considerations; low income, weak human resources, and economic vulnerability. Nearly 70 percent of the Myanmar population reside and work in rural parts of the country. The livelihoods for rural workers are subsistence-based. Limited access to markets in rural areas is limited and often have higher costs attached. The rural areas of the country are further compromised by civil unrest. Rural areas of Myanmar are also vulnerable to climate factors and natural disasters. Increased migration from the rural areas in Myanmar to the more developed urban area is commonly practice.⁸

The Government of Myanmar has implemented significant changes to the political, social, and economic areas. However, the Government understands that increased and rapid development is not possible without international stakeholders and cooperation. Therefore, the Government of Myanmar has established a transparent use of international support and resources. The Myanmar Government seeks to maximize the level of assistance received from international partners to increase country development.⁹



MYANMAR (BURMA)

Country Overview

Country Overview

Myanmar has a population of 56,890,418 (2016).¹⁰ It is one of the largest countries in South East Asia covering 261,228 square miles (677,000 sq. km).¹¹ Myanmar is ethnically diverse with more than 135 ethnic groups represented within the total population.¹² Multiple Burmese and ethnic minority states occupied the Myanmar borders (modern country borders) throughout the 19th century. During the span from 1824-1886, Britain controlled Myanmar and it was part of the British Indian Empire. Until 1937, Myanmar was considered as an Indian Providence, but in 1937, Myanmar became a self-governing colony. In 1948, Myanmar gained its independence from Britain. Gen. Ne Win dominated the government from 1962 to 1988, first as military ruler, then as self-appointed president, and later as political leader. In response to widespread civil unrest, Ne Win resigned in 1988, and within months of the resignation, the military took power.¹³

Multiparty legislative elections held in 1990 resulted in the main opponent party, the National League for Democracy (NLD), winning the election. Instead of a transition of power, the Junta placed NLD leader Aung San Suu Kyi under house arrest from 1989 to 1995, 2000 to 2002, and from May 2003 to November 2010. In September 2007, the military rule brutally suppressed protests over inflated fuel prices, led by democratic supportive, activists and Buddhist monks. The brutal suppression killed 13 individuals and thousands of individuals were arrested for their participation in the protests.¹⁴

In May 2008, Myanmar was struck by Cyclone Nargis, which left over 138,000 dead and tens of thousands injured and homeless. Despite this tragedy, the Junta continued with its May constitutional vote, the first referendum held within the country since 1990. Legislative elections conducted in November 2010, which the NLD

boycotted and were deemed unsound by many in the international community, saw the ruling Union Solidarity and Development Party collect over 75 percent of the seats.¹⁵

In 2011, the national legislature convened and selected Prime Minister Thei Sein as Myanmar's President. During this period of time, most of the national appointees appointed by Thei Sein were former or current military officers, and the national government implemented many political and economic reforms. Government reforms included releasing hundreds of political prisoners, signing a nationwide cease-fire with several of the country's ethnic armed groups, pursuing legal reform, and gradually reducing restrictions on freedom of the press, association, and civil society. Additionally, Aung San Suu Kyi was elected to the national legislature in April 2012 and became chair of the Committee for Rule of Law and Tranquility. Myanmar served as chair of the Association of Southeast Asian Nations (ASEAN) in 2014.

In 2015, in what many considered a flawed, but largely credible national election, the NLD secured another overwhelming victory. Utilizing their vast majority in both houses of parliament, the NLD elected Htin Kyaw, Aung San Suu Kyi's confidant and NLD supporter, as Myanmar's President. This resulted in Myanmar's first civilian government after more than five decades of military dictatorship. The newly elected President, Htin Kyaw was sworn into office on 30 March 2016.¹⁶ Photo 1 depicts the Myanmar National flag.



Photo 1: Myanmar National Flag¹⁷

Culture

Myanmar culture (Burmese culture) generally means Buddhist culture.¹⁸ There is a standard of behavior commonly called *bama hsan-jin* or Burmese-ness. This includes being able to recite and be familiar with Buddhist scriptures; the ability to speak idiomatic Burmese; showing respect for elders; dressing modestly; showing discretion in behavior towards the opposite sex; and exhibiting behavior that values quiet, subtle and indirect rather than being loud or direct.¹⁹

The Myanmar people pride themselves on proper etiquette. Elders and others of a higher status such as monks, should be addressed and treated with courtesy. It is considered rude, for instance, to pass things over the heads of seated elders. To show respect to grandparents, parents, and teachers on formal occasions, the Myanmar kneel down with their foreheads and elbows touching the ground. When passing a pagoda or meeting a monk, they put their palms together in a gesture of reverence. Myanmar people are also very sensitive about imposing on, or inconveniencing other people. The fear of embarrassing others is called *anade* (*Ah-nar-Deh*). If you asked a Myanmar guest what drink you could serve him or her, your guest would probably say, “anything is fine,” to avoid

embarrassing you by asking for something you might not have.²⁰

Open markets are very common in Myanmar and it represents the culture, customs, and economy of the country. Markets are known as *zay* or *zei*, and Yangon has a huge number of them, selling a wide variety of goods.²¹ Photo 2 depicts a local market in Yangon.

Demographics

Understanding the demographic context of Myanmar provides insight into socio-cultural factors that will affect disaster management effectiveness, disaster vulnerabilities of the population and disaster risk reduction (DRR) capabilities. It is important to reflect gender, ethnicity, economic status, and vulnerable groups in the planning and implementation of disaster preparedness planning, mitigation, and response activities to address existing gaps and increased risks.

Ethnic Makeup

Myanmar is ethnically diverse with more than 135 ethnic groups represented within the total population. The major racial groups are Bamar, Kachin, Kayah, Kayin, Chin, Mon, Rakhine, and Shan.²²



Photo 2: Local Myanmar Market in Yangon²³

Key Population Centers

Myanmar had a population census that was conducted in March and April of 2014. The numbers do not include an estimated 1.2 million people that were not counted in the Arakan, Kachin, and Karen States due to conflict between the government and ethnic armed groups that prevented enumerators from entering rebel-controlled areas in Kachin and Karen states. In Arakan State, the government did not recognize Rohingya, a muslim minority group. As a result there is sensitivity and controversy in how to categorize ethnic identities.²⁴

The majority of the Myanmar population is located in the three regions of Yangon (14 percent), Ayeyarwady (12 percent), and Mandalay (12 percent). These regions account for approximately 38 percent of the total Myanmar population. The least populated states/regions are Nay Pyi Taw (2 percent), Chin (0.9 percent), and Kayah State (0.6 percent). Together, these regions account for approximately 3.5 percent of the entire Myanmar population.²⁵

Table 1 depicts the distribution of population in Myanmar by state and region as indicated in Population and Housing Census of Myanmar, 2014 Provisional Report.

Language

The official language of Myanmar is Burmese, however many minority ethnic groups speak their own languages, and English is spoken by many in cities and tourist areas.²⁷

Religion

Myanmar has a diverse population; however, the majority of the population has adopted the Buddhist religion. Approximately 90 percent of the population is Buddhist. Other small sects of religious affiliations are represented within the population. Christians account for 6.3 percent, Muslims represent 2.3 percent, Animists account for 0.2 percent, Hindus account for 0.5 percent, other religions represent 0.2 percent, and those with no religious affiliation account for 0.1 percent of the total population. The religious affiliation estimates are based on the 2014

State/Region	Both sexes	Male	Female	Proportion of Total Population (%)
Union	51,486,253	24,824,586	26,661,667	
Union enumerated	50,279,900	24,228,714	26,051,186	
<i>Union not enumerated</i>	<i>1,206,353</i>	<i>595,872</i>	<i>610,481</i>	
Kachin	1,689,441	878,384	811,057	3.28
Kachin enumerated	1,642,841	855,353	787,488	
<i>Kachin not enumerated</i>	<i>46,600</i>	<i>23,031</i>	<i>23,569</i>	
Kayah	286,627	143,213	143,414	0.56
Kayin	1,574,079	775,268	798,811	3.06
Kayin enumerated	1,504,326	739,127	765,199	
<i>Kayin not enumerated</i>	<i>69,753</i>	<i>36,141</i>	<i>33,612</i>	
Chin	478,801	229,604	249,197	0.93
Sagaing	5,325,347	2,516,949	2,808,398	10.34
Tanintharyi	1,408,401	700,619	707,782	2.74
Bago	4,867,373	2,322,338	2,545,035	9.45
Magway	3,917,055	1,813,974	2,103,081	7.61
Mandalay	6,165,723	2,928,367	3,237,356	11.98
Mon	2,054,393	987,392	1,067,001	3.99
Rakhine	3,188,807	1,526,402	1,662,405	6.19
Rakhine enumerated	2,098,807	989,702	1,109,105	
<i>Rakhine not enumerated</i>	<i>1,090,000</i>	<i>536,700</i>	<i>553,300</i>	
Yangon	7,360,703	3,516,403	3,844,300	14.30
Shan	5,824,432	2,910,710	2,913,722	11.31
Ayeyawady	6,184,829	3,009,808	3,175,021	12.01
Nay Pyi Taw	1,160,242	565,155	595,087	2.25

Table 1: Distribution of Myanmar Population by State/Region²⁶

Myanmar National Census.²⁸ Photo 3 depicts young children in Myanmar practicing the predominate religion of Buddhism.

Vulnerable Groups

Myanmar has many vulnerable groups including the poor, children, refugees, unregistered migrants, internally displaced persons, and trafficked persons. According to the United Nations High Commission for Refugees (UNHCR), the main groups of people of concern in Myanmar are people without citizenship and those populations displaced by conflict and inter-communal tensions.²⁹

Internally Displaced Persons

Over the span of six decades of armed conflict in southeast Myanmar, hundreds of thousands of persons have been displaced. The approximate number of currently Internally Displaced Persons (IDPs) within the region is unidentified. While moderately few civilians have been displaced by armed conflict since the occurrence of the peace process in 2011, several hundreds of thousands continue to be chronically displaced. Comparatively, in Thailand there are currently an approximated 120,000 refugees from southeast Myanmar living in temporary shelters, plus



Photo 3: Buddhist Children in Yangon, Myanmar³⁰

another 2-3 million migrant workers, many which are classified as extremely vulnerable.³¹

Myanmar refugees and IDPs have been among the principal victims of armed conflict in their homeland. Communities have suffered emotionally and physically. To an extent, the success of the peace process can be evaluated by the degree to which Myanmar's most severely affected populations are able to attain durable solutions. However, durable solutions for forced migrants are dependent upon sustainable advancements in the political and security environment and an end to armed conflict.³²

In Rakhine State, approximately 145,000 people were displaced and relocated to IDP camps following the reemergence of armed conflict in 2012. In 2015 the Government of Myanmar (GoM) had assisted approximately 25,000 of the IDPs return to their homes or relocate, providing individual housing to over 3,000 families. About 120,000 people are currently residing in IDP camps. Muslim IDPs continue to be a high risk due to severe restrictions on their freedom of movement, limiting their access to healthcare, education and employment. This makes them heavily dependent on humanitarian assistance.³³ Figure 1 depicts the Displaced populations in various Myanmar Townships, including Rakhine, Kachin, and Shan.³⁴

June 2016 marked five years since armed conflict reemerged in Kachin and northern Shan states. Approximately 100,000 persons remain displaced and continue to warrant international humanitarian assistance and resources within the regions. Roughly 50 percent of the IDP's are in regions of Myanmar which are beyond Myanmar Government control. Conflict in February and

March 2016 displaced approximately 7,300 additional people in northern Shan State. By 31 March 2016, nearly 5,000 of these persons had attained durable solutions and returned to their residences, primarily in Kyaukme Township.³⁵

Migrant Persons

Migration of persons across Myanmar's borders continues to be a chronic and complex situation. A mixture of push and pull factors play critical parts in the way people decide to move. Factors contributing to the "push" of migrants include limited employment opportunities, economic conditions, and insecurities created by prolonged conflicts in the region. Increased compensation and higher demands for less skilled workers in bordering countries creates an interest for migrants.³⁶

Myanmar has developed into the largest migration source country in the Greater Mekong Sub region (GMS). Estimates contend that up to 10 percent of Myanmar's total population migrates internationally. Movements include migration to countries in the region mostly by irregular means, deployment of migrant workers through legal mechanisms and migration of Myanmar nationals throughout the world. Migration to Thailand and Malaysia accounts for approximately 3 million migrants. Additionally, estimates in excess of hundreds and thousands of Myanmar migrants have sought asylum in these countries. Migration to China's Yunnan Province, India, and beyond is also significant in terms of its numbers. There are increasing numbers of regular labor migration to Gulf and Middle Eastern countries facilitated by private overseas employment agencies as well as those working as seafarers.³⁷

The protection of Myanmar migrants in all destination countries is a national priority for the government. While several means for recurrent migration are available to Myanmar nationals, a large portion of the total approximated migrant stock is variable, including victims of trafficking and smuggled migrants who are subjected to abuses such as extortion, debt bondage, and physical exploitation. At the same time, even fully documented workers migrating regularly from Myanmar are also at an increased risk of abuses and being perpetrated in work places across diverse economic sectors both in the GMS and other regions.³⁸

COUNTRY OVERVIEW

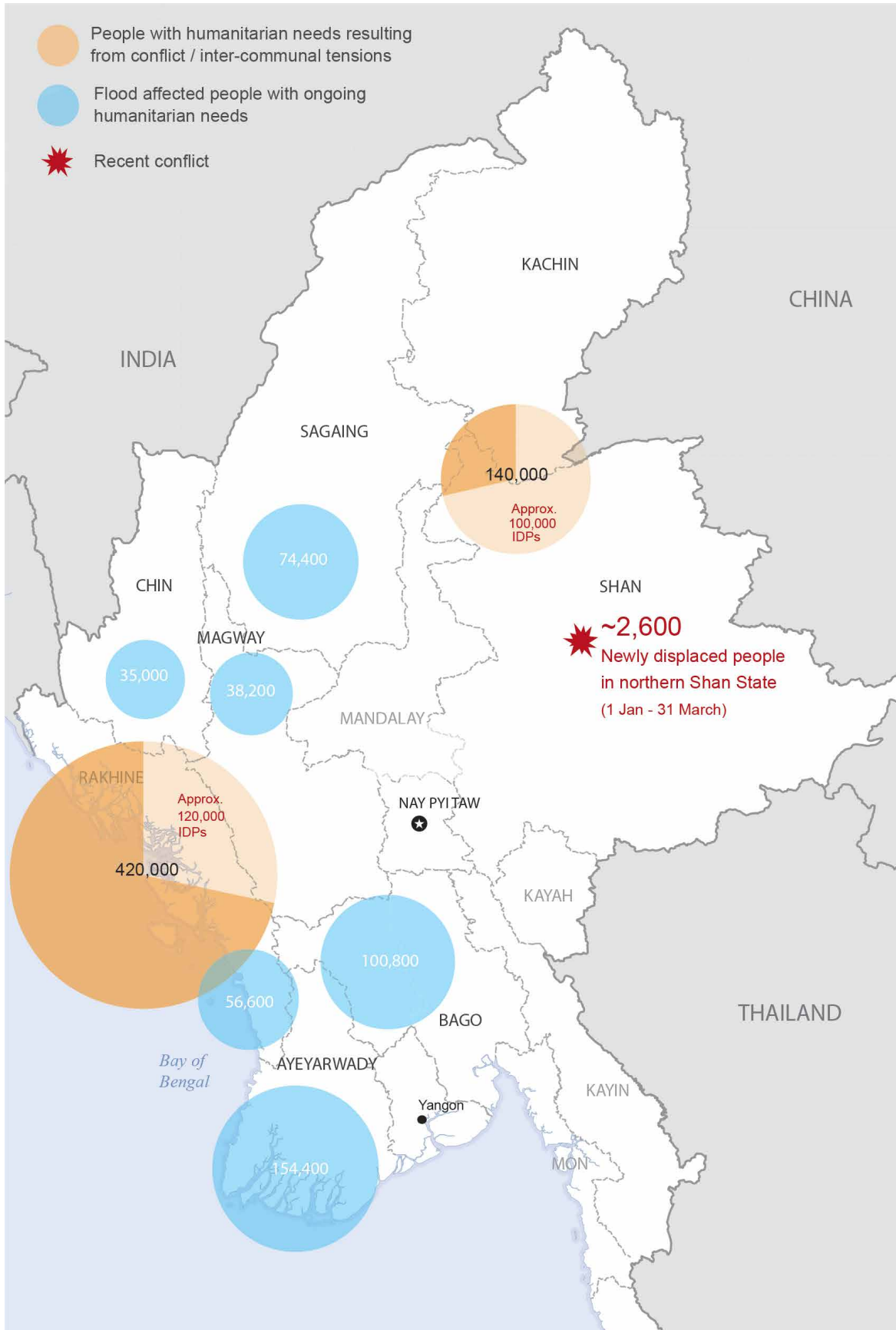


Figure 1: Displaced Population-Myanmar³⁹

Economics

Myanmar began a shift towards a civilian-led government in 2011. With the government transition, Myanmar is enhancing economic development to draw foreign investments and to reintegrate Myanmar into the global economy. The GoM has started economic reforms to increase foreign investment involvement.⁴⁰ Myanmar has attracted foreign investments in the energy sector, garment industry, technology, and food and beverage industries. This is due in part to Myanmar's ample natural resources, youthful work force, and its proximity to Asia. Direct foreign investments nearly doubled from 2013 (\$4.1 billion) to 2014 (\$8.1 billion).⁴¹

However, despite growing foreign investments and national economic improvements, the standard of living for the majority of the population has not improved. Despite recent economic improvements, Myanmar continues to be one of the most economic deficient countries in Asia. Nearly 26 percent of Myanmar's total population are impoverished and live below the national poverty line. The preceding government's policies and economic misconduct resulted in Myanmar having weak infrastructure, endemic corruption, inadequate human resources, and insufficient access to capital. The GoM has demonstrated a delay in addressing obstructions to the nation's economic development. However, newly elected governments, led by Aung San Suu Kyi, have developed plans to focus on accelerating agricultural productivity and land reforms, modernizing and opening the financial sector, and improving fiscal management within the nation.⁴²

Environment

Myanmar's environment has a diverse habitat. The ecological diversity of Myanmar provides a home to more than 300 mammal species, 300 reptiles, and over 100 bird species. The biodiversity of Myanmar creates a lush habitat of over 7,000 plant species. The rich biodiversity present in Myanmar is recognized by the government as a national asset and many national regulations, policies and laws are in place to protect Myanmar's biological resources.⁴³

Myanmar's terrain consists of central lowlands ringed by steep, rugged highlands. The

lowest elevation point ranges from 0 meters of elevation in the Andaman Sea/Bay of Bengal, to the highest point, Gamlang Razi with an elevation of 5,870 meters (19,258.5 feet).⁴⁴

The natural resources include petroleum, timber, tin, antimony, zinc, copper, tungsten, lead, coal, marble, limestone, precious stones, natural gas, hydropower, and arable land. Agricultural lands account for 19.2 percent of available land use, arable lands account for 16.5 percent, permanent crops take up 2.2 percent, permanent pastures account for 0.5 percent, forest represent 48.2 percent, and other land uses account for 32.6 percent.⁴⁵

Myanmar's environmental concerns include deforestation, industrial pollution (air, soil, and water), inadequate sanitation and water treatment. Several environmental agreements have recently been implemented including Biodiversity, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Law and of the Sea, Ozone Layer Protection, Ship Pollution, Tropical Timber 83, and Tropical Timber 94 signed but not ratified. Additionally, international agreements have been established to help resolve environmental issues in Myanmar. The GoM is giving priority to the forest conservation and greening of nine arid districts in central Myanmar.⁴⁶

Geography

Myanmar is located in Southeast Asia. The topography of Myanmar can roughly be divided into three parts; the Western Hills Region, the Central Valley Region, and the Eastern Hill Region. The Himalayan Range has a link with Myanmar and is known as the Western Yoma that runs to the south. The Khakabo Razi which is situated in the northern part of the Western Yoma is 19,296 feet high, while the Sarameti is 12,553 feet.⁴⁷

The Western Yoma Range serves as a wall that separates Myanmar from India. The Central Valley Region consists of the broadest valley of the Ayeyarwady. The first part of the River Ayeyarwady is from the origin of river to Mandalay; the second part constitutes from Mandalay to Pyay and the third is the part from Pyay to the mouth of the river. The Central Valley Region consists of Sittaung Valley and Chindwin Valley. In the center lie the small mountain ranges such as Zeebyu Taungdan, Min-wun Taungdan, Hman-kin Taungdan, and Gangaw Taungdan. There also lies the low range of Bago Yoma that slopes down from north to

south. The Eastern Hills Region is the Shan Plateau which is average 3,000 to 4,000 feet above sea-level. Unlike the plain, the plateau has high mountain ranges and the River Than Lwin flows through the Shan Plateau to the northern Taninthayi Coastal Strip. The rivers of Shweli, Myitnge, Zawgyi and Pan-laung, which have their sources at the Shan Plateau flow into the River Ayeyarwady.⁴⁸

Photo 4 depicts some of the thousands of temples located in Bagan, located on the banks of the Ayeyarwady (Irrawaddy) River in the Mandalay Region of Myanmar. In this image, the flat lands meet the Western Yoma Range.

Borders

Myanmar is bordered on the north and northeast by the People's Republic of China, on the east and southeast by the Lao People's Democratic Republic and the Kingdom of Thailand, on the south by the Andaman Sea and the Bay of Bengal, and on the west by the People's Republic of Bangladesh and the Republic of India. Yangon is the Capital City of Myanmar. The total area of Myanmar is 261,228 square miles (677,000 square kilometers). It stretches for 582 miles (936 kilometers) from east to west and 1,275 miles (2,051 kilometers) from north to south. The length of the international border is 3,828 miles (6,129 kilometers), sharing 1,370 miles with China, 1,310 miles with Thailand, 832 miles with India, 1,687 miles with Bangladesh and 148 miles with Laos respectively. The length of the coastline from the Naaf River to Kawthaung is approximately 1,385 miles.⁴⁹



Figure 2: Map of Myanmar and Border Countries⁵⁰

Figure 2 depicts a map of Myanmar and its border countries.⁵¹

Climate

As a whole, the location and topography of the country generates a diversity of climate conditions. Myanmar has a monsoon climate, which produces three main seasons, the summer, rainy, and winter seasons. Extreme temperatures are rare, but the directions of winds and depression bring rain. Although rain is heavy in the coastal areas during monsoon season, it seldom creates hardships.⁵²

Myanmar has been experiencing the impacts of strong El Niño related events. In 2016, the country experienced a severe impact of El Niño including extreme temperatures, unusual rainfall patterns, dry soil, high risk of fires and acute water shortages.⁵³



Photo 4: The Many Thousand Temples of Bagan, Myanmar 2015⁵⁴



MYANMAR (BURMA)

Disaster Overview

Disaster Overview

Hazards

Myanmar is affected by many natural hazards, destructive earthquakes, cyclones, flooding, landslides (which are common in the rainy season from June to September), and periodic droughts.⁵⁵ Over the last 10 years, Myanmar has been impacted by two major earthquakes, three severe cyclones, floods, and other smaller-scale hazards.⁵⁶

In 2015-2016, the El Niño phenomenon significantly impacted Myanmar. The 2015-2016 season of El Niño has been one of the strongest since 1950, with a significant influence on weather patterns. As a result, Myanmar suffered drought conditions with intermittent 'very severe' category cyclones in different parts of Asia and the Pacific. According to the Myanmar Department of Meteorology and Hydrology (DMH), since mid-February 2016, Myanmar has experienced a severe impact of El Niño including extreme temperatures, unusual rainfall patterns, dry soil, high risk of fires, and acute water shortages.⁵⁷

Recent History of Natural Disasters

August 2016-Monsoon Floods

At least 377,000 people were displaced from their homes in six states, Magway being the most affected area, where some 60,000 people were displaced. Five people died, two in Sagaing, two in Kachin, and one in Yangon. Many schools remained closed across affected areas. Flood waters were gradually moving south towards the Ayeyarwady Delta.⁵⁸ Monsoon conditions persisted as moderate to strong over the Andaman Sea and the Bay of Bengal, which created further rainfall.⁵⁹

July 2016- Myanmar Floods

Heavy rain started across the country, causing flooding and landslides in Rakhine, Sagaing, and Kachin. The Rakhine State Government reported that more than 24,306 people were displaced across the four most affected townships, Minbya (13,123 people), Ann (4,659 people), Mrauk-U (3,696 people), and Kyauktaw (2,828 people). As of 29 July, 15,000 people were displaced due to monsoon flooding in Sagaing, Mandalay,

Magway, Kachin and Chin. The Relief and Resettlement Department (RRD) faced logistical challenges due to limited road access and flooded rivers in some areas.⁶⁰

June 2016-Tropical Cyclone Roanu

The monsoon brought higher rainfall intensity and triggered flooding in several areas in Sagaing, Rakhine, Ayeyarwady, and Bago. Based on the RRD, the incidents caused eight deaths and affected 27,757 people. The flood also submerged 5,685 houses and damaged 246 houses in the Bago and Sagaing regions, as well as Chin and Rakhine states. A total of 14 deaths were reported from the Union-level Relief and Resettlement Department, media sources and the Rakhine State Government.⁶¹

2015-2016- South-East Asia Drought

In Myanmar, a total of 146 villages suffered from water shortages during the 2015 summer season. In 2016 roughly 300 villages had shortages, with the majority of those villages located in the townships of Ngapudaw, Thabaung, Kyaunggone and Yekyi, according to the records of the Directorate of Water Resources and Improvement of River Systems (Gov't of Myanmar, 14 Mar 2016). According to the Myanmar Department of Meteorology and Hydrology, since mid-February 2016, Myanmar has been experiencing a severe impact of El Niño including extreme temperatures, unusual rainfall patterns, dry soil, high risk of fires and acute water shortages.⁶²

July 2015- Tropical Cyclone Komen

In July 2015, Tropical Cyclone Komen produced high winds and heavy rain in several states and regions (Western and Northern Myanmar). Twelve out of the fourteen regions and states were affected by flooding. On 31 July, Myanmar's President declared Chin and Rakhine states and the regions of Sagaing and Magway, to be natural disaster zones.⁶³

July 2015- Myanmar: Floods and Landslides

Heavy rains caused floods and landslides in several parts of Myanmar in June 2015. On 30 July, Cyclone Komen made landfall in Bangladesh, bringing strong winds and additional heavy rains to the country, which resulted in widespread flooding across 12 of the country's 14 states and regions (Ayeyarwady, Bago, Chin, Kachin, Kayin, Magway, Mandalay, Mon, Rakhine, Sagaing, Shan, Yangon). On

31 July, the President declared the Chin and Rakhine states, as well as the regions of Magway and Sagaing a natural disaster zone. According to the National Natural Disaster Management Committee (NNDMC), 125 people were killed and 1.7 million people were temporarily displaced by floods and landslides.⁶⁴

July 2014- Myanmar Floods

In July 2014, heavy seasonal rains, landslides and strong winds throughout Myanmar (mostly the lower parts of the country) caused damage, flooding, landslides, and the collapse of riverbanks in several regions. The most affected states/regions were Ayeyarwady, Bago, Kayin, Kachin, Magway, Rakhine, Shan, Tanintharyi and Yangon (OCHA, 15 Aug 2014). At the beginning of August, continuous rains caused flooding in Bago Region. As of 8 Aug, around 15,850 people from Bago, Kawao, Thanatpin and Wah townships were reported in temporary shelters. Authorities provided emergency assistance such as food rations and non-food items, and WFP sent an assessment team (OCHA, 11 Aug 2014). By the end of August, over 36,000 people had been displaced by floods or strong winds. In most cases, people took shelter with relatives, in monasteries or schools, and were able to return home within a few days. In the Hpakant Township in Kachin, over 3,400 people were displaced by floods after several days of heavy rains. In Mon State, some 7,000 people were temporarily evacuated. In Rakhine State, some 6,400 people were displaced due to floods and rising river levels.⁶⁵

August 2013- Myanmar Floods

Heavy monsoon rains and overflowing local rivers caused flash floods in various parts of Myanmar in late July 2013, affecting Kayin, Mon, and Rakhine States. It also affected the regions of Tanintharyi and Ayeyarwady Regions. The flash floods initially displaced over 38,300 people, leaving six dead and one person missing, and damaged residential buildings, roads and bridges. By 7 Aug, 73,300 people were residing in temporary relocation camps. Many others were able to return to their places of origin as heavy rains ceased and the flood waters receded in most affected locations. In September, floods displaced more than 22,000 people across many areas of the country. Many were able to return home after floodwaters subsided. While some people were displaced for several weeks, most were displaced only for several days. Due to

heavy rains, the Sittoung River overflowed and flooded nearby areas in the Bago Region from 28 Oct to 2 Nov. In four townships, Taungoo, Yedashe, Ottwin, and Htantabin, approximately 50,000 people were displaced by the floods and sheltered in 72 relief camps opened by the government. Two deaths from the floods were reported. Floodwaters receded on 5 Nov and as of 6 Nov, 15,830 people were in 33 relief camps. As floodwaters continued to recede, they were expected to soon be able to return to their places of origin as well (OCHA, 30 Nov 2013).⁶⁶

November 2012- 6.8 Earthquake in Northern Myanmar

In November 2012, at least 16 people were killed and 52 injured, with over 400 houses, 65 schools, and some 100 religious buildings damaged.⁶⁷

August 2012- Floods Across Myanmar

The floods in different states and regions displaced 86,000 people and affected over 287,000 people. Ayeyarwady Region was the worst affected with 48,000 people displaced. Over 136,000 acres of farmland, houses, roads and bridges were damaged.⁶⁸

October 2011- Floods in Magway Region

Nearly 30,000 people were affected. Over 3,500 houses and 5,400 acres of croplands were destroyed.⁶⁹

March 2011- 6.8 Earthquake in Shan State

Over 18,000 people were affected and at least 74 people were killed, while 125 were injured. Over 3,000 people became homeless.⁷⁰

Climate Change

Myanmar is a country, which is most susceptible to climate change. Myanmar's largest city (Yangon) is the fifth most vulnerable city affected by climate change.⁷¹ The main threat is found in changes to sea level, changes in temperature norms, and the precipitation rates and predictability. Compared to other countries in the region, Myanmar is less prepared to deal with climate change, which adds to its vulnerability.⁷² The majority of the population lives in low lying areas, which increases the risk of flooding. Flooding is found to be one of the greatest risk factors in Myanmar, along with drought, heat waves, and seasonal changes in agriculture, water resources, public health, forestry, and biodiversity.⁷³ Agricultural

production and fresh water fisheries are being damaged by the incursion of seawater into fresh water supplies on land. It is expected that climate change will worsen existing issues, specifically in food and water insecurity.⁷⁴

Infectious Disease

Myanmar has several infectious diseases affecting the population including bacterial and protozoal diarrhea, hepatitis A, typhoid fever, dengue fever, Malaria, and Japanese encephalitis. There has also been a Measles outbreak in remote villages including the Chin state in 2016. More travel health information can be found on page 60 and 70.⁷⁵

Country Risks

Deforestation

Between 1990 and 2015, Myanmar lost approximately 15 million hectares (37 million acres) of forest and other wooded areas. This placed Myanmar as the world's third highest for forest reduction and deforestation.⁷⁶ Some of the drivers of deforestation include agriculture, both for nourishment and industrial needs, legal and illegal logging, to include the establishment of Teak plantations, and various types of mining. Myanmar's dense forests are found mostly in Shan, Kachin, and Sagaing, in the northern parts of the country. These states and regions have also seen the highest aggregate loss of forests, amounting to nearly 850,000 hectares (2.1 million acres) between 2000 and 2012.⁷⁷

Mangroves

Mangroves can mitigate the impact of natural disasters. There is a need to preserve and protect Myanmar's remaining mangrove forest and to rehabilitate much of the degraded cover. In recent decades, farmers in Myanmar's low-lying Ayeyarwady Delta cleared vast tracts of coastal mangrove forests to expand rice cultivation and make way for export-oriented prawn farming. A devastating tidal surge caused by Cyclone Nargis in 2008 exacerbated the cyclone's toll. Most of the thousands of people who perished when Nargis slammed into the country are believed to have drowned in the fierce 3.5m storm surge that swept nearly 40km inland. Mangrove forests could have cushioned the impact of the sea surge. Although coastal trees and forests cannot prevent inundation and inland flooding associated with storm surge they can reduce the impacts of

waves and currents associated with the storm surge. Coastal forests can also act as windbreaks in reducing devastation in coastal communities resulting from cyclones.⁷⁸

Crime

Crime rates in Burma, especially involving foreigners, are lower than those of many other countries in the region. Nevertheless, the crime rate has been increasing, particularly home burglaries and petty crime. Violent crime against foreigners is rare, but there have been incidents involving attacks by taxi drivers and muggings.⁷⁹

Myanmar has a hard time attracting tourists due to its international reputation, even though tourists are less likely to be a victim of crime in Myanmar than in Thailand or Malaysia. Becoming a victim of petty theft is the most common crime against foreigners. Since 2005, Yangon and Mandalay have seen a low rise in street robberies.⁸⁰

Mining

Myanmar has diverse and largely untapped geological resources, which will make mining a significant driver of the country's economic development. The government has not allowed foreign investments into jade and ruby mining, with the right investment environment Myanmar has the potential to attract large scale foreign participation in the exploration and extraction of metals, ores, and industrial minerals, especially copper, tin, tungsten, nickel and gold. The government of Myanmar once owned all of the country's gold mines, but following the fall of the Junta in 2011, many have been sold to private owners. Mining is the third largest recipient of foreign direct investment in Myanmar. The industry exported approximately US\$1.5 billion in the 2013 and 2014 financial years.⁸¹

Opium Production

The 2015 Southeast Asian Opium Survey shows that Myanmar remains the region's top opium producer. Myanmar and Laos produced between 731 and 823 metric tons of opium combined, most of which was refined into the equivalent of roughly 73.1 to 82.3 metric tons of street grade heroin for regional and international drug markets. The Shan state in northern Myanmar hosts a number of conflict areas and ceasefire groups and remains the center of the country's opium and heroin trade, accounting for 91 percent of opium poppy cultivation in the Golden Triangle.⁸²



MYANMAR (BURMA)

Organizational Structure

Organizational Structure for Disaster Management

Government

Since 2011 when the newly elected government came into power, Myanmar has initiated a four-wave reform process. There is much potential for international assistance, as well as foreign investment flowing into the development sectors. Results will warrant increased investments in infrastructure and rapid urbanization, which promotes rural-to-urban migration. Meanwhile, if improvements in the development sectors do not integrate disaster risk reduction, they could exacerbate existing disaster risk and create new forms of disaster risk. Building disaster resilience in Myanmar becomes more important than ever, to save lives of Myanmar people, to protect investment, and to ensure the sustainability of development gains. Under such circumstances, rules and regulations under the Disaster Management Law need to be enacted and then should be applied effectively. Other existing laws in the country that relates to the issues of emergency management, such as visa approval, tax exemption, communication law, deployment procedures, and data sharing system need to be amended in order to be compatible with the ASEAN Agreement on Disaster Management and Emergency Response (AADMER). Early warning systems need to be upgraded in order to issue more accurate and area-specific warnings. Human resource development in the area of disaster management is also an important factor while advocacy measures for local government on disaster management and capacity building for local government staffs becomes an important one.⁸³

Military

Evolution of Humanitarian Civil-Military Coordination in Myanmar⁸⁴

The Armed Forces (Army, Navy, and Air Force) are the primary responders in disaster response (also called Tatmadaw). Civil-military coordination in Myanmar is shaped by a history

of military rule, limited foreign engagements, natural disasters, and ongoing conflicts. In recent years, several large-scale disasters, including Cyclone Nargis in 2008 and ongoing conflicts in the northern states have shaped the way the Armed Forces interact with civilian actors in humanitarian response. The role of regional actors, such as ASEAN, is also notable in the context of disaster response in Myanmar.

Building on the response to Cyclone Nargis in 2008, and Cyclone Giri in 2010, the Government of Myanmar enacted the National Disaster Management Law (2013) and the subsequent Disaster Management Rules (2015), outlining roles and responsibilities of military and civilian actors. This includes guidance on requesting assistance from the military for search and rescue operations, security in disaster-affected areas and for the delivery of assistance to victims.⁸⁵

The Armed Forces have taken significant steps to strengthen disaster management capabilities. It is also evident that engagement by the Armed Forces in national and regional civil-military coordination activities is increasing. The Armed Forces participate in national and regional Humanitarian Assistance and Disaster Relief (HADR) exercises and Myanmar is engaged in regional civil-military coordination mechanisms including the Regional Consultative Group (RCG) on Humanitarian Civil-Military Coordination for Asia and the Pacific.⁸⁶

Lead Government Agencies in Disaster Response

Ministry of Social Welfare, Relief and Resettlement Department (MSWRR)⁸⁷

The MSWRR is the central government department for disaster management. Main functions include coordination and support to national level Disaster Preparedness Working Committee, disaster assistance, and disaster management training.

Ministry of Home Affairs (MoHA)

MoHA is the focal point for search and rescue operations as well as being the vice-chair in various committees including security.

Armed Forces of Myanmar⁸⁸

Conducts search and rescue, humanitarian assistance, transportation and logistics, relief and rehabilitation, health assistance, security, and preparedness activities. The Armed Forces

are represented in the National Disaster Management Committee (NDMC), the Disaster Management Centre, and the Search and Rescue Work Committee.

Ministry of Foreign Affairs⁸⁹

The Ministry of Foreign Affairs communicates with Myanmar embassies, consulates, foreign embassies, ASEAN, United Nations, and international relief organizations during disaster activities. The Ministry has designated responsibilities during normal times, pre and post disaster and during rehabilitation. Its duty during the onset of a disaster is limited.

Ministry of Health (MoH)⁹⁰

The MoH serves as the focal point for health facilities and health services in preparedness and response.

Disaster Management Institutional Arrangement

After the 2004 Indian Ocean Tsunami, the National Disaster Preparedness Central Committee, the policy formulating body, was formed with the Chairmanship of the Prime Minister. After the new government took over its responsibility in March 2011, the National Disaster Management Agency (which was chaired by the Union Minister for Social Welfare, Relief and Resettlement) was formed

in April 2011. According to changing political structure and demanding disaster situations, the 23-membered National Disaster Preparedness Central Committee was reformed in May 2013 with the chairmanship of Vice President.⁹¹ Under the Central Committee, the National Disaster Preparedness Management Working Committee was formed. This was abolished in March 29, 2016 and now reformed again.⁹²

Figure 3 depicts the National Disaster Management Committee (NDMC) structure.⁹³

The State/Region Working Committees and District, Townships, Wards/Village Tracts Working Committees for Disaster Prevention are also organized. A National plan for nine potential hazards in Myanmar is in place. Disaster prevention and preparedness plans are developed in all states/region (Provincial) level. Township level plans are developed in high-risk townships.⁹⁴

Disaster Management Organizations

Ministry of Social Welfare (MSWRR)

In Myanmar, the Ministry of Social Welfare, Relief and Resettlement is the ministry for disaster management. It also serves as the secretariat of NDMC. Under the Ministry, there are two Departments: Social Welfare Department (DSW) and Relief, and Resettlement Department (RRD). While DSW is taking the responsibilities to fulfill the social needs of Myanmar citizens,

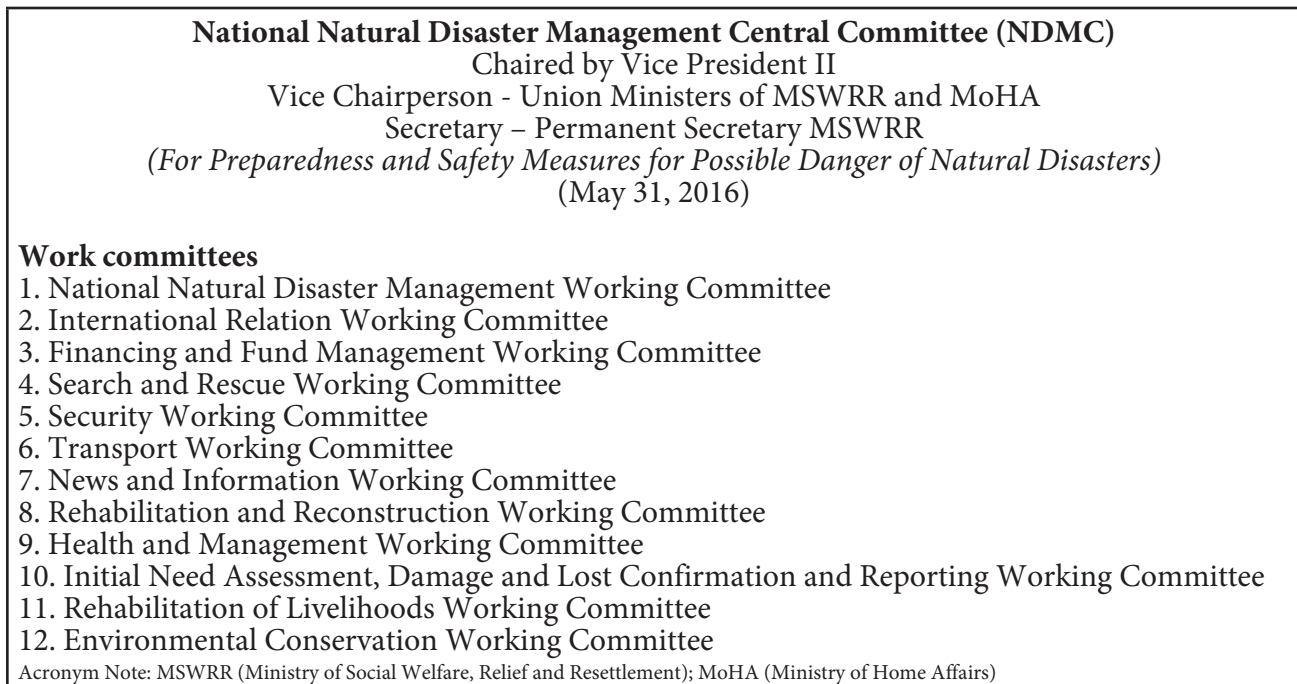


Figure 3: Myanmar Disaster Management Institutional Arrangement, 2016 ⁹⁵

RRD is responsible for conducting Disaster Management activities in accordance with the international norms and standards. RRD is a focal point of the ASEAN Committee on Disaster Management (ACDM).⁹⁶

Relief and Resettlement Department (RRD)

The objectives of Relief and Resettlement Department are:

- Provide emergency assistance for the victims of natural disasters for ensuring immediate relief;
- Conduct preventive measures to reduce the loss of lives and properties due to disasters; and
- To be able to implement above objectives of the social protection.

Five tasks are adopted as follows:

- Provides emergency assistance for the disaster victims;
- Reintegration for the drifters who stranded to overseas countries because of various reasons;
- Provision of assistance for the Internally Displaced Persons due to insurgency;
- Provision of assistance to the populations who suffer from famine as a consequence of damage of crops due to abnormal weather or insect infections; and
- Coordinates with the Governmental Departments, UN agencies, International Non-Governmental Organizations, Local Non-Governmental Organizations and Social Organizations for the disaster prevention, preparedness and disaster risk reduction measures.⁹⁷

The Relief and Resettlement Department has signed Memorandum of Understandings (MoU) with United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and UN-habitat (United Nations Human Settlements Program) for cooperation of disaster response and disaster risk reduction. There are also ten international non-government organizations are cooperating with RRD through MoUs to carry out disaster risk reduction and rural development which can contribute as one of the poverty reduction programs. Being Chair of Disaster Risk Reduction Working Group (DRRWG), RRD is also working with UNDP, co-chair of DRRWG.⁹⁸ OCHA works closely with the Ministry of Social Welfare, Relief and Resettlement, and humanitarian partners to ensure a more systematic, inclusive, and coordinated approach

to disaster management, preparedness and response.⁹⁹

Emergency Operation Centre (EOC)

With the aim to provide the support for emergency management, response and logistic through information sharing on network and quick decision making, the Ministry of Social Welfare, Relief and Resettlement plans to set up an Emergency Operation Centre (EOC). The functions of EOC will include; monitoring/watching weather related information and early warnings were received, developing research on disasters occurred in Myanmar, developing the response plans for each type of disaster, exchanging weather information with local/international organizations, documentation of disaster information, distribution and coordination, and reporting the news acquired from affected area to the higher levels in emergency situation continuously and timely.¹⁰⁰

ASEAN Committee on Disaster Management (ACDM)¹⁰¹

The ASEAN Committee on Disaster Management (ACDM) serves as the main subsidiary body which oversees the operational implementation of AADMER under the Conference of Parties (COP).

Its roles include some of the following:

- Providing leadership and guidance towards fulfilling the goals and objectives of AADMER pursuant of the vision of disaster-resilient nations and safer communities within ASEAN by 2015;
- Initiate, direct, and oversee the development, monitoring, and implementation of the AADMER Work Program and other initiatives implemented by respective working groups;
- Strengthen coordination with relevant ASEAN bodies;
- Collaborate with ASEAN's dialogue partners, multilateral agencies, NGOs, and the private sector;
- The ACDM is led by a Chair, supported by a Vice Chair, and consists of the National Focal Points, that is the Head of each Member State's National Disaster Management Office. It meets at least once a year;
- ASEAN Secretariat as the secretariat to the ACDM provides support in terms of policy and program development, advocacy, resource mobilization, and monitoring and

evaluation; and in line with the Agreement on the Establishment of the AHA Centre, the ACDM would also function as the Governing Board for the AHA Centre.

Asian Disaster Reduction Center (ADRC)¹⁰²

The ADRC was established in Kobe, in 1998, with mission to enhance disaster resilience of the member countries, to build safe communities, and to create a society where sustainable development is possible. The Center works to build disaster resilient communities and to establish networks among countries through many programs including personnel exchanges in this field.

The Center addresses this issue from a global perspective in cooperation with a variety of UN agencies and international organizations/initiatives, such as the International Strategy for Disaster Reduction (ISDR), OCHA, the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the World Meteorological Organization (WMO), and the World Health Organization Regional Office for the Western Pacific (WHO/WPRO).

AHA Centre

The ASEAN Coordinating Center for Humanitarian Assistance (AHA Centre) facilitates disaster management and emergency response in the region. The AHA Centre has been monitoring the situation in Myanmar since last June 2015 when the floods started to occur. The AHA Centre has also been providing situation updates to the ASEAN Member States, including briefing to the National Disaster Management Offices (NDMOs) of ASEAN Member States as well as the Jakarta-based Committee of Permanent Representatives to ASEAN and Defence Attachés.

Community Based Disaster Risk Management in Myanmar

DRR is at the building phase in the county, and capacities at all levels are limited. There is also a challenge of finding a balance between administration and financial decentralization on DRR. School and community linkage and coordination among organizations are weak and require more attention. In addition, community based disaster risk management (CBDRM)

programs have been primarily focused in few geographical areas due to limited financial resources. There is no national policy or program for the institutionalization of community based DRR. The RRD is limited to the State/Division level of the country and therefore the outreach to villages is weak.¹⁰³

The GoM has recognized DRR as an integral part of development and policy planning. The government has identified the formulation of policy and resource allocations for DRR. Good practices, assessments, and data gained by CBDRM programs will contribute to the formulation of policies. Introduction of a system that would strengthen school and community linkage for DRR activities and share information more effectively would prove effective. Moreover, there needs to be commitment to DRR in every institution, government and other private sectors.

Figure 4 depicts all organizations' projects under implementation in Myanmar for community based disaster preparedness and risk reduction (September 2016).¹⁰⁴

International Agencies in Myanmar¹⁰⁵

Action Contre la Faim (ACF)

77 (A) Thanlwin Road, Kamayut Township, Yangon
Phone: +95 (0)1 503 697
Fax: +95 (0)1 510 130
Email: hom.act.mya@gmail.com
Website: www.actioncontrelafaim.org

Background Information: Action Contre la Faim is a non-governmental, non-political, non-religious, non-profit organization. It was established in France in 1979 to deliver aid in countries throughout the world. The aim of Action Contre la Faim is to save lives by combating hunger and diseases that threaten the lives of vulnerable children, women, and men.

Adventist Development & Relief Agency (ADRA/Myanmar)

Apartment 3-2, 4th Floor, Block A, E Condominium
Zay North Street (Off U Wisara Road)
Fax: 951-240900/380419 (ext.106)
Email: adra.myanmar.programs@gmail.com (or) adra.mm.hr@gmail.com
Website: www.adramyanmar.org



Myanmar Information Management Unit



COMMUNITY BASED DISASTER PREPAREDNESS AND RISK REDUCTION All Organizations' Projects Under Implementation Reported to the MIMU, September 9, 2016

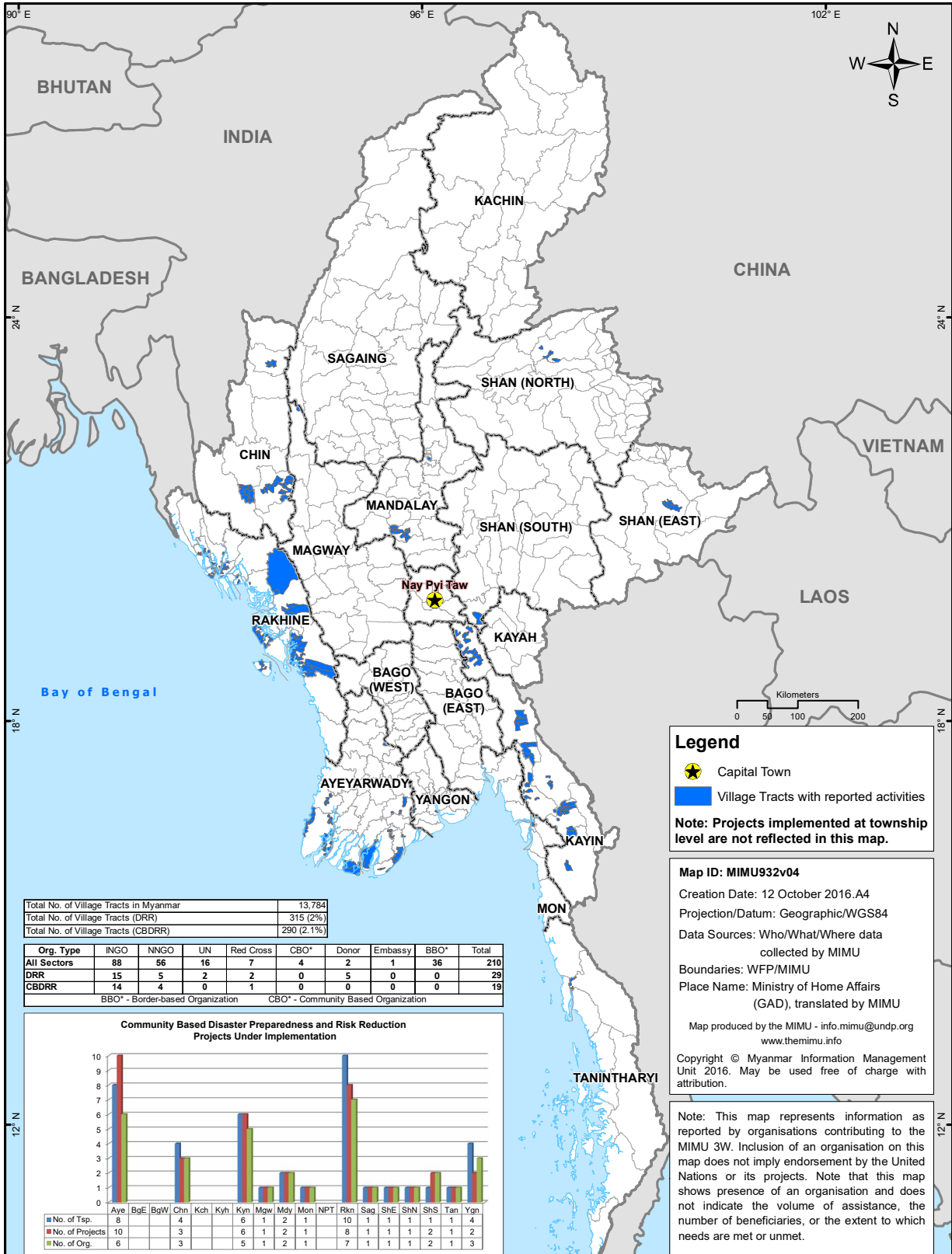


Figure 4: Community Based Disaster Preparedness and Risk Reduction

Background Information: ADRA Myanmar is one of the oldest established INGOs in Myanmar and has had a MoU with the MoH since 1993, delivering programs in water and sanitation, health, agriculture, emergency food aid and long term supplementary feeding through food-for-work, food-for-training and food-for-education, nutrition, livelihoods and food security development, disaster reconstruction and rehabilitation.

ACTED (Agency for Technical Cooperation and Development)

#111(A-1) University Avenue Road
Kamayut Township, Yangon, Myanmar
Phone: 098631672
Email: adhr.yangon.acted@gmail.com, liaison.yangon.acted@gmail.com
Website: <http://www.acted.org/en>

Background Information: ACTED (Agency for Technical Cooperation and Development) is a French Non-Governmental Organization founded in 1993. ACTED's vocation is to support vulnerable populations worldwide and to assist them in building a better future. Independent, private and not-for-profit, ACTED respects a strict political and religious impartiality and operates according to principles of non-discrimination and transparency.

Asian Disaster Preparedness Center

No. 25, 7th Floor, 50th Street, Lower Block
Bohtaung Township, Yangon, Myanmar
Phone: 250 388 Ext. 316, 09 4308 1996
Fax: 252478
Email: sudhir@adpc.net; adpcmyanmar@gmail.com
Website: www.adpc.net

AMDA Association of Medical Doctors of Asia

19-B, Thukhawaddy Street, 6 Ward
Yankin Township, Yangon
Phone: 01-578353
Fax: 01-556741
Email: amda@mptmail.net.mm, amdamyanmar@baganmail.net.mm
Website: www.amdaminds.org

Background Information: Under the close collaboration with the Ministry of Health and the Ministry of Border Affairs, the Government of the Union of Myanmar, AMDA Myanmar has been operating various kinds of projects in Central Dry Zone since 1995 and in Kokang Special region (1) since 2004.

AVSI Foundation

Building No. 270, 6-B, Lucky Nice II Tower,
near the Dagon Centre, Pyay Road
Myay Ni Gone
San Chaung Township, Yangon
Phone: +95 1 523 433
Fax: +95 1 516 937
Email: myanmar@avsi.org
Website: www.avsi.org

Background Information: AVSI is a non-for-profit, non-governmental organization, founded in Italy in 1972. The main offices are in Italy, in Cesena and Milan. AVSI is presently active in 39 countries, with 111 developmental and cooperation projects.

Australian Red Cross (ARC)

c/o Myanmar Red Cross Society, 42 Strand
Road, 4th Floor
Botahtaung Township, Yangon
Phone: c/o Myanmar Red Cross Society: +95 1 383684
Email: jshetliffe@redcross.org.au
Website: www.redcross.org.au

Background Information: Australian Red Cross has provided programming support to Myanmar Red Cross Society (MRCS) through the International Federation of Red Cross Red Crescent Societies (IFRC) since 1995, in the areas of HIV peer education, Community Based Health, and Cyclone Nargis Relief and Recovery Operations. In February 2009, Australian Red Cross commenced a direct bilateral relationship with MRCS.

Burnet Institute

No. 226, 4th Floor, Wizaya Plaza, U Wisara
Road
Bahan Township, 11021, Yangon, Myanmar
Phone: 95-1-375785, 375727, 512693
Fax: 95-1-375785 (Ext-201)
Website: www.burnet.edu.au

Background Information: Burnet Institute is a leading Australian medical research and public health organization focused on improving the health of disadvantage and marginalized groups. In 2005, Burnet Institute began in-country work in Myanmar. Currently implementing Public Health related programs in partnership with (24) National Organizations from (20) Townships from (10) States and Divisions throughout the country.

CARE Myanmar (CARE International in Myanmar)

No. 17 (A), Pyi Htaung Su Street, North-West Sayarsan Ward
Bahan Township, Yangon
Phone: 95-1-401419 ~ 21, 401465
Fax: 95-1-548474
Email: amyanmar@care.org.mm, brian@care.org.mm
Website: www.care.org.au

Background Information: CARE is a leading international, non-political, non-religious, humanitarian organization fighting global poverty. CARE has worked in Myanmar since 1995 primarily focusing on health programs, including nutrition, HIV/AIDs prevention, care and support, plus food security and livelihoods, water and sanitation, and more recently shelter and disaster risk reduction.

CWS-Asia/Pacific

#702 Fame Hotel, 28 (A) Pho Sein Rd.
Tamwe Township, Yagon 11211
Phone: + 95 1 541 235
Mobile: + 95 9 975646408
Email: pollynewallcws@gmail.com
Website: <http://www.cwsasiapacific.org>

Background Information: Church World Service-Asia/Pacific, together with its partners, has been providing humanitarian assistance to Myanmar since the Cyclone Nargis in 2008. CWS-Asia/Pacific currently supports, through partners, loan for farmers program in the Delta Region, a disaster risk reduction program in the Delta, Yangon and Bago Divisions, a small HIV/AIDS program and a capacity building training program for local NGOs across Myanmar. It plans to expand its health program.

CDN Consortium of Dutch NGOs

39, D-B, Myintzu Road, Parami Mayangone Township, Yangon
Phone: 95-1-660 786, 95-1-650 446
Fax: 95-1-660 786
Email: simon.langbroek@gmail.com

Background Information: In early 2008, CDN opened a dialogue with the Ministry of Agriculture and Irrigation (MAI) in order to operate in the livelihood, food security, and water and sanitation sectors in Myanmar. On March 6th 2009, CDN signed a MoU with Myanmar Agriculture Service (MAS) - MAI, for 3 years.

CESVI Fondazione

111 A-1, University Avenue
Kamayut Township, Yangon
Phone: 01 511147, 513884
Fax: 01 511147
Email: myanmar@cesvioverseas.org
Website: www.cesvi.eu

Background Information: CESVI, established in 1985, to provide assistance to people in need around the world in three main sectors: Immediate help to ensure survival and to overcome emergencies, the rehabilitation and reconstruction of systems destroyed by war or natural calamities, cooperation programs and projects for the development of underprivileged social groups and poor communities. In Italy and Europe, CESVI carries out educational programs.

Danish Red Cross (DRC)

42 Strand Road, 1st Floor, MRCS Building
Botahtaung Township, Yangon
Phone: 01-383686, 01-383682 (with Danish Red Cross attention)
Fax: 01-383686, 01-383682 (with Danish Red Cross attention)
Email: drcs02-ifrc@redcross.org.mm; drc@redcross.org.mm
Website: www.rodekors.dk

Background Information: The Danish Red Cross (DRC) is part of the International Red Cross Red Crescent (RCRC) Movement. As a member of the RCRC Movement, DRC is part of the world's largest humanitarian and development network of volunteers and staff. RCRC's global presence and structure of local branches give the Movement a unique ability to act locally and give voice to the vulnerable globally. As presented in the DRC International Strategy 2011-14, the DRC international work is centered on a range of activities within DRC's two core competences, namely Health & Care and Disaster Management, with three cross cutting strategic approaches affect the way DRC implement its core competences, namely Humanitarian Diplomacy, Partnership and working Community Based. DRC's International Strategy is consistent with the IFRC Strategy 2020 and inspired by ICRC's Strategy. The DRC and the MRCS have been in a bilateral partnership since 2004, when the formulation of a community based health program started. In 2005, the implementation of the DRC supported community health program commenced in three

townships, Mogok, Singu and Thepakyin of Mandalay Division.

DRC Myanmar

Room 115, Inya Lake Hotel, No.37, Kabaraye Pagoda Road
Mayangone Township, Yangon
Phone: 95 1 662866 ext 115, 098620023
Fax: 95 1 665537
Email: drc.myanmar@drc.dk
Website: www.drc.dk

Background Information: DRC is a private, non-religious and non-political humanitarian organization founded in 1956 with Head Office in Copenhagen, Denmark. It is based on 30 member organizations and works in more than 30 countries throughout the world. In April 2009, in response to the post-Nargis recovery needs, DRC established a presence in Myanmar and started a 'Community and Family Based Rehabilitation Project' in Labutta Township of Ayeyarwady Division. The project focuses on construction of cyclone proof schools and re-enforced traditional houses, rehabilitation of ponds, construction of rainwater collection tanks, and hygiene promotion in 16 villages. WASH activities such as water treatment and hygiene promotion were implemented in partnership with MHDO (Myanmar Heart Development Organization) and SVS (Social Vision Services).

French Red Cross (FRC)

42, Strand Road, 1st Floor, MRCS Building Botahtaung Township, Yangon
Phone: 09-862 0026
Fax: 01-383 682, 01-383 686 (Please, add: "To French Red Cross")
Email: hod.myanmar.frc@gmail.com
Website: www.croix-rouge.fr

Background Information: The French Red Cross is one of the founding societies of the Red Cross and Red Crescent Movement (1864). The French Red Cross Society decided to open a bilateral delegation to the MRCS in Yangon, following an evaluation in 2005 after the Boxing Day tsunami. A MoU was signed with the MRCS on March 6, 2007 (validated by the Minister of Health, the Attorney General, and the Minister of Foreign Affairs) The FRC delegation was opened in July of 2007 and worked in collaboration with the MRCS to develop activities in DRR in the region of Ayeyarwady (Delta), a zone which had been affected by the

Tsunami. The DRR program was temporarily suspended after Cyclone Nargis hit Myanmar in May 2008, as the FRC teams were entirely dedicated to the emergency response. After some emergency / relief interventions, in the Delta, FRC worked closely with the MRCS to establish early recovery projects. Watsan/ HP, Livelihoods, and health projects were then implemented in the township of Mawlamyinegyun from July of 2008 to April of 2010. In November 2008, after the initial response to Cyclone Nargis, the development of the DRR program was restarted. It was officially launched back in January of 2009 with a long term goal to establish a DRR unit within the MRCS and to extend the geographical coverage to all the coastal regions (Ayeyarwady, Rakhine, Yangon, Bago, Mon, and Taninyatharyi). The program duration was established from 2009 to 2013.

Good Neighbors International

No. 17(A), San Yeik Nyein 6th Street
Kamayut Township, Yangon
Phone: (+95) 1- 513 763, (+95) 9- 730 87354
Fax: (+95) 1 513 763
Email: hopenmmr@gni.kr, gnumrho.hr@gmail.com, suho.lee@gmail.com
Website: www.gnint.org

Background Information: GNI is an international, non-governmental, non-profit, humanitarian relief and development organization founded in Republic of Korea in 1991. It currently works in (29) countries in Africa, Southeast Asia, Middle Asia and Central and South America. GNI plans and implements projects centered around children focusing on the protection of the rights of children. GNI is a member of CONGO (Conference of NGO's in consultative relationship with the United Nations) holding a General Consultative Status with the United Nations Economic and Social Council (UN ECOSOC).

GRET (Groupe de Recherche et d' Exchanges Technologique)

47/C, Komin Kochin Street, Shwe Gon Daing Bahan Township, Yangon
Phone: 95-1- 540975, 546259
Fax: 95-1- 540975, 546259
Email: gret.ygn.admin@gmail.com; yangon@gret.org.mm
Website: <http://www.gret.org>

HelpAge International Myanmar

No 10, Kanbawza Avenue, Shwetaungya
Ward No 1
Bahan Township, Yangon, Myanmar
Phone: +95 1, 537539
Fax: +95 1 539590
Email: tapan.helpage@gmail.com
Website: www.helpage.org

Background Information: In 2004, HelpAge Korea initiated a volunteer-based home care pilot project for older people in Myanmar based on the ROK-ASEAN model with local partner National YMCA. Subsequently, HelpAge International began promoting the role of local partners and community-based groups of older people, referred to as Self Help Groups, Older People's Associations, or Older People's Groups. Commencing in 2009 HelpAge International, with support from HelpAge Korea (HAK), piloted an Older People Self-Help Group (OPSHG) approach to reducing poverty in Myanmar. The EU supported project is being implemented in 17 villages in the Ayerawaddy Delta and 3 villages in Pyin Oo Lwin Township in Mandalay Division. The results of these projects have shown clearly that OPSHGs can become a driving force for socio-economic development in their communities, generating stronger mutual support among older people by reducing their isolation and creating a social support network that can facilitate community development involving different age groups within their communities and strengthening links with local authorities. The OPSHG model has been accepted by the Ministry of Social Welfare (MSW) in October 2011 and MSW is currently considering replication of OPSHG to other areas of the country. HelpAge has successfully implemented a LIFT-funded (Delta) livelihood recovery project in 25 villages in Kyailat using an inclusive VDC approach. This model is currently being replicated to 30 villages in Ayartaw and Mahlaing Townships with funding from LIFT. HelpAge in Myanmar has been working toward sensitizing the government for making it more age-friendly through a variety of interventions such as capacity building, ownership approaches and partnerships. One of the highlights of our policy work with the government here in the drafting the national plan of action on ageing. HelpAge has also developed a number of strategies to take its policy work with the government forward.

International Federation of Red Cross and Red Crescent Societies (IFRC)

Red Cross Building, 1st Floor, 42, Strand Road
Botataung Township, Yangon
Phone: 95 1 383 682; 95 1 383 686
Fax: 95 1 383 682; 95 1 383 686
Email: ifrcmm00@redcross.org.mm
Website: www.ifrc.org

Background Information: Through its 186 Red Cross and Red Crescent member National Societies, IFRC is a global humanitarian organization that acts before, during and after natural and manmade disasters at the community level in non-conflict situations. IFRC's relief operations are combined with development work, including disaster risk reduction programs, health and care activities, and the promotion of humanitarian values. In particular, it supports program on prevention and fighting the spread of diseases, such as HIV, Tuberculosis, Avian Influenza and Malaria. IFRC also works to combat discrimination and violence, as well as assisting migrants irrespective of their legal status. IFRC, 186 National Societies and the International Committee of the Red Cross (ICRC) together form the International Red Cross and Red Crescent Movement. The Movement works in cooperation with governments, donors and other aid organizations to assist vulnerable people affected by natural and manmade disasters, as well as by conflicts around the world. As partners, the different members of the Movement also support communities in becoming stronger and safer through a variety of development projects and humanitarian activities.

International HIV/AIDS Alliance

12/F, Pyi Thu Street, 7 miles
Mayangone Township, Yangon
Phone: 01- 666532, 662484, 665904
Fax: 01- 666532, 662484, 665904- 223
Email: aidsalliance@myanmar.com.mm
Website: www.aidsalliance.org

Background Information: The International HIV/AIDS Alliance is an international non-governmental organization (NGO) that supports communities in developing countries to play a full and effective role in the response to AIDS. The Myanmar program aims to make a contribution to HIV prevention and HIV/AIDS care and support by working together with and strengthening the capacity of key communities and local nongovernmental organizations and

community based organizations (CBOs) in selected areas through provision of technical assistance and grants.

International Medical Volunteers – Japan Heart

12/H-1 Aye Yeik Thar Street, 8 Mile, Kabaraye Pagoda Road, Mayangone Township, Yangon
Phone: 01-665081, 09-5068630, 09-5404053, 09-5032843, 095068841(Sagaing)
Fax: 01-665081
Email: jhygn@yangon.net.mm, japanheart.myanoffice@gmail.com
Website: <http://www.japanheart.org>

Background Information: International Medical Volunteers - Japan Heart was established in April 2004. Dr. Hideto Yoshioka, who has been working in Myanmar since 1995, is the founder of organization. Since May 2004, Japan Heart formed a medical team and has been providing medical care to the local people in Sagaing Township in Myanmar.

International Rescue Committee

134(A), Than Lwin Road
Bahan Township, Yangon
Phone: (01) 505883, 526180
Fax: (01) 537189
Website: www.theIRC.org

Interreligious and International Federation for World Peace

H (140) Shwetharaphi (4) Rd, FMI City
Hlaingtharyar Township, Yangon
Phone: (01) 682456 Ex1572
Email: saarnamyanmar@mptmail.net.mm, mathuzartin1@gmail.com

Background Information: The Inter-religious and International Federation for World Peace (IIFWP) is dedicated to the promotion of world peace through education programs, workshops, conferences, and publication. The IIFWP supports the efforts of World leaders from all disciplines and builds coalitions among a wide range of non-governmental. Religious, cultural and educational institutions in advancing solutions to pressing world problems, of particular concern to the IIFWP are two serious and growing problems. The first revolves around family instability, breakdown, social economic, and cultural problems that family decline generates. The second concerns ethnic, racial, religious, and educational institutions working together, not only to preserve the

decline of the family, but also to promote greater understanding and collaboration among diverse communities. The IIFWP promotes the following moral principles which are the foundation of its vision and its programs; 1. Live for the sake of other; 2. Overcome the barriers, such as nationality, religion, race, and political ideology that divide people; 3. Practice true love in the family as the foundation for peace in the society, nation and world.

Istituto Oikos

No (116), Natmauk yeikthar Street, Kokkine, Bahan Township, Yangon
Phone: 01-556091
Fax: 01-556091
Email: thandawin07@gmail.com
Website: www.istituto-oikos.org

Background Information: Istituto Oikos was founded in Italy in 1996, operating in key biodiversity areas in Europe, Africa, Asia, and South America to conserve and manage the natural resources as tools of social and economic development.

Malteser International

60, Thayarwaddy Street
Bahan Township, Yangon - Myanmar
Phone: +95-1 549001 / 098622851
Fax: +95-1-549001 (upon request)
Email: Malteser.yangon@gmail.com
Website: <http://www.malteser-international.org>

Background Information: Malteser International is the worldwide relief agency of the Sovereign Order of Malta. Malteser International is an international non-governmental organization providing humanitarian assistance and development aid for people in need in over 20 countries over past 50 years. Malteser International provides assistance without distinction of religion, race or political persuasion. Christian values and humanitarian principles such as neutrality, impartiality, and independence are the foundation of its work.

Marie Stopes International Myanmar (MSI-M)

524/10, New University Avenue Road
Bahan Township, Yangon 11201
Phone: (01) 544423, (01) 441 3212, (01) 441 2409
Fax: (01) 401 496
Email: yangon_office@mariestopes.org.mm

Médecins Du Monde (MDM)

No (49/B-1), ThiriMinGaLar St. 2,8 Ward,
Mayangone Township
Yangon, Myanmar
Phone: +95-1-542 830, +95-1-723 654
Fax: +95-1-542 830
Email: hr.mdmmyanmar@gmail.com
Website: <http://www.medecinsdumonde.org>

MSF Holland / AZG

No 62(A) Bawdi Yeiktha, Than Lwin Road
Bahan Township, Yangon, Myanmar
Phone: (095-1)524 379, 534 679, 525 935, 505
247, 505 248
Fax: (095-1)524 379,534 679
Email: msfh.myanmar@gmail.com
Website: <http://www.msf.org>

Médecins Sans Frontières – Switzerland (MSF-CH)

101 Dhamazedi Road
Kamaryut Township, Yangon, Myanmar
Phone: 502 509, 526 194, 534 239 (Yangon
Office), 059 -21198 (Dawei Office)
Fax: 01- 526 194
Email: msfch-myanmar@geneva.msf.org
(general e-mail)
Website: www.msf.ch

MERLIN (Medical Emergency Relief International)

No. 224/A, 4th Floor, Salomon Building, U
Wisara Road
Bahan Township, Yangon
Phone: 537321/535657
Fax: 537321/535657 (Fax ext: 115)
Email: ygnreception@merlin-myanmar.org
Website: www.merlin.org.uk

Background Information: United Kingdom
based specialized health International Non-
Governmental Organization

Mercy Corps

87-C, Kan Street (U Kun Zaw avenue)
Hlaing Township, Yangon, Myanmar
Phone: (+95) 1- 524419
Fax: (+95) 1-524419 ext-01
Email: info@mm.mercy Corps.org
Website: www.mercy Corps.org

Background Information: Mercy Corps helps
people in the world's most challenging places
turn the crises of natural disaster, poverty and
conflict into opportunities for progress. The
programs provide communities with the tools
and resources they need to transform their own

lives. The team of 3,700 professionals is dedicated
to improving the lives of 19 million people in 40
countries. Recognizing that access to adequate
food, nutritional sustenance and economic
opportunities is integral to the success of relief
and development programming, Mercy Corps
currently operates upwards of 40 livelihoods
and economic development projects in over 20
countries.

MERCY Malaysia

No. (224), Third Floor, Salomon Business
Center, U Wisara Road
Bahan Township, Yangon
Phone: 951-536428
Website: www.mercy.org.my

Background Information: MERCY Malaysia
is an international non-governmental
organization, a member of the Asian Disaster
Reduction & Response Network (ADRRN)
and the International Council of Voluntary
Agencies (ICVA). MERCY Malaysia has Special
Consultative Status with the United Nations
Economic & Social Council (ECOSOC) and is
certified by the Humanitarian Accountability
Partnership (HAP) International.

Norwegian People's Aid

24(L) Natmauk Avenue St, Kokine
Bahan Township, Yangon
Phone: 545912, 540694
Fax: 01- 545912
Email: aindre gard@hotmail.com, andreasi@npaid.org
Website: www.npaid.org

Background Information: Norwegian People's
Aid (NPA) is the humanitarian organization
of the Norwegian labor movement founded in
1939. NPA is guided by the values of national
and international solidarity, human dignity,
freedom and equity. Today, NPA is one of the
largest Norwegian NGOs. Since 2004, Norwegian
People's Aid had an office in Myanmar.

Norwegian Refugee Council

68, Than Lwin Road
Bahan Township
Phone: 01-501808
Fax: 01-501808
Email: cd@myanmar.nrc.no;
fam@myanmar.nrc.no
Website: www.nrc.no

Background Information: The Norwegian Refugee Council (NRC) with head office in Oslo, Norway, is a non-governmental, humanitarian organization with more than 60 years of experience. Currently operating in 20 countries, program activities include camp management, education, food security and distribution, shelter, counseling and legal assistance.

Oxfam

No.16, First Floor, West Shwe Gone Taing 4th Street
West Shwe Gone Taing Ward
Bahan Township, Yangon, Myanmar
Phone: 526 934, 375 398, 375 392
Fax: 375 392
Email: oxfamgb@myanmar.com.mm
Website: www.oxfam.org

Background Information: Oxfam GB was formed in 1942 and is one of the world's leading humanitarian and development agencies that work in over 70 countries world-wide.

Partners

57 D-3-1, Thazin Gayhar, Baho (Shan) Road
Sanchaung Township, Yangon
Phone: 951-511 178 (Yangon) / 09 731 48 423 (Dry Zone)
Fax: 951-511-178 (Yangon)
Email: cr.partners.mya@gmail.com;
pl.partners.mya@gmail.com
Website: www.partenaires-association.org

Background Information: Partners is a French non-profit, non-religious, non-political and non-governmental humanitarian organization established in France in 1991. In 1998, Partners was one of the first INGOs to open a permanent office in Yangon and to sign a MoU with the Ministry of Health (latest renewal made in 2011).

Pestalozzi Children's Foundation

Room 103, Building 1, Hotel Yangon, 8 mile,
Mayangone Township, Yangon, Myanmar
Phone: 95-1-667 708, 667-688 (Ext: 3103)
Fax: 95-1 -667752
Email: aileen49@gmail.com
Website: www.pestalozzi.ch

Background Information: PCF is a Swiss Based non-profit, non-political organization. The PCF Country Program in Myanmar which is focusing on quality and relevant primary education started its education activities via local partner organizations in 2003.

Plan International (Myanmar)

No.7 Kanbawza Street, Ward No (2) Golden Valley
Bahan Township, Yangon
Phone: 09-259323690
Fax: (01) 505081
Email: max.baldwin@plan-international.org,
zin.moe@plan-international.org
Website: www.plan-international.org

Background Information: Plan International is an international humanitarian, child centered development organization without religious, political or governmental affiliation established in 1937, having its headquarter at Chobham House, United Kingdom (UK). Child sponsorship is the historical foundation of the organization. Plan International works with children, their families and communities in greatest poverty, to build the skills, the structures and resources to give them a better chance of developing into healthy, educated and responsible adulthood. This partnership, formed at the heart of individual communities, ensures that each community is actively leading its own development.

Progetto Continenti (PC) - Myanmar

503 Shwe Than Lwin Condo, New University Avenue Road, Aye Yeik Thar Lane
Bahan Township, Yangon, Myanmar
Phone : +95-1-555130
Fax: +95-1-555130
Email: progettocontinenti@mptmail.com.mm,
coordinator.pc@mptmail.com.mm
Website: www.progettocontinenti.org

Background Information: Progetto Continenti established in 1989 is involved in poverty alleviation programs in several countries, targeting its interventions to the most vulnerable groups of the population. It is a non-religious and non-political, non-profit NGO for international co-operation and solidarity. The Association intends to operate in the name of law, justice and dignity for all the people of all continents, respecting their culture and religion. Present in East-Asia since the very beginning (Cambodia and Vietnam), Progetto Continenti started its operations in Myanmar in 2003, after signing its first MoU with the Department of Health of the Ministry of Health, since then renewed three times, last of which in July 2011.

Relief International

No.(4-D), Kabaraye Pagoda Road
Mayangone Township, Yangon, Myanmar
Phone: +95-1-661554
Email: myint.oo@ri.org
Website: www.ri.org

Background Information: Since 1990, Relief International has provided emergency relief response and development services globally. Relief International's six main program areas include emergency response, health and nutrition, education and capacity building, livelihoods and food security, shelter and infrastructure, civil society and protection. Relief International employs innovative approaches to bridging the gap from relief to development to ensure a deep and lasting impact in reducing human suffering globally. In Myanmar, since June 2008, Relief International has provided emergency relief response and development services through the reducing of morbidity and mortality in the Cyclone Nargis affected area, and to empower beneficiaries of having adequate livelihoods.

Saetanar

Room 205, Tower A, Myaing Hay Wun
(Junction 8) Condo, Kyaik Wine Pagoda Road
Mayangone Township, Yangon
Phone: 651186, 656094 (Direct), 650774,
650775 (Ext. 205)
Fax: 651186
Email: epd1@yangon.net.mm
Website: <http://www.saetanar.org>

Background Information: The community-based education support program entitled "Education for Peace and Development (EPD)" has been implemented in Shan State since June 2002 by The Nippon Foundation and Saetanar in partnership with Ministry of Border Affairs.

Save the Children

Wizaya Plaza, 226 U Wizaya Road
Bahan Township, Yangon
Phone: (95-1) 375 739, 375 747, 375 791, 375
796, 375 801, 539 217 (for Wizaya) (95-1) 536
732, 567 092, 537 387 (Salomon Building)
Email: info@savechildren.org.mm
Website: <http://www.savethechildren.org.uk/en/myanmar-burma.htm>

Background Information: Save the Children was founded in 1919. To date, Save the Children International is the world's leading independent organization for children working to secure children's rights and to improve children's lives in over 120 countries Worldwide.

Solidarités Internationales

1 B, Saw Maha Lane, Bogyoke Pyatike Road
Bahan Township
Phone: (Office: 01 55 38 45 (tel/fax)
Mobile: 095 00 81 21 / 095 11 97 22 (Head
office)
Fax: (+95) 01 55 38 45
Email: ygn.hom@solidarites-myanmar.org
Website: www.solidarites.org

SWISSAID (Swiss Foundation for Development Cooperation)

60, Hlaing Myint Mo Lane -2, Ward-9
Hlaing Township, Yangon
Phone: +95-1-539639, 500045
Fax: +95-1-500045
Email: hornbill@gmail.com
Website: www.swissaid.ch

Terre des hommes Italia [TDH Italia]

No. 36/A, Inya Myaing Road
Bahan Township, Yangon
Phone: 01 527563, 09 50 33525
Fax: 01 527563
Email: admin@tdhitaly.org.mm
Website: www.terredeshommes.it,
www.terredeshommes.org

Background Information: The TDH Italia program in Myanmar started in December 2004. The MoU with the Ministry of Health and Department of Health was signed in 2007 and renewed in 2008. In addition, TDH Italia has a significant collaboration with the Ministry of Social Welfare and Ministry of Agriculture and Irrigation.

The Foundation Terre des homes, Lausanne (Tdh-L)

No. 11 Kabaung Lane, 5½ Milepost, Pyay Rd.
Hlaing Township, Yangon
Phone: 01 534754 / 512873 / 507089
Fax: 01 507089
Email: robertcmillman@gmail.com
Website: www.tdh.ch & www.terredeshommes.org

Background Information: Founded in 1960, the Foundation Terre des hommes (Tdh-L) is an international, non-profit, non-political and non-religious organization with headquarters in Lausanne, Switzerland. Tdh-L is active in more than 30 countries with programs that focus on the protection and wellbeing of children, the promotion of maternal child health and nutrition, water and sanitation and emergency relief.

The Organization for Industrial, Spiritual and Cultural

Advancement - International
Room E-5, Shwe Sabai Yeikmon, Bayint Naung Road
Kamaryut Township, Yangon
Phone: 01-515304 (Ext.249), 09-6570265
Email: oiscamyanmar@gmail.com
Website: www.oisca.org

Background Information: Aiming at agricultural development in Central Dry Zone of Myanmar, OISCA established the Agro-Forestry Training Centre in Yesagyo Township as a base of the activities.

Water, Research and Training Centre – WRTC Myanmar

Building (6), Room (16), Mya Kan Thar Housing, 2 Ward, Insein Road
amayut Township, Yangon
Phone: 09-5111 880, 01 – 538 442
Fax: 01- 538 442
Email: wrtcmayan@gmail.com, aiweb.lead@gmail.com
Website: www.wrtcmayan.org

Background Information: A non-governmental, research, training and educational foundation promoting scholarship, research and training opportunities in the water, environment and agricultural sectors. WRTC was established in Netherlands in 1997. WRTC-Myanmar signed a MoU with the Ministry of Agriculture and Irrigation (MOAI).

Women’s Federation for World Peace

H-140 Shwe thraphi (4) Road, F.M.I City
Hlaingthaya Township
Phone: 682445 Ex: 1572
Email: mathugaritin@gmail.com

Background Information: Women’s Federation for World Peace (WFWP) - Myanmar started with clothing and office supply donations to orphanages at the end of 1995. Since then many Japanese volunteers supported WFWP activities with the motto “Human Beings Belong to the One Global Family.”

World Concern Myanmar

No. 477/479, 6th and 7th Floors, Aye Yeikthar 2nd Lane, New University Avenue
Road, Bahan Township, Yangon
Phone: 01-557355, 401554, 09-73148890
Fax: 01-557355, 401554
Email: worldconcernmyanmar@gmail.com
Website: www.worldconcern.org

Background Information: World Concern Development Organization is a U.S. based non-governmental organization established in 1955 with a view to assisting poor communities to address their most basic needs through community-based activities. World Concern Myanmar has been operating relief and development works in Myanmar since 1995 as an implementing agency of the organization. World Concern Myanmar focuses on needy communities by meeting with village communities to identify their needs and strengths and then finding ways to address those needs together and aim for sustainable development.

World Vision Myanmar

16 Shin Saw Pu Road
Ahlone Township, Yangon
Phone: 01525191
Fax: 01527502
Email: contactus@worldvisionmyanmar.net
Website: www.WorldVisionMyanmar.net

Background Information: World Vision International was invited by the Ministry of Health to begin HIV/AIDS projects in Myanmar in 1991. A MoU was signed with the government, and World Vision Myanmar’s first office opened in 1993.

U.S. Government Agencies in Myanmar

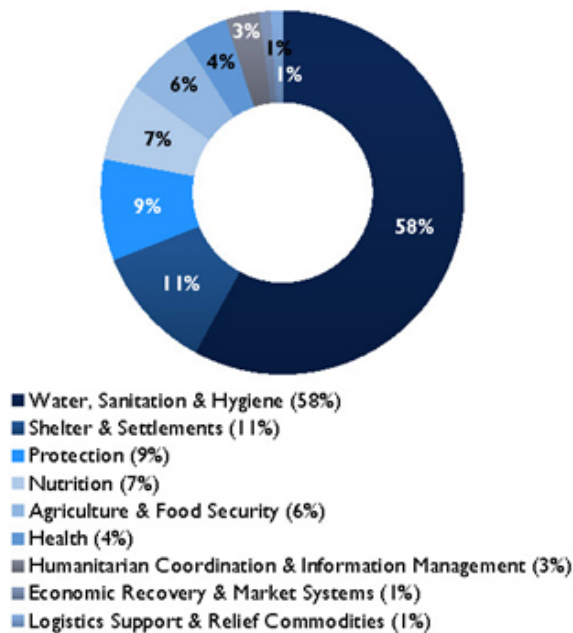
There are many active U.S. Government agencies in Myanmar. They aid in various aid efforts such as emergency food assistance, humanitarian assistance, WASH activities and many more. Figure 5 depicts USAID/OFDA funding for the Burma-complex emergency in 2016.

USAID works to strengthen Burma's transition to democracy, expand economic opportunity, improve health and resilience of vulnerable communities, further national reconciliation, and promote greater international cooperation. Over the past 20 years, USAID has provided assistance to vulnerable communities in Myanmar, including humanitarian assistance along the Thailand-Myanmar border, in the Irrawaddy Delta and in central Myanmar. The establishment of a formal USAID Myanmar Mission in 2012 enables the U.S. to more effectively support Myanmar's ambitious reforms as the country emerges from decades of isolation.¹⁰⁶

USAID Myanmar

110 University Avenue
 Kamayut Township, Rangoon
 Burma, 63903
 +95 (1) 536-509
 Email: ayeyy@state.gov
<https://www.usaid.gov/burma>

USAID/OFDA¹ FUNDING BY SECTOR IN FY 2015–2016



USAID/FFP² FUNDING BY MODALITY IN FY 2016



HIGHLIGHTS

- UN highlights restricted humanitarian access in Kachin, Shan
- Clashes in Kachin and Shan continue during August peace conference
- Humanitarian organizations continue to respond to urgent needs among vulnerable populations

HUMANITARIAN FUNDING

FOR THE BURMA RESPONSE IN FY 2016

USAID/OFDA	\$7,291,095
USAID/FFP	\$8,406,774
STATE/PRM ³	\$34,362,722

\$50,060,591

Figure 5: USAID Burma-Complex Emergency Fact Sheet #4 ¹⁰⁷

Figure 6 depicts all currently active USG programs responding to Myanmar (as of September 30, 2016).

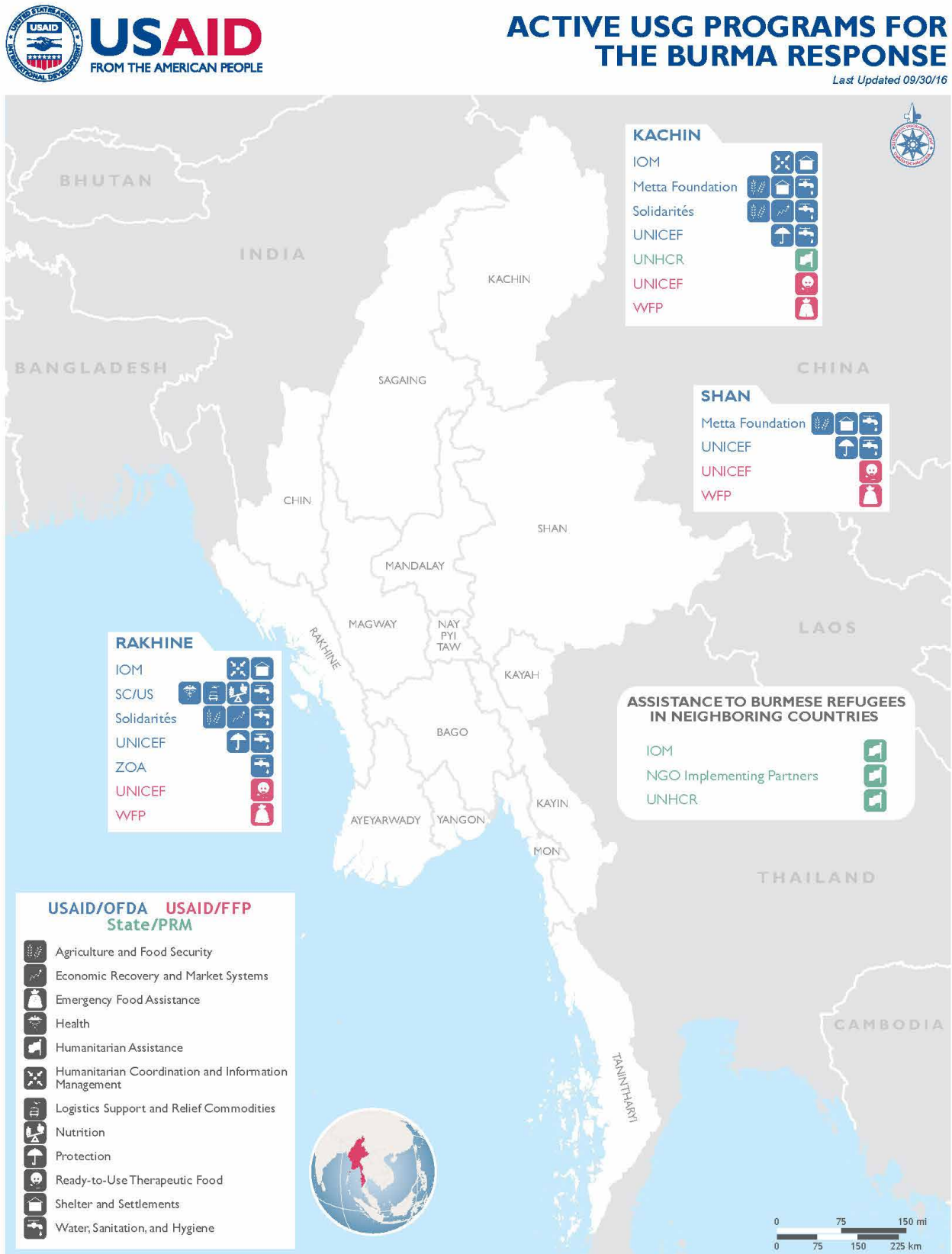


Figure 6: Active United States Government Programs for the Burma Response, 2016 ¹⁰⁸

UNICEF

23-A, Inya Myaing Road
Shwe Daung Gya Ward 2
Bahan Township, Myanmar
Telephone +95 1 230 5960 +95 1 230 5960 to
69 (10 lines)
<https://www.usaid.gov/burma>

UNICEF has been working in Myanmar continuously since April 1950. Despite difficult political and economic circumstances, UNICEF helped to successfully initiate programs to protect children against small pox, leprosy and yaws. Over time, UNICEF expanded its programs to support the development of rural health services, basic education for children, and community water supply and sanitation systems. UNICEF also advocated for Myanmar's accession to the Convention on the Rights of the Child and Convention on the Elimination of All Forms of Discrimination against Women, which the government ratified in the 1990s.

For more than 60 years, UNICEF has been working to positively change the lives of Myanmar's children. Through its strong working relationship with the GoM over the decades and significant engagement with other stakeholders, UNICEF is positioning itself to continue and strengthen its efforts to improve children's lives.¹⁰⁹

United Nations Office for the Coordination of Humanitarian Affairs (OCHA)

No. 5 Kanbawza Street
Shwe Taung Kyar Bahan Township, Yangon,
Myanmar
Phone number: +95-1-2305682
Enquiries: ochamyanmar@un.org

OCHA is the part of the United Nations Secretariat responsible for bringing together humanitarian actors to ensure a coherent response to emergencies. OCHA's mission is to mobilize and coordinate effective and principled humanitarian action in partnership with national and international actors in order to alleviate human suffering in disasters and emergencies. OCHA advocates for the rights of people in need, promotes preparedness and prevention, and facilitates sustainable solutions.

The OCHA Myanmar Country Office was established in May 2008 in response to Cyclone Nargis. In view of the prevailing situation of Myanmar, a country prone to disasters, OCHA maintained its presence in the country after

the end of Cyclone Nargis to focus on issues related to its core mandate, including support to humanitarian coordination at central and local levels, advocacy, humanitarian access, and principled humanitarian action. OCHA works closely with the Ministry of Social Welfare, Relief and Resettlement on disaster preparedness and response and actively supports Government efforts aimed at ensuring a more systematic, inclusive, and coordinated approach to humanitarian challenges in Myanmar. OCHA currently has offices in Yangon, Nay Pyi Taw, Myitkyina, Bhamo, and Sittwe.¹¹⁰

World Food Program (WFP)

No. 5 Kanbawza Street, Shwe Taung Kyar (2)
Ward
Bahan Township, Yangon, Myanmar
Fax: +95 1 230 597
Phone: +95 1 230 5971~6 (6 lines)
Email: WFP.Yangon@wfp.org

The World Food Program (WFP) has been present in Myanmar since 1994 and has implemented several food assistance interventions to improve nutrition, food security and livelihood access for the most vulnerable populations in remote areas throughout the country. WFP works in Rakhine, Shan, Chin and Kachin States as well as in Magway Region. WFP's goal is to contribute to more equitable development across the country and support national reconciliation efforts, by reducing poverty, food insecurity and undernutrition and increasing resilience amongst the most vulnerable communities.

WFP provides relief assistance that help families who may find themselves temporarily in a state of food insecurity; persons internally displaced by conflict and returnees who need additional support in resettling; people affected by natural disasters; and extremely food insecure and destitute households in Northern Rakhine State, where livelihood activities are limited.¹¹¹

Participation in International Organizations

Myanmar participates in the following international organizations: Asian Development Bank (ADB), ASEAN Regional Forum (ARF), Association of Southeast Asian Nations (ASEAN), Bay of Bengal Initiative for Multi-Sectoral Technical and Economic

Cooperation (BIMSTEC), East Asia Summit (EAS), (candidate country) Extractive Industries Transparency Initiative (EITI), Food and Agriculture Organization of the United Nations (FAO), Group of 77 (G-77), International Atomic Energy Agency (IAEA), International Bank for Reconstruction and Development-World Bank (IBRD), International Civil Aviation Organization (ICAO), Institute of Certified Records Managers (ICRM), International Development Association- World Bank (IDA), International Foodservice Distributors Association (IFAD), International Finance Corporation-World Bank Group (IFC), International Federation of the Red Cross and Red Crescent (IFRC), International Hydrographic Organization (IHO), International Labor Organization (ILO), International Monetary Fund (IMF), International Maritime Organization (IMO), International Criminal Police Commission (Interpol), International Olympic Committee (IOC), International Organization for Migration (IOM), Inter-Parliamentary Union (IPU), International Organization for Standardization (correspondent) (ISO), International Telecommunication Union (ITU), International Trade Union Confederation (ITUC), Non-Government Organizations (NGOs), Non-Aligned Movement (NAM), Organization for the Prohibition of Chemical Weapons (signatory) (OPCW), South Asian Association for Regional Cooperation (observer) (SAARC), United Nations (UN), United Nations Conference on Trade and Development (UNCTAD), United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Industrial Development Organization (UNIDO), United Nations World Trade Organization (UNWTO), Universal Postal Union (UPU), World Customs Organization (WCO), World Health Organization (WHO), World Intellectual Property Organization (WIPO), World Meteorological Organization (WMO), World Trade Organization (WTO).¹¹²

Foreign Disaster Relief and Emergency Response

Acceptance of International assistance in disaster response¹¹³

International assistance in disaster response has changed in recent years, reflecting a more general trend in the Asia Pacific region to accept

offers of targeted international support where required. International assistance is likely to be negotiated on a bi-lateral basis and with a preference for assistance from ASEAN Member States. The National Disaster Management Law (2013) includes provisions for the acceptance of international assistance.

Acceptance of Foreign military assistance in disaster response¹¹⁴

The use of foreign military assets in disaster response in Myanmar is limited. Acceptance of assistance is most likely to be arranged on a bilateral basis with ASEAN Member States and other regional neighbouring countries. During the response to Cyclone Nargis in 2008, the Government declined to authorize ship-to-shore operations despite numerous offers of naval support. However, it did authorize naval support from India and two warships under the code Operation Sahayata.

Laws, Policies, and Plans on Disaster Management

National Legal and Policy Frameworks for Disaster Management¹¹⁵

The central role of the military is well articulated in Myanmar's disaster-related laws and policies. The Constitution of the Republic of the Union of Myanmar, in Chapter VII, states that "The Defence Services shall render assistance when calamities that affect the Union and its citizens occur in the Union." It should be noted, however, that for the most part disaster-related laws and policy apply to natural disasters only, and not to the ongoing situations of sub-national conflict that persist in Myanmar.

National Disaster Management Law (2013)¹¹⁶

The principle national law guiding disaster management in Myanmar is the National Disaster Management Law, ratified on 31st of July 2013 in line with priorities established in the Myanmar Action Plan on Disaster Risk Reduction. The Disaster Management Law includes provisions for the establishment of disaster management bodies and their duties and responsibilities (Chapter III). This includes provisions on requesting assistance from the Armed Forces for search and rescue operations, security in disaster-affected areas and for the delivery of assistance to victims more generally.

It also provides for the cooperation and liaison with foreign countries and other regional and international actors when assistance is required to expedite a response (Chapters III and IV).

Standing Order on Natural Disaster Management (2011)¹¹⁷

The Standing Order on Natural Disaster Management in Myanmar (the Standing Order), finalized in January 2009 and updated in 2011 is another key document defining the mandate, roles and responsibilities for national level institutions in disaster management. The Standing Order was created post the devastation caused by Cyclone Nargis. It reflects on lessons from the disaster response effort during Cyclone Nargis and includes actions to be taken by Government agencies in the course of future disasters. It also guides the formation of committees and coordination mechanisms for a timely and coordinated disaster response.

The Standing Order notes that ‘measures should be in place to make use of the assistance provided by the Armed Forces (army, navy, and air force) in addition to that provided by local volunteers and volunteers from other areas’.¹¹⁸ It also refers to the role of the armed forces in expediting search and rescue activities, protection and other disaster relief efforts.¹¹⁹ The responsibilities of the Ministry of Defence and armed forces are delineated according to four disaster phases: Normal Times, Alert and Warning, During Disaster, and Relief and Rehabilitation. It has been noted that steps are currently underway in-country to update the Standing Order based on the changing context in accordance with the new Disaster Management Law and Rules established under this law and the Sendai Framework.¹²⁰

Myanmar National Platform and Action Plan on Disaster Risk Reduction

Myanmar Action Plan on Disaster Risk Reduction (2012)¹²¹

The Myanmar Action Plan on Disaster Risk Reduction provides a framework for multi-stakeholder engagements in Disaster Risk Reduction. It was established in 2012 and identifies projects that need to be committed to meet the government’s commitment to the Hyogo Framework for Action and the AADMER. Efforts have been made to integrate the Myanmar Action Plan on Disaster

Risk Reduction into national development frameworks.

Education and Training

Disaster Management Training Centre (DMTC)

The government approved establishment of the Disaster Management Training Centre (DMTC) in order to build up the capacity of people implementing disaster management activities. The DMTC builds upon the existing pool of experts within the Relief and Resettlement Department and the existing Disaster Management Course. The Ministry of Social Welfare, Relief and Resettlement implemented a three-year plan (2013-2015) for the establishment of DMTC. The Ministry collaborated with international and local partners to mobilize the technical and financial resources for Human Resources and institutional capacity development, infrastructure development, development of curriculum and procurement of teaching aids, networking and partnerships with international and regional training institutes and centers. The DMTC has completed basic disaster management training courses, a disaster resilience youth leader course, train the trainer for disaster management course, community based disaster management trainer course, camp coordination and camp management course, emergency response trainer course, multi-sector initial rapid assessment course, and a total of 783 persons have been trained.¹²²

Department of Meteorology and Hydrology (DMH)

Training programs were undertaken on seasonal and weather forecasting, meteorological hazards early warning for developing countries, reinforcement of meteorological services, flood hazard map, operating management of earthquake, tsunami and eruption observation system, climate change adaptation, and environment impact assessment. DMH has sent approximately 20 staff for foreign training and around 65 staff and officers for workshops and meetings since 2011. Additionally, one staff completed a long-term training on operating management of earthquakes, tsunami, and volcano eruptions observation system in Japan. Also, one candidate completed a Master program on Remote and Geographic Information System (RS-GIS) under TICA programs.¹²³

A degree offering program in the field of

Meteorology and Hydrology has been carried out by DMH since 1996 in collaboration with Dagon and Yangon Universities.¹²⁴ Instructors from DMH have conducted Disaster Management Course for Disaster Managers in collaboration with the Department of Relief and Resettlement and Airline Transport Pilot Licence Course (ATPL), Commercial Pilot Licence (CPL) Course and Air Traffic Control (ATC) in aviation meteorology for air force. Trainings are held for DMH staff on Meteorological Grade I, II, III Courses, Hydrological Grade III Courses and for Navy and Air Force as their request.¹²⁵

Ministry of Education (MoE)

MoE revised the general science subject for lower secondary school curriculum in 2006 and included the study on 'Earth and Space' with lessons on storms. The lower secondary life skills subject also covers flood, emergencies, earthquake, tsunami, landslides, and fire. The revised upper secondary school curriculum includes a lesson titled 'Earthquake' in Grade 10 English and 'Earth Surface Process' in Grade 11 Geography. At the primary level, a chapter on Caution in Emergencies is included. A complementary reading material that contains information on eight disasters is available as a self-study booklet for Grade 5, 6 and 7 students. General Studies Textbook (Level 2) with 'Earthquake', 'Storms', 'Tsunami', and 'Preparedness' topics and a story book 'Be prepared' are available for non-formal education. Recently, RRD along with State/regional government and MoE incorporated Do's and Don'ts on various natural hazards into the student exercise book provided by the government.¹²⁶

Disaster Management Communications

Early Warning Systems

The Myanmar government has been working to improve its early warning capacity through the country's Department of Meteorology and Hydrology (DMH), whose primary responsibility is to provide early warning to the higher authorities, local government, and disaster risk reduction agencies, media, international NGOs, Myanmar NGOs, and the general public. Earlier this year, Myanmar received US\$40 million from Japan to establish three weather radar stations in Yangon, Mandalay, and Kyaukpyu (a major town in Rakhine State, in western Myanmar) as

well as 30 automatic weather observation stations across the country by 2017. When Cyclone Nargis struck there was only one radar station in the country which had not been operational since 1997. Although Myanmar had an early warning system in place at the time of Cyclone Nargis, it did not work properly and was slow in disseminating information that the military government might deem sensitive or result in panic.¹²⁷

The early warning system now links the DMH with each region, state, township, and district level via phone or fax (In 2012, only 3 percent of the population had a mobile phone), while from the township to village tract level, storm warnings are passed on either by phone or an officer dispatched to the area, with the village authorities making announcements on public loudspeakers. At the same time, weather warnings are now being more actively broadcast through radio or TV.¹²⁸ MSWRR also developed DAN (Disaster Alert Notification) application for both android and iOS versions.

Department of Meteorology and Hydrology (DMH) generates weather forecast and early warnings for cyclone, storm surge, and flood. Color-coded cyclone warning message was started to use in 2009, as an attempt to make early warning message to be user friendly. Once the early warning on disaster is issued by DMH, it is informed to the public through media and TV. In order to improve the quality and accuracy of the weather forecast and early warning, DMH still needs to upgrade the capacity of equipment and tools for weather forecast. The DMH organizes Monsoon Forum as a mechanism for fostering a closer dialogue between forecast producers and users to enhance the uptake of weather and climate forecasts for disaster mitigation. The broader goal of the forum is to build the national capacity to mitigate disaster risks by linking national hydro-meteorological agencies to sectors that are vulnerable to climate risks, notably agriculture, water resources, health, and disaster management. RRD is also implementing the end-to-end early warning system project in collaboration with DMH, General Administrative Department and JICA to enhance the capacity of the government and the community. The pilot projects for Ayeyarwady and Rakhine have been implemented. UN and NGOs are assisting in the production of IEC materials related to early warning as well as on public awareness. The use mobile phone SMS for early warning is also being explored.¹²⁹

Responsible Agencies for Flood and Storm Warning

The primary responsibility of DMH is to provide early warning to the higher authorities, local government, and disaster risk reduction relevant agencies, media, INGOs, Myanmar NGOs and general public. DMH officials actively cooperate with local INGOs representative to implement community awareness, public education program and officials interviewed with State run TV about disaster risk reduction and role of early warning, adverse weather phenomenon and necessary actions to reduce socio economic losses. Additionally, a National Monsoon Forum jointly organized twice annually with the collaboration with regional partner agencies and stakeholders for climate outlook and disaster risk reduction is in place. Meteorological articles about current weather events, significant weather, update information of La Niña and cyclone emergency color coding scheme are published in State Newspapers, Ministry of Transport Journal, and other private Journals. DMH established a link in 2011 with Myanmar RADIO for live radio broadcasting about early warning and advisories.¹³⁰ DMH is the responsible agency for flood forecasting and warning in the country. DMH maintains 27 Hydrological Stations and 44 Hydro-meteorological stations and issues flood forecasts for 30 stations in Myanmar.

Hydrological Division of DMH is responsible for issuing daily river forecast and flood forecast along 8 major rivers (Ayeyarwady, Chindwin, Sittaung, Thanlwin, Dokehtawady, Bago, Shwegyin, and Ngawun). Whenever warnings are issued from River Forecasting Section (RFS) of DMH, the message is sent to the respective stations by telephone or Single Side Band (SSB) transceiver. When the station receives the message of warning, they immediately inform the local authorities and related departments to carry out the necessary action. At the same time the warnings are disseminated through the radio, television and the Newspaper for the general public.¹³¹

Military Role in Disaster Relief

Preparing for Disasters: Role of the Armed Forces in Humanitarian Assistance and Disaster Relief (HADR)¹³²

The core functions of the armed forces in disaster response include search and rescue,

transportation and logistics, humanitarian assistance, relief and rehabilitation, and security. Increasingly the government is also engaging in preparedness planning and activities. According to a recent presentation provided by the Armed Forces at the ASEAN Regional Forum, Myanmar has 161 search and rescue teams ready for deployment to natural disasters, with nine naval ships, transport aircraft and helicopters on standby.¹³³

Current preparedness actions for each component of the Armed Forces were outlined at the ASEAN Regional Forum, as follows:¹³⁴

Army Preparedness Activities for Disaster Response

- Prepare transportation groups under regional command;
- Train troops on effective humanitarian response activities; and
- Establish cooperation with the Ministry of Defence.

Navy Preparedness Activities for Disaster Response

- Establish communication lines with Ministry of Defence, Army HQs, Navy HQs and Air Force HQs; and
- Prepare to carry out rapid rescue and rehabilitation operations.

Air Force Preparedness Activities for Disaster Response

- Collect up to date data on natural disasters;
- Establish a safety plan for aircrafts and infrastructure; and
- Prepare for effective deployment and mobility of resources.

Foreign Assistance and International Partners

The GoM has established the Foreign Aid Management Central Committee (FAMCC) and the Foreign Aid Management Working Committee (FAMWC) to provide overall strategic guidance in ensuring the deployment of aid resources is consistent with national priorities and strategies. The Ministry of National Planning and Economic Development (MNPED) works closely with the two committees. The National Economic and Social Advisory Council (NESAC) provide advisory support to the FAMWC.¹³⁵

Foreign Aid Management Central Committee (FAMCC)

The FAMCC is chaired by the President, and sets the overall policies and provides strategic guidance. MNPED is FAMCC's Secretary, Minister of Finance is its Associate Secretary, and line ministers are members. The FAMCC is chaired by the Minister No. 3 in the President's Office, and provides a high-level oversight in the implementation of the policies and strategies set by FAMCC. MNPED is FAMWC's Secretary; Deputy Minister of Finance is FAMWC's Associate Secretary; and Deputy Ministers of line ministries are members. National Economic and Social Advisory Council (NESAC) is an independent body to provide advice on Myanmar's national development priorities and strategies and the optimal use of international assistance. The work of NESAC includes:

- Providing advice on the formulation/ implementation of the National Comprehensive Development Plan and of the Framework for Economic and Social Reforms, and on increasing foreign aid and domestic and foreign investments;
- Contributing towards achieving inclusive, equitable and sustainable development by fostering reduction of poverty, promoting food security, agriculture, rural and urban development;
- Assisting in the organization of conferences and seminars related to mobilizing resources (internal and external) and expertise for development;
- Providing advice on the effective use of foreign grants and loans; and
- Providing advice on Myanmar's socio-economic development, in line with international norms.¹³⁶

Ministry of National Planning and Economic Development (MNPED)

The MNPED is responsible for coordinating with bilateral and multilateral development partners. Within the Ministry, these responsibilities are discharged by the Foreign Economic Relations Department (FERD). FERD provides the main point of entry for DPs engaging in Myanmar.

In coordination with line ministries and spending units, FERD provides general leadership at all stages of DP assistance programs and projects:

- Selection of target regions and sectors;
- Conceptualization of projects/programs;

- Preparation (including social/ environmental impact assessment and project appraisal);
- Negotiation and completion of various legal agreements;
- Implementation and monitoring; and
- Evaluation and reporting.¹³⁷

Development Assistance Coordination Unit (DACU)

The DACU is a new mechanism for foreign assistance and international partnering. Among DACU's primary responsibilities will be to: identify priority projects and programmes for development assistance; draw up a national policy for development assistance; review and revise the existing Sector Working Group structures, so as to ensure better coordination at Sector-level; support the Economic Committee in reviewing potential loans and major grant and technical assistance projects; and identify and where possible to resolve 'implementation constraints' to the effective delivery of development assistance.¹³⁸

Coordination Mechanisms between GoM and Development Partners¹³⁹

Myanmar Development Cooperation Forum

Annual Myanmar Development Cooperation Forums (MDCF) serve as the highest-level mechanism for coordination between GoM and DPs, to review the overall progress in reform and development and to discuss strategic and policy actions to sustain and accelerate Myanmar's development. The MDCF will include a wide range of national stakeholder groups, such as the National Parliament, representatives from regions and states, civil society organizations, the private sector, and academia, to ensure the discussion is well informed and open. A smaller, mid-year meeting is held to review progress toward the effective implementation of DP-supported activities.

GoM-DP Overall Coordination Group: The GoM-DP's Overall Coordination Group is the highest local mechanism for coordination between GoM and DPs. It is chaired by the Minister of MNPED, and all heads of DP offices in Myanmar are considered members. It meets at least twice a year to review the overall progress in aid harmonization and effective implementation of DP-supported activities, as well as policy

and other issues of importance to Myanmar’s development. FERD serves as its secretariat.

FERD-DPWC Meetings: The FERD-DPWC meetings are generally held every two months. The Development Partners Working Committee (DPWC) currently consists of the Asian Development Bank (ADB), Australia, European Union (EU), Japan/JICA, UK Department for International Development (DFID), the United Nations (UN), the United States Agency for International Development (USAID), and the World Bank (WB). Although there is a shared commitment to keeping the size of this group small, another DP could be added to broaden the representation. The DPWC members maintain close communications with the other DPs to ensure broad views of the DPs are reflected in the FERD-DPWC discussions.

The FERD-DPWC meeting provides a forum for on-going dialogues on key national development and aid effectiveness issues. The group also provides joint oversight of the activities of the SWGs. The Deputy Minister (MNPED) or the DG of FERD serves as Chair, and the DPs appoint two coordinating DPs to facilitate effective communication. FERD serves as the secretariat. Concerns raised by Sector Working Groups and other issues are expected to be resolved through this mechanism in the first instance.¹⁴⁰

Sector Working Groups (SWGs): Formed around key sectors/thematic areas to promote collaboration between GoM and DPs in more specific fields. Sector Working Groups ensure that effective DP support is provided to GoM in developing and implementing coherent sector/thematic policies, strategies, and programs. Each SWG defines its own terms of reference and modalities of working to fit specific needs, in alignment with the core responsibilities outlined in the Overall SWG Terms of Reference Guidance which was produced jointly

by FERD and DPs.¹⁴¹ Seventeen SWGs have been established in 2013 (Education, Cultural Conservation, Agriculture & Rural Development, Environmental Conservation, Employment Opportunities, Electric Power, Health & Water Supply, Communications & Information Technology, Transportation, Social Protection & Disaster Risk Reduction, Public Administration & Reform Process, Public Financial Management, Gender Equality and Women’s Empowerment, Media, Hotels & Tourism, Statistical Quality Development, and Trade).

These SWGs serve as the primary forum for sector-level dialogue between GoM and DPs. SWGs are made up of all relevant ministries, governmental bodies, and DPs involved in the sector. SWGs promote results-based thinking and country ownership of development work at the sector/thematic levels. FERD participates in SWG meetings to help ensure effective functioning of the group and to monitor progress. Line ministries are expected to take the lead in defining the sector priorities and strategies, while MNPED ensures overall consistency of DP support with national priorities and sector programs.¹⁴² Figure 7 depicts the Joint Coordination Structures and Developing Partners Coordination Structures.

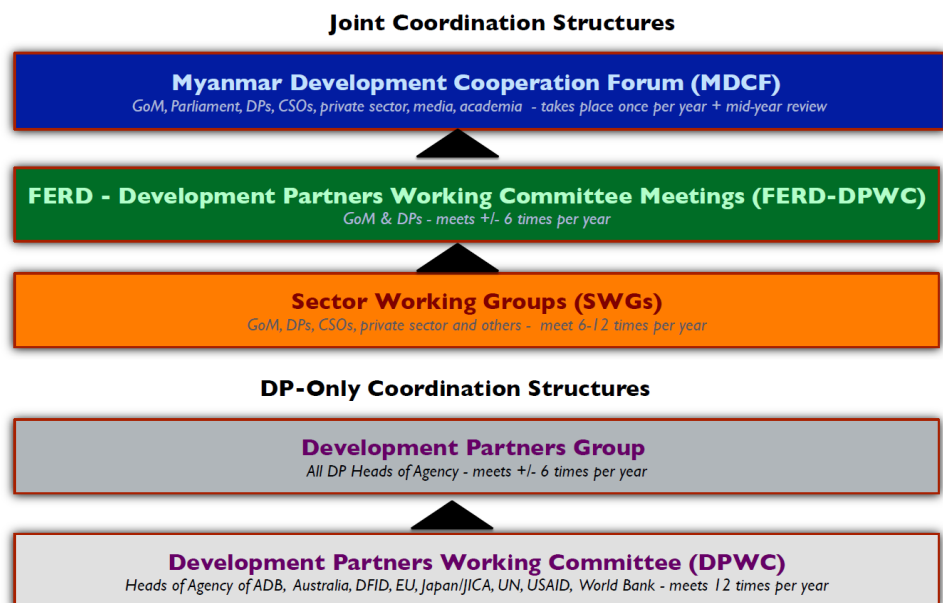


Figure 7: Joint Coordination and Development Partners Coordination Structures¹⁴³



MYANMAR (BURMA)

Infrastructure

Disaster Management Reference Handbook | January 2017

Infrastructure

Airports

There are 69 airports in Myanmar, but only 27 of them operate commercial flights and have paved runways. Out of these, 11 have runways over 10,000 feet long (3248m). Three of these airports are considered International airports (Yangon, Mandalay, and Naypyitaw), which have facilities capable of landing larger jets. A new bid was awarded to develop Hanthawaddy International airport in Bago region, about 80km (49.7 miles) from Yangon and there are plans to develop Dawei airport, in Thanintharyi region, into an International airport. Twenty-six international airlines and nine domestic airlines operate regular flights serving 20 regional destinations.¹⁴⁴ The domestic airlines include Air Bagan, Air Kanbawza (KBZ), Air Mandalay, Asian Wings, Golden Myanmar airlines, Mann Yadanarpon Airlines, Myanmar Airways, Myanmar Airways International, and Yangon airways, including one charter operator FMI air charter.¹⁴⁵ Yangon International Airport is the major international airport of Myanmar.¹⁴⁶

Figure 8 depicts a map of airport locations in Myanmar.

Seaports

For the most part, navigational aids and safety equipment are outdated and need to be modernized. There are nine maritime (sea) ports in Myanmar that fall under the Myanmar Port Authority, from North to South:¹⁴⁷

- Rakhine State: Sittwe, Kyaukphyu, Thandwe;
- Ayeryarwaddy Division: Pathein port;
- Yangon Division: Yangon Ports (Asia World Port, Myanmar Industrial Port, Bo Aung Kyaw Port);
- Mon State: Mawlamyine; and
- Tanintharyi Region: Dawei, Myeik, Kawthoung.

Freight volume in maritime ports is 22m MT, with most of the freight being handled in the Ports of Yangon (Myanmar Industrial Port, Asia World Port, and Bo Aung Kyaw Port). Except for the Yangon and Kyauk Phyu ports (deep water), all ports have concrete jetties or metal jetties with

barges, no fixed structures and still use simple, non-mechanized handling facilities. The port of Yangon can only handle small ship up to 15,000 dead weight tons (DWT) because it does not have deep-water access close to the city. Thilawa is the biggest port in Yangon located near the Andaman Sea; this port can accommodate larger vessels up to 20,000 DWT.

There is construction on-going of deep-water ports and Kyaukphyu in the North (in association with China) and planned in Dawei in the South (in association with Thailand) in special economic zones. However, the main coastal ports at Thandwe, Pathein, Mawlamyine, Myeik and Kawthoung are deteriorating. The government has identified sites in Kalegawk and Bokpyin for the development of ports. Kyaukphyu deep-water port cannot be used for commercial vessels. It is being used by a private Chinese company jointly with Myanmar Oil and Gas Enterprise.¹⁴⁸

Land Routes

Roads

Myanmar's roads are mostly underdeveloped. Only 39 percent (57,840 km) of the network is paved and 61 percent (90,850 km) unpaved, with the secondary and local road network generally in poor condition and not passable during the monsoon season.

The main highways are:¹⁴⁹

- 1577 km: Runs from Myawadi (Thai border)-Thaton-Payagyi-Nay Pyi Taw-Meiktila-Mandalay-Gangaw-Kale-Tamu (India border) (AH-1);
- 804 km: Runs from Tachileik (Thai border)-Keng Tung-Taunggyi-Meiktila-Mandalay-Gangaw-Kale-Tamu (India border) (AH-2);
- 90 km; Runs from AH-2 at Keng Tung-Mongla (PR China border) (AH-3);
- 460 km: Runs from Mandalay-Lashio-Muse (PR China border) (AH-14);
- 250 km: Runs from Thaton-Mawlamyine-Dawei-Myeik-Kawthoung (AH-112);
- 196 km: Runs from Yangon-Kyaunggon-Pathein (Western Union Highway);
- 279km: Runs from Yangon-Tharrawaddy-Pyay (Route 2); and
- 134 km: Runs from Dawei-Sinbhyudaing (Tikee) (to Thai border) (AH-123).



Figure 8: Myanmar Airports¹⁵⁰

There is one expressway, the Yangon-Mandalay expressway, featuring a double carriageway and four lanes on its entire length of 587km. The government has plans to privatize 82 roads and there is on-going privatization of road construction and maintenance. The first phase of a 3,200km highway connecting India, Myanmar and Thailand, the India-Myanmar friendship highway is set to complete by the end of 2016 connecting Guwahati in India to Mandalay in Myanmar.¹⁵¹

There are two ministries in Myanmar that regulate transportation: Transport and Communication Ministry and the Ministry of Transport. The Ministry of Construction is responsible for construction and maintenance of roads, bridges and airports. Only 26 percent of roads (39,083 km) fall under responsibility of the Ministry of Construction.

Photo 5 depicts a bird's-eye-view of Yangon, Myanmar's roadway infrastructure.¹⁵² Table 2 lists the material type and length of road of Myanmar's arterial highways.¹⁵³

Railways

The railway network is under the responsibility of the Ministry of Rail Transportation. It is operated by state-owned Myanmar Railways and has nearly doubled since 1988, with a total length of 3,722km in 2014, all 1,000mm gauge. This expansion has allowed for the neglect of regular maintenance. The core railway infrastructure, locomotives, and coaches are in poor condition, which has slowed operating speeds and made rides uncomfortable. There are no rail links to adjacent countries and the status of planned cross-border rail connections to China, India and Thailand, as well as the Thanbyuzayet-Three Pagoda pass connection remains uncertain. The rail capacity includes 386 locomotives, 1,252 passenger coaches and 3,311 freight wagons.¹⁵⁴ There are

existing plans to build a high speed railway to connect Kunming in Southwest China with Vietnam, Lao PDR and Myanmar respectively. Construction on the section connecting to Myanmar, the Dali-Ruili railway, began in May 2011 and is scheduled to be completed in 2017.¹⁵⁵

Waterways

The Irrawaddy Delta is a low-lying region in southern Myanmar that plays a dominant role in the fishing and rice cultivation industry. The region was devastated in May 2008 by Cyclone Nargis that by official estimates left 84,500 dead and 53,800 missing.¹⁵⁶ Photo 6 depicts the Irrawaddy Delta located in southern Myanmar. Myanmar has a strategic location near major Indian Ocean shipping lanes; the north-south flowing Irrawaddy River is the country's largest and most important commercial waterway.¹⁵⁷

The Ayeyarwady River is the most important commercial waterway in Myanmar, it runs through the center of the country. It is about 1,350 miles (2,170 km) long; it starts in Kachin State and runs to Yangon and the delta in Ayeyarwady Division. It is navigable along most of its length and all seasons, but during the dry season, cargo boats need to reduce their cargo by 50 percent due to the shallow water depth. The lower part of the river, from Mandalay to Yangon is accessible for vessels up to 1000 GRT. The upper part, from Bhamaw in Kachin state to Mandalay is accessible only for vessels up to 300 GRT.¹⁵⁸ Inland Water Transport (IWT), established in 1865, under the Ministry of Transport is a state owned enterprise responsible for water transport of passengers and cargo. IWT has a fleet of 413 vessels including passenger and cargo vessels, powered barges, and pusher tugs. IWT transports 15.06 million passengers and 2.07 million tons of cargo annually, provides the cheapest means of transport in Myanmar.¹⁵⁹

In Rakkhine state, around Sittwe, the rivers

Myanmar	Material	Length of Of Road (Miles)
Total	Bituminous	14285
Total	Metal	2681
Total	Surface	3085
Total	Earth	4244
Total	Mule	161
Total	Concrete	756

Table 2: Myanmar's Arterial Highways

to Buthidaung (MayYu River) and Kyauktaw (Kaladan River) are navigable. Several towns in Rakkhine can be accessed by both road and river but for most towns, by road would be quickest. Myebon town can only be accessed by waterway. Most common transport on these waterways is by local wooden hull vessels of up to 100MT cargo capacity. Larger, shallow draft barges or landing vessels can be used, but are not common in the area. In Mon state and Tanintharyi

division IWT is not active. In Mawlamyine (Mon state) the Thanlyin river and Gyaing river are navigable but the river is mainly used for passenger transport and some local transport by wooden hull vessels up to 100MT. In Tanintharyi at Dawei, the Dawei River is only navigable for a couple more miles North, after Dawei, so it is mostly used for local passenger transport.¹⁶⁰ In Myeik, the Kyaukphyar river (North) and Tanintharyi river (S-East) are navigable and



Photo 5: Bird's-Eye-View, Yangon, Myanmar 2016



Photo 6: Irrawaddy Delta Located in Southern Myanmar¹⁶¹

mainly used for passenger transport and local transport by wooden hull vessels up to 100MT. The coastal area around Myeik is interlaced with tributaries and for many small coastal towns transport by water is their primary, sometimes sole connection to Myeik. In Kawthaung the Kra Buri bay and river acts as the border between Myanmar and Thailand and can be used by large vessels up to 2000 GRT around Kawthaung. It is navigable upstream for about 50km but there are no significant settlements that way.

Schools

Myanmar traditionally yields high literacy rates and places an increased importance on the value of education. However, the education system in Myanmar continues to remain underdeveloped. Overall the enrollment rates for primary schooling in Myanmar are high, but the ratio of completion is relatively low. National reports indicate that less than one third of children enrolled in the primary education system complete more than five years of formal education. Economic conditions, poverty, and health concerns are attributed to high dropout rates in the nation. While school attendance is high in urban areas and among male students, village schools in a vastly rural-agrarian country are handicapped by poor attendance, especially among the female students.

Many of the disparities in the Myanmar education system are created by lack of funding and economical demands. On average the budgetary allowance for education each year cannot meet the educational expenditure requirements. For several years Myanmar has also been actively participating in many world agencies such as UNDP (United Nations Development Project), UNESCO (United Nations Economic, Social, and Cultural Organization), and UNICEF (United Nations Children's Emergency Fund). Even in this area of support by NGOs (nongovernmental organizations), as in the above allocation by the Government Ministry of Education budget, there is a slight proportionate decline. While the UNDP allocation of \$3.9 million for primary education in Myanmar rose to \$5.9 million in four years (1994-1998), it fell from 14 percent to 12 percent, proportionately.¹⁶²

Communications

Myanmar Telecommunications

Myanmar lags far behind the rest of Southeast Asia, with the lowest Internet, mobile, and telephone usage rates. The Information and Communication Technology infrastructure is weak. The 2012 World Development Indicators showed that only one percent of the population had access to fixed lines. Mobile subscription rates at 11 percent, although rising, are low by regional comparison. Internet access is only at 1 percent of the population. Until 2013 telecommunications used to be a monopoly of the government enterprise Myanmar Post and Telecommunication (MPT). Since 2013 two private mobile phone companies entered the market, Ooredoo and Telenor. They provide mobile phone service through their own network, which does not yet offer countrywide coverage. The internet backbone is being managed by MPT and there are a few companies that provide internet services by reselling bandwidth of MPT. Mobile sim-cards, 3G with data, can be bought easily, but it is difficult to get a landline. MPT has difficulties extending the infrastructure for the landline network. Mobile sim card costs approximately 1500 MMK (approx. \$1.08 US) while a new landline connection costs over 500,000 MMK (approx. \$363US).¹⁶³

Telecommunication Regulation

Organizations must apply for a Telecommunications Equipment licensee and for allocation of radio frequencies with the Post and Telecommunications Department, under the Ministry of Communications and Information Technology (MCIT). Equipment requiring a telecommunications license includes UHF, HF and VHF radios, UHF/VHF repeaters, VSAT and satellite telephone and RBGAN equipment. No solid, standard procedure exists at the moment to apply for telecommunications equipment licenses. The UN has applied through the Foreign Economic Relations Department (FERD) and the Ministry of Border Affairs (Natala) to the Ministry of Communications for licenses for their radio equipment. A government board of the Ministry of Communications makes the decisions on a case-by-case basis and the duration of the process is unpredictable. The UN applied for countrywide radios license for the UN as a whole, in 2011-12 and as of 2014, the application has not yet been approved. UNDSS

has tried to start separately a parallel application process since 2013, but also they have had no success yet.¹⁶⁴

Existing Humanitarian Telecoms Systems

UN agencies in Myanmar use VHF, HF, HF-Repeaters and VSAT. Some Agencies share their connections with sister agencies. UNDP share their VSAT connection with UNFPA, UNDSS, UNHABITAT and UNESCO. All agencies share UNDSS HF-radio repeaters in Yangon. In project operations area's UNDSS and WFP have setup repeaters for the UN shared frequencies, which can be used by other UN agencies. These repeaters are managed by UNDSS and WFP. INGOs in Myanmar do not use the UN frequencies and generally they do not use HF and VHF radios.¹⁶⁵

Utilities

Power

Myanmar is a country with abundant energy resources, including natural gas, hydropower, solar and other renewable energy, yet approximately two-thirds of the population is not connected to the national electricity grid, and 84 percent of households in rural households have no electricity connection.¹⁶⁶ Average annual per capita electricity consumption is 160 kilowatt-hours, one-twentieth the world average. In the more rural areas of Myanmar, the situation is even worse.¹⁶⁷

This lack of power creates hardship, perpetuates poverty, and stalls development.¹⁶⁸ This is also a key constraint to the delivery of vital services such as health, education and finance for rural populations. Also, access to modern fuels for cooking (such as liquefied petroleum gas) is limited to urban areas.¹⁶⁹ As a result, people live without light and basic household appliances. The absence of a reliable power supply makes it difficult for small businesses to develop. Markets cannot operate at night, and clinics cannot refrigerate medicines.¹⁷⁰

In 2014, the Government of Myanmar, with the help of the World Bank and support from the Bank's Energy Sector Management

Assistance Program (ESMAP), has developed a National Electrification Plan. This plan calls for universal electricity access by 2030, or 7.2 million new connections. The National Electrification Plan is expected to bring electricity to over six million people by 2021. The plan will get off the ground with \$400 million in funds from the World Bank's International Development Association.¹⁷¹

The National Electrification Plan will double the current rate of grid extension and a total of \$6 billion in investments. This is considered a huge undertaking for Myanmar, as it is just re-emerging from economic isolation.¹⁷² The plan calls for 50 percent access by 2020, 75 percent by 2025, and universal access by 2030. This will be achieved through rapid extension of the national grid with off-grid electricity and modern solar home systems and mini-grids to rural Myanmar communities. In September 2015, the World Bank approved a \$400 million International Development Association (IDA) credit to Myanmar grid extension and off-grid electrification. There was also investment support from the Bank's Asia Sustainable and Alternative Energy Program (ASTAE). With the IDA funds, 750,000 households will be connected to the grid by 2021 and off-grid electricity will be extended to 500,000 more households.¹⁷³

Clinics, schools and religious buildings will also benefit from 23,000 new community connections. The credit will also fund public lights, technical assistance to build capacity among local staff to implement the plan, improve policies and regulation around electricity and renewable energy. It will also aid in the development of a framework to plan out future electrification and monitor results. At the same time the government demonstrated its commitment to the plan by establishing a National Electrification Executive Committee (NEEC), which is responsible for electrification planning, investment, and donor coordination.¹⁷⁴

Table 3 discusses what the NEEC is accountable for as well as short-term and long-term policy options to help deliver the objectives such as increasing electricity connections.¹⁷⁵

OBJECTIVES	SHORT-TERM OPTIONS	LONG-TERM OPTIONS
<p>Increase the rate of electrification and reach at least 500,000 connections per year by 2020</p>	<p>Maintain the National Electrification Executive Committee (NEEC) accountable for the implementation of NEP to the country's Vice President. Ensure that Project Management Offices in MOEP and MLFRD are adequately staffed and equipped for effective coordination of electrification program across the country.</p>	<p>Improve institutional capacity throughout the value chain. Provide support for institutional capacity building to the utilities (ESE, YESC, MESC), local contractors, and sector institutions at the regional/ state and district level. Adopt grid codes and introduce modern technologies and low cost solutions for rural electrification.</p>
<p>Improve transparency and competition in the electricity market, and mobilize private sector investments, while protecting vulnerable consumers</p>	<p>Adopt secondary legislation (rules and regulations) for operationalization of the 2014 Electricity Law. Establish the Electricity Regulatory Commission. Adopt and start implementing pricing policy based on full cost recovery of the economic cost of gas and electricity supply. Ensure that subsidies to vulnerable consumers (direct or cross-subsidies) are explicit, well targeted, adequately budgeted and fiscally affordable.</p>	<p>Consolidate and strengthen institutional capacity for strategic planning and policy making by merger of Ministry of Electric Power and Ministry of Energy. Increase private sector participation and leverage public resources through transparent and competitive IPPs/ PPPs. Mobilize private resources and commercial financing to leverage public resources and donors funding (including IDA) through a competitive selection of private developers for priority investments on IPP/ PPP basis.</p>
<p>Increase efficiency through corporatization and commercialization of enterprises in the energy and power sector</p>	<p>Complete corporatization of YESC and MESC and foster their commercialization by (in the first year): appointing CEOs, adopting bylaws, and setting Key Performance Indicators for the newly established corporations. Complete restructuring of MEPE and hydropower enterprises and establish Electric Power Generation Enterprise (EPGE) Transform YESC, MESC and MEPGC into financially viable companies with sound corporate governance, clear development objectives and performance indicators (KPIs) by developing a Financial Viability Action Plan in the first year. Introduce financial auditing in line with international accounting standards.</p>	<p>Develop and start implementing divestment program in the power sector focusing on YESC and MESC. Develop and start implementing restructuring program for ESE focusing on corporatization of regional distribution companies and creation of Rural Electrification Agency under ESE. Establish Myanmar Transmission System Operator (MTSO) responsible for the high voltage transmission system.</p>
<p>Improve strategic planning capacity and mainstream principles of environmental and social sustainability in the energy and power sector planning.</p>	<p>Create a joint task force led by MOE for the review of gas sector development plans and initiate preparation of gas sector master plan. Create a joint task force led by MOEP for the review of hydropower plans and initiate preparation of hydropower development program. Establish guidelines for environmental and social safeguards and encourage public consultations in formulation of energy master plans .</p>	<p>Improve resource mapping and develop GIS based maps of renewable energy resources Carry out system studies for integration of renewable energy in the power grid Develop an integrated generation and transmission expansion plan to meet future electricity demand in affordable, reliable and sustainable manner based on master plans for gas, hydropower and renewable energy development.</p>

Table 3: Enhancing Electricity Access for Myanmar

Water and Sanitation

Large parts of Myanmar remain without access to safe water. This is in part because Myanmar has had years of isolation. Ten million people in Myanmar do not have access to safe water; 11 million do not have access to adequate sanitation, and over 1,800 children under five die every year from diarrhea caused by unsafe water and poor sanitation in the country.¹⁷⁶

Natural disasters and continued insecurity has contributed to ongoing humanitarian need in Myanmar in 2016. Floods from June-August temporarily displaced approximated half a million people. USAID/OFDA provided assistance including implemented water, sanitation, and hygiene (WASH) interventions.¹⁷⁷

Photo 8 shows displaced children using a water pump in Rakhine State.¹⁷⁸

Although Myanmar is becoming integrated into the global economy after transitioning to a democracy after years of military rule, its development is slowed by a lack of access to

safe water, sanitation, and hygiene.¹⁷⁹ In 2011, Myanmar set national coverage targets for access to improved water and sanitation services of 90 percent by 2015 (data results is yet to be available). The source of drinking water for the population varies across states and divisions. In general, it can be said that urban areas have better access to improved piped water than rural areas.¹⁸⁰

Only 4.1 percent of households in Myanmar have piped water into the dwelling. Although, in the Chin State, approximately 30 percent of households have piped water because in this location it is common to use bamboo pipes to bring water from protected springs into the dwelling. In Kayah, Tanintharyi, and Yangon, percentages of piped water into the dwelling are 10.6, 11.1 and 11.3 respectively. In contrast, in several states and divisions less than one percent of households have piped water. The use of unprotected wells is high in Kayah (23.8 percent), Kayin (43.9 percent) and Rakhine (37.2 percent).¹⁸¹



Photo 7: WASH Interventions in Rakhine State, Myanmar

In Magway, 10.6 percent of the population relies on surface water. International NGOs, national NGOs, and some UN agencies (UNDP, UNICEF and UNHabitat) are assisting these areas. Approximately one-third of the population treats their water (76.2 percent use treatment by cloth, 1.4 percent use boiling, and 0.6 percent use a water filter). It is also estimated that 12.2 percent of the population does not use water treatment, and unsafe drinking water coverage is 33.1 percent. These figures show that water treatment is low and Myanmar needs to promote Water Safety Plan follow up actions.¹⁸²

Improved sanitation access over all is approximately 77 percent (84 percent in urban areas and 74 percent in rural areas). Rakhine has the least access at 48 percent, and Shan North has access at 68.3 percent. In contrast, 93.8 percent of people in Yangon have access to improved facilities (59.8 percent of the poorest population and 98.2 percent of the richest population). In addition, most toilet facilities are slab and pit (53.5 percent in urban and 69.8 percent in rural areas).¹⁸³ In Myanmar, there are notable disparities between urban and rural areas and between rich and poor areas. Efforts need to be geared to address these unreached areas and populations.¹⁸⁴

Several ministries and institutions share the lead for sanitation and drinking water services. The Ministry of Health leads hygiene promotion

initiatives and has a number of sanitation and water responsibilities. Myanmar has specific plans implemented to improve and sustain WASH services. This includes the Five Year Strategic Plan on water supply, sanitation and hygiene, preparedness trainings, and training on climate change. Human resource strategies are in development for sanitation, drinking water and hygiene.¹⁸⁵ WaterAid established a WASH country program in Myanmar in January 2016 with a presence in Yangon and began building relationships and scoping to improve access to water, sanitation and hygiene across the country.¹⁸⁶

There are constraints in sanitation and water however. These include a lack of skilled graduates and financial resources for staff costs. There are reported insufficiencies of drinking-water quality surveillance due to a lack of portable water quality test kits and skilled technical staff. There are reported difficulties in receiving domestic and donor commitments. There is also a reported insufficiency of funds to meet MDG targets. As a step towards addressing equality in access to WASH services, six disadvantaged groups are identified in WASH plans. Funds are reported to be largely directed to drinking-water services; however, the number of unserved is greater for sanitation services.¹⁸⁷



MYANMAR (BURMA)

Health

Health

Health Overview

In Myanmar there is limited access to health care due to terrain, transport, communication and other economic reasons. Poverty and vulnerability, especially in hard-to-reach rural settlements, are the main barriers that prevent enhancing human developing and reaching Millennium Development Goal (MDG) targets. Disasters are also a major health concern.¹⁸⁸

Myanmar has a long coastline, which runs along the eastern flank of the Bay of Bengal. According to the Tsunami Risk Atlas, most of the Myanmar's coastal areas fall within the risk zone. This is important to mention in regards to disaster management and humanitarian assistance because damage and loss assessment of health facilities, sustaining and restoring health services, and control of communicable diseases need to be considered. The priority activities for disease prevention and control include the establishment of an early warning, alert and response system (EWARS), immunization of susceptible populations, proper camp management, and food and water safety, and prompt response to the outbreaks. As a result of these disaster experiences, the Ministry of Health (MoH) activated the Strategic Health Operation Centre, which will enable the dispatch of an initial response team as soon as the event takes place.¹⁸⁹ The MoH is now called the Ministry of Health and Sports.

The 30-year Health Development Plan (HDP), Myanmar Health Vision 2030, was drawn up in 2000 at the ministerial level to meet future health

challenges. This long-term plan includes the political, economic and social objectives of the country and is intended to guide the elaboration of short-term national health plans.

The nine main components of the plan are expected to improve the nation's health indicators, which are presented in Table 4.

The MoH formulated NHP 2011–2016 is aligned with the five-year National Development Plan, the framework of Myanmar Health Vision 2030, the Rural Health Development Plan, the Project for Upgrading Hospitals, and the National Plan for Promoting National Education.

Health Care System

The MoH is responsible for raising the health status of the people through the provision of comprehensive health services which include promotive, preventive, curative and rehabilitative measures. It has seven departments for Health, Planning, and Medical Sciences; three departments for Medical Research (for Lower, Upper and Central Myanmar); and one for Traditional Medicine.¹⁹⁰

Challenges in the Healthcare System

There are constraints to improving the health status in Myanmar. These include access to basic health services; service availability; disparities in availability and affordability of medicine; adequate infrastructure and public expenditures; and trained health personnel.¹⁹¹ Poverty is the principal constraint to improving health status, compounded by factors affecting vulnerability, difficult-to-reach areas and conflict among ethnic groups.¹⁹²

Indicator	Previous (2001-2002)	2011	2021	2030
Life expectancy at birth	60-64	-	-	75-80
Infant mortality rate	59.7	40.0	30.0	22.0
Under 5 mortality rate	77.77	52.0	39.0	29.0
Maternal mortality ratio (per 1000 live births)	2.55	1.7	1.3	0.9

Table 4: Expected Outcome Indicators of Myanmar Health Vision 2030

According to the World Health Organization, major health challenges facing the country include:¹⁹³

- Low life expectancy rates - 64 years for a male and 68 years for a female;
- High mortality for children under five years (51 per 1,000 live births);
- High maternal mortality ratio (200 per 100,000 live births);
- Deaths due to Malaria (per 100,000 population) is 5.4;
- 60 percent of the population lives in Malaria transmission areas;
- High TB burden incidence rate was estimated at 373 per 100,000 population while prevalence was 473 per 100,000 population and mortality was 49 per 100,000 population. MDR-TB rate was 5 percent in new cases of Tuberculosis and 27.1 percent among previously treated cases of Tuberculosis;
- High HIV burden (190,000 cases with an estimated 10 percent coinfection of HIV/tuberculosis);
- Widespread poverty, lack of proper sanitation and water supply, malnutrition and poor health awareness; and
- In 2000, the WHO ranked Myanmar among the lowest of 190 countries for their health systems. Health service delivery is caused by the relatively poor health infrastructure in Myanmar, which is mainly the result of the low GDP spent on healthcare (below 3 percent) and basic road infrastructure and rural services.¹⁹⁴

Delays in reaching health facilities are due to poverty, lack of knowledge, remote location or lack of transport. The vast majority of maternal deaths occur in rural and almost half of maternal deaths occur during the intra and early postpartum period. Poor maternal nutritional status and iron and folic deficiency anemia adversely influence pregnancy outcomes.¹⁹⁵

The country has yet to improve its performance in health-related MDGs aside from the Infant Mortality Rate, Children under Five Mortality Rate, and Maternal Mortality Rate. HIV prevalence remains high, along with Malaria and Tuberculosis (TB).¹⁹⁶

Health Assistance

The UN Country Team is engaging in a common framework, called the UN Strategic

Framework, to assist Myanmar. The UN Strategic Framework 2012–2016 addresses four priority issues: encourage inclusive growth, increase equitable access to quality social services, reduce vulnerability, and promote good governance.¹⁹⁷

The 2016 Humanitarian Response Plan (HRP) launched in December 2015 by the Humanitarian Country Team (HCT), comprising of UN agencies, international NGOs, and other humanitarian stakeholders highlighted the need to improve access to health care for vulnerable populations. The HRP noted that movement restrictions, financial and logistical constraints, and limited health care facilities and staff posed impediments to accessing health care for some populations in Myanmar. OCHA reported that vulnerable populations in Rakhine continued to face challenges accessing health care. The UN agency noted that Muslim populations in Rakhine faced particular challenges due to different medical referral and travel approval requirements.¹⁹⁸

USAID/OFDA provided nearly \$4.5 million for humanitarian WASH and health interventions in Myanmar in FY 2016. Partner Save the Children/U.S. (SC/US) worked to support access to sanitation facilities, promote safe hygiene practices among IDPs and host community members, and increase access to health supplies for pregnant women and newborns in Rakhine. In addition, USAID/OFDA supported Solidarités International, UNICEF, Metta Foundation, and ZOA to conduct hygiene promotion activities and improve sanitation and water supply infrastructure for IDPs and vulnerable populations in Kachin, Rakhine, and Shan.¹⁹⁹

Australia also has health projects in Myanmar. For instance, the Burnett Institute links medical research with public health action. Under a MoU with the Myanmar MoH, Burnett Myanmar is active in all 14 States and Divisions.

Figure 9 shows the locations of various public health projects.²⁰⁰

Communicable Diseases

Myanmar's tuberculosis prevalence (489 per 100,000 people) is three times the global average. Nine thousand cases of multi-drug resistant tuberculosis (MDR-TB) are estimated each year in Myanmar. The country has only two laboratories capable of testing for it and therefore must export some suspected cases to Thailand for testing, which is a very slow process. There is also a lengthy treatment process for MDR-TB, which

is 100 times more expensive than treatment for normal cases of tuberculosis and comes with more side effects.

Myanmar has the highest rate of Malaria infection in the world, and 1,000 people die from the disease every year. A recent study by The Lancet Infectious Diseases journal found that 40 percent of Malaria parasites taken from samples across Myanmar had the genetic mutation linked to artemisinin resistance. Chloroquine and sulphadoxine-pyrimethamine, which were the primary Malarial treatments before the discovery of artemisinin, were rendered useless by drug-resistant mutations that began in Southeast Asia and spread around the world.²⁰¹

Among specific diseases, the leading causes of death and illness are TB, Malaria, and HIV/AIDS. The TB prevalence rate is three times higher than the global average and one of the highest in Asia. In order to prevent the international spread of communicable diseases, the Central Epidemiological Unit works closely in collaboration with National International Health Regulations (IHR) Focal Point and the International Health Division (IHD) of the MOH, which is implementing IHR 2005. Communicable disease surveillance activities have been integrated with regional surveillance systems like the Association of Southeast Asian Nations (ASEAN) Disease Surveillance Network

(ADSNet) and the Mekong Basin Disease Surveillance (MBDS) Network. Laboratories are important for early detection and verification of acute public health events due to infectious and non-infectious causes. Myanmar has the basic capacity to use polymerase chain reaction (PCR) for diagnostic purposes, and regional laboratories provide additional diagnostic services for less common infectious diseases.²⁰²

Myanmar is facing the double burden of communicable and non-communicable diseases (NCDs). NCD diseases account for 59 percent of deaths. Cardiovascular disease accounts for 25 percent, while chronic respiratory diseases represent 9 percent.²⁰³

Non-Communicable Diseases

Chronic NCDs with shared modifiable risk factors include tobacco use, unhealthy diet, physical inactivity, and harmful use of alcohol include cardiovascular disease, diabetes mellitus, cancer and chronic respiratory disorders. Conditions of public health importance include accidents and injuries, disabling conditions (blindness, deafness, and community-based rehabilitation), mental health, substance abuse, and snake bites.²⁰⁴

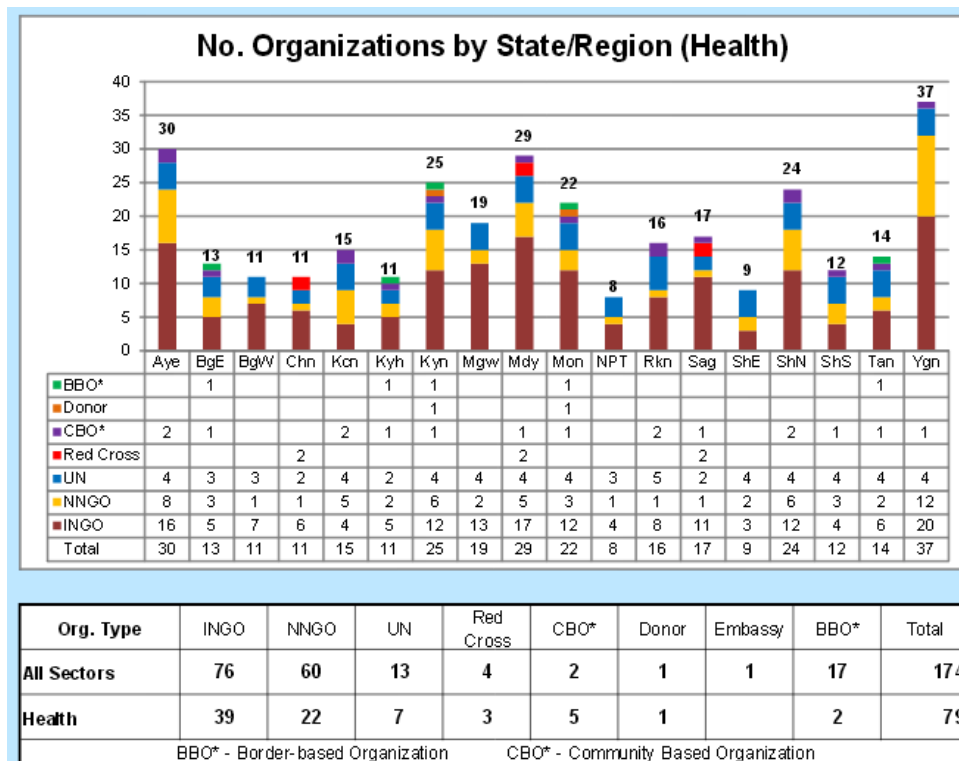


Figure 9: Public Health and Research Projects in Myanmar



MYANMAR (BURMA)
Women, Peace, and Security

Disaster Management Reference Handbook | January 2017

Women, Peace, and Security

Women are affected by civil war as victims, survivors, and agents of conflict and peace. Myanmar has suffered from decades of civil war and military rule. Addressing the structural roots of violence, including gendered inequality, is important.

Women are often the prime victims through sexual violence, human trafficking, and other civil rights abuse. Having reduced access to clean water and health services, an increase in female-headed households, and the inordinate burdens for women and girls in conflict-zones are also prominent issues affecting women. Women have often been denied participation in initiatives towards peace, a marginalization that is reflected in the landscape of national politics. Women's equitable participation in national life is an integral challenge in socio-political reform that Myanmar faces.

Despite such disadvantages, women in and from Myanmar have remained highly active as agents for reconciliation and political change in grassroots and civil society initiatives for peace, community-building, and reform over the decades. With few exceptions, women have remained notably absent from high-level peace negotiations, both under the Thein Sein Government and the preceding regime of the State Peace and Development Council (SPDC: formerly State Law and Order Restoration Council, SLORC).

In spite of facing repression and discrimination, several women's organizations have accelerated their activities in promoting the rights of women. These organizations seek to ensure women's representatives achieve rightful participation in national reform, peace processes, and decisions about the country's future. NGOs and NGO working group members and their partners, have been utilized to investigate human rights abuses in Myanmar, by ensuring that the UN country team expands support for local organizations and conducts regular and systematic reporting on the human rights situation in Myanmar, including the rights of women.

It is important to promote the role of women and to increase awareness of the difficulties encountered by women, if peace is to be

established in the country's new political era. International experience demonstrates that failure to incorporate women's gendered needs and priorities in peace agreements will greatly undermine the potential for sustainable peace. As a result of advocacy from the Global Women's Movement, many international agreements have been implemented providing an imperative for governments to guarantee women's rights to equitable participation in decision-making on national issues of peace and governance.²⁰⁵

Women have played essential roles throughout the census. Most of the enumerators were women. Women Civil Society Organizations have been engaged in all stages of the process and are included as members of the Census National Advisory Committee.

Women and girls have been disproportionately affected by a systematic failure to invest in basic services like healthcare and education. They also have been used as a weapon of war and oppression through assault and rape. As the Head of Government, prominent female leader Aung San Suu Kyi has used her wide popular and political support to advocate for the participation of women in leadership roles and gender equality; however, domestic laws remain that are contrary to the advancement of gender equality.²⁰⁶

In May 2015, Burma's president signed off on a law (The Population Health Care Bill) requiring some mothers to space their children three years apart despite objections. U.S. diplomats and rights activists worry it could be used not only to repress women, but also to repress religious and ethnic minorities. The population law gives regional authorities the power to implement birth-spacing guidelines in areas with high rates of population growth. The government says the law is aimed at bringing down maternal and infant mortality rates. However, activists argue that it steps on women's reproductive rights and can be used to suppress the growth of marginalized groups. There is concern that these provisions may go against the country's efforts to promote tolerance and diversity.²⁰⁷

The government of Myanmar has taken steps to recognize the ways women can help in the country's development with a national strategic plan that outlines twelve priority areas to advance gender equality and a law against domestic violence being drafted. However women are underrepresented in the government, the military, and some powerful civil society groups.²⁰⁸



MYANMAR (BURMA)

Conclusion

Conclusion

Myanmar has a high degree of exposure and vulnerability to multiple natural hazards and risks.²⁰⁹ The country regularly experiences cyclones, storm surges, floods, landslides, earthquakes, drought, and forest fires. In July and August 2015, devastating floods hit 12 out of 14 States and Regions. Subsequently, Myanmar has been experiencing the impacts of strong El Niño related events. Over the last 10 years, Myanmar has been impacted by two major earthquakes, three severe cyclones, floods, and other smaller-scale hazards. In 2016, the country experienced a severe impact of El Niño including extreme temperatures, unusual rainfall patterns, dry soil, high risk of fires, and acute water shortages. Myanmar ranks 2nd out of 187 countries in the Global Climate Risk Index and ranks 9th out of 191 countries in the INFORM index.²¹⁰

After Cyclone Nargis, humanitarian organizations introduced programs to reduce the vulnerability of economic activities at the community level, such as seed banks, distribution of salinity resistant crops, and plantation programs in including mangroves. Capacity building and training for livelihood have been provided to stimulate income. Programs such as the WASH program, health, and education programs have been implemented.²¹¹

The Government of Myanmar has undertaken a number of important initiatives to better manage the increasing environmental hazards related to climate and disaster risks. These include the Environmental Conservation Law (2012) and its rules (2014), Disaster Management Law (2013) and its rules (2015), REDD+ Roadmap for Reducing Emissions from Deforestation and Forest Degradation (2013), Environmental Impact Assessment Procedures (2015), and the National Biodiversity Strategy and Action Plan (2015) which aims to address climate change and rural poverty while conserving biodiversity and sustaining vital ecosystem services.²¹²

In addition to dealing with natural disasters, Myanmar is also challenged with internal armed conflict between equipped ethnic groups and the Myanmar Military. Although, violence (civil war), and military rule is not unfamiliar for the country, it does affect the nation's current social and economic status.²¹³

In 2015 Myanmar experienced a historic

year with regards to the democratic transition of the nation. Two significant events; the signing of the Nationwide Ceasefire Agreement (NCA) in October 2015 brought the Myanmar one step closer to ending one of the world's longest running civil wars., and the democratic elections of the national and local parliaments in November 2015 resulted in a landslide win by the National League for Democracy (NLD), led by Daw Aung San Suu Kyi.²¹⁴

The adoption by UN Member States of a new Global Agenda for Sustainable Development which put into effect an agreement on seventeen new Sustainable Development Goals (SDGs), a new agreement on climate change, and executed an agreement on disaster risk reduction for the nation were adopted in 2015.²¹⁵

Myanmar has developed plans which foster the potential to improve the nation's disaster risk reduction activities (DRR); however, it still remains an area which warrants more emphasis within the country. Additionally, a framework for assessing disaster impacts, especially for the community level is lacking and a significant need exist for the establishment of a national framework for assessing disaster impacts and to educate stakeholders on its application.²¹⁶



MYANMAR (BURMA)

Appendices

Appendices

DMHA Engagements FY 2011-2016

FY 2016- Continued national insecurity and natural disasters contributed to ongoing humanitarian needs in Myanmar. Floods from June to August temporarily displaced an estimated 500,000 people. Approximately 218,000 internally displaced persons (IDPs) continued to reside in Kachin, Rakhine, and Shan states as of late September 2016. Restricted access in some areas of Rakhine and Shan impeded humanitarian response efforts during the fiscal year.²¹⁷

FY 2016- U.S. Government (USG) provided more than \$50 million in humanitarian funding for the Myanmar response. USAID/FFP committed \$8.4 million through UN agencies to provide emergency food assistance and to respond to cases of acute malnutrition. With nearly \$7.3 million in USAID/OFDA assistance, partners provided health, nutrition, protection, and shelter support; which strengthened access to livelihoods; and implemented water, sanitation, and hygiene (WASH) interventions in the effected regions. In addition, humanitarian actors-through \$34.3 million in State/PRM funding addressed critical needs among vulnerable populations, including IDPs in Myanmar and refugee populations from Myanmar residing in other countries in the Asia region.²¹⁸

FY 2016- Through partner Solidarities International, USAID/OFDA supported activities to improve food security and promote livelihood opportunities for approximately 8,500 people, including more than 5,000 Internally Displaced Persons (IDPs) in Kachin and Rakhine.²¹⁹

FY 2016- USAID/FFP (USAID's Office for Food for Peace) provided 140 metric tons (MT) of ready-to-use therapeutic food to the UN Children's Fund (UNICEF) to treat children with severe acute malnutrition. In addition, USAID/FFP contributed USD \$7.5 million to the World Food Program (WFP) to locally and regionally procure food for approximately 192,000 IDPs and other vulnerable individuals in Kachin, Rakhine, and Shan.²²⁰

November 2015- U.S. Ambassador Derek J. Mitchell reissued a disaster declaration for Myanmar due to the ongoing complex emergency. USAID/OFDA staff based in Bangkok, Thailand, remains in contact with humanitarian partners in Myanmar and continues to conduct assessments in affected areas of Kachin and Rakhine to evaluate humanitarian conditions, identify humanitarian gaps, and to recommend response options.²²¹

Force Protection/Pre-Deployment Information

Passport/Visa

Myanmar entrance requires a valid passport with at least six months validity remaining beyond the date of arrival. You should apply for your visa at a Myanmar embassy or consulate abroad before you arrive in Myanmar. In Myanmar, you will be required to show your passport with a valid visa at all airports, train stations, and hotels. Security checkpoints are common outside of tourist areas.²²²

Visa Information: The Government of Myanmar's eVisa program allows tourists and business travelers to apply for a visa online rather than physically applying at an embassy or consulate:

- You are generally notified within a few days whether you have been pre-approved for a visa;
- You must present the approval letter at Immigration when you enter Myanmar; and
- Once you are approved for the visa, the visa needs to be used within three months.²²³

The Government of Myanmar has a visas-on-arrival program for certain business travelers. The program is available only to those with a formal letter of invitation from a business registered with the Myanmar Ministry of Commerce, NOT for tourists. There is also a meditation visa for visitors planning long-term studies at monasteries and meditation centers.²²⁴

You can get information about entry requirements as well as other information from the Embassy of Myanmar's website. The Embassy is located at 2300 S Street NW, Washington, D.C. 20008. Telephone: 202-332-4350.

The Permanent Mission of Myanmar to the UN is located at 10 East 77th St., New York, NY 10021. Telephone: 212-535-1311 or 212-744-1271. Fax: 212-744-1290.²²⁵

The U.S. Department of State is unaware of any HIV/AIDS entry restrictions for visitors to or foreign residents of Myanmar.²²⁶

Emergency Contact Information

For U.S. Citizens, contact the U.S. Embassy in Rangoon, Myanmar:

U.S. Embassy Rangoon²²⁷

110 University Ave
Kamayut Township
Rangoon, Burma
Telephone: + (95) (1) 536-509, ext. 4240
Emergency After-Hours Telephone: +95
9-512-4330, or + (95) (1) 500-547
Email: consularrangoon@state.gov

Currency Information

The Burmese Kyat is the currency of Myanmar (Burma). The currency code for Kyats is MMK, and the currency symbol is K. Kyat comes in notes (no coins) of value K50, K100, K200, K500, K1000, K5000 and K10000.²²⁸

The US dollar, however, is widely used as an alternative currency, particularly for larger purchases. Foreigners are sometimes expected to pay in dollars for hotels, high-end restaurants, flights, and access to historical sites. If payment is made in kyat for these transactions, it may sometimes be at a higher rate. When paying in dollars, change will often be given in kyat. A smaller purchase such as taxi rides, buses, and cheaper to mid-range meals are quoted and are almost always paid for in kyat. You should expect to exchange roughly half the money you take to Myanmar into kyat. If you are spending more than a few days outside of Yangon, Mandalay or Nay Pyi Taw, make sure to exchange enough money beforehand; it can be difficult to change money outside the main cities, and you will probably get a worse rate. ATMs are also more difficult to find in these areas.²²⁹

Important note: US dollar bills taken to Myanmar must be in PERFECT CONDITION.

Dollar bills should be brought to Myanmar in differing denominations: take plenty of \$10, \$5 and \$1 bills to pay for hotels, flights, and historical sites. Additionally, take \$100 or \$50 bills for exchanging to kyat (larger denominations usually get a better rate).²³⁰

Blemishes of any kind-creases, marks, folds, and so on, may result in getting a far worse rate of exchange or the money may not be accepted at all. Also, pre-2006 dollar bills or ones with the letters AB and CB at the start of the serial number (at the top left corner of note) may not be accepted. Euros are generally accepted as an exchange currency and do not have to be in pristine condition. It is therefore advisable to carry US dollars in a safe, flat folder-not in a wallet.²³¹

Exchange and Rates

Money can be changed at banks in the downtown areas of larger cities and at most major airports, including Yangon, Mandalay, Nay Pyi Taw, Bagan, and Thandwe (for Ngapali beach). In Yangon, you can also head to the popular and central Bogyoke Aung San Market (Scott Market) if you want to exchange money. Money exchangers on the street should be avoided, as they are likely to scam you.²³²

Travel Health Information

Most medical facilities in Myanmar are inadequate for routine medical care. Few medical personnel in Myanmar are trained to U.S. standards. In an emergency, you would likely need to be medically evacuated to a hospital outside Myanmar. Medical evacuation from Myanmar is expensive and is most often transacted in cash.²³³

The U.S. Embassy does not pay medical bills. Be aware that U.S. Medicare does not apply overseas.

Medical Insurance

Make sure your health insurance plan provides coverage overseas. Most care providers overseas only accept cash payments.²³⁴

Medication

Most pharmaceuticals on sale in Myanmar have been smuggled into the country and many are counterfeit or adulterated. Travelers should consider Burmese pharmaceuticals generally unsafe to use and should bring their own medications for the duration of their stay in Myanmar. If traveling with prescription medication, check with the Government of Myanmar to ensure that the medication is legal in Myanmar. Always carry your prescription medication in original packaging with your doctor's prescription.

The following diseases are prevalent:

- HIV/AIDS
- Tuberculosis
- Malaria
- Dengue fever
- Other insect-borne infections including chikungunya, scrub typhus, and Japanese encephalitis
- Hepatitis
- Zika virus²³⁵

Zika Virus

Zika virus is a mosquito-borne illness, typically transmitted by the day biting *Aedes aegypti* mosquito, which can be spread from a pregnant woman to her unborn baby as well as through sexual contact and blood transfusion. The Centers for Disease Control and Prevention (CDC) has concluded that the Zika virus is a cause of microcephaly and other neurological conditions. For general information and the latest updates about Zika and steps to prevent mosquito bites and sexual exposure to the virus, please visit the CDC website.²³⁶

Vaccinations

Be up-to-date on all vaccinations recommended by the U.S. CDC. Further health information may be found at:²³⁷

- World Health Organization
- U.S. Centers for Disease Control and Prevention (CDC)

Myanmar Government Ministries, Offices and Committees

Ministry of Planning and Finance²³⁸

The responsibilities of the Ministry are formulation and implementation of national monetary and financial policies, submission of reports on economic situations together with policy advice to higher authorities, supervision of departments under the Ministry and coordination between department under the Ministry, and coordination and cooperation with other ministries and giving them suggestions concerning monetary and fiscal matters. The Ministry of Finance has been formulating and implementing effective monetary and financial policies in order to meet political, economic, social, and other development objectives defined by the State.

Ministry of Social Welfare, Relief and Resettlement Department (RRD)²³⁹

The MSWRR is the central government department for disaster management in Myanmar. Main functions include coordination and support to the National Disaster Management Working Committee, disaster assistance, and disaster management training.

Ministry of Electric Power and Energy (MEPE)²⁴⁰

Myanmar Electric Power Enterprise is operated and managed by the Managing Director, composed of the Chief Engineer (Power System), Chief Engineer (Power Transmission Project), Chief Engineer (Gas Turbine), General Manager (Administration), General Manager (Material Planning) and General Manager (Finance). Myanmar Electric Power Enterprise is led by the Managing Director, who is responsible for the operation and management of the MEPE. The Managing Director of the MEPE is assisted by the MEPE Management team which functions as a supervisory body.

Managerial Organization is composed of the following six departments:

- Power System Department
- Power Transmission Project Department
- Gas Turbine Department
- Material Planning Department
- Administration Department
- Finance Department

Ministry of Foreign Affairs²⁴¹

The MOFA is responsible for communication with Myanmar embassies, consulates, foreign embassies, ASEAN, United Nations and international relief organizations. The Ministry has designated responsibilities during normal times, pre and post disaster, and during rehabilitation. However, its duty during the onset of a disaster is limited.

Ministry of Defense²⁴²

Responsibilities of the Ministry of Defense and Armed Forces are delineated according to four disaster phases: Normal Times, Alert and Warning, During Disaster, and Relief and Rehabilitation. It has been noted that steps are currently underway in-country to update the Standing Order based on the changing context, in accordance with the new Disaster Management Law and Rules established under this law and the Sendai Framework. Table 5 describes the Ministry of Defense responsibilities.²⁴³

Normal Times	Alert and Warning Stage	During Natural Disasters	Relief and Rehabilitation
Designate disaster communication focal point	Set-up 24 hour control centre at Division Command HQ	Monitor natural disaster situation	Assist military families with food and accommodations
Maintain contact and work with National Committee for Natural Disaster Management	Issue hourly warning up-dates to military units	Assign relief and rehabilitation duties to Military Command HQ as appropriate	Assist with the deceased and debris removal
Form natural disaster protection committees at all headquarters	Ensure military families have access to disaster information	Provide coordination to local authorities in disaster prone areas	Assist local administration to obtain drinking water
Develop plans for areas vulnerable to cyclones, floods, tsunamis, dam failure due to earthquakes for transportation of people and property for evacuation	Collect news and information on natural disasters from Department of Meteorology and Hydrology and disseminate to Armed Forces	Transmit guidance and messages between Office of the Commander-in-Chief (Army, Navy, Air Force), Military Command HQ, and local authorities during disaster	Assist disaster victims with construction of temporary shelters
Coordinate with Armed Forces for early warning, evacuation, and relief and rehabilitation and form coordination teams	Prepare a surface and air transport evacuation plan to transport people and other priority items	Review committees and the disaster protection activities and provide guidance	Set-up field hospitals as needed
Organize and equip for search and rescue	Assist public in evacuations		Assist to set-up relief camps and provision of shelter, food, water, clothing and essential services
Understand natural disaster management and hazard of floods, river erosion, earthquakes and storms	Ensure Navy, Air Force and Division Command HQ have prepared disaster calendar, hazard maps, and risk maps		Document and analyse disaster
Conduct drills			
Allocate funding for disaster response			
Identify risk areas and supervise construction of disaster resistant housing for military families			

Table 5: Ministry of Defense Responsibilities Overview

Ministry of Health²⁴⁴

MoH serves as the focal point for health facilities and health services in preparedness and response in Myanmar.

Ministry of President's Office²⁴⁵

The Office of the President of the Republic of the Union of Myanmar is a ministry-level body that serves the President of Myanmar.

Ministry of Education (MoE)²⁴⁶

There are six departments under the Ministry of Education. They are the Office staff, Department of Higher Education (DHE), Department of Basic Education (DBE), Department of Myanmar Language Commission, Department of Myanmar Board of Examinations and Myanmar Educational Research Bureau (MERB). The Office Staff of the MoE is responsible to the Deputy Minister and the Minister. They supervise the implementation of educational programs, set the educational policies, and are responsible for fiscal planning within the ministry and department personnel and administration of the ministry.

Administration of Education: The administration process throughout the education sectors is centralized. The education process is also centralized; but decentralization of control and responsibility has been developed and community participation is active. Educational decisions and initiatives are largely the province of central ministerial departments.

Organization Structure: The Ministry of Education is functionally the main sponsor of education and training, especially in the areas of basic education. With regards to the decision making process at the ministry level; a special coordination Committee is formed with Director General and chairmen of five departments as members in addition to the Minister and the two Deputy Ministers. Decisions made at these Committee meetings are implemented by responsible personnel at different levels. DBE, DHE and MERB function in accordance with the directives of the following statutory bodies and organs.

Ministry of Home Affairs²⁴⁷

The General Administration Department (GAD) of the Ministry of Home Affairs is critically important to subnational governance in Myanmar. The GAD acts as the civil service for the new state and region governments and provides the administration for the country's

districts and townships. Given its pervasive importance as the bureaucratic backbone of the country and its impact on the lives of citizens, it is also surprising that there is little information on how the GAD is organized, its roles and functions, and how it has evolved over time. A more systematic understanding of the GAD by all stakeholders in government and civil society as well as development partners is essential to effectively advance reforms, particularly as they relate to administrative decentralization, local governance, social service provision, but also the relationship between the state and citizens.

Ministry of Border Affairs (MOBA)²⁴⁸

Former Ministry of Progress of Border Areas, National Races and Development Affairs, is the ministry in the Myanmar government responsible for the development of border areas and national races. Additionally, MOFA is the ministry responsible for the country's foreign policy and relations with other nations. It also operates embassies and consulates in 44 countries. It is headed by foreign affairs minister Aung San Suu Kyi, the first female foreign minister of Myanmar, who replaced Wunna Maung Lwin on 30 March 2016.

- Departments and Heads of Departments:
- Ministry Permanent Secretary: Kyaw Zeya
- Political Department: Kyaw Zaya
- ASEAN Affairs Department: Myint Thu
- Protocol Department: Ko Ko Naing
- International Organisations and Economic Department: Kyaw Moe Tun
- Consular and Legal Affairs Department: Sein Oo
- Planning and Administrative Department: Vacant
- Strategic Studies and Training Department: Soe Lynn Han

Ministry of Information²⁴⁹

The Ministry of Information informs the public about government policy plans and implementation and supports improvements to knowledge and education of the public.

As of 2011 the ministry consisted of:

- Minister's Office
- Myanmar Radio and Television (MRTV)
- Information and Public Relations Department (IPRD)
- Printing and Publishing Enterprise (PPE)
- News and Periodicals Enterprise (NPE)

Ministry of Religious Affairs and Culture (MORA)²⁵⁰

MORA in Myanmar allows freedom of religion, but supports the purification, perpetuation, promotion, and propagation of the Theravada Buddhist Sasana and promotes Myanmar traditional customs and culture Departments.

Department of Religious Affairs:

This department has the following responsibilities:

- To ensure that all people living in the Union of Myanmar can freely believe in any religion and freely practice that religion;
- Since the great majority of the people are Buddhist, to purify, perpetuate, and propagate the three kinds of Sasana of the Buddha namely, Pariyatti, Patipatti and Pativedha; and
- To preserve and promote the traditional and cultural heritage of Myanmar.

Ministry of Agriculture, Livestock and Irrigation (MOAI)²⁵¹

The Ministry of Agriculture and Irrigation (MOAI) is a ministry in the Myanmar Government responsible for agriculture and irrigation. Until 8 August 1996, it was named the Ministry of Agriculture.

Departments:

- Minister's Office
- Water Resource Utilisation Department
- Department of Agriculture
- Irrigation Department

Ministry of Transportation and Communications (MOT)²⁵²

The Ministry of Transport (MOT) is a ministry in the Burmese government responsible for the country's transport infrastructure. It also operates the Myanmar Airways and Myanmar Port Authority. The Department of Civil Aviation is subordinate to this ministry.

Ministry of Natural Resources and Environmental Conservation²⁵³

Objective:

- To fulfill domestic raw material for mineral resources and promote export of same;
- To promote production of mineral raw materials which would initiate development of heavy industries leading to

- long term national development; and
- To emphasize exploration and production of important mineral resources.
- Duties (Action Plans):
- Extensive participation of local and foreign enterprises and state-owned enterprises for exploration and production of mineral resources;
- To emphasize environmental preservation in exploration and production of mineral resources;
- To emphasize rehabilitation of abandoned mines;
- To review the world market update and look forward to production and marketing of mineral commodities which are demanded;
- To strive for fulfilling domestic demand and promote export the increased production of mineral commodities; and
- To strive for production and marketing of enhanced downstream products of metals, gems and jewelry.

Ministry of Labour, Immigration and Population²⁵⁴

Objectives:

- To protect and ensure the rights of workers;
- Implementation of social rights;
- Implementation of productivity; and
- Matters pertaining to international affairs.

Ministry of Industry²⁵⁵

The Ministry of Industry is a ministry in the Government of Myanmar that produces consumer products such as pharmaceuticals and food, textiles, ceramics, paper chemical products, home utilities and construction materials, assorted types of vehicles, earth-moving equipment, diesel engines, automotive parts, turbines and generators, CNC machines, transformers, solar-used products, agricultural machines, and rubber and tires.

Missions:

- To make the state-owned enterprises which should be in the hand of government commercially viable, to promote the involvement of private sector in state-owned enterprises for enhancing the private sector development and to uplift the socio-economic standard of citizens by developing small and medium enterprises; and

- To encourage the labour intensive industries, agro-based and value-added industries, and to develop export-oriented industries through the expansion of domestic market.

Ministry of Commerce (MOC)²⁵⁶

The Ministry of Commerce (MOC) is the Myanmar Government agency that plays a vital role in transformation process of the implementation of market oriented economic system. Its Headquarters is located at Building 3 and 52, Nay Pyi Taw, in Myanmar.

Departmental Bodies:

- Office of the Minister
- Department of Trade
- Department of Consumer Affairs
- Myanmar Trade Promotion Organization

Ministry of Construction²⁵⁷

The Ministry of Construction is a ministry in the Myanmar Government responsible for the country's construction and maintenance of infrastructure, including roads and bridges.

Ministry of Hotels and Tourism²⁵⁸

The Ministry of Hotels and tourism is a ministry in the Myanmar Government responsible for the country's tourism sector. The Ministry of Hotels and Tourism is divided into the following departments.

Directorate of Hotels and Tourism:

- Administration and Budget Department
- Tourism Promotion and International Relations Department
- Hotels and Tourism License Department
- Planning Department
- ASEAN & Regional Cooperation Department
- Policy Department

Directorate of Hotels and Tourism Development:

- Admin & Finance Department
- Human Resource Development Department
- Information Department
- Research and Statistics Department
- Hotels & Transport Supervision Department
- Tourism Enterprise and Tour Guides Supervision Department

Ministry of Ethnic Affairs²⁵⁹

Ministry of Ethnic Affairs primary function is to promote ethnical literature and culture, but also to protect ethnic rights.

An Ethnic Affairs Minister is a representative elected by an ethnic minority in a given State or Region of Myanmar if that division is composed of an ethnic minority population of 0.1 percent or greater of the total population. If one of the country's ethnic minorities counts their state of residence as its namesake, however, it is not granted an ethnic affairs minister. Only voters who share an ethnic identity with a given ethnic affairs minister post are allowed to vote for candidates to the position.

National Disaster Management Committee (NDMC)²⁶⁰

The NDMC is the highest decision-making body for disaster management in Myanmar. The structure and composition of the NDMC was reformed in 2016 by the new Government and is outlined below.

Disaster Focal Point: NDMC

Established by: Decree No. 30/2016 of the Cabinet of the Republic of the Union of Myanmar on 31 May 2016

Key functions:

- Forming the necessary groups (work committees), formulating policies for priority tasks, evaluating the Committee's performance and giving necessary guidance;
- Formulation of policy guidelines for mobilising internal resources in times of disaster;
- Laying down the basic policy for coordination when international assistance is needed;
- Managing the State budget and State-owned resources and directing resources to where assistance is needed; and
- Issuing orders / notifications to ensure effective disaster management and avoid hindrances, to prevent the misuse of relief aid and to assess peace and tranquillity and the rule of law during and after disasters.

Location within government: The NDMC does not sit under any Ministry; it acts as a separate Committee under the Vice President 2.

Leadership Chairperson: Chaired by the Vice President 2 and Vice Chaired by the Union Minister for Home Affairs and the Union Minister for Social Welfare, Relief and Resettlement.

Composition: 28 members including Union Ministers from key Ministries.

Military representation: Union Minister of Defence, Chief of Staff (Army, Navy, Air).

Regional/provincial representation: Chief Ministers all States and Regions.

District and Local Level Disaster Management Committees²⁶¹

The National Disaster Management Law provides for the establishment of district and local level Disaster Management Committees, although the extent to which these committees are functioning is not clear from the literature. The role of the Ministry of Defense and the Armed Forces in local level committees is also not clear. Further information is needed from key actor's in-country to fully understand how these mechanisms and others such as the start-up of Emergency Coordination Centers (EOCs).

Disaster Management Centre²⁶²

The Disaster Management Centre acts as an emergency operations center during a disaster response. It was first set up in 2015 during nation-wide flooding.

Disaster Focal point: Disaster Management Centre

Established by: Disaster Management Law (2013)

Key functions:

- Establish command and control for the disaster response;
- Implement National Natural Disaster Management Committee priorities;
- Facilitate international and national coordination;
- Serve as the central point for communication;
- Facilitate information collection, analysis and dissemination;
- Logistics support and resource tracking; and
- Fast track of visa's for international actors.

Location within government: Situated under the Ministry of Social Welfare, Relief and Resettlement.

Leadership Chairperson: Chairperson of the National Disaster Preparedness Management Working Committee.

Composition: Representatives of relevant sub-committees, military representatives, development partners, MRCs, ASEAN-ERAT, AHA Centre, HCT-UN OCHA liaison, Cluster leads and other international teams.

Coordination Teams in Myanmar

Figure 10 provides an overview of coordination teams in Myanmar for humanitarian and development partners. Figure 11 provides an overview of the Joint Coordination Structures Between GoM and DPs.²⁶³

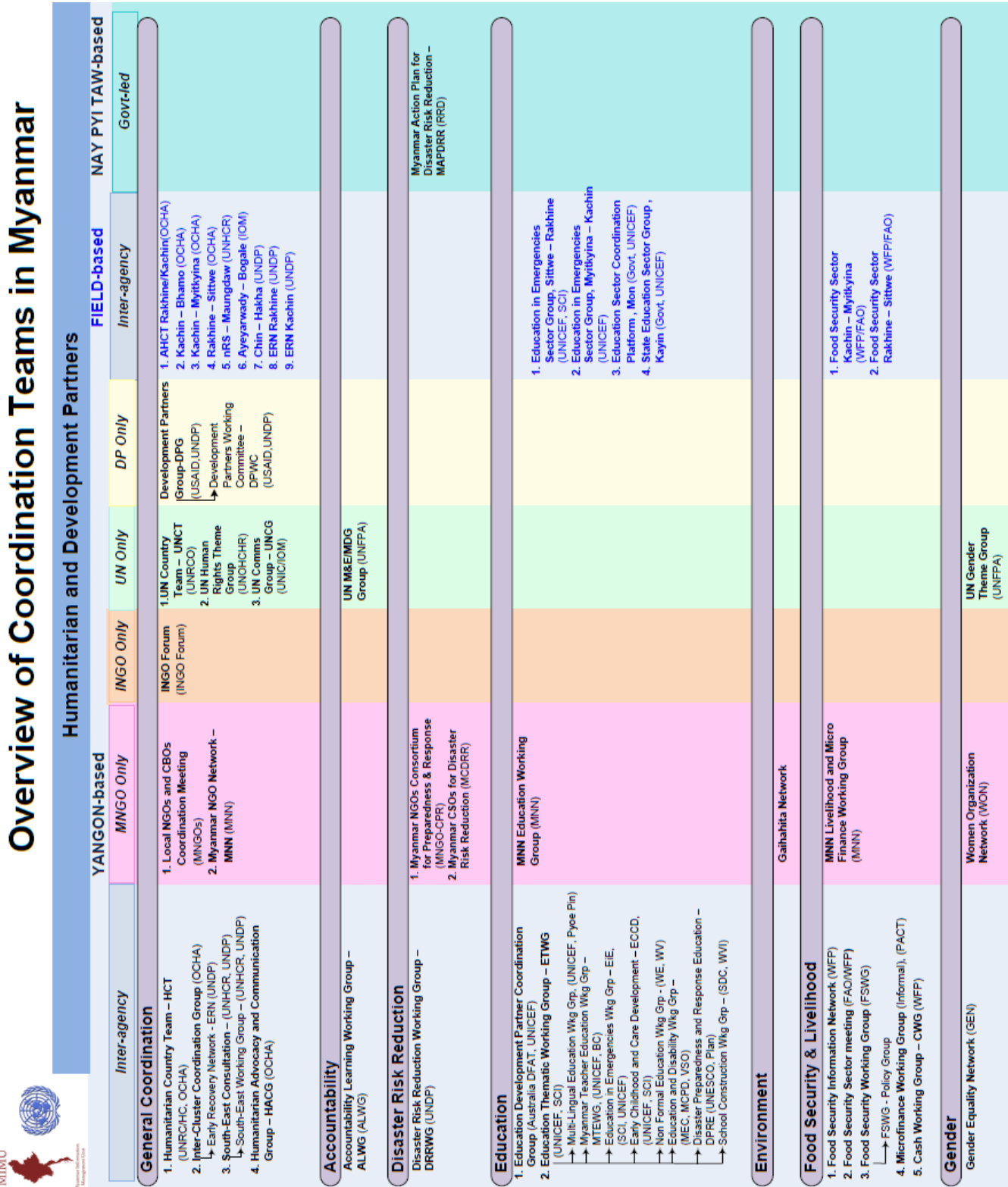


Figure 10: MIMU, Overview of Coordination Teams in Myanmar

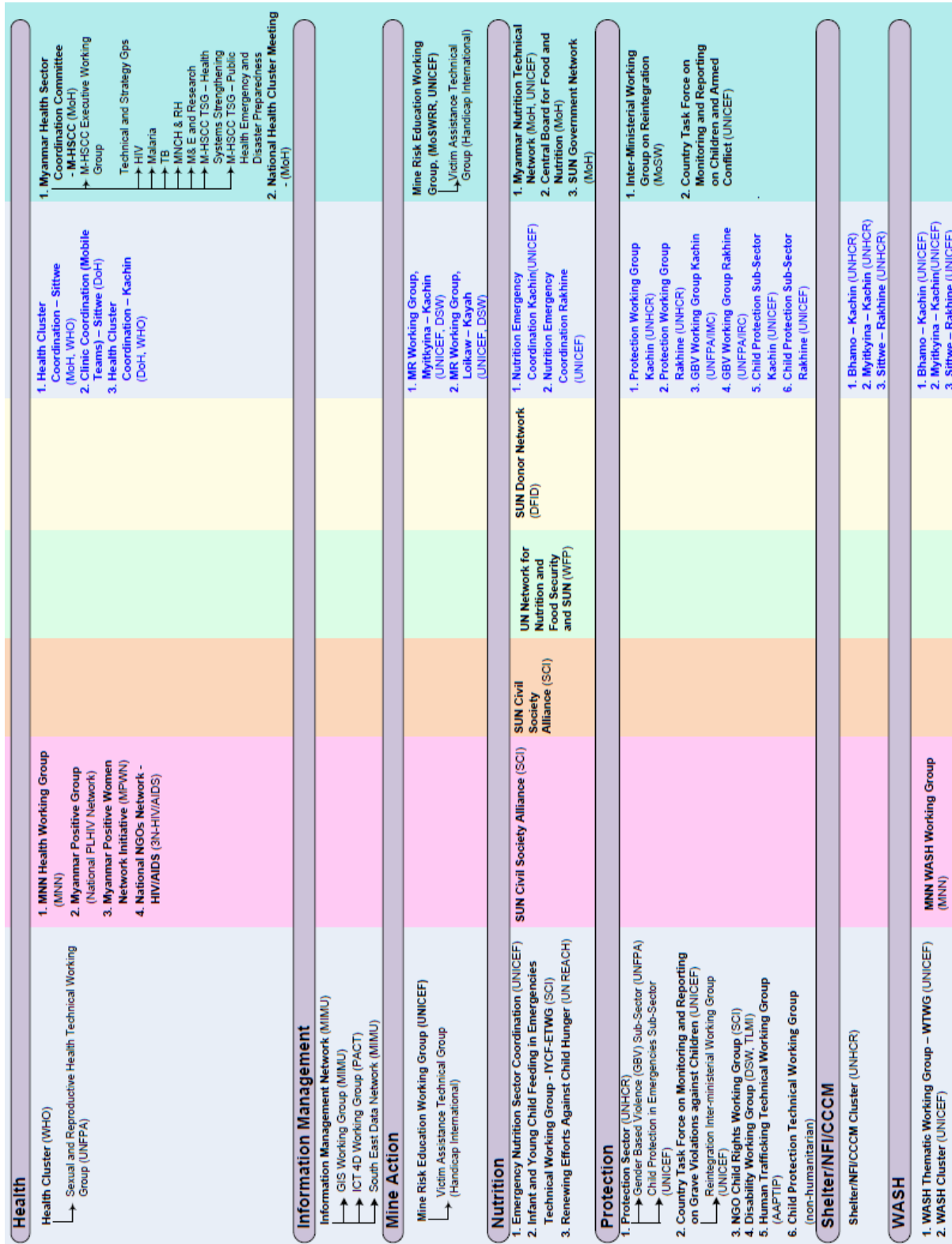


Figure 10: MIMU, Overview of Coordination Teams in Myanmar

Joint Coordination Structures Between GoM and DPs

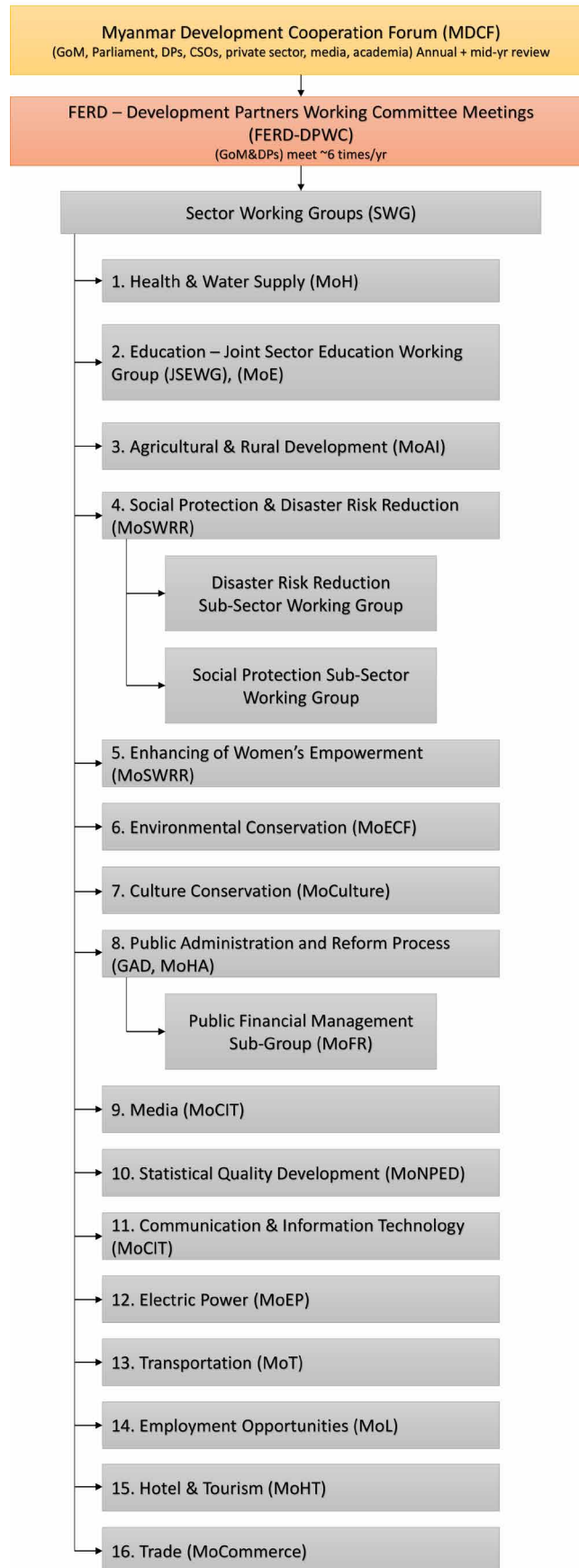


Figure 11: MIMU, Joint Coordination Structures Between GoM and DPs²⁶⁴

Hyogo Framework for Action Country Progress Report

The Hyogo framework for Action (HFA) was adopted as a guideline to reduce vulnerabilities to natural hazards. The HFA assists participating countries to become more resilient and to better manage the hazards that threaten their development. The levels of progress of the 2009-2011 results of the Interim HFA for Myanmar are represented in Figure 12 and Table 6. Table 7 provides an overview of the overall challenges and the future outlook statement from the HFA report.

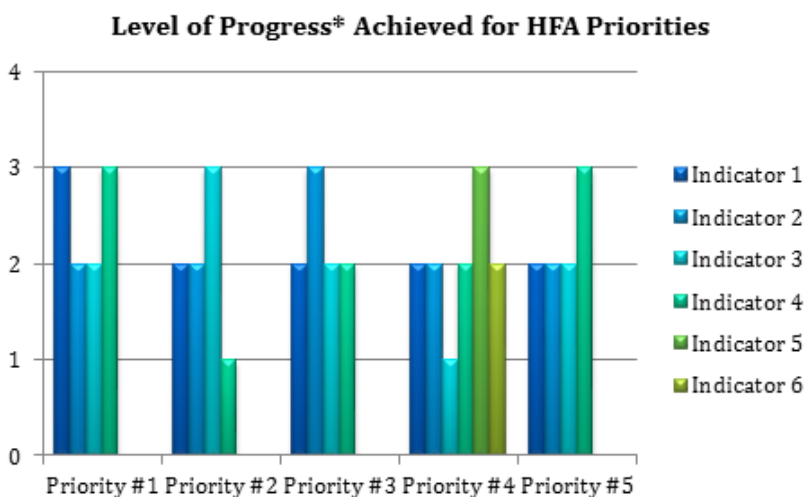


Figure 12: HFA Level of Progress Achieved²⁶⁵

Priority for Action #1: Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Core Indicator*	Indicator Description	Level of Progress Achieved
1	National policy and legal framework for disaster risk reduction exists with decentralized responsibilities and capacities at all levels.	3
2	Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels.	2
3	Community Participation and decentralization is ensured through the delegation of authority and resources to local levels.	2
4	A national multi sectoral platform for disaster risk reduction is functioning.	3

Priority #2: Identify, assess and monitor disaster risks and enhance early warning

Core Indicator*	Indicator Description	Level of Progress Achieved
1	National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors.	2
2	Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities.	2
3	Early warning systems are in place for all major hazards, with outreach to communities.	3
4	National and local risk assessments take account of regional / trans-boundary risks, with a view to regional cooperation on risk reduction.	1

Priority #3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels

Core Indicator*	Indicator Description	Level of Progress Achieved
1	Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems, etc.).	2
2	School curricula, education material and relevant trainings include disaster risk reduction and recovery concepts and practices.	3
3	Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened.	2
4	Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.	2

Priority #4: Reduce the underlying risk factors

Core Indicator*	Indicator Description	Level of Progress Achieved
1	Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.	2
2	Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.	2
3	Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities.	1
4	Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.	2
5	Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes.	3
6	Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.	2

Priority #5: Strengthen disaster preparedness for effective response at all levels

Core Indicator*	Indicator Description	Level of Progress Achieved
1	Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.	2
2	Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programs.	2
3	Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.	2
4	Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews.	3

Table Notes:

*Level of Progress:

1 – Minor progress with few signs of forward action in plans or policy

2 – Some progress, but without systematic policy and/ or institutional commitment

3 – Institutional commitment attained, but achievements are neither comprehensive nor substantial

4 – Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

5 – Comprehensive achievement with sustained commitment and capacities at all levels

Table 6: Myanmar National Progress Report on the Implementation of HFA 2009-2011 ²⁶⁶

Future Outlook Area 1: The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.	
Challenges:	One of the main challenges is the lack of a comprehensive Disaster Management Law in Myanmar. This would help in putting in place the various mechanisms and related policies. Integration of DRR in development policies, planning and programming including budget allocation has yet to be defined and there is no operational guidelines on how to integrate it. Commitment to awareness, the awareness campaigns is carried out in specific location across the country as resources both financial and human are inadequate. Understanding of DRR is not the same across all ministries and government administration as capacity building within the government has been disproportionate.
Future Outlook Priorities:	Under MAPDRR, GoUM has identified enactment of DM law as one of the key activities and will work on developing the law. Ministry of Planning will include DRR in their next 5 year plan (2012-16). DRR will be integrated into sustainable development policies, planning and programs at all levels. A focal Ministry/ Agency – Relief and Resettlement Department, has been assigned to oversee the formulation, monitoring DRR integrated in policies, planning and programs of all sectors. DRR policies, planning and programs of all sectors will be planned in a sound manner since they will be based on systematic risk assessment. Formulation of a shared vision on DRR followed by review and revise exiting policies, planning and programming will be planned.
Future Outlook Area 2: The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.	
Challenges:	DRR is at nascent phase in the county and capacities at all levels are limited. There is also a challenge of finding a balance between administration and financial decentralization on DRR. School and community linkage and coordination among organizations are weak and require more attention. In addition, community based disaster risk management (CBDRM) programs have been only focused in few geographical areas due to limited financial resources. There is no national policy or program for the institutionalization of community based DRR. The relief and resettlement department, is only limited to State/Division level of the country and therefore the outreach to villages are weak.
Future Outlook Priorities:	DRR has been recognized as an integral part of development and policy planning. The government will identify the formulation of policy and resource allocation for DRR. Good practices, assessment, data gained by CBDRM programs will contribute to the formulation. Introduction of a system that would strengthen school and community linkage for DRR activities and share information more effectively. Moreover, there needs to be commitment to DRR in every institution, government and other private sectors.
Future Outlook Area 3: The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programs in the reconstruction of affected communities.	
Challenges:	A Disaster Management Law would define DRR for Disaster preparedness, emergency response and mitigation in the country. Operational procedures on emergency response are yet to be elaborated. (Standing Order, SASOP adopted in Myanmar) which would foster the inclusion of DRR in emergency preparedness, response and recovery programs in the reconstruction of affected communities. Action plan on emergency preparedness, response and recovery programs up to village level are yet to be based on formal assessments.
Future Outlook Priorities:	Standing Order will be fully implemented (updated in lieu of Nargis) to ensure that DRR is integrated into the disaster management cycle. The coordination and cooperation among the stakeholders, linkages across thematic areas and across sectors, should be encouraged. Supervision and support as well as monitoring and evaluation needs to be strengthened. Effective emergency programs will be carried out for any kind of disaster strikes. Capacity building in DRR will be followed by supervision and support from authorities, and monitoring and evaluation.

Table 7: HFA Country Progress Report Future Outlook Areas, Myanmar ²⁶⁷

Country Profile

The information in the Country Profile section is sourced directly from the CIA World Factbook.²⁶⁸

Geography

Location:

Southeastern Asia, bordering the Andaman Sea and the Bay of Bengal, between Bangladesh and Thailand

Geographic coordinates:

22 00 N, 98 00 E

Map references:

Southeast Asia

Area:

Total: 676,578 sq km

Land: 653,508 sq km

Water: 23,070 sq km

Country comparison to the world: 40

Land boundaries:

Total: 6,522 km

Border countries (5): Bangladesh 271 km, China 2,129 km, India 1,468 km, Laos 238 km, Thailand 2,416 km

Coastline:

1,930 km

Maritime claims:

Territorial sea: 12 nm

Contiguous zone: 24 nm

Exclusive economic zone: 200 nm

Continental shelf: 200 nm or to the edge of the continental margin

Climate:

Tropical monsoon; cloudy, rainy, hot, humid summers (southwest monsoon, June to September); less cloudy, scant rainfall, mild temperatures, lower humidity during winter (northeast monsoon, December to April)

Terrain:

Central lowlands ringed by steep, rugged highlands

Elevation:

Mean elevation: 702 m

Elevation extremes: lowest point: Andaman Sea/ Bay of Bengal 0 m

Highest point: Gamlang Razi 5,870 m

Natural resources:

Petroleum, timber, tin, antimony, zinc, copper, tungsten, lead, coal, marble, limestone, precious stones, natural gas, hydropower, arable land

Land use:

Agricultural land: 19.2 percent

Arable land 16.5 percent; permanent crops 2.2 percent; permanent pasture 0.5 percent

Forest: 48.2 percent

Other: 32.6 percent (2011 est.)

Irrigated land:

22,950 sq. km (2012)

Natural hazards:

Destructive earthquakes and cyclones; flooding and landslides common during rainy season (June to September); periodic droughts

Environment - current issues:

Deforestation; industrial pollution of air, soil, and water; inadequate sanitation and water treatment contribute to disease

Environment - international agreements:

Party to: Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Law of the Sea, Ozone Layer Protection, Ship Pollution, Tropical Timber 83, and Tropical Timber 94 signed, but not ratified: none of the selected agreements

Geography - note: Strategic location near major Indian Ocean shipping lanes; the north-south flowing Irrawaddy River is the country's largest and most important commercial waterway

People and Society

Population: 56,890,418 (2016 est.)

Note: Estimates for this country take into account the effects of excess mortality due to AIDS; this can result in lower life expectancy, higher infant mortality, higher death rates, lower population growth rates, and changes in the distribution of population by age and sex than would otherwise be expected (July 2016 est.)
Country comparison to the world: 25

Nationality:

Noun: Burmese (singular and plural)
 Adjective: Burmese

Ethnic groups:

Burman 68 percent, Shan 9 percent, Karen 7 percent, Rakhine 4 percent, Chinese 3 percent, Indian 2 percent, Mon 2 percent, other 5 percent

Languages:

Burmese (official)

Note: Minority ethnic groups have their own languages

Religions:

Buddhist 90 percent, Christian 6.3 percent, Muslim 2.3 percent, Animist 0.2 percent, Hindu 0.5 percent, other 0.2 percent, none 0.1 percent

Note: Religion estimates are based on the 2014 national census. In the case of Kayin and Kachin States, the size of the non-enumerated population is not significant enough to change the proportion of religious groups at either the Union or State level. However, in the case of Rakhine State, the size of the non-enumerated population is significant enough to have an impact on the proportion of religious groups both at the State and Union levels. In Rakhine, an estimated 1.09 million people were not enumerated in the Census because they were not allowed to self-identify using a name not recognized by the Government. It is assumed that the non-enumerated population in Rakhine is mainly affiliated with the Islamic faith.

Age structure:

0-14 years: 25.77 percent (male 7,476,436/female 7,183,049)
 15-24 years: 17.73 percent (male 5,109,120/female 4,978,572)
 25-54 years: 43.54 percent (male 12,326,900/female 12,442,398)
 55-64 years: 7.49 percent (male 2,003,593/female 2,256,146)
 65 years and over: 5.47 percent (male 1,353,723/female 1,760,481) (2016 est.)

Dependency ratios:

Total dependency ratio: 49.1 percent
 Youth dependency ratio: 41.1 percent
 Elderly dependency ratio: 8 percent
 Potential support ratio: 12.5 percent (2015 est.)

Median age:

Total: 28.6 years
 Male: 28 years
 Female: 29.3 years (2016 est.)
 Country comparison to the world: 128

Population growth rate:

1 percent (2016 est.)

Country comparison to the world: 115**Birth rate:**

18.2 births/1,000 population (2016 est.)
 Country comparison to the world: 96

Death rate:

7.9 deaths/1,000 population (2016 est.)
 Country comparison to the world: 100

Net migration rate:

-0.3 migrant(s)/1,000 population (2016 est.)
 Country comparison to the world: 118

Urbanization:

Urban population: 34.1 percent of total population (2015)
 Rate of urbanization: 2.49 percent annual rate of change (2010-15 est.)

Major urban areas - population:

RANGOON (Yangon) (capital) 4.802 million;
 Mandalay 1.167 million; Nay Pyi Taw 1.03 million (2015)

Sex ratio:

At birth: 1.06 male(s)/female
 0-14 years: 1.04 male(s)/female
 15-24 years: 1.03 male(s)/female
 25-54 years: 0.99 male(s)/female
 55-64 years: 0.89 male(s)/female
 65 years and over: 0.77 male(s)/female
 Total population: 0.99 male(s)/female (2016 est.)

Mother's mean age at first birth: 21.8

Note: Median age at first birth among women 25-29 (2007 est.)

Maternal mortality rate:

178 deaths/100,000 live births (2015 est.)
 Country comparison to the world: 54

Infant mortality rate:

Total: 42.2 deaths/1,000 live births
 Male: 48.3 deaths/1,000 live births

Female: 35.7 deaths/1,000 live births (2016 est.)
Country comparison to the world: 47

Life expectancy at birth:

Total population: 66.6 years
Male: 64.2 years
Female: 69.2 years (2016 est.)
Country comparison to the world: 171
Total fertility rate:
2.15 children born/woman (2016 est.)
Country comparison to the world: 101

Contraceptive prevalence rate:

46 percent (2009/10)

Health expenditures:

2.3 percent of GDP (2014)
Country comparison to the world: 191

Physician density:

0.61 physicians/1,000 population (2012)

Hospital bed density:

0.6 beds/1,000 population (2006)

Drinking water source:

Improved:

Urban: 92.7 percent of population
Rural: 74.4 percent of population
Total: 80.6 percent of population

Unimproved:

Urban: 7.3 percent of population
Rural: 25.6 percent of population
Total: 19.4 percent of population (2015 est.)

Sanitation facility access:

Improved:

Urban: 84.3 percent of population
Rural: 73.9 percent of population
Total: 77.4 percent of population

Unimproved:

Urban: 15.7 percent of population
Rural: 26.1 percent of population
Total: 22.6 percent of population (2012 est.)

HIV/AIDS - adult prevalence rate:

0.76 percent (2015 est.)
Country comparison to the world: 55

HIV/AIDS - people living with HIV/AIDS:

224,800 (2015 est.)
Country comparison to the world: 27

HIV/AIDS - deaths:

9,700 (2015 est.)
Country comparison to the world: 23
Major infectious diseases:
Degree of risk: very high

Food or waterborne diseases: Bacterial and protozoal diarrhea, hepatitis A, and typhoid fever

Vector borne diseases: Dengue fever, Malaria, and Japanese Encephalitis

Water contact disease: Leptospirosis

Animal contact disease: Rabies (2016)

Obesity - adult prevalence rate:

2.9 percent (2014)
Country comparison to the world: 172

Children under the age of 5 years underweight:

22.6 percent (2010)
Country comparison to the world: 27

Literacy:

Definition: age 15 and over can read and write
Total population: 93.1 percent
Male: 95.2 percent
Female: 91.2 percent (2015 est.)

School life expectancy (primary to tertiary education):

Total: 8 years
Male: NA
Female: NA (2007)

Government

Country name:

Conventional long form: Union of Burma (The Republic Union of Myanmar)
Conventional short form: Burma (Myanmar)
Local long form: Pyidaungzu Thammada Myanma Naingngandaw (translated as the Republic of the Union of Myanmar)
Local short form: Myanma Naingngandaw
Former: Socialist Republic of the Union of Burma, Union of Myanmar
Note: Since 1989 the military authorities in Myanmar and the current parliamentary government have promoted the name Myanmar as a conventional name for their state; the US Government has not adopted the name.
Etymology: Both “Burma” and “Myanmar” derive from the name of the majority Burmese

Bamar ethnic group

Government type:
Parliamentary Republic

Capital:
Name: Rangoon (Yangon); note - Nay Pyi Taw is the administrative capital

Geographic coordinates: 16 48 N, 96 09 E

Time difference: UTC+6.5 (11.5 hours ahead of Washington, DC, during Standard Time)

Administrative divisions:
7 regions (taing-myar, singular - taing), 7 states (pyi ne-myar, singular - pyi ne), 1 union territory

Regions: Ayeyarwady (Irrawaddy), Bago, Magway, Mandalay, Sagaing, Taninthayi, Yangon (Rangoon)

States: Chin, Kachin, Kayah, Kayin, Mon, Rakhine (Arakan), Shan

Union territory: Nay Pyi Taw

Independence:
4 January 1948 (from the UK)

National holiday:
Independence Day, 4 January (1948); Union Day, 12 February (1947)

Constitution:
Previous 1947, 1974 (suspended until 2008); latest approved by referendum 29 May 2008 (2016)

Legal system:
Mixed legal system of English common law (as introduced in codifications designed for colonial India) and customary law

International law organization participation:
Has not submitted an ICJ jurisdiction declaration; non-party state to the ICCT

Citizenship:
Citizenship by birth: no

Citizenship by descent only: Both parents must be citizens of Myanmar

Dual citizenship recognized: No

Residency requirement for naturalization:
None
Note: An applicant for naturalization must be the child or spouse of a citizen

Suffrage:
18 years of age; universal

Executive branch:
Chief of state: President Htin Kyan (since 30 March 2016); Vice Presidents Myint Swe (since 30 March 2016) and Henry Van Tio (since 30 March 2016); Note - The president is both Chief of State and Head of Government

Head of government: President Htin Kyaw (since 30 March 2016); Vice Presidents Myint Swe (since 30 March 2016) and Henry Van Tio (since 30 March 2016)

Note: A parliamentary bill creating the position of "state counsellor" was signed into law by President HTIN KYAW on 6 April 2016; a state counsellor serves the equivalent term of the president and is similar to a prime minister in that the holder acts as a link between the parliament and the executive branch

State counsellor: State Counsellor Aung San Suu Kyi (since 6 April 2016); she concurrently serves as Minister of Foreign Affairs and Minister for the Office of the President

Cabinet: Cabinet appointments shared by the President and the Commander-in-Chief

Elections/appointments: President indirectly elected by simple majority vote by the full Assembly of the Union from among 3 vice-presidential candidates nominated by the Presidential Electoral College (consists of members of the lower and upper houses and military members); the other 2 candidates become vice-presidents (president elected for a 5-year term)

Election results: Htin Kyaw elected president; Assembly of the Union vote: Htin Kyaw 360, Myint Swe 213, Henry Van Tio 79

Legislative Branch:
Description: Bicameral Assembly of the Union or Pyidaungsu consists of an upper house, the

House of Nationalities or Amyotha Hluttaw, (224 seats; 168 members directly elected in single-seat constituencies by absolute majority vote with a second round if needed and 56 appointed by the military; members serve 5-year terms) and a lower house, the House of Representatives or Pyithu Hluttaw, (440 seats; 330 members directly elected in single-seat constituencies by simple majority vote and 110 appointed by the military; members serve 5-year terms)

Elections: last held on 8 November 2015 (next to be held in 2020)

Election results: Upper House; percent of vote by party; NA; seats by party - NLD 135, USDP 11, ANP 10, SNLD 3, ZCD 2, TNP 2, independent 2, other 3, military appointees 56; Lower House - percent of vote by party - NA; seats by party - NLD 255, USDP 30, ANP 12, SNLD 12, PNO 3, TNP 3, ZCD 2, LNDP 2, independent 1, other 3, canceled due to insurgence 7, military appointees 110

Judicial branch:

Highest court(s): Supreme Court of the Union (consists of the chief justice and 7-11 judges)

Judge selection and term of office: Chief Justice and judges nominated by the President, with approval of the Lower House, and appointed by the President; judges normally serve until mandatory retirement at age 70

Subordinate courts: High Courts of the Region; High Courts of the State; Court of the Self-Administered Division; Court of the Self-Administered Zone; district and township courts; special courts (for juvenile, municipal, and traffic offenses); courts martial

Political parties and leaders:

- All Mon Region Democracy Party or AMRDP [Naing Ngwe Thein]
- Arakan National Party or ANP [Dr. Aye Maung] (formed from the 2013 merger of the Rakhine Nationalities Development Party and the Arakan League for Democracy)
- National Democratic Force or NDF [Khin Maung Swe]
- National League for Democracy or NLD [Aung San Suu Kyi]
- National Unity Party or NUP [Than Tin]
- Pa-O National Organization or PNO [Aung Khan Hti]

- Shan Nationalities Democratic Party or SNDP [Sai Aik Paung]
- Shan Nationalities League for Democracy or SNLD [Khun Htun Oo]
- Ta'ang National Party or TNP [Aik Mone]
- Union Solidarity and Development Party or USDP [Htay Oo]
- Zomi Congress for Democracy or ZCD [Pu Cin Sian Thang]
- Numerous smaller parties

Political pressure groups and leaders:

Thai border: Ethnic Nationalities Council or ENC

Federation of Trade Unions-Myanmar or FTUB (exile trade union and labor advocates)

National Coalition Government of the Union of Myanmar (self-proclaimed government in exile) ["Prime Minister" Dr. Sein Win] consists of individuals, some legitimately elected to the People's Assembly in 1990 (the group fled to a border area and joined insurgents in December 1990 to form a parallel government in exile)
National Council-Union of Myanmar (exile coalition of opposition groups)
United Nationalities Federal Council or UNFC

Inside Myanmar: Kachin Independence Organization

Karen National Union or KNU

Karenni National People's Party or KNPP

United Wa State Army or UWSA

88 Generation Students (pro-democracy movement)

Several other Chin, Karen, Mon, and Shan factions

Note: Many restrictions on freedom of expression have been relaxed by the government; a limited number of political groups, other than parties, are approved by the government

International organization participation:

ADB, ARF, ASEAN, BIMSTEC, CP, EAS, EITI (candidate country), FAO, G-77, IAEA, IBRD, ICAO, ICRM, IDA, IFAD, IFC, IFRCS, IHO, ILO, IMF, IMO, Interpol, IOC, IOM, IPU, ISO (correspondent), ITU, ITUC (NGOs), NAM, OPCW (signatory), SAARC (observer), UN, UNCTAD, UNESCO, UNIDO, UNWTO, UPU, WCO, WHO, WIPO, WMO, WTO

Diplomatic representation in the US:

Chief of mission: Ambassador AUNG LYNN

(since 16 September 2016)
Chancery: 2300 S Street NW, Washington, DC
20008
Telephone: [1] (202) 332-3344
FAX: [1] (202) 332-4351

Consulate(s) general: Los Angeles, New York
Diplomatic representation from the US:
Chief of mission: Ambassador Scot MARCIEL
(since 27 April 2016)

Embassy: 110 University Avenue, Kamayut
Township, Rangoon
Mailing address: Box B, APO AP 96546
Telephone: [95] (1) 536-509, 535-756, 538-038
FAX: [95] (1) 511-069

Flag description:
Design consists of three equal horizontal stripes
of yellow (top), green, and red; centered on the
green band is a large white five-pointed star
that partially overlaps onto the adjacent colored
stripes; the design revives the triband colors used
by Myanmar from 1943-45, during the Japanese
occupation

National symbol(s):
Chinthe (mythical lion); national colors: yellow,
green, red, white

National anthem:
Name: "Kaba Ma Kyei" (Till the End of the
World, Myanmar)

Lyrics/music: SAYA TIN

Note: Adopted 1948; Myanmar is among a
handful of non-European nations that have
anthems rooted in indigenous traditions; the
beginning portion of the anthem is a traditional
Burmese anthem before transitioning into a
Western-style orchestrated work

Economy

GDP (purchasing power parity):
\$284.1 billion (2015 est.)
\$265.4 billion (2014 est.)
\$244.2 billion (2013 est.)
Note: data are in 2015 US dollars
Country comparison to the world: 58

GDP (official exchange rate):
\$62.88 billion (2015 est.)

GDP - real growth rate:
7 percent (2015 est.)
8.7 percent (2014 est.)
8.4 percent (2013 est.)
Country comparison to the world: 13

GDP - per capita (PPP):
\$5,500 (2015 est.)
\$5,200 (2014 est.)
\$4,800 (2013 est.)
Note: Data are in 2015 US dollars
Country comparison to the world: 163

Gross national saving:
15.2 percent of GDP (2015 est.)
17.9 percent of GDP (2014 est.)
17.2 percent of GDP (2013 est.)
Country comparison to the world: 118
GDP - composition, by end use:
Household consumption: 59.9 percent
Government consumption: 6.1 percent
Investment in fixed capital: 36.1 percent
Investment in inventories: 0.3 percent
Exports of goods and services: 23.7 percent
Imports of goods and services: -26.1 percent
(2015 est.)

GDP - composition, by sector of origin:
Agriculture: 27.4 percent
Industry: 26.5 percent
Services: 46 percent (2015 est.)
Agriculture products: Rice, pulses, beans, sesame,
groundnuts; sugarcane; fish and fish products;
hardwood

Industries:
Agricultural processing; Wood and wood
products; copper, tin, tungsten, iron; cement,
construction materials; pharmaceuticals;
fertilizer; oil and natural gas; garments; jade and
gems

Industrial production growth rate:
13.7 percent (2015 est.)
Country comparison to the world: 4

Labor force:
36.18 million (2015 est.)
Country comparison to the world: 18
Labor force - by occupation:
Agriculture: 70 percent
Industry: 7 percent
Services: 23 percent (2001)

Unemployment rate:

5 percent (2015 est.)
 5.1 percent (2014 est.)
 Country comparison to the world: 51

Population below poverty line:

32.7 percent (2007 est.)

Household income or consumption by percentage share:

Lowest 10 percent: 2.8 percent
 Highest 10 percent: 32.4 percent (1998)
 Budget:
 Revenues: \$7.796 billion
 Expenditures: \$9.702 billion (2015 est.)

Taxes and other revenues:

11.6 percent of GDP (2015 est.)
 Country comparison to the world: 208

Budget surplus (+) or deficit (-):

-2.8 percent of GDP (2015 est.)
 Country comparison to the world: 110

Fiscal year:

1 April to 31 March

Inflation rate (consumer prices):

11.4 percent (2015 est.)
 5.9 percent (2014 est.)
 Country comparison to the world: 213

Central bank discount rate:

9.95 percent (31 December 2010)
 12 percent (31 December 2009)
 Country comparison to the world: 25

Commercial bank prime lending rate:

13 percent (31 December 2015 est.)
 13 percent (31 December 2014 est.)
 Country comparison to the world: 56

Stock of narrow money:

\$13.8 billion (31 December 2015 est.)
 \$14.73 billion (31 December 2014 est.)
 Country comparison to the world: 72

Stock of domestic credit:

\$16.01 billion (31 December 2015 est.)
 \$16.91 billion (31 December 2014 est.)
 Country comparison to the world: 92

Market value of publicly traded shares: \$NA

Current account balance:
 -\$4.879 billion (2015 est.)
 -\$3.683 billion (2014 est.)
 Country comparison to the world: 170

Exports:

\$9.135 billion (2015 est.)
 \$9.083 billion (2014 est.)
 Note: Official export figures are grossly underestimated due to the value of timber, gems, narcotics, rice, and other products smuggled to Thailand, China, and Bangladesh
 Country comparison to the world: 93

Exports - commodities:

Natural gas; wood products; pulses and beans; fish; rice; clothing; minerals, including jade and gems

Exports - partners:

China 37.7 percent, Thailand 25.6 percent, India 7.7 percent, Japan 6.2 percent (2015)

Imports:

\$12.49 billion (2015 est.)
 \$12.09 billion (2014 est.)
 Note: Import figures are grossly underestimated due to the value of consumer goods, diesel fuel, and other products smuggled in from Thailand, China, Malaysia, and India
 Country comparison to the world: 90

Imports - commodities:

Fabric; petroleum products; fertilizer; plastics; machinery; transport equipment; cement, construction materials; food products edible oil

Imports - partners:

China 42.2 percent, Thailand 18.5 percent, Singapore 11 percent, Japan 4.8 percent (2015)

Reserves of foreign exchange and gold:

\$8.463 billion (31 December 2015 est.)
 \$8.728 billion (31 December 2014 est.)
 Country comparison to the world: 76

Debt - external:

\$7.407 billion (31 December 2015 est.)
 \$6.351 billion (31 December 2014 est.)
 Country comparison to the world: 118

Exchange rates:

kyats (MMK) per US dollar -
1,162.62 (2015 est.)
984.35 (2014 est.)
984.35 (2013 est.)
853.48 (2012 est.)
815 (2011 est.)

Energy**Electricity access:**

Population without electricity: 36.3 million
Electrification - total population: 52 percent
Electrification - urban areas: 95 percent
Electrification - rural areas: 31 percent (2013)

Electricity - production:

10.48 billion kWh (2012 est.)
Country comparison to the world: 95

Electricity - consumption:

7.765 billion kWh (2012 est.)
Country comparison to the world: 100
Electricity - exports:
0 kWh (2013 est.)
Country comparison to the world: 110

Electricity - imports:

0 kWh (2013 est.)
Country comparison to the world: 124

Electricity - installed generating capacity:

3.591 million kW (2012 est.)
Country comparison to the world: 88

Electricity - from fossil fuels:

24.8 percent of total installed capacity (2012 est.)
Country comparison to the world: 188

Electricity - from nuclear fuels:

0 percent of total installed capacity (2012 est.)
Country comparison to the world: 55

Electricity - from hydroelectric plants:

75.2 percent of total installed capacity (2012 est.)
Country comparison to the world: 20

Electricity - from other renewable sources:

0 percent of total installed capacity (2012 est.)
Country comparison to the world: 159

Crude oil - production:

20,000 bbl/day (2014 est.)
Country comparison to the world: 71

Crude oil - exports:

2,717 bbl/day (2012 est.)
Country comparison to the world: 77

Crude oil - imports:

40 bbl/day (2012 est.)
Country comparison to the world: 84

Crude oil - proved reserves:

50 million bbl (1 January 2015 est.)
Country comparison to the world: 80

Refined petroleum products - production:

15,780 bbl/day (2012 est.)
Country comparison to the world: 99

Refined petroleum products - consumption:

25,000 bbl/day (2013 est.)
Country comparison to the world: 121

Refined petroleum products - exports:

0 bbl/day (2012 est.)
Country comparison to the world: 159

Refined petroleum products - imports:

8,557 bbl/day (2012 est.)
Country comparison to the world: 142

Natural gas - production:

13.1 billion cu m (2013 est.)
Country comparison to the world: 37

Natural gas - consumption:

4.6 billion cu m (2013 est.)
Country comparison to the world: 61

Natural gas - exports:

8.5 billion cu m (2013 est.)
Country comparison to the world: 24

Natural gas - imports:

0 cu m (2013 est.)
Country comparison to the world: 166

Natural gas - proved reserves:

283.2 billion cu m (1 January 2014 est.)
Country comparison to the world: 39

Carbon dioxide emissions from consumption of energy:

13.34 million Mt (2012 est.)
Country comparison to the world: 94

Communications**Telephones - fixed lines:****Total subscriptions:** 523,722**Subscriptions per 100 inhabitants:** 1 (July 2015 est.)

Country comparison to the world: 96

Telephones - mobile cellular:**Total:** 41.529 million**Subscriptions per 100 inhabitants:** 74 (July 2015 est.)

Country comparison to the world: 47

Telephone system:**General assessment:** Meets minimum requirements for local and intercity service for business and government**Domestic:** The government eased its monopoly on communications in 2013 and granted telecom licenses to two foreign operators, which has resulted in a dramatic expansion of the wireless network**International:** Country code - 95; landing point for the SEA-ME-WE-3 optical telecommunications submarine cable that provides links to Asia, the Middle East, and Europe; satellite earth stations - 2, Intelsat (Indian Ocean) and ShinSat (2015)**Broadcast media:**

Government controls all domestic broadcast media; two state-controlled TV stations with one of the stations controlled by the armed forces; two pay-TV stations are joint state-private ventures; access to satellite TV is limited; one state-controlled domestic radio station and nine FM stations that are joint state-private ventures; transmissions of several international broadcasters are available in parts of Myanmar; the Voice of America (VOA), Radio Free Asia (RFA), BBC Burmese service, the Democratic Voice of Myanmar (DVB), and Radio Australia use shortwave to broadcast in Myanmar; VOA, RFA, and DVB produce daily TV news programs that are transmitted by satellite to audiences in Myanmar

Internet country code: .mm**Internet users:****Total:** 12.278 million**Percent of population:** 21.8 percent (July 2015 est.)

Country comparison to the world: 128

Transportation**National air transport system:****Number of registered air carriers:** 11**Inventory of registered aircraft operated by air carriers:** 45**Annual passenger traffic on registered air carriers:** 2,029,139**Annual freight traffic on registered air carriers:** 3,365,967 mt-km**Civil aircraft registration country code prefix:** XY**Airports:**

64 (2013)

Country comparison to the world: 76

Airports - with paved runways:**Total:** 36

Over 3,047 m: 12

2,438 to 3,047 m: 11

1,524 to 2,437 m: 12

Under 914 m: 1 (2013)

Airports - with unpaved runways:**Total:** 28

Over 3,047 m: 1

1,524 to 2,437 m: 4

914 to 1,523 m: 10

Under 914 m: 13 (2013)

Heliports: 11 (2013)**Pipelines:** gas 3,739 km; oil 551 km (2013)**Railways:** total: 5,031 km**Narrow gauge:** 5,031 km 1.000-m gauge (2008)

Country comparison to the world: 38

Roadways:**Total:** 34,377 km (includes 358 km of expressways) (2010)

Country comparison to the world: 93

Waterways: 12,800 km (2011)

Country comparison to the world: 10

Merchant marine:**Total:** 29**By type:** cargo 22, passenger 2, passenger/cargo 3, specialized tanker 1, and vehicle carrier 1**Foreign-owned:** 2 (Germany 1, Japan 1)

Registered in other countries: 3 (Panama 3) (2010)

Country comparison to the world: 86

Ports and terminals:

Major seaport(s): Moulmein, Sittwe
River port(s): Rangoon (Yangon) (Rangoon River)

Military and Security

Military branches:

Myanmar Armed Forces (Tatmadaw): Army (Tatmadaw Kyi), Navy (Tatmadaw Yay), Air Force (Tatmadaw Lay) (2013)

Military service age and obligation:

18-35 years of age (men) and 18-27 years of age (women) for voluntary military service; no conscription (a 2010 law reintroducing conscription has not yet entered into force); 2-year service obligation; male (ages 18-45) and female (ages 18-35) professionals (including doctors, engineers, mechanics) serve up to three years; service terms may be stretched to five years in an officially declared emergency; Myanmar signed the Convention on the Rights of the Child (CRC) on 15 August 1991; on 27 June 2012, the regime signed a Joint Action Plan on prevention of child recruitment; in February 2013, the military formed a new task force to address forced child conscription; approximately 600 children have been released from military service since the signing of the joint action plan (2015)
Transnational Issues

Disputes - international:

Over half of Myanmar's population consists of diverse ethnic groups who have substantial numbers of kin in neighboring countries; the Naf River on the border with Bangladesh serves as a smuggling and illegal transit route; Bangladesh struggles to accommodate 29,000 Rohingya, Burmese Muslim minority from Arakan State, living as refugees in Cox's Bazar; Burmese border authorities are constructing a 200 km (124 mi) wire fence designed to deter illegal cross-border transit and tensions from the military build-up along border with Bangladesh in 2010; Bangladesh referred its maritime boundary claims with Myanmar and India to the International Tribunal on the Law of the Sea; Burmese forces attempting to dig in to the largely autonomous Shan State to rout local militias

tied to the drug trade, prompts local residents to periodically flee into neighboring Yunnan Province in China; fencing along the India-Myanmar international border at Manipur's Moreh town is in progress to check illegal drug trafficking and movement of militants; over 100,000 mostly Karen refugees and asylum seekers fleeing civil strife, political upheaval, and economic stagnation in Myanmar were living in remote camps in Thailand near the border as of April 2016.

Refugees and internally displaced persons:

IDPs: 644,000 (government offensives against armed ethnic minority groups near its borders with China and Thailand) (2015)

Stateless persons: 938,000 (2015); Note - Rohingya Muslims, living in Rakhine State, are Myanmar's main group of stateless people; the Burmese Government does not recognize the Rohingya as a "national race" and stripped them of their citizenship under the 1982 Citizenship law, categorizing them as "non-national" or "foreign residents"; under the Rakhine State Action Plan drafted in October 2014, the Rohingya must demonstrate their family has lived in Myanmar for at least 60 years to qualify for a lesser naturalized citizenship and the classification of Bengali or be put in detention camps and face deportation; native-born but non-indigenous people, such as Indians, are also stateless; the Burmese Government does not grant citizenship to children born outside of the country to Burmese parents who left the country illegally or fled persecution, such as those born in Thailand.

Note: estimate does not include stateless IDPs or stateless persons in IDP-like situations because they are included in estimates of IDPs (2015)

Trafficking in persons:

Current situation: Myanmar is a source country for men, women, and children trafficked for the purpose of forced labor and for women and children subjected to sex trafficking; Burmese adult and child labor migrants travel to East Asia, the Middle East, South Asia, and the US, where men are forced to work in the fishing, manufacturing, forestry, and construction industries and women and girls are forced into prostitution, domestic servitude, or forced labor in the garment sector; some Burmese economic migrants and Rohingya asylum seekers have

become forced laborers on Thai fishing boats; some military personnel and armed ethnic groups unlawfully conscript child soldiers or coerce adults and children into forced labor; domestically, adults and children from ethnic areas are vulnerable to forced labor on plantations and in mines, while children may also be subject to forced prostitution, domestic service, and begging

Tier rating: Tier 2 Watch List – Myanmar does not fully comply with the minimum standards for the elimination of trafficking, but it is making significant efforts to do so; the government has a written plan that, if implemented, would constitute making a significant effort toward meeting the minimum standard for eliminating human trafficking; in 2014, law enforcement continued to investigate and prosecute cross-border trafficking offenses but did little to address domestic trafficking; no civilians or government officials were prosecuted or convicted for the recruitment of child soldiers, a serious problem that is hampered by corruption and the influence of the military; victim referral and protection services remained inadequate, especially for men, and left victims vulnerable to being re-trafficked; the government coordinated anti-trafficking programs as part of its five-year national action plan (2015).

Acronyms and Abbreviations

Acronym	Definition
AADMER	ASEAN Agreement on Disaster Management and Emergency Response
ABCD	Alpha
ACDM	ASEAN Committee on Disaster Management
ACF	Action Contre la Faim
ACTED	Agency for technical cooperation and development
ADB	Asian Development Bank
ADDMER	ASEAN Agreement on Disaster Management and Emergency Response
ADRA/ Myanmar	Adventist Development & Relief Agency
ADRC	Asian Disaster Reduction Center
ADRRN	Asian Disaster Reduction & Response Network
ADSNNet	Disease Surveillance Network
AMDA	Association of Medical Doctors of Asia
ARC	Australian Red Cross
ARF	ASEAN Regional Forum
ASEAN	Association of Southeast Asian Nations
ASTAE	Asia Sustainable and Alternative Energy Program
ATC	Air Traffic Control
ATPL	Airline Transport Pilot Licence Course
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
CBDRM	Community Based Disaster Risk Management
CBOs	Community Based Organizations
CONGO	Conference of NGO's in Consultative Relationship with the United Nations
COP	Conference of Parties
CPL	Commercial Pilot Licence
CWS-ASIA/ Pacific	Church World Service-Asia/Pacific
DBE	Department of Basic Education
DFID	UK Department for International Development
DHE	Department of Higher Education
DM	Disaster Management
DMH	Department of Meteorology and Hydrology
DMTC	Disaster Management Training Centre
DPs	Development Partners
DPWC	Development Partners Working Committee
DRC	Danish Red Cross
DRR	Disaster Risk Reduction
DRRWG	Disaster Risk Reduction Working Group
DSW	Social Welfare Department
EAS	East Asia Summit
EITI	Extractive Industries Transparency Initiative
EOC	Emergency Operations Center

Acronym	Definition
EPD	Education for Peace and Development
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
ESMAP	Energy Sector Management Assistance Program
EU	European Union
EWARS	Early Warning and Response System
FAMCC	Foreign Aid Management Central Committee
FAMWC	Foreign Aid Management Working Committee
FAO	Food and Agriculture Organization of the United Nations
FERD	Foreign Economic Relations Department
FRC	French Red Cross
G-77	Group of 77
GAD	General Administration Department
GMS	Greater Mekong Sub Region
GNI	Good Neighbors International
GoM	Government of Myanmar
GRET	Groupe de Recherche et d' Exchanges Technologique
HADR	Humanitarian Assistance and Disaster Response
HAK	HelpAge Korea
HAP	Humanitarian Accountability Partnership International
HCT	Humanitarian Country Team
HFA	Hyogo Framework for Action
HQs	Head Quarters
HRP	Humanitarian Response Plan
IAEA	International Atomic Energy Agency
IBRD	International Bank for Reconstruction and Development-World Bank
ICAO	International Civil Aviation Organization
ICRM	Institute of Certified Records Managers
ICVA	International Council of Voluntary Agencies
IDA	International Development Association- World Bank
IDPs	Internally Displaced Persons
IFAD	International Foodservice Distributors Association
IFC	International Finance Corporation-World Bank Group
IFRC	International Federation of Red Cross Red Crescent Societies
IFRCS	International Federation of the Red Cross and Red Crescent
IHD	International Health Division
IHR	International Health Regulations
IHO	International Hydrographic Organization
ILO	International Labor Organization
IMF	International Monetary Fund
IMO	International Maritime Organization
Interpol	International Criminal Police Commission
IOC	International Olympic Committee
IOM	International Organization for Migration
IPRD	Information and Public Relations Department

Acronym	Definition
IPU	Inter-Parliamentary Union
ISDR	International Strategy for Disaster Reduction
ISO	International Organization for Standardization (correspondent)
ITU	International Telecommunication Union
ITUC	International Trade Union Confederation
LDC	Least Developed Country
MAI	Ministry of Agriculture and Irrigation
MAS	Myanmar Agriculture Service
MBDS	Mekong Basin Disease Surveillance
MCDF	Myanmar Development Cooperation Forum
MDCF	Myanmar Development Cooperation Forums
MDG	Millennium Development Goal
MDM	Médecins Du Monde
MERB	Myanmar Educational Research Bureau
MERLIN	Medical Emergency Relief International
MHDO	Myanmar Heart Development Organization
MNPED	Ministry of National Planning and Economic Development
MOAI	Ministry of Agriculture, Livestock and Irrigation
MOBA	Ministry of Border Affairs
MOC	Ministry of Commerce
MoE	Ministry of Education
MORA	Ministry of Religious Affairs and Culture
MoHA	Ministry of Home Affairs
MOT	Ministry of Transportation and Communications
MoSWWRR	Ministry of Social Welfare, Relief and Resettlement
MRCs	Myanmar Red Cross Society
MoU	Memorandum of Understanding
MRTV	Myanmar Radio and Television
MSF-CH	Médecins Sans Frontières – Switzerland
MSI-M	Marie Stopes International Myanmar
MSW	Ministry of Social Welfare
MT	Metric Tons
NAM	Non-Aligned Movement
NCA	National Ceasefire Agreement
NDMC	National Disaster Management Central Committee
NDMC	National Disaster Management Center
NEEC	National Electrification Executive Committee
NESAC	National Economic and Social Advisory Council
NGOs	Non-Government Organizations
NHP	National Health Plan
NLD	National League for Democracy
NNDMC	National Natural Disaster Management Committee

Acronym	Definition
NPA	Norwegian People's Aid
NPE	News and Periodicals Enterprise
NRC	Norwegian Refugee Council
OCHA or UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
OFDA	Office of U.S. Foreign Disaster Assistance
OPCW	Organization for the Prohibition of Chemical Weapons
OPSHG	Older People Self-Help Group
PCF	Pestalozzi Children's Foundation
PCR	Polymerase Chain Reaction
PPE	Printing and Publishing Enterprise
RCG	Regional Consultative Group
RRD	Relief and Resettlement Department
RS-GIS	Remote and Geographic Information System
SAARC	South Asian Association for Regional Cooperation
SDS	Sustainable Development Goals
SVS	Social Vision Services
SWG _s	Sector Working Groups
SWISSAID	Swiss Foundation for Development Cooperation
TDH Italia	Terre des hommes Italia
TDH-L	The Foundation Terre Des Homes, Lausanne
UK DFID	UK Department for International Development
UN	United Nations
UN ECOSOC	United Nations Economic & Social Council
UNCIEF	United Nations Children's Fund
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	United Nations High Commission for Refugees
UNIDO	United Nations Industrial Development Organization
UNWTO	United Nations World Trade Organization
UPU	Universal Postal Union
USAID	United States Agency for International Development
USG	United States Government
WASH	Water, Sanitation and Hygiene Interventions
WB	World Bank
WCO	World Customs Organization
WFP	World Food Program
WHO	World Health Organization
WHO/WPRO	World Health Organization Regional Office for the Western Pacific
WIPO	World Intellectual Property Organization
WMO	World Meteorological Organization
WTO	World Trade Organization

References (Endnotes)

- ¹ Statistical Yearbook for Asia and the Pacific 2014, Economic and Social Commission for Asia and the Pacific (UNESCAP), <http://www.unescap.org/resources/statistical-yearbook-asia-and-pacific-2014>; The Asia-Pacific Disaster Report 2015, UNESCAP, <http://www.unescap.org/resources/asia-pacific-disaster-report-2015>
- ² Asia-Pacific Disaster Report 2015. UNESCAP. <http://www.unescap.org/resources/asia-pacific-disaster-report-2015>
- ³ Asia-Pacific Disaster Report 2015. UNESCAP. <http://www.unescap.org/resources/asia-pacific-disaster-report-2015>
- ⁴ BBC News Services. 2016. "Myanmar Country Profile." <http://www.bbc.com/news/world-asia-pacific-12990563>
- ⁵ One World Nations Online. 2016. "Myanmar- Burma." <http://www.nationsonline.org/oneworld/myanmar.htm>
- ⁶ Asia-Pacific on NBC News.com. Cyclone Nargis embodied the 'perfect storm'. May 8, 2008. http://www.nbcnews.com/id/24526960/ns/world_news-asia_pacific/t/cyclone-nargis-embodied-perfect-storm/#.WHP3uXp1xhE
- ⁷ Humanitarian Practice Network (HPN) Negotiating humanitarian access to cyclone-affected areas of Myanmar: a review. J. Belanger and R. Horsey. December 2008. <http://odihpn.org/magazine/negotiating-humanitarian-access-to-cyclone-affected-areas-of-myanmar-a-review/>
- ⁸ World Vision. 2016. "Myanmar." <http://www.wvi.org/myanmar>
- ⁹ One World Nations Online. 2016. "Myanmar- Burma." <http://www.nationsonline.org/oneworld/myanmar.htm>
- ¹⁰ World Vision. 2016. "Myanmar." <http://www.wvi.org/myanmar>
- ¹¹ BBC News Services. 2016. "Myanmar Country Profile." <http://www.bbc.com/news/world-asia-pacific-12990563>
- ¹² Index Mundi. 2016. "Burma Demographics Profile-2016." http://www.indexmundi.com/burma/demographics_profile.html
- ¹³ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ¹⁴ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ¹⁵ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ¹⁶ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ¹⁷ Photo source. Embassy of the Republic of the Union of Myanmar. Washington D.C. 2016. <http://www.mewashingtondc.com/>
- ¹⁸ Myanmar Travel. <http://myanmartravel.org/culture.html>
- ¹⁹ Lonely Planet. Myanmar (Burma). M. Clark and J. Cummings. 7th Edition. 2000.
- ²⁰ Myanmar Travel. <http://myanmartravel.org/culture.html>
- ²¹ Go-Myanmar.com: The comprehensive Myanmar(Burma) travel website. Museums, markets, art, and relaxation in Yangon. <http://www.go-myanmar.com/museums-markets-and-art>
- ²² Facts about Myanmar. Ministry of Hotels & Tourism. <http://www.myanmar-tourism.org/index.php/about-myanmar/geography#culture>
- ²³ Photo source. Bayer, Werner. 2016. "Myanmar Yangon Thanlyn. Public Domain. <https://www.flickr.com/photos/wbayercom/26365450382>
- ²⁴ Burma: Final Census Results Released, Sans Ethnic and Religious Data. May 29, 2015. Yen Saning. <http://www.irrawaddy.com/news/burma/final-census-results-released-sans-ethnic-and-religious-data.html>
- ²⁵ The 2014 Myanmar Population and Housing Census. Highlights of the Main Results Department of Population Ministry of Immigration and Population. May 2015. Census Report Volume 2. A The Republic Of The Union Of Myanmar <http://myanmar.unfpa.org/sites/asiapacific/files/pub-pdf/Census%20Highlights%20Report%20-%20ENGLISH%20%281%29.pdf>
- ²⁶ The 2014 Myanmar Population and Housing Census. Highlights of the Main Results Department of Population Ministry of Immigration and Population. May 2015. Census Report Volume 2. A The Republic Of The Union Of Myanmar. <http://myanmar.unfpa.org/sites/asiapacific/files/pub-pdf/Census%20Highlights%20Report%20-%20ENGLISH%20%281%29.pdf>
- ²⁷ Essential information and tips. Go-Myanmar.com. <http://www.go-myanmar.com/language-place-names-and-peoples-names>
- ²⁸ The 2014 Myanmar Population and Housing Census. Highlights of the Main Results Department of Population Ministry of Immigration and Population. May 2015. Census Report Volume 2.C. The Republic Of The Union Of Myanmar. http://myanmar.unfpa.org/sites/asiapacific/files/pub-pdf/UNION_2-C_religion_EN_0.pdf
- ²⁹ Photo source. Bayer, Werner. 2016. "Myanmar Yangon Shwedagon." Public Domain. <https://www.flickr.com/photos/wbayercom/25839776493>
- ³⁰ Photo source. Bayer, Werner. 2016. "Myanmar Yangon Shwedagon." Public Domain. <https://www.flickr.com/photos/wbayercom/25839776493>
- ³¹ South, A. and Jolliffe. 2015. New issues in refugee research: Forced migration and the Myanmar peace process. United Nations Higher Commission for Refugees, Research Paper No. 274. <http://www.unhcr.org/en-us/research/working/54f588cb9/forced-migration-myanmar-peace-process-ashley-south-kim-jolliffe.html>. ISSN 1020-7473

- ³² South, A. and Jolliffe. 2015. New issues in refugee research: Forced migration and the Myanmar peace process. United Nations Higher Commission for Refugees, Research Paper No. 274. <http://www.unhcr.org/en-us/research/working/54f588cb9/forced-migration-myanmar-peace-process-ashley-south-kim-jolliffe.html>. ISSN 1020-7473
- ³³ UN OCHA. 2016. "Myanmar: snapshot of humanitarian issues." <http://reliefweb.int/report/myanmar/myanmar-snapshot-humanitarian-issues-31-march-2016>
- ³⁴ UN OCHA. 2016. "Myanmar: snapshot of humanitarian issues." <http://reliefweb.int/report/myanmar/myanmar-snapshot-humanitarian-issues-31-march-2016>
- ³⁵ UN OCHA. 2016. "Myanmar: snapshot of humanitarian issues." <http://reliefweb.int/report/myanmar/myanmar-snapshot-humanitarian-issues-31-march-2016>
- ³⁶ International Office of Migration. 2016. "Myanmar." <https://www.iom.int/countries/myanmar>
- ³⁷ International Office of Migration. 2016. "Myanmar." <https://www.iom.int/countries/myanmar>
- ³⁸ International Office of Migration. 2016. "Myanmar." <https://www.iom.int/countries/myanmar>
- ³⁹ UN OCHA. 2016. "Myanmar: snapshot of humanitarian issues." <http://reliefweb.int/report/myanmar/myanmar-snapshot-humanitarian-issues-31-march-2016>
- ⁴⁰ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ⁴¹ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ⁴² Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ⁴³ Republic of the Union of Myanmar. Ministry of Foreign Affairs. "Introduction to Myanmar." http://www.mofa.gov.mm/?page_id=12
- ⁴⁴ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ⁴⁵ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ⁴⁶ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ⁴⁷ Central Statistical Organization. Myanmar Statistical Information Service. Ministry of Planning and Finance. "Myanmar in Brief." 2015. <http://www.csostatat.gov.mm/Myanmar.asp>
- ⁴⁸ Central Statistical Organization. Myanmar Statistical Information Service. Ministry of Planning and Finance. "Myanmar in Brief." 2015. <http://www.csostatat.gov.mm/Myanmar.asp>
- ⁴⁹ Central Statistical Organization. Myanmar Statistical Information Service. Ministry of Planning and Finance. "Myanmar in Brief." 2015. <http://www.csostatat.gov.mm/Myanmar.asp>
- ⁵⁰ Operation World. "Map of Myanmar." <http://www.operationworld.org/myan>
- ⁵¹ Operation World. "Map of Myanmar." <http://www.operationworld.org/myan>
- ⁵² Central Statistical Organization. Myanmar Statistical Information Service. Ministry of Planning and Finance. "Myanmar in Brief." 2015. <http://www.csostatat.gov.mm/Myanmar.asp>
- ⁵³ Reliefweb. 2016. Myanmar: Natural disaster risks and past events (as of 31 May 2016). <http://reliefweb.int/map/myanmar/myanmar-natural-disaster-risks-and-past-events-31-may-2016>
- ⁵⁴ Photo source. Metamorfa Studio. 2015. "The many thousand temples of Bagan, Myanmar." Public Domain. <https://www.flickr.com/photos/metamorfastudio/20427259385>
- ⁵⁵ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ⁵⁶ Reliefweb. 2016. Myanmar: Natural disaster risks and past events (as of 31 May 2016). <http://reliefweb.int/map/myanmar/myanmar-natural-disaster-risks-and-past-events-31-may-2016>
- ⁵⁷ Reliefweb. 2016. Myanmar: Natural disaster risks and past events (as of 31 May 2016). <http://reliefweb.int/map/myanmar/myanmar-natural-disaster-risks-and-past-events-31-may-2016>
- ⁵⁸ International Federation of Red Cross and Red Crescent Societies. Myanmar: Floods - DREF operation update n1 (MDRMM007). October 4 2016. Relief Web. <http://reliefweb.int/report/myanmar/myanmar-floods-dref-operation-update-n-1-mdrmm007>
- ⁵⁹ Reliefweb. 2016. Disasters. "Myanmar." <http://reliefweb.int/disasters?country=165#content>
- ⁶⁰ Reliefweb. 2016. Disasters. "Myanmar." <http://reliefweb.int/disasters?country=165#content>
- ⁶¹ Reliefweb. 2016. Disasters. "Myanmar." <http://reliefweb.int/disasters?country=165#content>
- ⁶² Reliefweb. 2016. Disasters. "Myanmar." <http://reliefweb.int/disasters?country=165#content>
- ⁶³ Reliefweb. 2016. Disasters. "Myanmar." <http://reliefweb.int/disasters?country=165#content>
- ⁶⁴ Reliefweb. 2016. Disasters. "Myanmar." <http://reliefweb.int/disasters?country=165#content>
- ⁶⁵ Reliefweb. 2016. Disasters. "Myanmar." <http://reliefweb.int/disasters?country=165#content>
- ⁶⁶ Reliefweb. 2016. Disasters. "Myanmar." <http://reliefweb.int/disasters?country=165#content>
- ⁶⁷ UN OCHA. 2012. "Myanmar: Natural Disasters 2002-2012." <http://reliefweb.int/map/myanmar/myanmar-natural-disasters-2002-2012>

- ⁶⁸ UN OCHA. 2012. “Myanmar: Natural Disasters 2002-2012.” <http://reliefweb.int/map/myanmar/myanmar-natural-disasters-2002-2012>
- ⁶⁹ UN OCHA. 2012. “Myanmar: Natural Disasters 2002-2012.” <http://reliefweb.int/map/myanmar/myanmar-natural-disasters-2002-2012>
- ⁷⁰ UN OCHA. 2012. “Myanmar: Natural Disasters 2002-2012.” <http://reliefweb.int/map/myanmar/myanmar-natural-disasters-2002-2012>
- ⁷¹ The London School of Economics and Political Science: <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/myanmar/>
- ⁷² UnHabitat: http://www.fukuoka.unhabitat.org/projects/myanmar/detail10_en.html
- ⁷³ The London School of Economics and Political Science: <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/myanmar/>
- ⁷⁴ The London School of Economics and Political Science: <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/myanmar/>
- ⁷⁵ CIA World Fact Book: <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ⁷⁶ Food and Agriculture Organization of the United Nations: <http://www.fao.org/myanmar/news/detail-events/en/c/408987/>
- ⁷⁷ Mongabay: <http://rainforests.mongabay.com/20myanmar.htm>
- ⁷⁸ IRIN. Loss of mangrove forests exacerbates cyclone deaths. May 16, 2008. <http://www.irinnews.org/feature/2008/05/16/loss-mangrove-forests-exacerbates-cyclone-deaths>
- ⁷⁹ U.S. Department of State: <https://travel.state.gov/content/studentsabroad/en/beforeyougo/csi/burma.html>
- ⁸⁰ Today Tourism: <http://www.todaytourism.com/travel-guides/Crime-in-Myanmar.html>
- ⁸¹ SES Professionals: <http://sesprofessionals.com/overview-of-myanmars-mining-industry/>
- ⁸² United Nations: <http://www.un.org/apps/news/story.asp?NewsID=52838#.WEdV02IrJhE>
- ⁸³ Asian Disaster Reduction Center. Country Report of Myanmar. 2014. Relief and Resettlement Department. Ministry of Social Welfare. Republic of the Union of Myanmar. http://www.adrc.asia/countryreport/MMR/2014/FY2014A_MMR_CR.pdf
- ⁸⁴ Regional Consultative Group. 2016. “Humanitarian civil-military coordination in emergencies: Towards a predictable model.” Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ⁸⁵ National Disaster Management Law. 2013. Paragraph 15 (g).
- ⁸⁶ Col Nay Myo Hlaing. “National Civil-Military Coordination System in Myanmar.” Presentation to 15th ASEAN Regional Forum. Intersessional Meeting on Disaster Relief. Nay PYI Taw, Myanmar. 25-26 February 2016.
- ⁸⁷ Regional Consultative Group. 2016. “Humanitarian civil-military coordination in emergencies: Towards a predictable model.” Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ⁸⁸ Regional Consultative Group. 2016. “Humanitarian civil-military coordination in emergencies: Towards a predictable model.” Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ⁸⁹ Regional Consultative Group. 2016. “Humanitarian civil-military coordination in emergencies: Towards a predictable model.” Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ⁹⁰ Regional Consultative Group. 2016. “Humanitarian civil-military coordination in emergencies: Towards a predictable model.” Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ⁹¹ Asian Disaster Reduction Center. Country Report of Myanmar. 2014. Relief and Resettlement Department. Ministry of Social Welfare. Republic of the Union of Myanmar. http://www.adrc.asia/countryreport/MMR/2014/FY2014A_MMR_CR.pdf
- ⁹² Asian Disaster Reduction Center. Country Report of Myanmar. 2014. Relief and Resettlement Department. Ministry of Social Welfare. Republic of the Union of Myanmar. http://www.adrc.asia/countryreport/MMR/2014/FY2014A_MMR_CR.pdf
- ⁹³ Thein, Sithu. 2016. Introduction to Myanmar. PDF.
- ⁹⁴ Asian Disaster Reduction Center. Country Report of Myanmar. 2014. Relief and Resettlement Department. Ministry of Social Welfare. Republic of the Union of Myanmar. http://www.adrc.asia/countryreport/MMR/2014/FY2014A_MMR_CR.pdf
- ⁹⁵ Thein, Sithu. 2016. Introduction to Myanmar. PDF.
- ⁹⁶ Asian Disaster Reduction Center. Country Report of Myanmar. 2014. Relief and Resettlement Department. Ministry of Social Welfare. Republic of the Union of Myanmar. http://www.adrc.asia/countryreport/MMR/2014/FY2014A_MMR_CR.pdf
- ⁹⁷ Asian Disaster Reduction Center. Country Report of Myanmar. 2014. Relief and Resettlement Department. Ministry of Social Welfare. Republic of the Union of Myanmar. http://www.adrc.asia/countryreport/MMR/2014/FY2014A_MMR_CR.pdf
- ⁹⁸ Asian Disaster Reduction Center. Country Report of Myanmar. 2014. Relief and Resettlement Department. Ministry of Social Welfare. Republic of the Union of Myanmar. http://www.adrc.asia/countryreport/MMR/2014/FY2014A_MMR_CR.pdf
- ⁹⁹ Reliefweb. 2016. Myanmar: Natural disaster risks and past events (as of 31 May 2016). <http://reliefweb.int/map/myanmar/myanmar-natural-disaster-risks-and-past-events-31-may-2016>

- ¹⁰⁰ Asian Disaster Reduction Center. Country Report of Myanmar. 2014. Relief and Resettlement Department. Ministry of Social Welfare. Republic of the Union of Myanmar. http://www.adrc.asia/countryreport/MMR/2014/FY2014A_MMR_CR.pdf
- ¹⁰¹ ACDM. 2016. ASEAN Committee on Disaster Management. <http://www.ahacentre.org/content/acdm>
- ¹⁰² ADRC. 2016. Asian Disaster Reduction Center. Mission and Objectives. <http://www.adrc.asia/aboutus/index.php>
- ¹⁰³ Prevention Web. 2011. "National progress report on the implementation of the Hyogo Framework for Action (2009-2011)-interim." http://www.preventionweb.net/files/16315_mmr_NationalHFAprogress_2009-11.pdf
- ¹⁰⁴ Myanmar Information Management Unit. 2016. Community Based Disaster Preparedness and Risk Reduction. http://reliefweb.int/sites/reliefweb.int/files/resources/3WMap_Countrywide_SubSector_VT_CBDRR_MIMU932v04_12Oct2016_A4_0.pdf
- ¹⁰⁵ Government of Myanmar. 2012. Directory of International Non-Governmental Organizations in Myanmar. <http://www.oilseedcrops.org/wp-content/uploads/2014/04/Directory-of-International-Non-Governmental-Organizations-in-Myanmar.pdf>
- ¹⁰⁶ USAID. 2016. <https://www.usaid.gov/burma/our-work>
- ¹⁰⁷ USAID. 2016. Burma-Complex Emergency. Fact Sheet #4. <http://reliefweb.int/sites/reliefweb.int/files/resources/09.30.16%20-%20USAID-DCHA%20Burma%20Complex%20Emergency%20Fact%20Sheet%20%234.pdf>
- ¹⁰⁸ USAID. 2016. Active USG Programs for the Burma Response. <http://reliefweb.int/sites/reliefweb.int/files/resources/09.30.16%20-%20USAID-DCHA%20Burma%20Complex%20Emergency%20Program%20Map.pdf>
- ¹⁰⁹ UNICEF. 2016. <https://www.unicef.org/myanmar/overview.html>
- ¹¹⁰ OCHA. 2016. <http://www.unocha.org/myanmar/about-ocha-myanmar/about-ocha-myanmar>
- ¹¹¹ World Food Program. <https://www.wfpusa.org/countries/myanmar/>
- ¹¹² Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ¹¹³ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ¹¹⁴ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ¹¹⁵ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ¹¹⁶ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ¹¹⁷ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ¹¹⁸ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ¹¹⁹ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ¹²⁰ Win Htein Kyaw. 2016. Lessons Learnt from 2015 Flood Response Operation in Myanmar. PowerPoint Presentation.
- ¹²¹ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ¹²² Asian Disaster Reduction Center. Country Report of Myanmar. 2014. Relief and Resettlement Department. Ministry of Social Welfare. Republic of the Union of Myanmar. http://www.adrc.asia/countryreport/MMR/2014/FY2014A_MMR_CR.pdf
- ¹²³ Myanmar WMO. Myanmar Department of Meteorology and Hydrology Country Report for 39th Session of Panel on Cyclone. <https://www.wmo.int/pages/prog/www/tcp/documents/Myanmar.doc>
- ¹²⁴ Myanmar WMO. Myanmar Department of Meteorology and Hydrology Country Report for 39th Session of Panel on Cyclone. <https://www.wmo.int/pages/prog/www/tcp/documents/Myanmar.doc>
- ¹²⁵ Myanmar WMO. Myanmar Department of Meteorology and Hydrology. Country Report for 39th Session of Panel on Cyclone. <https://www.wmo.int/pages/prog/www/tcp/documents/Myanmar.doc>
- ¹²⁶ Asian Disaster Reduction Center. Country Report of Myanmar. 2014. Relief and Resettlement Department. Ministry of Social Welfare. Republic of the Union of Myanmar. http://www.adrc.asia/countryreport/MMR/2014/FY2014A_MMR_CR.pdf
- ¹²⁷ Relief Web. 2014. "Myanmar storm warnings get better." <http://reliefweb.int/report/myanmar/myanmar-storm-warnings-get-better>
- ¹²⁸ Development Assistance Coordination Unit Holds First Meeting with Cooperation Partners Group. The Republic of the Union of Myanmar State Counsellor Office. 12/13/2016. <http://www.statecounsellor.gov.mm/en/node/492>

- ¹²⁹ Asian Disaster Reduction Center. Country Report of Myanmar. 2014. Relief and Resettlement Department. Ministry of Social Welfare. Republic of the Union of Myanmar. http://www.adrc.asia/countryreport/MMR/2014/FY2014A_MMR_CR.pdf
- ¹³⁰ Myanmar WMO. Myanmar Department of Meteorology and Hydrology Country Report for 39th Session of Panel on Cyclone. <https://www.wmo.int/pages/prog/www/tcp/documents/Myanmar.doc>
- ³¹ Myanmar WMO. Myanmar Department of Meteorology and Hydrology Country Report for 39th Session of Panel on Cyclone. <https://www.wmo.int/pages/prog/www/tcp/documents/Myanmar.doc>
- ¹³² Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ¹³³ Col Nay Myo Hlaing. "National Civil-Military Coordination System in Myanmar." Presentation to 15th ASEAN Regional. Forum Inter-sessional Meeting on Disaster Relief. Nay PYI Taw, Myanmar. 25-26 February 2016.
- ¹³⁴ Col Nay Myo Hlaing. "National Civil-Military Coordination System in Myanmar." Presentation to 15th ASEAN Regional. Forum Inter-sessional Meeting on Disaster Relief. Nay PYI Taw, Myanmar. 25-26 February 2016.
- ¹³⁵ Foreign Economic Relations Department. Ministry of National Planning and Economic Development. 2014. Guide to International Assistance in Myanmar. Retrieved from: http://www.mmsis.gov.mm/sub_menu/statistics/fileDb.jsp?code_code=011
- ¹³⁶ Foreign Economic Relations Department. Ministry of National Planning and Economic Development. 2014. Guide to International Assistance in Myanmar. Retrieved from: http://www.mmsis.gov.mm/sub_menu/statistics/fileDb.jsp?code_code=011
- ¹³⁷ Foreign Economic Relations Department. Ministry of National Planning and Economic Development. 2014. Guide to International Assistance in Myanmar. Retrieved from: http://www.mmsis.gov.mm/sub_menu/statistics/fileDb.jsp?code_code=011
- ¹³⁸ Development Assistance Coordination Unit Holds First Meeting with Cooperation Partners Group. The Republic of the Union of Myanmar State Counsellor Office. 12/13/2016. <http://www.statecounsellor.gov.mm/en/node/492>
- ¹³⁹ Foreign Economic Relations Department. Ministry of National Planning and Economic Development. 2014. Guide to International Assistance in Myanmar. Retrieved from: http://www.mmsis.gov.mm/sub_menu/statistics/fileDb.jsp?code_code=011
- ¹⁴⁰ Foreign Economic Relations Department. Ministry of National Planning and Economic Development. 2014. Guide to International Assistance in Myanmar. Retrieved from: http://www.mmsis.gov.mm/sub_menu/statistics/fileDb.jsp?code_code=011
- ¹⁴¹ Foreign Economic Relations Department. Ministry of National Planning and Economic Development. 2014. Guide to International Assistance in Myanmar. Retrieved from: http://www.mmsis.gov.mm/sub_menu/statistics/fileDb.jsp?code_code=011
- ¹⁴² Foreign Economic Relations Department. Ministry of National Planning and Economic Development. 2014. Guide to International Assistance in Myanmar. Retrieved from: http://www.mmsis.gov.mm/sub_menu/statistics/fileDb.jsp?code_code=011
- ¹⁴³ Myanmar Information Management Unit. 2016. Joint Coordination Structure Overview. http://www.themimu.info/sites/themimu.info/files/documents/Ref_Doc_Joint_Coordination_Structure_Overview.pdf
- ¹⁴⁴ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Logistics Infrastructure. Myanmar Aviation. <http://dlca.logcluster.org/display/public/DLCA/2.2+Myanmar+Aviation>
- ¹⁴⁵ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Logistics Infrastructure. Myanmar Aviation. <http://dlca.logcluster.org/display/public/DLCA/2.2+Myanmar+Aviation>
- ¹⁴⁶ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Logistics Infrastructure. Myanmar Aviation. <http://dlca.logcluster.org/display/public/DLCA/2.2+Myanmar+Aviation>
- ¹⁴⁷ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Logistics Infrastructure. Myanmar Aviation. <http://dlca.logcluster.org/display/public/DLCA/2.2+Myanmar+Aviation>
- ¹⁴⁸ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Myanmar Port Assessment. <http://dlca.logcluster.org/display/public/DLCA/2.1+Myanmar+Port+Assessment>
- ¹⁴⁹ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Myanmar Port Assessment. <http://dlca.logcluster.org/display/public/DLCA/2.1+Myanmar+Port+Assessment>
- ¹⁵⁰ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Myanmar Road Network. <http://dlca.logcluster.org/display/public/DLCA/2.3+Myanmar+Road+Network>
- ¹⁵¹ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Myanmar Road Network. <http://dlca.logcluster.org/display/public/DLCA/2.3+Myanmar+Road+Network>
- ¹⁵² Photo Source. Bayer, Werner. 2016. "Myanmar Yangon Shwedagon." Public Domain. <https://www.flickr.com/photos/wbayercom/26442765885>

- ¹⁵³ Central Statistical Organization. 2014. Myanmar Statistical Information Service. Statistical Data. Union of Myanmar Arterial Highways by Region and State. http://www.mmsis.gov.mm/sub_menu/statistics/search.jsp
- ¹⁵⁴ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Myanmar Railway Assessment. <http://dlca.logcluster.org/display/public/DLCA/2.4+Myanmar+Railway+Assessment>
- ¹⁵⁵ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Myanmar Railway Assessment. <http://dlca.logcluster.org/display/public/DLCA/2.4+Myanmar+Railway+Assessment>
- ¹⁵⁶ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ¹⁵⁷ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ¹⁵⁸ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Myanmar Waterways Assessment. <http://dlca.logcluster.org/display/public/DLCA/2.5+Myanmar+Waterways+Assessment>
- ¹⁵⁹ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Myanmar Waterways Assessment. <http://dlca.logcluster.org/display/public/DLCA/2.5+Myanmar+Waterways+Assessment>
- ¹⁶⁰ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Myanmar Waterways Assessment. <http://dlca.logcluster.org/display/public/DLCA/2.5+Myanmar+Waterways+Assessment>
- ¹⁶¹ Photo source: Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. Public domain photo retrieved from: <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>
- ¹⁶² StateUniversity.com. Global Education Reference. Myanmar - History Background, Educational System—overview, Administration, Finance, Educational Research, Teaching Profession, Summary. <http://education.stateuniversity.com/pages/1037/Myanmar-EDUCATIONAL-SYSTEM-OVERVIEW.html#ixzz4S5mIwCnQ>
- ¹⁶³ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Myanmar Telecommunications. <http://dlca.logcluster.org/display/public/DLCA/3.5+Myanmar+Telecommunications>
- ¹⁶⁴ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Myanmar Telecommunications. <http://dlca.logcluster.org/display/public/DLCA/3.5+Myanmar+Telecommunications>
- ¹⁶⁵ Logistics Capacity Assessment. 2014. Republic of the Union of Myanmar. Myanmar Telecommunications. <http://dlca.logcluster.org/display/public/DLCA/3.5+Myanmar+Telecommunications>
- ¹⁶⁶ World Bank Group. 2016. Energizing Myanmar: Enhancing Access to Sustainable Energy for All. World Bank, Washington, DC. World Bank. <https://openknowledge.worldbank.org/handle/10986/23759> License: CC BY 3.0 IGO.
- ¹⁶⁷ World Bank. 2015. “Electricity to transform rural Myanmar.” <http://www.worldbank.org/en/news/feature/2015/09/16/electricity-to-transform-rural-myanmar>
- ¹⁶⁸ World Bank. 2015. “Electricity to transform rural Myanmar.” <http://www.worldbank.org/en/news/feature/2015/09/16/electricity-to-transform-rural-myanmar>
- ¹⁶⁹ World Bank Group. 2016. Energizing Myanmar: Enhancing Access to Sustainable Energy for All. World Bank, Washington, DC. World Bank. <https://openknowledge.worldbank.org/handle/10986/23759> License: CC BY 3.0 IGO.
- ¹⁷⁰ World Bank. 2015. “Electricity to transform rural Myanmar.” <http://www.worldbank.org/en/news/feature/2015/09/16/electricity-to-transform-rural-myanmar>
- ¹⁷¹ World Bank. 2015. “Electricity to transform rural Myanmar.” <http://www.worldbank.org/en/news/feature/2015/09/16/electricity-to-transform-rural-myanmar>
- ¹⁷² World Bank. 2015. “Electricity to transform rural Myanmar.” <http://www.worldbank.org/en/news/feature/2015/09/16/electricity-to-transform-rural-myanmar>
- ¹⁷³ World Bank. 2015. “Electricity to transform rural Myanmar.” <http://www.worldbank.org/en/news/feature/2015/09/16/electricity-to-transform-rural-myanmar>
- ¹⁷⁴ World Bank. 2015. “Electricity to transform rural Myanmar.” <http://www.worldbank.org/en/news/feature/2015/09/16/electricity-to-transform-rural-myanmar>
- ¹⁷⁵ World Bank Group. 2016. Energizing Myanmar: Enhancing Access to Sustainable Energy for All. World Bank, Washington, DC. World Bank. <https://openknowledge.worldbank.org/handle/10986/23759> License: CC BY 3.0 IGO.
- ¹⁷⁶ WaterAid: Australia. Myanmar. <http://www.wateraid.org/au/where-we-work/page/myanmar>
- ¹⁷⁷ USAID. Burma-Complex Emergency Fact Sheet #4, Fiscal Year 2016, September 30, 2016. https://www.usaid.gov/sites/default/files/documents/1866/burma_ce_fs04_09-30-2016.pdf
- ¹⁷⁸ Photo by Brian Heidel. USAID. Displaced children using a water pump in Rakhine, State, Burma. Webpage last updated October, 26, 2016. <https://www.usaid.gov/crisis/burma>
- ¹⁷⁹ WaterAid: Australia. Myanmar. <http://www.wateraid.org/au/where-we-work/page/myanmar>

- ¹⁸⁰ World Health Organization. 2014. UN-water global analysis and assessment of sanitation and drinking water. http://www.who.int/water_sanitation_health/monitoring/investments/myanmar-10-nov.pdf
- ¹⁸¹ World Health Organization. 2014. UN-water global analysis and assessment of sanitation and drinking water. http://www.who.int/water_sanitation_health/monitoring/investments/myanmar-10-nov.pdf
- ¹⁸² World Health Organization. 2014. UN-water global analysis and assessment of sanitation and drinking water. http://www.who.int/water_sanitation_health/monitoring/investments/myanmar-10-nov.pdf
- ¹⁸³ World Health Organization. 2014. UN-water global analysis and assessment of sanitation and drinking water. http://www.who.int/water_sanitation_health/monitoring/investments/myanmar-10-nov.pdf
- ¹⁸⁴ World Health Organization. 2014. UN-water global analysis and assessment of sanitation and drinking water. http://www.who.int/water_sanitation_health/monitoring/investments/myanmar-10-nov.pdf
- ¹⁸⁵ World Health Organization. 2014. UN-water global analysis and assessment of sanitation and drinking water. http://www.who.int/water_sanitation_health/monitoring/investments/myanmar-10-nov.pdf
- ¹⁸⁶ WaterAid Australia Annual Report. 2015/2016. <http://www.wateraid.org/au/who-we-are/annual-reports>
- ¹⁸⁷ World Health Organization. 2014. UN-water global analysis and assessment of sanitation and drinking water. http://www.who.int/water_sanitation_health/monitoring/investments/myanmar-10-nov.pdf
- ¹⁸⁸ WHO Country Cooperation Strategy Myanmar 2014–2018. World Health Organization Country Office for Myanmar. 2014. http://www.searo.who.int/myanmar/CCS_Myanmar.pdf?ua=1
- ¹⁸⁹ WHO Country Cooperation Strategy Myanmar 2014–2018. World Health Organization Country Office for Myanmar. 2014. http://www.searo.who.int/myanmar/CCS_Myanmar.pdf?ua=1
- ¹⁹⁰ WHO Country Cooperation Strategy Myanmar 2014–2018. World Health Organization Country Office for Myanmar. 2014. http://www.searo.who.int/myanmar/CCS_Myanmar.pdf?ua=1
- ¹⁹¹ WHO Country Cooperation Strategy Myanmar 2014–2018. World Health Organization Country Office for Myanmar. 2014. http://www.searo.who.int/myanmar/CCS_Myanmar.pdf?ua=1
- ¹⁹² Ministry of Health. Health in Myanmar 2012. Nay Pyi Taw, 2012
- ¹⁹³ Myanmar. Burnet Institute. https://www.burnet.edu.au/system/asset/file/2383/BURNET11_Myanmar_web_sm.pdf
- ¹⁹⁴ Myanmar (Burma) health challenges. Burnet Institute. https://www.burnet.edu.au/countries/2_myanmar_burma
- ¹⁹⁵ Ministry of Health. Health in Myanmar 2012. Nay Pyi Taw, 2012
- ¹⁹⁶ WHO Country Cooperation Strategy Myanmar 2014–2018. World Health Organization Country Office for Myanmar. 2014. http://www.searo.who.int/myanmar/CCS_Myanmar.pdf?ua=1
- ¹⁹⁷ WHO Country Cooperation Strategy Myanmar 2014–2018. World Health Organization Country Office for Myanmar. 2014. http://www.searo.who.int/myanmar/CCS_Myanmar.pdf?ua=1
- ¹⁹⁸ Burma-Complex Emergency Fact Sheet #4, Fiscal Year 2016, September 30, 2016, USAID. https://www.usaid.gov/sites/default/files/documents/1866/burma_ce_fs04_09-30-2016.pdf#page=4
- ¹⁹⁹ Burma-Complex Emergency Fact Sheet #4, Fiscal Year 2016, September 30, 2016, USAID. https://www.usaid.gov/sites/default/files/documents/1866/burma_ce_fs04_09-30-2016.pdf#page=4
- ²⁰⁰ Myanmar: Who/What/Where Health Projects Under Implementation by Township 28 March 2014. Myanmar Information Management Unit. April 3 2014. <http://reliefweb.int/map/myanmar/myanmar-whowhatwhere-health-projects-under-implementation-township-28-march-2014>²⁰¹ Cogitasia. <http://cogitasia.com/myanmars-communicable-disease-challenge/>
- ²⁰² WHO Country Cooperation Strategy Myanmar 2014–2018. World Health Organization Country Office for Myanmar. 2014. http://www.searo.who.int/myanmar/CCS_Myanmar.pdf?ua=1
- ²⁰³ Noncommunicable Diseases (NCD) Country Profiles, 2014. World Health Organization. http://www.who.int/nmh/countries/mmr_en.pdf?ua=1
- ²⁰⁴ WHO. 2014. WHO Country Cooperation Strategy: Myanmar 2014–2018. World Health Organization Country Office for Myanmar. http://www.searo.who.int/myanmar/CCS_Myanmar.pdf?ua=1
- ²⁰⁵ The Transitional Institute. 2016. Myanmar Policy Briefing 2016. “No women, no peace: Gender equality, conflict and peace in Myanmar.” https://www.tni.org/files/publication-downloads/myanmar_briefing_18.pdf
- ²⁰⁶ The Transitional Institute. 2016. Myanmar Policy Briefing 2016. “No women, no peace: Gender equality, conflict and peace in Myanmar.” https://www.tni.org/files/publication-downloads/myanmar_briefing_18.pdf
- ²⁰⁷ The Transitional Institute. 2016. Myanmar Policy Briefing 2016. “No women, no peace: Gender equality, conflict and peace in Myanmar.” https://www.tni.org/files/publication-downloads/myanmar_briefing_18.pdf
- ²⁰⁸ The Transitional Institute. 2016. Myanmar Policy Briefing 2016. “No women, no peace: Gender equality, conflict and peace in Myanmar.” https://www.tni.org/files/publication-downloads/myanmar_briefing_18.pdf
- ²⁰⁹ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>

- ²¹⁰ Reliefweb. 2016. Myanmar: “Natural disaster risks and past events.” (as of 31 May 2016). <http://reliefweb.int/map/myanmar/myanmar-natural-disaster-risks-and-past-events-31-may-2016>
- ²¹¹ Prevention Web. 2011. “National progress report on the implementation of the Hyogo Framework for Action (2009-2011)-interim.” http://www.preventionweb.net/files/16315_mmr_NationalHFAprogress_2009-11.pdf
- ²¹² UNDP. Annual Report 2015. UNDP Myanmar. <http://www.mm.undp.org/content/myanmar/en/home/library/poverty/undp-myanmar-annual-report-2015.html>
- ²¹³ UN OCHA. 2016. “Asia and the Pacific: Weekly Regional Humanitarian Snapshot.” (13 - 19 December 2016). http://reliefweb.int/sites/reliefweb.int/files/resources/ROAP_Snapshot_161219.pdf
- ²¹⁴ UNDP. Annual Report 2015. UNDP Myanmar. <http://www.mm.undp.org/content/myanmar/en/home/library/poverty/undp-myanmar-annual-report-2015.html>
- ²¹⁵ UNDP. Annual Report 2015. UNDP Myanmar. <http://www.mm.undp.org/content/myanmar/en/home/library/poverty/undp-myanmar-annual-report-2015.html>
- ²¹⁶ Prevention Web. 2011. “National progress report on the implementation of the Hyogo Framework for Action (2009-2011)-interim.” http://www.preventionweb.net/files/16315_mmr_NationalHFAprogress_2009-11.pdf
- ²¹⁷ US Agency for International Development (USAID). 2016. “Burma-Complex Emergency Fact Sheet #4, Fiscal Year (FY) 2016. <http://reliefweb.int/report/myanmar/burma-complex-emergency-fact-sheet-4-fiscal-year-fy-2016>
- ²¹⁸ US Agency for International Development (USAID). 2016. “Burma-Complex Emergency Fact Sheet #4, Fiscal Year (FY) 2016. <http://reliefweb.int/report/myanmar/burma-complex-emergency-fact-sheet-4-fiscal-year-fy-2016>
- ²¹⁹ US Agency for International Development (USAID). 2016. “Burma-Complex Emergency Fact Sheet #4, Fiscal Year (FY) 2016. <http://reliefweb.int/report/myanmar/burma-complex-emergency-fact-sheet-4-fiscal-year-fy-2016>
- ²²⁰ US Agency for International Development (USAID). 2016. “Burma-Complex Emergency Fact Sheet #4, Fiscal Year (FY) 2016. <http://reliefweb.int/report/myanmar/burma-complex-emergency-fact-sheet-4-fiscal-year-fy-2016>
- ²²¹ US Agency for International Development (USAID). 2016. “Burma-Complex Emergency Fact Sheet #4, Fiscal Year (FY) 2016. <http://reliefweb.int/report/myanmar/burma-complex-emergency-fact-sheet-4-fiscal-year-fy-2016>
- ²²² U.S. Department of State. Bureau of Consular Affairs. Passport and International Travel. Burma. <https://travel.state.gov/content/passports/en/country/burma.html>
- ²²³ U.S. Department of State. Bureau of Consular Affairs. Passport and International Travel. Burma. <https://travel.state.gov/content/passports/en/country/burma.html>
- ²²⁴ U.S. Department of State. Bureau of Consular Affairs. Passport and International Travel. Burma. <https://travel.state.gov/content/passports/en/country/burma.html>
- ²²⁵ U.S. Department of State. Bureau of Consular Affairs. Passport and International Travel. Burma. <https://travel.state.gov/content/passports/en/country/burma.html>
- ²²⁶ U.S. Department of State. Bureau of Consular Affairs. Passport and International Travel. Burma. <https://travel.state.gov/content/passports/en/country/burma.html>
- ²²⁷ U.S. Department of State. Bureau of Consular Affairs. Passport and International Travel. Burma. <https://travel.state.gov/content/passports/en/country/burma.html>
- ²²⁸ Go-Myanmar. The Comprehensive Myanmar (Burma) Travel Website. Currency, Exchange Rates and Banks. “Kyat and US Dollar Usage.” <http://www.go-myanmar.com/currency-exchange-rates-and-banks>
- ²²⁹ Go-Myanmar. The Comprehensive Myanmar (Burma) Travel Website. Currency, Exchange Rates and Banks. “Kyat and US Dollar Usage.” <http://www.go-myanmar.com/currency-exchange-rates-and-banks>
- ²³⁰ Go-Myanmar. The Comprehensive Myanmar (Burma) Travel Website. Currency, Exchange Rates and Banks. “Kyat and US Dollar Usage.” <http://www.go-myanmar.com/currency-exchange-rates-and-banks>
- ²³¹ Go-Myanmar. The Comprehensive Myanmar (Burma) Travel Website. Currency, Exchange Rates and Banks. “Kyat and US Dollar Usage.” <http://www.go-myanmar.com/currency-exchange-rates-and-banks>
- ²³² Go-Myanmar. The Comprehensive Myanmar (Burma) Travel Website. Currency, Exchange Rates and Banks. “Kyat and US Dollar Usage.” <http://www.go-myanmar.com/currency-exchange-rates-and-banks>
- ²³³ U.S. Department of State. Bureau of Consular Affairs. Passport and International Travel. Burma. <https://travel.state.gov/content/passports/en/country/burma.html>
- ²³⁴ U.S. Department of State. Bureau of Consular Affairs. Passport and International Travel. Burma. <https://travel.state.gov/content/passports/en/country/burma.html>
- ²³⁵ U.S. Department of State. Bureau of Consular Affairs. Passport and International Travel. Burma. <https://travel.state.gov/content/passports/en/country/burma.html>
- ²³⁶ U.S. Department of State. Bureau of Consular Affairs. Passport and International Travel. Burma. <https://travel.state.gov/content/passports/en/country/burma.html>
- ²³⁷ U.S. Department of State. Bureau of Consular Affairs. Passport and International Travel. Burma. <https://travel.state.gov/content/passports/en/country/burma.html>
- ²³⁸ Republic of the Union of Myanmar. 2015. Ministry of Finance. <http://www.mof.gov.mm/en/content/about-us>

- ²³⁹ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ²⁴⁰ The Republic of the Union of Myanmar. 2016. Ministry of Electricity and Energy. Myanmar Electric Power Enterprise. Overview. <http://www.moep.gov.mm/node/83>
- ²⁴¹ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ²⁴² Win Htein Kyaw. 2016. Lessons Learnt from 2015 Flood Response Operation in Myanmar. Power Point Presentation.
- ²⁴³ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ²⁴⁴ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ²⁴⁵ Revolvly. 2016. "Office of the President of Myanmar." [https://www.revolvly.com/topic/Ministry%20of%20Religious%20Affairs%20\(Myanmar\)&uid=1575](https://www.revolvly.com/topic/Ministry%20of%20Religious%20Affairs%20(Myanmar)&uid=1575)
- ²⁴⁶ Online Burma/Myanmar Library. 2014. "Myanmar Ministries dealing with Education." <http://www.burmalibrary.org/show.php?cat=3710>
- ²⁴⁷ The Asia Foundation. 2014. "Administering the State in Myanmar: An overview of the General Administration Department." Discussion Paper No. 6. <https://asiafoundation.org/resources/pdfs/GADEnglish.pdf>
- ²⁴⁸ Revolvly. 2016. "Ministry of Border Affairs" (Myanmar). [https://www.revolvly.com/main/index.php?s=Ministry%20of%20Border%20Affairs%20\(Myanmar\)&item_type=topic](https://www.revolvly.com/main/index.php?s=Ministry%20of%20Border%20Affairs%20(Myanmar)&item_type=topic)
- ²⁴⁹ Revolvly. 2016. "Ministry of Information" (Myanmar). [https://www.revolvly.com/topic/Ministry%20of%20Information%20\(Myanmar\)&uid=1575](https://www.revolvly.com/topic/Ministry%20of%20Information%20(Myanmar)&uid=1575)
- ²⁵⁰ Revolvly. 2016. "Ministry of Religious Affairs" (Myanmar). [https://www.revolvly.com/topic/Ministry%20of%20Religious%20Affairs%20\(Myanmar\)&uid=1575](https://www.revolvly.com/topic/Ministry%20of%20Religious%20Affairs%20(Myanmar)&uid=1575)
- ²⁵¹ Revolvly. 2016. "Ministry of Agriculture and Irrigation." (Myanmar). [https://www.revolvly.com/topic/Ministry%20of%20Agriculture%20and%20Irrigation%20\(Myanmar\)&uid=1575](https://www.revolvly.com/topic/Ministry%20of%20Agriculture%20and%20Irrigation%20(Myanmar)&uid=1575)
- ²⁵² Revolvly. 2016. "Ministry of Transport" (Myanmar). [https://www.revolvly.com/topic/Ministry%20of%20Transport%20\(Myanmar\)&uid=1575](https://www.revolvly.com/topic/Ministry%20of%20Transport%20(Myanmar)&uid=1575)
- ²⁵³ Ministry of Natural Resources and Environmental Conservation. 2016. Mineral Affairs. http://www.mining.gov.mm/Minister_Office/Default.asp
- ²⁵⁴ Ministry of Labor, Immigration and Population. About. <http://www.mol.gov.mm/>
- ²⁵⁵ Ministry of Industry. Myanmar. 2016. <http://www.industry.gov.mm/en/content/missions>
- ²⁵⁶ The Republic of the Union of Myanmar. 2016. "Ministry of Commerce." <http://www.commerce.gov.mm/en#.WE8I7LlrKUK>
- ²⁵⁷ Ministry of Construction. Myanmar. 2016. www.construction.gov.mm/
- ²⁵⁸ "Ministry Of Hotels and Tourism". Myanmar Online Data Information Network Solutions. 2012. Retrieved 12 Dec. 2016. [https://www.revolvly.com/topic/Ministry%20of%20Religious%20Affairs%20\(Myanmar\)&uid=1575](https://www.revolvly.com/topic/Ministry%20of%20Religious%20Affairs%20(Myanmar)&uid=1575)
- ²⁵⁹ Ministry of Ethnic Affairs Myanmar. 2016. About. <https://www.facebook.com/Ministry-of-Ethnic-Affairs-Myanmar-822764397855686/>
- ²⁶⁰ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ²⁶¹ Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ²⁶² Regional Consultative Group. 2016. "Humanitarian civil-military coordination in emergencies: Towards a predictable model." Humanitarian Civil-Military Coordination for Asia and the Pacific.
- ²⁶³ Myanmar Information Management Unit. 2016. Joint Coordination Structure Overview. http://www.themimu.info/sites/themimu.info/files/documents/Coordination_Teams_Overview_Country-wide_MIMU_Mar2016.pdf
- ²⁶⁴ Myanmar Information Management Unit. 2016. Joint Coordination Structure Overview. http://www.themimu.info/sites/themimu.info/files/documents/Coordination_Teams_Overview_Country-wide_MIMU_Mar2016.pdf
- ²⁶⁵ Prevention Web. 2011. "National progress report on the implementation of the Hyogo Framework for Action (2009-2011)-interim." http://www.preventionweb.net/files/16315_mmr_NationalHFAprogress_2009-11.pdf
- ²⁶⁶ Prevention Web. 2011. "National progress report on the implementation of the Hyogo Framework for Action (2009-2011)-interim." http://www.preventionweb.net/files/16315_mmr_NationalHFAprogress_2009-11.pdf
- ²⁶⁷ Prevention Web. 2011. "National progress report on the implementation of the Hyogo Framework for Action (2009-2011)-interim." http://www.preventionweb.net/files/16315_mmr_NationalHFAprogress_2009-11.pdf
- ²⁶⁸ Central Intelligence Agency (CIA). 2016. East & Southeast Asia: Burma. World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/bm.html>



Center for Excellence in Disaster Management & Humanitarian Assistance
456 Hornet Avenue, Joint Base Pearl Harbor - Hickam, Hawaii 96860-3503
Telephone: (808) 472-0518
<https://www.cfe-dmha.org>