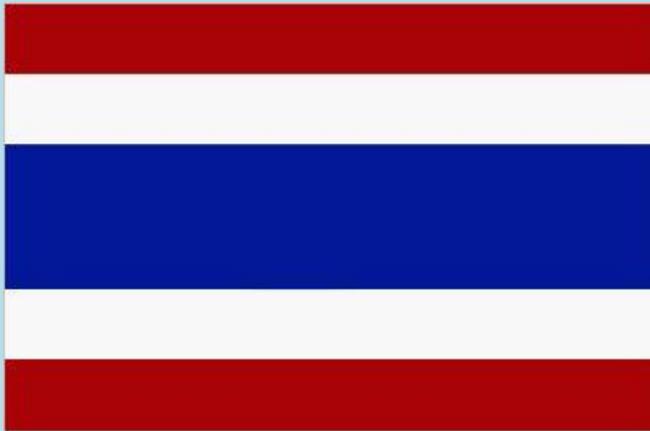


THAILAND



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1. NATIONAL PROFILE

1.1 General¹

Thailand has enjoyed a long period of robust economic growth. In its advancement as a middle-income country, Thailand has made a great deal of progress in meeting the Millennium Development Goals (MDGs), and has developed its own MDG-Plus targets.

Poverty has been reduced from 21 percent in 2000 to about 8.2 percent in 2009, or approximately 5 million people. With its firm commitment to the MDGs and South-South Cooperation, Thailand has become an increasingly active global development partner.

But despite remarkable progress made, persistent and critical development challenges remain, too, a challenge in policy and in practice - from formulating national strategies to implementing legislation.

1.2 Physiography²

Thailand is situated in South-East Asia, covering an area of nearly 513,115 square kilometers (198,114 square miles), extends about 1,620 kilometers (1,007 miles) from north to south and 750 kilometers (482 miles) at its widest point from east to west, or approximately the same size as France, with a coastline of approximately 2,700 kilometers (1,143 miles) on the Gulf of Thailand and 865 kilometers (537 miles) along the Indian Ocean. It is roughly the size of France.

I. Topography

Thailand is divided into four geographical regions: Central Thailand (including Bangkok), Northern Thailand, Northeastern Thailand, and Southern Thailand.

The North Region is mainly mountainous representing the most heavily forested areas of the country. The region accommodates four north-south flowing rivers namely Ping, Wang, Yom and Nan. Most populated areas in the North are in the

alluvial valleys along these rivers. Chiang Mai, the second largest city of Thailand, and Chiang Rai are among the well known cities.

In terms of areas and population, Isarn is the biggest region of Thailand, one-third of the country's total areas. This region lies atop of Korat Plateau which is bound on the north and east by Mekong River. There are two major rivers, Chi and Mun, which run down to Mekong River.

The Central Region (including Bangkok Metropolitan Region is situated in the basin of the Chao Phrya River which runs from north to south and after crossing Bangkok flows to the Gulf of Thailand. This region is often referred as the "rice bowl" of Thailand being the most fertile area of the country.

The peninsular south consists of the narrow Kra Isthmus that widens into the Malay Peninsula. With a vast area of mountains, the South Region has the highest rainfall in the country. It is connected to the Indian Ocean in the west and to the Pacific Ocean (Gulf of Thailand) in the east.

1.3 Climate³

I. General Climatic Conditions

The climate of Thailand is under the influence of monsoon winds of seasonal character i.e. Southwest monsoon and northeast monsoon. The southwest monsoon which starts in May brings a stream of warm moist air from the Indian Ocean towards Thailand causing abundant rain over the country, especially the windward side of the mountains. Rainfall during this period is not only caused by the southwest monsoon but also by the Inter Tropical Convergence Zone (ITCZ) and tropical cyclones which produce a large amount of rainfall. May is the period of first arrival of the ITCZ to the Southern Part. It moves northwards rapidly and lies across southern China around June to early July that is the reason of dry spell over upper Thailand. The ITCZ then moves southerly direction to lie over the Northern and Northeastern Parts of Thailand in August and later over the Central and Southern Part in September and October, respectively. The northeast monsoon which starts in October brings the cold and dry air from the anticyclone in China

mainland over major parts of Thailand, especially the Northern and Northeastern Parts which is higher latitude areas. In the Southern Part, this monsoon causes mild weather and abundant rain along the eastern coast of the part. The onset of monsoons varies to some extent. Southwest monsoon usually starts in mid-May and ends in mid-October while northeast monsoon normally starts in mid-October and ends in mid-February.

II. Season

From the meteorological point of view the climate of Thailand may be divided into three seasons as follows:

Rainy or Southwest Monsoon Season (mid-May to mid-October) The Southwest Monsoon prevails over Thailand and abundant rain occurs over the country. The wettest period of the year is August to September. The exception is found in the Southern Thailand East Coast where abundant rain remains until the end of the year that is the beginning period of the northeast monsoon and November is the wettest month.

Winter or Northeast Monsoon Season (mid-October to mid-February) This is the mild period of the year with quite cold in December and January in upper Thailand but there is a great amount of rainfall in Southern Thailand East Coast, especially during October to November.

Summer or pre-monsoon season (mid-February to mid-May) During this period there is transitional from the Northeast to Southwest monsoons. The weather becomes warmer, especially in upper Thailand. April is the hottest month.

1.4 Socio-economic Profile^{4,5}

Socio-economic Indicators		
GDP: Gross domestic product (million current US\$)	2011	369709
GDP per capita (current US\$)	2011	5318.0
GNI: Gross national income per capita (current US\$)	2011	5128.0

Population (millions)	2014	67.01
Urban (% of population)	2014	34.82
Sex ratio (males per 100 females)	2012	96.5
Life expectancy at birth (females/males, years)	2010-2015	77.8/71.1
Adult literacy rate (% ages 15 and older)	2014	93.5
Expenditure on education (% of GDP)	2014	5.79

1.5 Administrative Setup²

Thailand's administrative system is constitutional monarchy with three types of government, central, provincial and local, and composed of 76 provinces.

Type of government: Constitutional monarchy

Administrative Divisions: Thailand has 76 provinces (changwat) and Bangkok municipality. The provinces are divided into 998 districts (amphoe), 8,860 rural administrative subdistricts (tambon).

Types of government administrations: the central, provincial and local.

Provincial and Local Government: Local government is based on the principles of decentralization and self-government when certain legal conditions are met. Under the 1997 constitution, elected local assemblies and elected or appointed local administrative committees were allowed four-year terms. Central government officials could not serve as local officials. Bangkok is a provincial-level entity with an elected governor and the legislative Metropolitan Administration Council. Supervision of provincial and local government takes place through the Department of Local Administration of the Ministry of Interior.

2. DISASTER RISK PROFILE²

Thailand is in a tropical zone which is subject to the influences of monsoons and tropical hurricanes resulting in natural disaster impacts, such as floods, landslides, droughts, wildfires, etc. Summaries of the hazard, vulnerability and disaster risks in Thailand have been extracted from a study prepared by the Asian Disaster Preparedness Center, the Asian Institute of Technology and the United Nations

Development Program - "Strengthened Disaster Management Strategies in Thailand", a project of the Royal Thai Government, March 1994, (THA/88/004).

Relative Risks of Hazards, Vulnerability, Level of Management and Disaster Occurrence in Thailand

Types of Disaster	Hazard	Vulnerability	Management	Disaster Risk
Flood	high	Moderate	Moderate	high
Typhoon/Hurricane	high	High	moderate	moderate
Earthquake	low	Low	poor	moderate
Landslide	moderate	Low	poor	moderate
Drought	high	Moderate	moderate	moderate
Fire	high	Moderate	moderate	moderate
Explosion	high	Moderate	poor	high
Accident	high	Moderate	poor	high
Epidemics	low	Low	moderate	low
Pests	moderate	Low	poor	moderate
Civil Unrest	low	Low	poor	moderate
Refugee migration	moderate	Low	moderate	moderate

Rank Order of Risk of Disasters in Thailand

Type of Disasters	Subjective Rank	Numeric Weight
Flood	High	2.39
Accident	High	2.37
Explosive	High	2.34
Typhoon	Moderate	2.31
Drought	Moderate	2.24
Fire	Moderate	2.20
Land slide	Moderate	2.15
Earthquake	Moderate	1.97
Civil Unrest/Refugee Influx	Moderate	1.87
Pests	Moderate	1.77
Epidemic	Low	1.63

The occurrences of natural disaster in Thailand are subject to seasonal cycle such as cold spell, drought, flood, landslide and storm.

Disaster Seasoning Calendar

Type of Disaster	Disaster/Event	Periods of Time (month)
Natural	1. Cold spell 2. Drought 3. Flood 4. Landslide 5. Tropical Cyclone 6. Earthquake 7. Storm surge	October- January January- May October - November and June - September October - November and June - September March - May Year- round surveillance October- November
Natural/ human induced	1. Forest fire	Year- round surveillance Northern region April - May Northeastern region November- May Central region "1 Eastern region \- March - May Southern region J

Source: Implementation Handbook 2009, Department of Disaster Prevention and Mitigation

2.1 Natural Hazards Likely to Affect the Country

Looking into the past major disasters happening in Thailand, it was not only the 2004 Indian Ocean Tsunami that came to devastate the country. Long before that Thailand experienced other major natural disasters as well. These include Typhoon Gay in 1989 that hit a southern province of Chumporn, claiming almost 500 lives, and landslide in a northern part of country in 2001 where 131 people perished.

Flood, landslide, forest fire, wind damage, drought, lightening, hail and epidemics are the major disasters. Flood is by far the worst disasters in Thailand. Between 2002 and 2010 flood killed more than 1,000 people and brought damage and loss in economic terms more than 40 billion Baht. It out numbers the damage caused by all other disasters combined during the period.

Landslides occur frequently in Thailand due to the influence of monsoon rain. In most cases, landslide would occur in the northern and southern parts of the country which are mountainous. The table below provides information of large scale landslide events taken place over the past four decades.

Although drought does not pose danger to human life but it does cause a great damage to the economy and livelihood of the people especially in rural areas. Occasionally, Thailand experienced tropical storms. Thailand suffers quite often from these disasters; the occurrences of which are becoming more often and more severe than before. The table below concludes the detail of natural disaster occurrence in Thailand during 2005 - 2010.

Thailand's Disaster Situation Summary in 2010

year	Disaster type	Frequency	Killed	Injured	Total affected	Damaged (Baht)	Damaged (USD)
2010	Flood	7	266	1,665	13,485,96	16,338,772,34	536,577,08
	Drought	n/a	0	0	4,077,411	1,415,223,466	46,476,961
	Cold Spell	n/a	0	0	10,609,30	n/a	n/a
	Storm	2,192	30	174	407,271	198,845,340	6,530,244
	Fire	1,903	29	83	8,912	1,283,787,066	42,160,494
2009	Flood	5	53	22	8,881,758	5,252,613,976	172,499,63
	Drought	n/a	0	0	17,353,35	108,346,716	3,558,184
	Cold Spell	n/a	0	0	10,588,88	n/a	n/a
	Storm	1,348	24	26	360,154	207,373,975	6,810,311
	Fire	5,127	83	312	6,549	817,334,839	26,841,866
2008	Flood	6	113	16	7,921,127	7,601,796,302	249,648,48
	Drought	n/a	0	0	13,298,89	103,900,841	3,412,178
	Cold Spell	n/a	0	0	9,554,992	n/a	n/a
	Storm	1,995	15	30	242,944	227,549,741	7,472,897
	Fire	1,696	30	92	8,392	1,424,889,050	46,794,385
2007	Flood	13	36	17	2,326,179	1,687,865,982	55,430,738
	Drought	n/a	0	0	16,754,98	198,304,732	6,512,470
	Cold Spell	n/a	0	0	5,910,339	n/a	n/a
	Storm	2233	10	71	245,619	234,547,154	7,702,697
	Fire	1,901	45	156	9,761	875,791,793	28,761,635
2006	Flood	6	446	1,462	6,050,674	9,627,418,620	316,171,38
	Drought	n/a	0	0	11,862,35	495,275,738	16,265,213
	Cold Spell	n/a	0	0	2,303,703	n/a	n/a
	Storm	1,883	29	39	142,849	92,244,108	3,029,363
	Fire	1,734	37	66	9,708	1,083,845,622	35,594,273
2005	Flood	12	75	0	2,874,673	5,982,283,276	196,462,50
	Drought	n/a	0	0	11,147,62	7,565,861,139	248,468,34
	Cold Spell	n/a	0	0	3,742,793	n/a	n/a
	Storm	1,313	13	0	61,429	148,871,750	4,889,055
	Fire	1,559	48	68	23,250	931,191,005	30,580,985

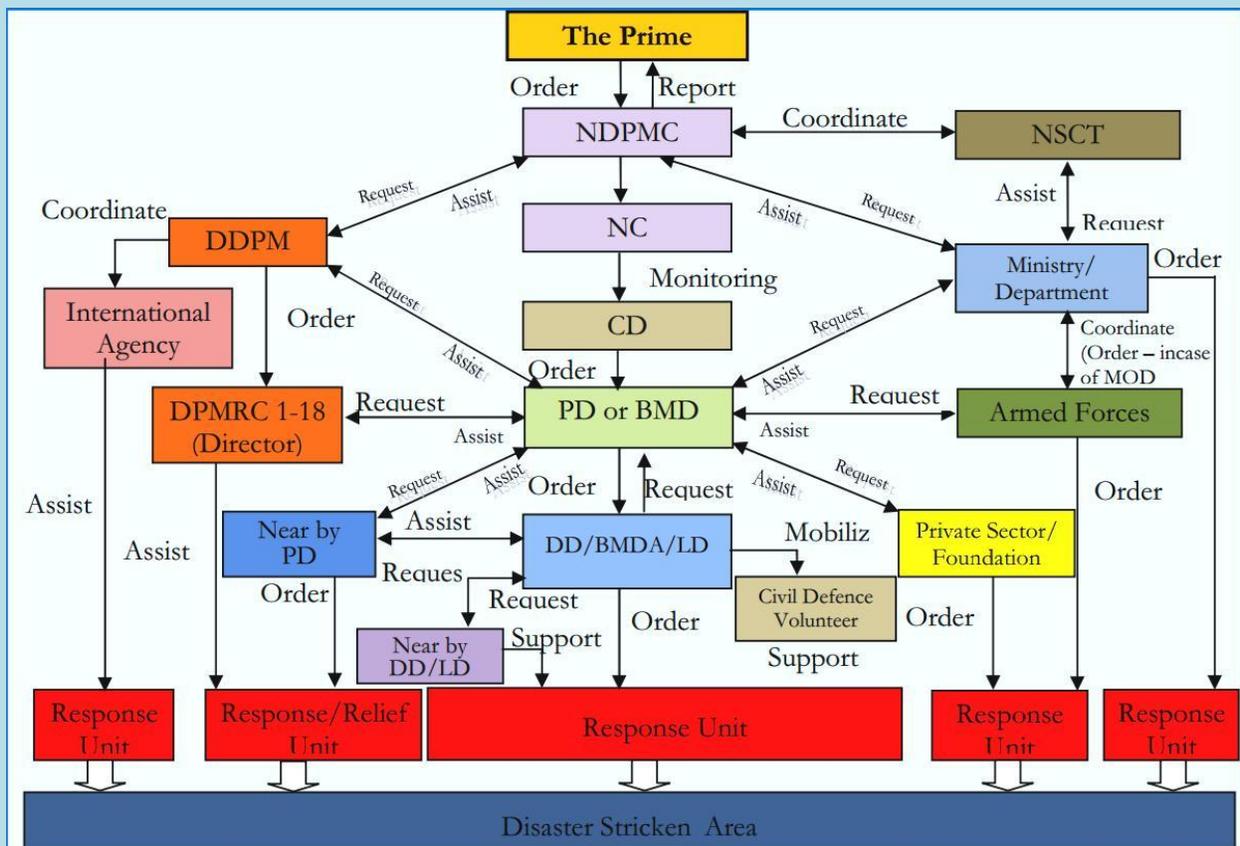
(1 USD = 30.45 Baht)

Source: Department of Disaster Prevention and Mitigation (DDPM)

3. INSTITUTIONAL SETUP^{2,7}

3.1 Structure of Disaster Management

Disaster Prevention and Mitigation Act B. E. 2550 (2007) has explicitly prescribed and explicated disaster management arrangement that encompasses the types of disaster, policy guideline, operating procedure as well as coordinating procedure.



Current Disaster Management Arrangements in Thailand

The Prime Minister is a chairman of National Disaster Prevention and Mitigation Committee. In case of extreme large - scale disaster the Prime Minister has been empowered to command National Commander, Director, state agency, and local administration organization to handle disaster situation.

National Disaster Prevention and Mitigation Committee, which is chaired by the Prime Minister or the entrusted Deputy Prime Minister is obligated to lay down a

policy for the formulation of National Disaster Prevention Mitigation Plan and integrate the development of disaster management system. Department of Disaster Prevention and Mitigation as the Secretariat of National Disaster Prevention and Mitigation Committee has been tasked to formulate the aforesaid plan in conjunction with relevant government agencies including the representatives from local administration organization.

The National Safety Council of Thailand is the main body responsible for formulating the accident - related policy and developing safety mind. Department of Disaster Prevention and Mitigation as well functions as the Secretariat of National Safety Council of Thailand.

All disaster operations related command, order and management at national, provincial/Bangkok Metropolis and local levels must precede according to the Act.

Component of National Disaster Prevention and Mitigation Committee and its roles

National Disaster Prevention and Mitigation Committee and its roles		
Committee Members		Mission
1. Chairman:	- Prime Minister or Deputy Prime Minister as assigned	1. Establish the National Disaster Prevention and Mitigation Policy for establishing the master plan.
2. Vice Chairman 1	- Minister of Ministry of Interior;	
Vice Chairman 2	- Permanent Secretary - Ministry of Interior	
3. Committee:	- Permanent Secretary - Ministry of Defence;	2. Approve the National Disaster Prevention and Mitigation Plan before submission to the cabinet.
	- Permanent Secretary - Ministry of Social Development and Human Security;	3. Integration and develop the Disaster Prevention and Mitigation Plan of government agencies, local government agencies and private agencies.
	- Permanent Secretary - Ministry of Agriculture and Cooperatives;	4. Provide advice, consultation and support the implementation of Disaster Prevention and Mitigation's mission
	- Permanent Secretary - Ministry of Transportations;	5. Regulate the rules of remuneration, compensation and any expenses of the Disaster
	- Permanent Secretary - Ministry of Natural Resources and Environment;	
	- Permanent Secretary - Ministry	

<p>of Information and Communication Technology;</p> <ul style="list-style-type: none"> - Permanent Secretary - Ministry of Public Health; - Director of the Bureau of the Budget; - Commander-in-Chief of the Royal Thai Police; - Supreme Commander; - Commander-in-Chief of the Royal Thai Air Force; - Commander-in-Chief of the Royal Thai Army; - Commander-in-Chief of the Royal Thai Navy; - Secretary-General National Security Council; - and not more than five qualified persons appointed by the Cabinets as committee members. <p>4. Secretary: The Director General, DDPM,</p> <p>5. Assistant Secretary: 2 DDPM Officers</p>	<p>Prevention and Mitigation implementation</p> <p>6. Perform other missions as mentioned in this Act or other Acts or assigned by the Cabinet.</p>
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3.2 National Safety Council of Thailand (NSCT)

Apart from National Civil Defence Committee, Thailand has another disaster management related mechanism which has highlighted its tasks and responsibility on man-made disaster management only, that is "The National Safety Council of Thailand" (NSCT). The NSCT has been established in 1982 on the ground of the problem of road traffic accidents in Thailand which annually resulted in the tremendous loss of lives, properties and national economy. Later on, its responsibilities have been extended to cover the prevention of chemical accident, occupational accident, accident in home and public venues, considering preventive measure of fire in high-rise building, accident prevention in subway tunnel construction, providing education of safety etc.

3.3 National Disaster Warning Center

The National Disaster Warning Center was established under the Order of the

Office of the Prime Minister. It is to protect lives and properties of Thai people and foreign visitors by setting up the National Warning Center as soon as possible.

The major task of the National Disaster Warning Center is to detect earthquake and to analyze seismic data to determine the possibility of a Tsunami generation before issuing notification messages to the public and related authorities and rescuers for evacuation of people into safe places. This is to prevent the loss of people's lives and properties as much as possible. From now on, the National Disaster Warning Center will be developed, upgraded of its early warning system and extended its telecommunication networks to be able to cope with multi-hazards disasters apart from Tsunami. Now, NDWC had been transferred to be under of the Ministry of Information and Communication Technology

3.4 Implementing Mechanism Arrangement

The following implementing mechanisms will be established to undertake disaster management responsibilities.

I. National Command Headquarters

The power and duty of National Command Headquarters are to direct, control, oversee, supervise, and coordinate disaster operations undertaken by Emergency Operations Centers of all levels. The Headquarters is headed by the Minister of Ministry of Interior as National Commander and other functioning staffs which comprise permanent secretary for Ministry of Interior as the Deputy National Commander, director general of Department of Disaster Prevention and Mitigation as the Central Director, the representatives from every government agency, public enterprise and the designated private entity. The main administration staffs of the headquarters will be the personnel from Department of Disaster Prevention and Mitigation.

II. Local Command Center

This category of center includes:

- Tambon Administration Organization Command Center is headed by chief executive of tambon administration organization (TAO) as the Director, other functioning staffs of the center comprise TAO clerk as the Deputy Local Director, sub - district headman, village headman and the representatives from private sector located within tambon jurisdiction. This first response mechanism is responsible for disaster operations within tambon jurisdiction.
- Municipality Command Center is headed by the mayor as Director; other functioning staffs of the center comprise municipal Clerk as the Deputy Director, chiefs of different divisions of municipality and the designated private sector's representatives. This first response mechanism is responsible for disaster operations within its jurisdiction.
- Pattaya City Command Center is headed by Pattaya City mayor as the Director, other functioning staffs of this center comprise Pattaya City clerk as the Deputy Director, chiefs of different divisions of Pattaya City office and the designated private sector's representatives. This first response mechanism is responsible for disaster prevention and mitigation operations within its jurisdiction.
- District Command Center is headed by district chief as the District Director, other functioning staffs of this center comprise district clerk, chiefs of different divisions of district office, representatives of the local administration organization and private sector located in district jurisdiction. The main function of this center is to carry out disaster operations within the district jurisdiction and to assist the provincial disaster operations.
- Bangkok Metropolitan District Command Center is headed by each Bangkok Metropolitan District Director as the Bangkok Metropolitan Assistant Director. This center is responsible for conducting disaster operations within district jurisdiction as well as assisting Bangkok Metropolitan Director. All officials of divisions and sectors of Bangkok Metropolitan district office and the

representatives from public sector within its jurisdiction are the functioning staffs of this center. In addition, this center is obliged to assist Bangkok Metropolitan Administration in managing a disaster within Bangkok Metropolitan jurisdiction.

- Provincial Command Center is headed by provincial governor as the Provincial Director, and deputy provincial governor whom entrusted by provincial governor including chief executive of provincial administration organization are Deputy Provincial Directors. The functioning staffs comprise the chiefs of different government offices located in the province and the representatives from designated public and private enterprises.
- Bangkok Metropolitan Command Center is headed by Bangkok Metropolitan governor as the Bangkok Metropolitan Director, and a permanent secretary for Bangkok Metropolitan Administration as the Bangkok Metropolitan Deputy Director. This center is responsible for disaster operations within Bangkok Metropolitan jurisdiction.

III. Tasks of Local Command Center

- Direct, control, perform and coordinate disaster management activities within the area under responsibility.
- Provide support to adjacent and other Command Centers upon request.
- Coordinate with government agencies and other relevant public enterprises located in the area under responsibility including private sector for cooperation on disaster management.
- When a disaster occurs or is imminent in area under responsibility, the respective Command Center is obliged to establish Emergency Operations Center to provide assistance to the people in short notice.

3.5 Priority on Disaster Reduction Management

Thailand urgently needs to reform disaster management systems and mechanisms as follows:

- **Public Awareness and Education.** Improve public safety of every sector particularly those who are living with risk, by enhancing people's understanding of the threats posed by various types of disasters.
- **Materializing Early Warning Systems:** Following the catastrophic tsunami disaster in 2004, Thailand took immediate action to establish National Disaster Warning Center, which covers the warning of both natural and man-made disasters.
- **Establishing More International Disaster Management Networks:** Thailand needs to enhance the country's disaster management capacity and efficiency through the mobilization of technical assistance from foreign countries, particularly from developed and advanced countries.
- **Effective Damage Assessment:** Remote Survey technology must be introduced to effectively assess the damages caused by large scale disaster. The staff of the agencies concerned needs to be trained to enhance their capacity in applying satellite images to assess the damage.
- **Application of Community-Centered Approach:** Local Authority and community are in the front line in the event of disaster occurrence, consequently, they are the most vulnerable and effected. It is indispensable to enhance their potentials in responding to disasters, and to equip them with awareness and preparedness.
- **Highlight on Preventive Approach:** The new approach of disaster management has shifted its focus from "assistance" or "relief" to "prevention". In this regard, risk reduction to be vigorously taken into account. So as to reduce the risk, both structural and non-structural measures should be materialized, thus, the cost of risk reduction will yield invaluable rate of return when compared with the cost of disaster damage.
- **The Focus on Prevention:** Proactive disaster management can reduce the damage and impact substantially.
- **The Focus on Public Participation:** The past disaster management in Thailand had underlined the roles of government agencies and simply

ignored private sectors, non - government organization, communities and even the public. Unfortunately, there has been a lack of cooperation among agencies concerned. This is a real challenge for DDPM to bring these stakeholders together.

- The Focus on Unity in Management: The application of the Incident Command System (ICS) will demonstrate unity in management.
- The Focus on Efficient Communication: The efficient communication system consists of the major system and the reserved system, which are vital for disaster management.
- The Focus on Human Resource Development: Human resource development is a key factor for disaster management.
- Livelihood Rehabilitation: Livelihood rehabilitation activities such as community development, vocational training, improving the standards of living should be immediately materialized to normalize disaster victims' means of living.

3.6 Department of Disaster Prevention and Mitigation

Department of Disaster Prevention and Mitigation (DDPM), according to the Bureaucrat Reform Act 2002, have been formed by different organizations responsible for disaster prevention and mitigation as follows:

- Civil Defence Division of Department of Provincial Administration;
- Department of Accelerated Rural Development;
- Department of Social Welfare, Department of Community Development;
- Office of National Safety Council.

According to Article 11 of Disaster Prevention and Mitigation Act B.E.2550, DDPM is mandated to the central government agency under the umbrella of Ministry of Interior to undertake the work on disaster prevention and mitigation at a national level. Aside its Head Office in Bangkok, DDPM also has 18 Regional

Operation Centers and 75 Provincial Offices across the country. In 2004, Disaster Prevention and Mitigation Academy (DPMA) has been established and 6 campus in Prachinburi, Songkhla, Chiang Mai, Khon Kaen, Phuket, Phitsanulok which is currently conducting training for its own staffs, some government stakeholders and private organization.

I. DDPM's responsibility

- i. Materializing disaster and civil emergency prevention and warning Systems and creating preparedness in all areas.
- ii. Directing and implementing disaster and civil emergency mitigation activity systematically, rapidly, equitably and thoroughly.
- iii. Procurement of materials, equipments, and vehicles, indispensable for disaster prevention, mitigation, suppression and for relief operation.
- iv. Rehabilitation of damaged public utilities, physical and mental recuperation of disaster victim, and restoration of livelihood. All these activities are carried out on thorough, equitable and rapid basis, and to be in harmony with the needs of the victims.
- v. Mainstreaming and collaborating disaster prevention and mitigation system, programme, the implementation evaluation with other national and international agencies.

II. Disaster Management in DDPM's main activities

Disaster Management comprises 3 phases as follow:-

1. Preparedness Phase: DDPM has supported the provinces to carry out preparedness related activities as follow;

- a. Formulating disaster prevention plan.
- b. Training the officials and Civil Defence Volunteer.
- c. Educating the general public.
- d. Procuring equipments, vehicles and other amenities and safety temporary shelters.
- e. Conducting annual drills and exercise in different levels.

2. Prevention and Mitigation Phase: In the event of disaster or the potential disaster, DDPM will implement the following activities:-

- a. *Early warning:* After receiving the information of potential disaster from Department of Meteorological and Department of Mineral Resources, DDPM will immediately relay to the risk province to further warn the people of the hazard or evacuate the people.
- b. *Directing Unit:* The National Committee will set up "Operation Center" to manage disaster and providing relief operation to the affected people thoroughly and rapidly.
- c. *Coordinating:* In the event of large-scale disaster, DDPM will coordinate with all agencies concerned to mobilize relief efforts to affected areas.
- d. *Telecommunication:* The Director of National Committee is authorized to utilize all telecommunication facilities in the affected areas. DDPM will coordinate with telecommunication concerned agencies to provide the substitute facilities in case the telecommunication system in the affected area broke down.
- e. *Public Relations:* At national level, DDPM is responsible for disseminating the disaster related information to the public continuously to protect the life and property of the citizens. Moreover to alert the possibility of disaster just before a strong tremor is expected to strike as "a warning".

3. Recovery Phase: DDPM is responsible for

- a. *Providing relief to affected people:* Provincial/District/Local authorities assess the damages and losses and enlist the affected persons. DDPM will carry out necessary actions to pay cash compensation the victims.
- b. *Clean-up:* DDPM will coordinate with all agencies concerned to mobilize the equipments to conduct clean-up activities.
- c. *Long-term Rehabilitation:* DDPM is responsible for coordinating with all agencies concerned to collect all relevant information on long-term rehabilitation projects and further submit for cabinet's approval.

4. INITIATIVES⁷

4.1 The Disaster Prevention and Mitigation Act 2007

The Disaster Prevention and Mitigation Act 2007 (DPM Act) has replaced the old and outdated 1979 Civil Defense Act and the 1999 Fire Prevention and Suppression Act. This Act came into force on 6th November 2007.

It stipulates the Department of Disaster Prevention and Mitigation (DDPM) as the core government department in handling national disaster management work. Also it authorizes local governments to take responsibility of disaster management in their respective areas, in line with the Provincial Plan.

The Disaster Prevention and Mitigation Act 2007 (DPM Act) has 4 prominent features, including

- i. Introducing 3 main policy - making and planning bodies including National, Provincial and Bangkok Metropolitan,
- ii. Having Prime Minister or an designated Deputy Minister as the National Commander,
- iii. Empowering Department of Disaster Prevention and Mitigation (DDPM) as the core government agency in handling national disaster management work, and
- iv. Authorizing local governments to take responsibility of disaster management in their respective areas, in line with the Provincial Plan.

According to the new DPM Act, disaster can be classified into 3 categories namely:

- i. Man-made and natural disasters;
- ii. Disaster resulting from air raid during wartime; and
- iii. Disaster resulting from sabotage or terrorist attack.

In terms of policy making, there are 3 levels:

- i. National, which is chaired by the Prime Minister or designated Deputy Minister

- ii. Provincial, which is chaired by Provincial Governor
- iii. Bangkok Metropolitan Administration level, which is chaired by the Bangkok Governor.

Each of three policy - making organs is composed of the committee as follows:

- i. The National Disaster Prevention and Mitigation Committee (NDPMC).
- ii. The Provincial Disaster Prevention and Mitigation Committee.
- iii. The Bangkok Metropolitan Administration Committee.

4.2 Disaster Prevention and Mitigation Plan

Department of Disaster Prevention and Mitigation (DDPM) as the Secretariat of the National Disaster Prevention and Mitigation Committee (NDPMC), has the responsibility to devise the National Disaster Prevention and Mitigation Plan. This is to be done by conferring with relevant government agencies, local administrations, and private sectors.

Once the National Plan is approved, it will be used as a master plan, upon which the provincial and Bangkok Metropolitan Administration will be based. According to the National Disaster Prevention and Mitigation Act 2007, the three - level plan shall have substantial parts as shown in the following table.

National plan	Provincial Plan	BMA Plan
(1) Guide lines, measures and adequate budget to support disaster prevention and mitigation operations systemically and continuously.	(1)The setting up of Special Command Center when ever disasters strike, that center shall be constructed and has authorities to command and oversee disaster prevention and mitigation operations and activities.	(1) establishment of command center where disaster occurred for construction and authorization for disaster prevention and mitigation operation.

(2) Guide lines and methods for providing aids and mitigate the impacts of disasters in both short and long term, together with evacuation procedures of effected people, government services, and other local administrations, supports effected people on their public health, public utilities and communication system.	(2) Plan and procedures for local administrations for procuring tools, equipments, materials, hardware and vehicles in disaster prevention and mitigation operations.	(2) plan and process to procure materials , tools , equipment, and vehicle for disaster prevention and mitigation.
(3) Relevant government agencies and local administrations shall undertake all operations under (1) and (2), and shall seek for availability and mobility of fund.	(3) Plan and procedures for local administrations for procuring an early warning system and other equipments to inform people and communities on incoming disasters.	(3) plan and process to procure signaling devices or others for notifying the occurrence and expectation of a disaster.
(4) Preparedness perspectives on support personnel, equipments and other materials to deploy upon disaster prevention and mitigation operations, and capacity building of those personnel and other people shall be included.	(4) Operation plan for disaster prevention and mitigation at local Administration level.	(4) Bangkok Disaster Prevention and Mitigation Action Operation Plan.
(5) Guide line on fixing, recovery and restoration to community right after disaster.	(5) Cooperation plan to other relevant public charities.	(5) Coordination Plan with Public Charity Organizations in Bangkok.

4.3. Progress of the Implementation of Hyogo Framework for Action (HFA)

The progress on implementation of Hyogo Framework for action (HFA) 2005 - 2015: Building the resilience of Nations and Communities to Disasters. To achieve the goal of HFA is "sustainable reduction of disaster losses, in lives and in social, economic and environmental assets." In adopting the Hyogo Framework, Thai government; DDPM committed to five priorities for action; sets out the required actions - collectively known as " disaster risk reduction" -measures that be continuously implemented in order to achieve resilience to future hazards.

Thailand had submitted its national progress report on the implementation of the HFA on April 05, 2011. Department of Disaster Prevention and Mitigation is the National Focal Point for the HFA and it coordinates implementation within the country.

References

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