



Thailand Country Report 2023

ASIAN DISASTER REDUCTION CENTER
Visiting Researcher Program (FY2023)

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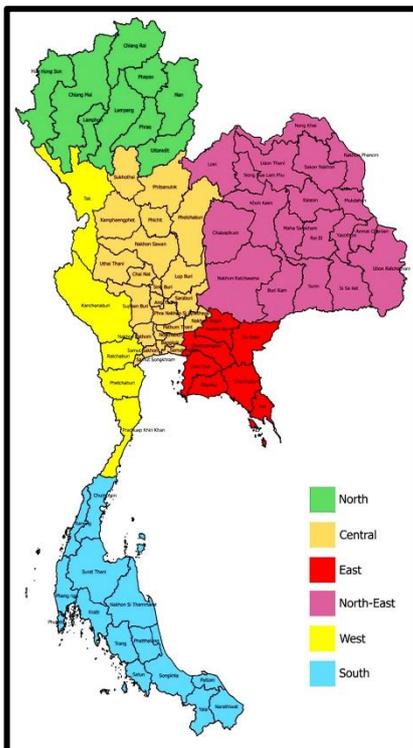
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1. General Information

1.1 Geographical Data

Thailand, officially the Kingdom of Thailand, lies in the heart of Southeast Asia between latitudes N 5°37' to N 20°27' and longitudes E 7°22' to E 105°37'. The country occupies an area of 513,115 km² with a total coastline of 3,151.13 km, consisting of the Andaman Sea Coast 1,111.35 km in the west and the Gulf of Thailand Coast of 2,039.78 km in the east. (Department of Marine and Coastal Resources, 2023) It is the third largest country in Southeast Asia, after Indonesia and Myanmar. The boundaries of Thailand with adjacent areas are: North: Myanmar and Laos; East: Laos, Cambodia and the Gulf of Thailand; South: Malaysia; and West: Myanmar and the Andaman Sea. The highest point in Thailand is Doi Inthanon, at 2,565 meters (8,415 feet). The lowest point is the Gulf of Thailand, at sea level.



Thailand has different types of geography. It is divided into six regions and each region has a different characteristic geography:

1) Mountains and Plains of the North

The North of Thailand is full of mountain ranges. It is covered with evergreen forests and is an important source of water for the country. Notable mountains in the area are Luang Phra Bang, Daen Lao, Thanon Thong Chai, Phee Pun Nam, and Phetchabun. The tallest one is Doi Inthanon in Chiang Mai.

2) Central Plains

This region is rich in river basins. It is home to the densest and largest sediment plains in Thailand. There are two rivers, the Ping River and Yom River, which merge at Pak Nam Pho, Nakhon Sawan province, to form the Chao Phraya River, making the central region the most fertile in the country. With these river lines and the flatlands of central Thailand, the central region is considered one of the most significant areas in the world for rice cultivation.

3) Northeastern Plateaus

Flanked on the western and southern edges by steep mountain ranges, the center of the region lies the Korat Basin. The Chi and Mun Rivers, the main rivers in this region, flow from west to east, merging into the Mekong River in Ubon Ratchathani. Local mountains are the Phu Phan, Dong Phraya Yen, San Kampaeng, and Pha Nom Dong Rak. The northeast region consists of plateaus. The soil is dry and not always suitable for cultivation.

4) High mountains of the West

This region is full of valleys and mountain ranges, extending from the North. Sparse narrow plains weave between the dominating mountains of the west. Important mountain ranges are the Thanon Thong Chai and Ta Naw Sri ranges.

5) Mountains and Coastal Plains of the East

The East is characterized by plateaus alternating with short mountain ranges. It has a smooth, long, and curved coastline. The Chanthaburi mountain range, on the east coast, forms a westward continuation of the Banthat range and forms the boundary between Thailand and Cambodia. Between the Banthat and Chanthaburi mountains is a narrow plain, perfect for growing fruit.

6) Mountains, Plateaus, Coastal Plains and Islands of the South

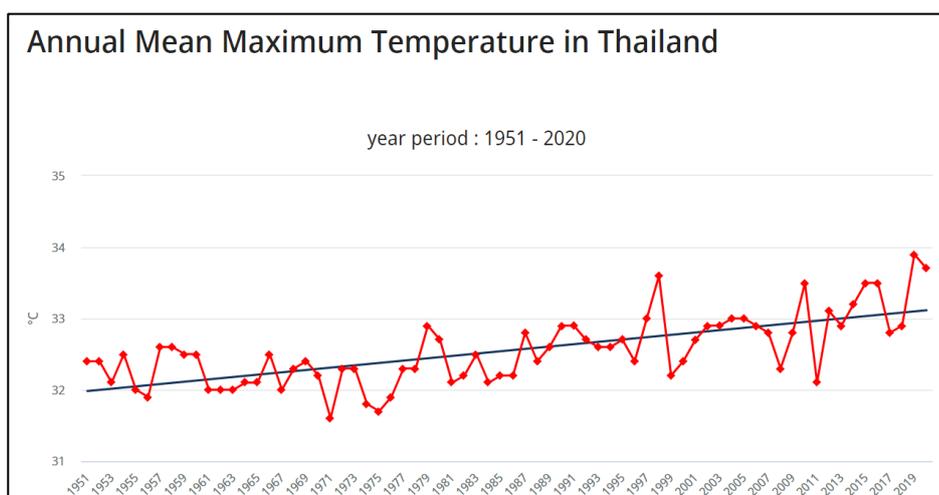
The South sits on a narrow peninsula. Two Beach plains to the east and the west are divided by tall mountain ranges running through the center of the peninsula. Notable mountains in the area are San Ka Ra Kiri (which borders Malaysia) Phuket, and Nakhon Si Thammarat. The narrowest part of the country is Kor Kod Kra, connected to the Malay Peninsula.

1.2 Climate Information

Thailand is located in the tropical climate zone. The country is affected by two seasonal monsoons: the southwest monsoon and the northeast monsoon. The southwest monsoon starts in May and brings a stream of warm, moist air from the Indian Ocean towards

Thailand causing abundant rainfall over the country. The northeast monsoon starts in October and brings cold, dry air from China over the north and northeast regions, and also facilitates abundant rain along the eastern coastline of the Southern region.

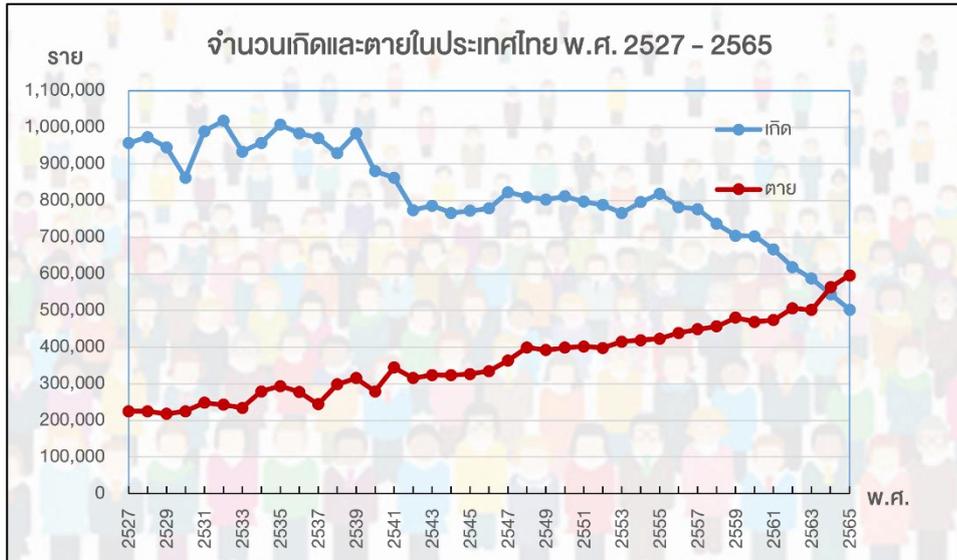
The climate of Thailand can be broadly divided into three seasons: 1) Rainy, from mid-May to mid-October 2) Winter, from mid-October to mid-February, and 3) Summer, from mid-February to mid-May. Thailand’s hottest months are April and May, while the coldest months experienced during December and January. The months with the highest rainfall are August and September. The average temperature of Thailand ranges from 18°C to 38°C.



Thailand is among the world's ten countries that are most exposed to climate change. In particular, it is highly vulnerable to rising sea levels and extreme weather events. Various studies report temperature increases across Thailand since mid-20th century. The annual mean maximum temperatures in Thailand (year 1951 – 2020) recorded by the Thai Meteorological Department indicates that a trend increasing temperatures is likely to continue. In recent years (2015-2021), the rainfall variation has fluctuated, with the lowest rainfall in 40 years in 2019 (1,343.4 mm) since 1979 (1,332.3 mm). The highest annual rainfall in Thailand was recorded in 2017 (2,017 mm).

1.3 Demographic Data

Total population of Thailand as registered in November 2023 was 66,057,967, about 32.2 million males and 33.8 million females (The Bureau of Registration Administration, 2023). There have been challenging signs of declining birth rate which might hit critical levels. The number of newborns has been lower than 1 million people since 1984, and has been continuing to drop since then until the number of deaths was higher than the number of births for the first time in 2021. As of November 2023, there were 476,961 births and 518,992 deaths.



Moreover, the proportion of people aged 60 years and older has increased to 20% of the total population in 2022 causing Thailand became an aged society. This demographic transition translates into two challenges: 1) the development of a mechanism to support aging and aged members of society, and 2) the development of national policies and plans to promote social and health services for mothers and newborns. There were about 13 million elderly people in Thailand in 2023, and Bangkok has the highest number of elderly persons. In addition, Thailand had about 2.2 million people with disabilities in 2023, while almost 1.3 million of them aged 60 years and older.

The number of employed people in October 2023 totaled 39.9 million, with the highest number of employed people worked in agricultural and fishery sector. (Bank of Thailand, 2023)

1.4 Administrative Divisions

Thailand is governed under a system of parliamentary democracy with a constitutional monarchy, with the King as Head of State. The sovereign power can be divided into three branches:

1) The legislative branch consists of the National Legislative Assembly, House of Representatives, Senate, and Parliament.

2) The executive branch consists of the prime minister, who is appointed by the King in accordance with the resolution of the National Legislative Assembly. Upon recommendation of the prime minister, the King appoints ministers. The prime minister is the head of government in Thailand and the leader of the ministers in the executive branch of the government.

3) The judiciary is the system of courts, consisting of the Court of Justice, the Constitutional Court, and the Administrative Court. The President of the Supreme Court of Justice, the President of the Constitutional Court, and the President of the Supreme Administrative Court are the heads of the judicial branch.

The administrative services of the executive branch of the government are divided into three levels: (1) the central government consists of Prime Minister's Office, Ministries, Bureaus, and Departments; (2) the provincial government consists of Provinces, Districts, Sub-district, and Villages; and (3) the local government consists

Administrative Divisions		
Central Administration (centralization)	Provincial Administration (deconcentration)	Local Administration (decentralization)
<ul style="list-style-type: none"> ★ Prime Minister's Office ★ Ministries ★ Bureaus ★ Departments 	<ul style="list-style-type: none"> ★ 76 Provinces ★ 878 Districts ★ 7,255 Sub-districts ★ 75,986 Villages 	<ul style="list-style-type: none"> ★ 76 PAOs ★ 2,450 Municipalities ★ 5,324 SAOs ★ Bangkok Metropolitan Administration (BMA) ★ Pattaya City

of Provincial Administrative Organizations (PAO), Municipalities, Sub-district Administrative Organizations (SAO), Bangkok Metropolitan Administration (BMA), and Pattaya City. Although BMA and Pattaya City are special governed districts, Pattaya City is still part of Chonburi province, while BMA is at provincial level itself.

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The provincial government comes under the concept of deconcentration, with a governor and head officials appointed directly by the Ministry of Interior. The governor has the statutory authority to direct and order government officials from other central ministries and departments at the provincial level. As of 31 December 2023, the number of Thailand's provincial government are as follows: 76 provinces, 878 districts, 7,255 sub-districts, 75,086 villages. (The Bureau of Registration Administration, 2023) On the other hand, the local government is based upon the concept of decentralization. It is divided into local government executives and local government organization councils. Local government members in the executive branch and the legislative branch are elected directly by people.



The country divided into 6 regions and each region comprises of provinces as follows:

1) North region (9 provinces): Chiang Mai, Chiang Rai, Lampang, Lamphun, Mae Hong Son, Nan, Phayao, Phrae, and Uttaradit

2) Central region (Bangkok + 21 provinces): Ang Thong, Phra Nakhon Si Ayutthaya, Chai Nat, Kamphaeng Phet, Lop Buri, Nakhon Nayok, Nakhon Pathom, Nakhon Sawan, Nonthaburi, Pathum Thani, Phetchabun, Phichit, Phitsanulok, Sukhothai, Samut Prakan, Samut Sakhon, Samut Songkhram, Saraburi, Sing Buri, Suphan Buri, and Uthai Thani

3) North-east or Isan region (19 provinces): Amnat Charoen, Buri Ram, Chaiyaphum, Kalasin, Khon Kaen, Loei, Maha Sarakham, Mukdahan, Nakhon Phanom, Nakhon Ratchasima, Nong Bua Lamphu, Nong Khai, Roi Et, Sakon Nakhon, Si Sa Ket, Surin, Ubon Ratchathani, Udon Thani, and Yasothorn

4) Western region (5 provinces): Kanchanaburi, Phetchaburi, Prachuap Khiri Khan, Ratchaburi, and Tak

5) Eastern region (7 provinces): Chachoengsao, Chanthaburi, Chonburi, Prachin Buri, Rayong, Sa Kaeo, and Trat

6) South region (14 provinces): Chumphon, Krabi, Nakhon Si Thammarat, Narathiwat, Pattani, Phang Nga, Phatthalung, Phuket, Ranong, Satun, Songkhla, Surat Thani, Trang, and Yala

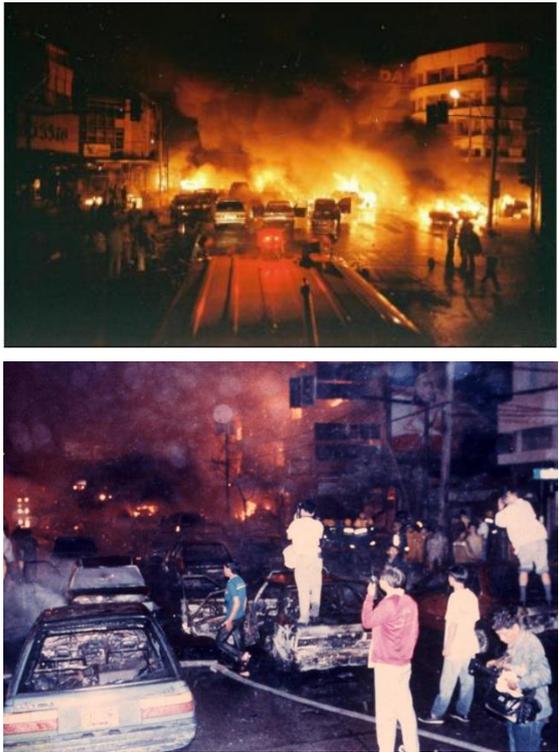
2. Disaster in Thailand

Thailand is exposed to a wide range of hazards due to its geographical location. The country is currently affected by various disaster including floods, storms, landslides, wildfires, extreme heat, droughts, and earthquake. The effect of climate change has also magnified the impact of hydrometeorological hazards and increased vulnerabilities to people and assets. Projections suggest that Thailand’s agriculture sector could be significantly affected by climate change. However, their impacts vary. For example, communities located in steep and mountainous regions are particularly vulnerable to landslides triggered by heavy rain, on the other hand, the northern parts are more prone to wildfires occurring during the dry season, while the country’s coasts are impacted by sea level rise and communities along the coastlines are susceptible to the risk of storm surges and saline intrusion, which heighten the risks of contamination of aquifers and the soil. Moreover, the problem of air pollution is a growing concern for the general public in Thailand. PM 2.5 ultra-fine dust becomes a serious threat to harm people’s health, increasing negative impact to several health conditions such as respiratory illness, heart health, and allergic symptoms affecting the eyes and nasal passages. In addition, human-induced hazards, particularly technological accidents, are also a concern, especially in industrial areas.

Examples of major disasters that had occurred and causing significant damages and losses on human’s lives and assets in Thailand historical record are as follows:

Year	Event Description	Picture
1942	<p>Bangkok Floods Heavy downpours in the Chao Phraya Basin provinces caused floods that lasted three months. The highest water level was 2.27 meters during October. At that period even the Bangkok’s Royal Plaza and location around the Grand Palace were under water. This was the worst flooding in Thailand before large dams like Bhumibol and Sirikit were build.</p>	

Year	Event Description	Picture
1962	<p>Tropical Storm Harriet In October 1962, Tropical Storm Harriet ravaged Thailand's southern peninsula. The center of the storm was in Nakhon Si Thammarat province as it moved to the shore at Laem Talumphuk with 300 kilometers across and had winds of 95 kmph. The Tropical Storm Harriet caused a wide-area storm surge and flash flood. The 4-meter height wave hit many villages along the seashore. There were more than 900 dead, 250 serious injured, 140 missing, and 16,000 lost their houses.</p>	
1988	<p>Landslides and debris flow Extremely intense rainfall for almost 3 days and 3 nights triggered a massive landslide cascading down from Khao Luang Mountains where several villages along their rims were almost wiped out by catastrophic debris flows. Two villages in Nakorn Si Thammarat Province - Ban Kathun Nua, Phipun district and Ban Kiriwong, Lan Saka district were severely hit by landslides and debris flows. More than 100 people died and missing, 230 injured and damages worth about 1 billion Thai baht.</p>	
1989	<p>Typhoon Gay The worst typhoon to affect the Malay Peninsula in 35 years formed in the Gulf of Thailand in early November as a monsoon and rapidly intensified, attaining winds over 120 km/h. The storm landed Chumphon on 4 November with winds of 185 km/h, caused more than 500 dead and 400 missing and about 500 fishing boats sank in the sea.</p>	

Year	Event Description	Picture
1990	<p>Bangkok Gas Explosion</p> <p>The gas explosion in Bangkok took place on 24 September 1990, when a liquid petroleum gas tanker truck crashed on the expressway exit at New Phetchaburi Road, and then the liquid petroleum gas, which may have been improperly mounted to the truck was spilt on the road ignited causing large explosions and 300-meter radius fires that burned more than 40 shop-houses and other buildings, including the women's dormitory, along with about 100 slum dwellings for over 24 hours. Total property damages were estimated at over 300 million baht and almost 90 people were killed.</p>	
1993	<p>The Kader Toy Factory Fire</p> <p>On 10 May 1993, a small fire was discovered on the first floor of one building and spread quickly because the parts of factory were full of raw materials which easily to burn fast and none of the structural steel in the building was fireproofed, and also, none of the buildings had automatic sprinklers. 15 minutes after the burning, the Building One collapsed, and the blaze raged through the Building Two and Three before the fire brigade could effectively defend them. Fortunately, all the workers from Building Two and Three were able to escape and the firefighters successfully kept the fire from entering Building Four. It took more than 3 hours until the flame was under control. It is considered the worst industrial factory fire in history. 188 people were killed, and over 500 were seriously injured.</p>	

Year	Event Description	Picture
1994	<p>Collapse of the Royal Hotel Plaza On 13 August 1993, the Royal Plaza, a 6-storey hotel complex in Nakhon Ratchasima province of Thailand collapsed with little warning while 379 people attended meetings inside. The hotel started collapsing at 10.10 hr. and within 10 minutes later the whole building collapsed swiftly and totally, leaving high only the front elevator hall, which was structurally independent from the rest of the building. The collapse was blamed on a substandard structural addition to the building, which doubled the number of floors of the hotel from three to six, resulting in killing 137 and injuring 227. This incident contradicts the broadly held notion that if a building has survived the construction stage, it is very unlikely to collapse without major external forces, such as an earthquake.</p>	
1995	<p>Thailand Big Floods During August - October 1995, Thailand was hit by a series of tropical storms, especially storm Olis, passing through the country from the South China Sea. Due to the effects of several storms, Heavy rainfall and floods occurred in Northern, Eastern, Southern, and Northeastern regions, including Bangkok. The rising waters in Chao Phraya River reached 2.27-meter height as they did in 1942. 68 out of 76 provinces got affected, while, total 260 lives had been lost. Some areas such as White House Village in Pathum Thani province had been inundated for 2 months.</p>	

Year	Event Description	Picture
1997	<p>Royal Jomtien Resort Hotel Fire On 11 July 1997, a fire ignited as a result of human error by a worker who had identified a faulty valve assembly on a gas cylinder in a ground floor buffet of the hotel. Instead of shutting off the valve, the worker accidentally increased the flow of gas and caused an explosion. Authorities blamed the management of the 17-story, 450-room Royal Jomtien Resort Hotel for neglecting fire safety measures. More than 300 people, mostly Thais attending seminars, were in the hotel at the time the fire broke out. More than 90 people were killed and 74 were injured.</p>	
2001	<p>Debris Flow and Debris Flood in Nam Ko area On 11 August 2001, a disastrous debris flow and associated debris flood (debris flow-flood) severely damaged Nam Ko Yai village on the alluvial fan just below the canyon mouth of the Nam Ko Yai stream, a major tributary of Pa Sak River in Lom Sak district, Phetchabun province, central Thailand. The floodwater, full of debris and fallen trees, destroyed several houses on the stream banks and claimed 136 lives, while another 109 were injured. The blame for the incident, once again, was laid at the door of extensive deforestation.</p>	
2004	<p>Indian Ocean Earthquake and Tsunami On 26 December 2004, magnitude 9.1 Sumatra, Indonesia earthquake (3.316 N, 95.854 E, depth 30 km) generated a gigantic tsunami that was observed worldwide and caused tremendous devastation and deaths throughout the Indian Ocean region. The first giant waves</p>	

Year	Event Description	Picture
2004	<p>from the Indian Ocean tsunami reached Banda Aceh, Indonesia, and then traveled as fast as 500 mph, the speed of a jet plane, to other countries, including Thailand. Tsunami wave hit all 6 provinces along the Andaman coast, more than 5,400 people perished, 8,000 were injured, and 2,000 went missing.</p>	
2011	<p>Thailand Floods The La Niña phenomenon and 5 storms unleashing heavy rains brought severe flooding to 64 of 76 provinces as well as Bangkok. The flooding began at the end of July triggered by the landfall of Tropical Storm Nock-ten. These floods soon spread through the provinces of northern, northeastern, and central Thailand along the Mekong and the Chao Phraya river basins. In October floodwaters reached the mouth of the Chao Phraya and inundated parts of Bangkok, and even the runway complex of Don Mueang airport was totally submerged. The impact was felt globally as industrial sites were inundated and caused a major shortage of hard disk drives and other exports to the world. Flooding persisted in some areas until mid-January 2012, resulting in a total of 657 deaths, with 3 missing. Overall, the total damage and loss amounted to 1.44 trillion baht, making this the most expensive natural disaster in Thailand's history.</p>	  
2019	<p>Tropical Storm Pabuk Pabuk made landfall in the Pak Panang district of Nakhon Si Thammarat province on 4 January 2019 with maximum sustained wind speeds of 95 kilometers per hour (59 mph). It was the tropical storm number one</p>	

Year	Event Description	Picture
2019	<p>and is considered as the first storm in 68 years to enter Thailand in January. Fortunately, early warning and early action helped ensure that tropical storm Pabuk passed with limited loss of life. Because of learning from the previous losses caused by Tropical Storm Harriet and Typhoon Gay, Thai authorities had evacuated about 30,000 people living in the coastal districts into shelters, and also, suspended flights and ferry services, raised red warning flags on the beach to ban swimming, and advised fishermen to stay ashore. The storm affected 18 provinces, killed 5 people, and caused high economic losses (about 5 billion baht) and considerable damage to critical infrastructures such as roads, water and electricity supplies.</p>	
2021	<p>Ming Dih Chemical Factory Explosion The complexed chemical factory explosion was one of the biggest HAZMAT incidents Thailand has experienced in decades. A massive explosion and fire at foam and plastic pellet manufacturing plant of Ming Dih Chemical Co., Ltd., located in Samut Prakan Province, on July 5, 2021. The explosion not only engulfed the entire factory but also caused extensive damage to buildings, houses, and property of the residents living within a radius of 1 - 2 kilometer. Many firefighters were injured and one of them was killed. The report said there were 49 injured, and more than 2,500 houses damaged. Authorities ordered residents living within a 5-kilometer area around the factory to evacuate to avoid inhaling any fumes and warning</p>	

Year	Event Description	Picture
2021	<p>that they could cause dizziness and vomiting, and cancer in the long term. DDPM was supporting the incident by supplying 2 helicopters (KA-32), machinery and equipment, search and rescue teams, and Incident Management Assistance Team (IMAT) to assist the operation at scene.</p>	
2022	<p>Typhoon Noru Typhoon Noru was an intense tropical cyclone that affected Vietnam, Thailand and Philippines. The heavy rain caused severe flooding and landslides across parts of Thailand. Department of Disaster Prevention and Mitigation (DDPM) reported that 37 districts in 18 provinces in North Northeast and Central region have been hit by flooding between 22 - 26 September 2022. Around 4,000 people were evacuated, 4,348 households were affected and 3 people were deaths. The heavy rain has continued since then, causing further flooding and rivers to rise. The authorities issued warnings for communities close to the Chao Phraya river and Pa Sak river on 2nd October. Until 5th October the rivers were above critical level in 38 locations, mostly in Northern and central provinces. DDPM reported floods and flash floods occurred in 25 provinces due to the influence of Noru, approximately 156,240 households affected, 4 deaths and 2 injuries. On 13 October, DDPM officially requested resources support from AHA Centre to release 3,500 Family Kits and 9,000 Personal Hygiene Kits from DELSA Warehouse in Chai Nat province to support the remaining 13 provinces affected by the storm.</p>	  

Disaster Statistical Data

(1) Flood

Impact of Floods during 2012 - 2022

Year	Affected Areas	Dead	Injured	Missing	Affected People	Damaged Houses
2012	47 provinces	13	-	-	2,353,027	26,891
2013	74 provinces	134	17	9	5,923,380	60,416
2014	58 provinces	31	8	1	1,810,748	10,296
2015	49 provinces	11	-	2	885,915	4,707
2016	62 provinces	104	4	1	1,706,832	29,769
2017	68 provinces	152	6	1	3,678,474	37,345
2018	65 provinces	23	12	8	1,009,289	18,398
2019	60 provinces	18	5	-	1,593,430	33,773
2020	65 provinces + Bangkok	33	6	1	3,576,314	138,077
2021	73 provinces + Bangkok	68	8	-	2,515,313	241,480
2022	75 provinces + Bangkok	79	12	-	4,083,913	248,634

source: Disaster Data Center, DDPM

(2) Drought

Impact of Droughts during 2012 - 2022

Year	Affected Areas	Affect Villages/ Communities	Affected Households	Damaged Agricultural Areas
2012	53 provinces	40,723	4,188,516	2,007,213 rai
2013	58 provinces	37,118	2,678,487	4,327,240 rai
2014	49 provinces	23,012	1,745,263	1,308,722 rai
2015	40 provinces	12,972	1,443,543	2,393,460 rai
2016	43 provinces	12,449	1,071,472	2,956,929 rai
2017	2 provinces	159	15,226	12,238 rai
2018	11 provinces	4,604	143,497	2,054,564 rai
2019	28 provinces	13,014	713,737	17,638,913 rai
2020	33 provinces	9,334	365,683	2,289,265 rai
2021	6 provinces	379	N/A	N/A
2022	3 provinces	124	N/A	33,390 rai

source: Disaster Data Center, DDPM

(3) Landslide

Impact of Landslides during 2012 - 2022

Year	Affected Areas	Dead/ Missing	Injured	Affected People	Damaged Houses	Damaged Roads/Bridges
2012	5 provinces	1	1		2	8 places
2013	6 provinces	-	-		-	37 places
2014	4 provinces	-	-		1	4 places
2015	N/A	N/A	N/A		N/A	N/A
2016	N/A	N/A	N/A		N/A	N/A
2017	N/A	N/A	N/A		N/A	N/A
2018	9 provinces	-	-		81	53 places
2019	7 provinces	2	20	308	10	5 places
2020	7 provinces	-	2	57	7	2 places
2021	23 provinces + Bangkok	2	3	1,971	86	80 places
2022	35	3	7	2,596	122	140 places

source: Disaster Data Center, DDPM

(4) Storm

Impact of Storms during 2012 - 2022

Year	Affected Areas	Dead	Injured	Missing	Affected People	Damaged Houses
2012	68 provinces	14	27	-	26,182	1,970
2013	66 provinces	24	28	-	133,423	49,956
2014	71 provinces	7	38	-	107,299	59,066
2015	70 provinces	67	68	-	354,957	111,382
2016	71 provinces	11	12	-	146,484	20,243
2017	69 provinces	19	24	-	151,851	47,074
2018	75 provinces	29	37	-	199,086	77,977
2019	70 provinces	46	43	-	1,028,246	181,508
2020	76 provinces + Bangkok	25	37	-	321,215	129,859
2021	76 provinces + Bangkok	33	59	-	203,286	78,992
2022	76 provinces + Bangkok	23	49	-	200,850	93,570

source: Disaster Data Center, DDPM

(5) Fires

Impact of Fires during 2012 - 2022

Year	Affected Areas	Dead	Injured	Missing	Affected People	Damaged Houses
2012	73 provinces + Bangkok	30	525	-	13,600	2,882
2013	74 provinces + Bangkok	106	211	-	7,899	2,185
2014	72 provinces + Bangkok	53	74	-	N/A	1,100
2015	70 provinces + Bangkok	45	167	-	4,732	2,115
2016	76 provinces + Bangkok	68	184	-	22,166	1,285
2017	75 provinces + Bangkok	62	161	-	8,958	1,706
2018	75 provinces	31	147	-	3,996	1,498
2019	65 provinces	24	126	-	11,608	1,339
2020	69 provinces + Bangkok	34	66	-	5,103	1,375
2021	74 provinces + Bangkok	51	190	-	8,473	2,458
2022	76 provinces + Bangkok	110	360	-	13,205	3,355

source: Disaster Data Center, DDPM

3. Recent Major Disasters

The picture and table below show an accumulated data of disaster occurrences during 1 January - 31 December 2023:



Type of Disaster	Affected Areas	Number of Disasters (Time)											
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Flood	72 provinces + Bangkok	6	1	2	4	18	13	73	71	335	321	64	24
Landslide	24 provinces	2	-	-	-	4	2	15	13	16	19	5	2
Drought	20 provinces	1	-	7	14	9	4	3	12	3	2	1	1
Storm	76 provinces + Bangkok	45	51	165	379	346	126	182	144	136	72	84	17
Fire	76 provinces + Bangkok	403	327	345	290	245	185	149	258	171	198	218	261

According to the disaster data summarized by Disaster Data Center, DDPM as of 5 January 2024, there were a total of 5,864 disasters in 2023 and 1,307,489 people affected by these disaster events. The following tables show impact of the aforementioned disasters to lives and assets:

(1) Flood

Dead	Injured	Missing	Evacuate	Affected People	Damaged Houses	Damaged Agricultural areas (rai)
26	5	2	64	742,574	105,661	1,064,207

(2) Landslide

Dead	Injured	Missing	Evacuate	Affected People	Damaged Houses	Damaged Agricultural areas (rai)
3	7	-	-	76	85	-

(3) Drought

Dead	Injured	Missing	Evacuate	Affected People	Damaged Houses	Damaged Agricultural areas (rai)
-	-	-	-	332,161	-	494,546

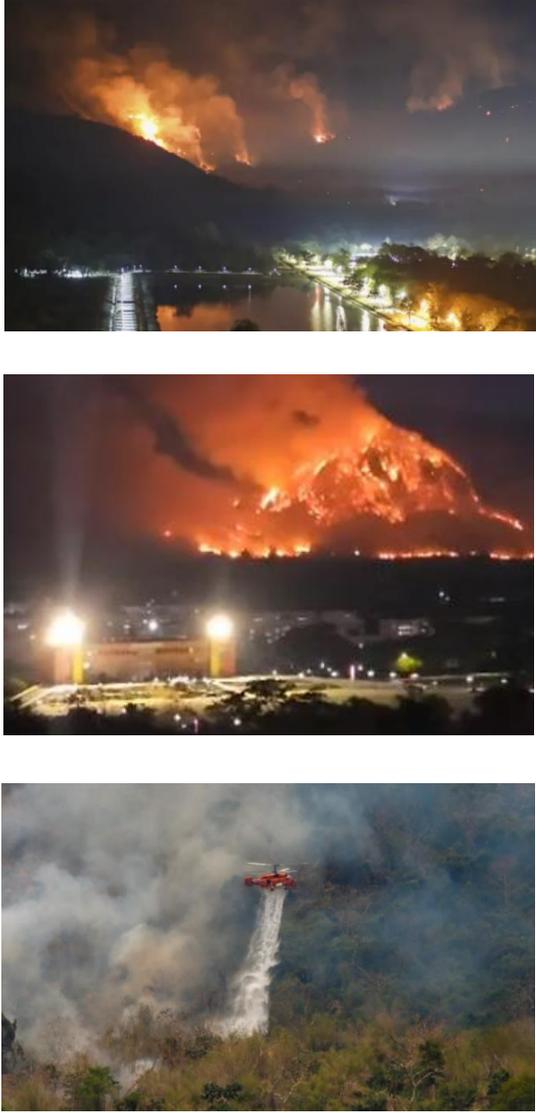
(4) Storm

Dead	Injured	Missing	Evacuate	Affected People	Damaged Houses	Damaged Agricultural areas (rai)
29	59	1	12	224,479	99,689	43,543

(5) Fires

Dead	Injured	Missing	Evacuate	Affected People	Damaged Houses	Damaged Agricultural areas (rai)
78	308	-	49	8,199	3,884	1,868

In 2023, Thailand suffered from fire incidents the most as they caused the greatest number of losses of life and injury. Fires due to firework explosions in factories have continued to occur more than 20 times since 2008, and each time causing great damages and losses. Forest fires also caused the worst air pollution especially at the northern part of the country during the burning season, which has sent nearly 2 million people to hospitals with respiratory illnesses since the beginning of the year. Chaing Mai was ranked on top as the world's worst air quality. It is estimated that forest fires had burnt more than 180,000 rai of forest areas. Furthermore, Thailand had to face extreme weather events that caused strong wind and heavy rain throughout the year, resulting in floods in many provinces. The major disasters in 2023 are as follows:

Month	Event Description	Picture
March	<p>Forest Fires, Nakhon Nayok During 28 - 31 March 2023, a wildfire has engulfed two mountains and part of a forest park in Nakhon Nayok. The mountain ablaze with orange flames against a pitch-black sky surface brought dramatic sceneries. The fire started at the Khao Chaplu mountain on 28 March 2023. The steep mountain terrain prevented firefighters from reaching the blaze, which quickly spread to neighboring Khao Laem mountain on 29 March and Khao Nang Dam, a forest park, on 30 March respectively. DDPM dispatched machines and equipment along with officers to support the 5-day fire-fighting mission. Not only, fire trucks, water trucks, and firefighting machines that were dispatched, two KA-32 helicopters were also sent to dump water on the forest fires. The fires finally had subsided on 31 March and completely extinguished on 3 April. The fires destroyed about 1,805 rai of forest areas, and more than 700,000 liters of water were used for the fire extinguishing operations.</p>	 <p>The first image shows a night view of a forest fire with bright orange flames against a dark sky, reflected in a body of water. The second image shows a large, intense fire on a mountain slope at night, with bright lights in the foreground. The third image shows a red helicopter in flight, dropping a large amount of water from its bucket onto a forest fire.</p>
July	<p>Typhoon Talim Typhoon Talim was forecasted to make landfall in northern Vietnam and likely bring very heavy downfalls to 47 provinces in northern, north-eastern, eastern, southern, and central Thailand, including Bangkok during 17 - 20 July 2023, according to Thai Meteorological Department. The typhoon did not make direct landfall in Thailand. However, five districts in Ranong province, southern part of Thailand were severely flooded. Three days of heavy rain led to forest runoff</p>	 <p>The first image shows an outdoor resort area with a swimming pool, lounge chairs, and a traditional Thai building in the background. The second image shows a large, uprooted tree trunk lying on a dirt path, with several people standing nearby, indicating the impact of heavy rain and forest runoff.</p>

Month	Event Description	Picture
July	<p>gushing into its famed hot springs. There was no report of death but it is expected that the economic losses in tourist sector was about 100 million baht. Moreover, there were reports about flood inundation and a road that was cut off due to flashflood in Chumphon province as well.</p>	
July	<p>Firework Explosions in Chiang Mai and Narathiwat On 24 July 2023, a firework factory in Doi Saket, Chiang Mai exploded during lunch break, leading to 10 injured and 5 houses were damaged. Then 5 days later, on 29 July 2023, the second explosion occurred in Muno Market, Su-ngai Kolok District, Narathiwat Province. It was believed that the firework explosion was caused by welding during construction work on a building storing fireworks illegally. The blast killed 12 people, injured 130 people, and destroyed 329 houses. There were more than 1,300 people affected by this incident.</p>	
September - October	<p>Flooding from a strong low-pressure system A strong low-pressure system in the central South China Sea moved across upper Thailand along the monsoon trough, meanwhile, the southwest monsoon that blew over Andaman Sea, the southern region, and the Gulf of Thailand became stronger, causing heavy rain in many areas of lower Northern region as well as Northeastern, Central, and Southern region, including Bangkok and surrounding areas. During 26 September - 18 October 2023, 37 provinces 154 districts 586 sub-districts 2,978 villages and</p>	

Month	Event Description	Picture
September - October	<p>62,180 households had been affected from floods. Four affected provinces: Tak, Phitsanulok, Ubon Ratchathani, and Roi Et requested DDPM to submit a request to AHA Centre for relief items deployment from DELSA Satellite Warehouse. There were 4,080 Personal Hygiene Kits (valued 56,712 USD) released to support the aforementioned four provinces in November 2023.</p>	
December	<p>Flooding in the Deep South Flash floods occurred in the Deep South of Thailand: Narathiwat province and Yala province on 24 December 2023, followed by Pattani province on 29 December 2023 due to the influence of the northeast monsoon that blew over the Gulf of Thailand and Southern region became stronger in combination with a strong low-pressure system covering Sumatra Island and lower Andaman Sea. The intensity was considered like 50-year flood. According to DDPM's situation report, there were more than 600 people evacuated to the shelters and more than 400,000 households affected by floods (estimated) with total 14 dead in Narathiwat province, 4 dead in Yala province, and 3 dead in Pattani province. Roads were cut in some areas, railway services route Yala station - Su-ngai Kolok station, and also, more than 100 schools had to be closed temporarily. DDPM delivered food and water supplies to support relief operation, and also dispatched one helicopter and machines such as water trucks, food trucks, water pumps, and flat ships. Furthermore, 4,000 Personal Hygiene Kits and 7,000 Family Kits from DELSA Satellite Warehouse were also released to assist the 3 affected provinces. The situation eased up on 3 January 2024.</p>	

4. Thailand's Disaster Risk Management System

4.1 Legal Framework

The Disaster Prevention and Mitigation Act B.E. 2550 (2007) has replaced the old and outdated 1979 Civil Defense Act and the 1999 Fire Prevention and Suppression Act, entering into force on 5 November 2007. It has served as the principal legal mechanism for disaster risk management practices in Thailand, coupled with an application of other disaster risk management related laws / regulations / notifications / directives. Furthermore, there are relevant laws supporting the disaster risk management such as Regulations of Ministry of Finance on Contingency Fund Advances for Emergency Relief Assistance, Town Planning Act, and Safety, Occupational Health, and Environment at Work Act, etc.

Entry to enforce on 5 NOV 2007 as the **main DRM laws** following the lesson learned from Tsunami incident in 2004

Provide the **definition of "Disaster"**

Formulate implementing **DRM mechanism and authority** (Policy level and Operation level)

Designate the Department of Disaster Prevention and Mitigation (DDPM) as the **national focal point** for DRM

Formulate **Disaster Prevention and Mitigation Plan** in all level (National/Provincial/Bangkok Metropolitan Administration/District/Local Administration Organization)

Protection from liabilities for all officers who perform DRM operations in accordance with this laws

4.2 National Disaster Prevention and Mitigation Plan 2021 - 2027

As the Disaster Prevention and Mitigation Act B.E. 2550 (2007) Section 44 "In case of any changes of disaster prevention and mitigation facts as specified in disaster prevention and mitigation plans under this act, or if those plans have been used for five years. Those responsible persons who oversee the formulating of plan shall have to revise or review that plan rapidly.". The National Disaster Prevention and Mitigation Plan 2015 has been used complete it's period, so the National Disaster Prevention and Mitigation Committee work on to revise the new plan. The plan has been completely revised and the cabinet has approved the National Disaster Prevention and Mitigation Plan 2021 - 2027 on 5 July 2022.

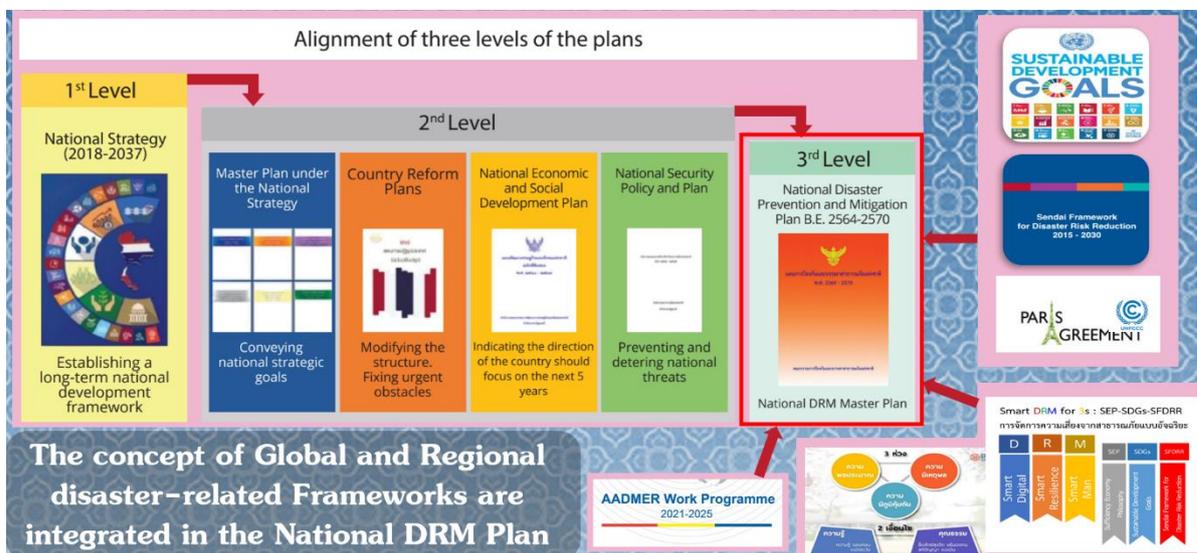
The National Disaster Prevention and Mitigation Plan 2021 - 2027 has the purpose to be a national DRM strategic document that describes a concept of operation to guide DRM operationalization for all relevant agencies across levels and sectors.



National Disaster Prevention and Mitigation Plan 2015



National Disaster Prevention and Mitigation Plan 2021 – 2027



The Plan integrated the concept of global and regional disaster-related framework such as Sustainable Development Goals (SDGs), United Nations Framework Convention on Climate Change (UNFCCC), Sendai Framework for Disaster Risk Reduction 2015 - 2030, and ASEAN Agreement on Disaster Management and Emergency Response (AADMER), also, consolidated the National Strategy and the National Economic and Social Development Plan which are the national 1st and 2nd level of the plan respectively. The concept of SMART DRM for 3s: SEP – SDGs – SFDRR has been applied to formulate Thailand’s disaster prevention and mitigation policies to achieve the vision which is “Enable Thailand to effectively reduce existing and prevent new risks in order for ensuring national sustainable security, safety and resilience”.

Approved by the Cabinet on 5 July 2022 as the **master plan** of DRM

Provide **Concept of Operation** to enable all sectors including government, private and civil society sector to **collectively implement DRM activities** in an integrated and systematic manner, and in the same direction

Vision: Enable Thailand to effectively reduce existing and prevent new risks in order for ensuring national **sustainable security, safety and resilience**

National DRM Policy: 1) Implementation of **DRR** concept in all dimensions 2) Promotion of **R&D and innovation** to augment disaster resilient capacity 3) Strengthening **International Partnership Cooperation** 4) Elevation of **Emergency Management Standards** 5) Sustainable Recovery System “**BBB & Safer**”

National Disaster Prevention and Mitigation Plan 2021 - 2027

The strategies in the National Disaster Prevention and Mitigation Plan 2021 - 2027 puts an emphasis on enhancing DRM capacity, effective and integrated crisis management system, adaptation of innovation and technology in DRM, efficiency of recovery system and promoting with multi-agency and multi-sectoral approaches as well as strengthening international cooperation. The strategies are comprised of two parts:

Part 1: Effective Disaster Risk Reduction	
Strategy 1	<p>Enhance disaster risk management capacity</p> <p>This strategy aims to reduce disaster risks and vulnerability while enhancing disaster risk reduction capacity by utilizing the disaster risk reduction concept of reducing the existing risks and preventing new risks.</p> <ul style="list-style-type: none"> • Develop and promote the utilization of disaster risk management systems at all government levels (national, provincial, district, and local administration) in accordance with disaster risk management practices and guidelines in implementation of disaster risk reduction as well as building awareness in disaster risk reduction in all levels. • Develop measures in disaster risk reduction in line with practices in risk avoidance, risk prevention and mitigation, risk transfer, and risk acceptance. • Institutionalize disaster risk reduction through the designation of disaster risk reduction as one of the national agenda and at the same time encourage the participation and development of partnership in disaster risk reduction among all sectors and stakeholders.
Strategy 2	<p>Advance the effectiveness of the disaster management plan and promote the application of innovations in disaster management</p> <p>This strategy is developed under the concept of Administrative and Innovation in promoting smart disaster risk management toward building resilience. Innovative application of disaster risk management will augment capacity in utilization of digital technology administration and contribute to Thailand 4.0 Development Policies.</p> <ul style="list-style-type: none"> • Develop the Disaster Information System in accordance with database standard, guideline for disaster database development,

	<p>guideline in disaster database collection and analysis, and guideline in development of decision support system on disaster management and access to disaster database.</p> <ul style="list-style-type: none"> • Enhance knowledge management capacity on disaster risk management according to the guideline for research and development, guideline for human resource development and standards for promoting career and profession in disaster management, and directions on promoting knowledge management in disaster risk management. • Develop an effective disaster risk communication methods and mechanisms to focus on delivering disaster risk messages and warnings to the public and multi-hazard End-to-End Early Warning System. • Promote investment in disaster risk management through participatory process with engagement from all sectors and levels of governments as well as strengthening Public-People-Private Partnership in disaster risk management, utilization of financing measures as a tool for risk transfer, and implementation of disaster risk financing and insurance. • Promote the participatory process in disaster risk management in accordance with guidelines for partnership development through disaster risk management network and capacity building at the community level through Community-Based Disaster Risk Management (CBDRM) concept and method.
<p>Strategy 3</p>	<p>Promote international DRR partnership</p> <p>The focus of this strategy is “Partnership” and how to build sustainable “Ownership” in disaster risk management among all stakeholders both national and international level.</p> <ul style="list-style-type: none"> • Strengthen international strategic partnership in disaster risk management (bilateral and multilateral) • Develop coordination mechanisms on humanitarian assistance, including standard operating procedure for providing and receiving international humanitarian assistance according to international standards on coordination of humanitarian assistance. • Upgrade national standards on providing and receiving humanitarian assistance in accordance with the international concept of National Single Window (NSW), one single point of entry and coordination under single command mechanism. • Promote Thailand’s leading role in disaster risk management, both in providing humanitarian assistance research and academic cooperation in the field of disaster risk management, through project cooperations, visiting exchange, research and development of international disaster risk management standards.
<p>Part 2: Development of standards in disaster management</p>	
<p>Strategy 4</p>	<p>Promote effective and integrated emergency management system</p> <p>This strategy aims to elevate the standards in emergency management in which all stakeholders can participate in the planning process, the provision of care for the affected population, and the restoration of the affected areas to normalcy in an integrated manner through the development of clear guidelines and concrete expected outcomes.</p> <ul style="list-style-type: none"> • Develop the unified emergency management system which follows the mandates of the Disaster Prevention and Mitigation Act B.E. 2550 (2007). The system will be crafted according to the emergency management standards and provide the guidelines on how to provide

	<p>information on level of disasters, establishment of emergency operation center, announcement of areas affected by disasters, elevation of the emergency during disasters, and evacuation process.</p> <ul style="list-style-type: none"> • Develop system and mechanisms in supporting of emergency operations including guideline for emergency communications, Incident Command System (ICS), establishment of Emergency Support Function (ESF), and incident management assistant process. • Enhance the effectiveness of disaster relief system and procedure as instructed by related laws and regulations and include the utilization of Damage and Need Assessment (DANA) method as well as provision of guideline for donation acceptance during disasters, guideline for disaster situation reporting, and guideline for establishing temporary shelter during disasters.
<p>Strategy 5</p>	<p>Promotion of sustainable disaster recovery</p> <p>“Build Back Better” is the core of this strategy. Sustainable reconstruction and recovery should be able to provide the means for the affected areas and population back to their normalcy and strengthen them to be able to withstand the forthcoming disaster and ready for the “Next Normal” through building resilience and utilizing the Post Disaster Need Assessment (PDNA) as the main tool.</p> <ul style="list-style-type: none"> • Develop the Post Disaster Need Assessment (PDNA) system and the tool for effective recovery that follow the concept of “Build Back Better” • Develop guidelines for sustainable recovery management which include the standards in how to provide care for the affected population in all aspects of life and restoration of social, economic, natural resources, and environment. • Promote the concept of “Build Back Better and Safer” in the process of recovery and reconstruction by strengthening the local community capacity in disaster risk management, providing sustain infrastructure reconstruction as well as providing the multidimensional recovery and reconstruction plans including plans and policies in restoration of economic, social, environment, and cultural after disasters.

According to the Disaster Prevention and Mitigation Act B.E. 2550 (2007) and the National Disaster Prevention and Mitigation Plan 2021 - 2027, Thailand’s disaster risk management mechanism comprises of two levels as follows:

1) Policy level

1.1) National Disaster Prevention and Mitigation Committee

This committee has been tasked to formulate national disaster management policy, integrate the development on disaster prevention and mitigation mechanism among government agencies, local administrations, and other relevant private sectors effectively, etc. The committee also has duty to determine and preapproval the National Disaster Prevention and Mitigation Plan before submitting the plan to the Cabinet. After the plan has been approved, other related government services and local administrations shall operate all of their activities according to the plan. The chairman of the committee is Prime Minister or

appointed Deputy Prime Minister, and the Director-General of Department of Disaster Prevention and Mitigation serves as secretary and committee member.

1.2) National Accident Prevention Committee

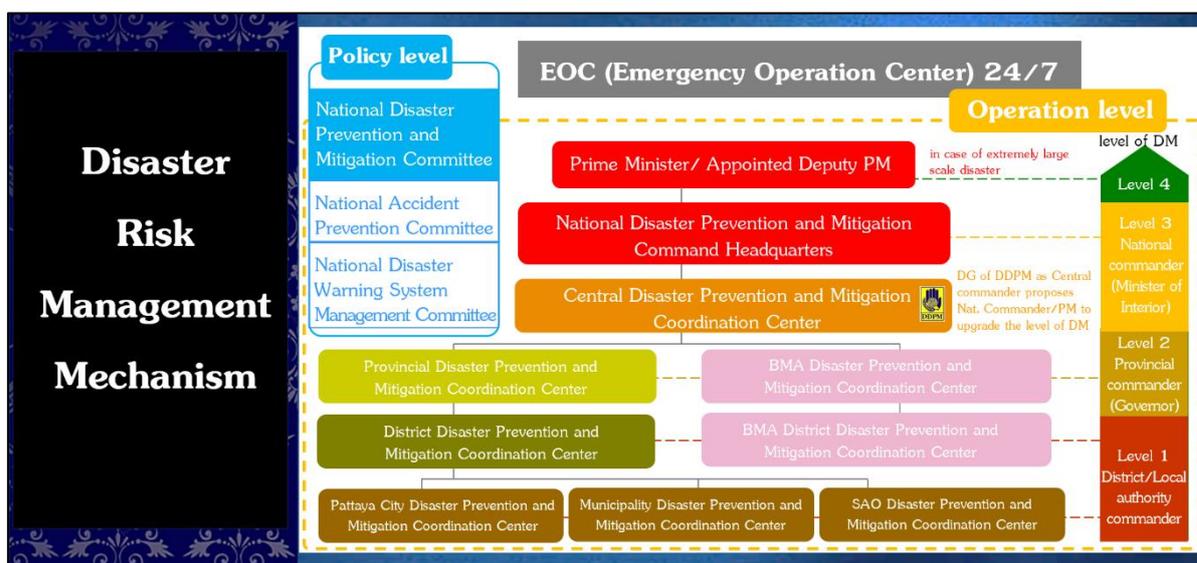
This committee has been tasked to propose the policies, measures, and directions related accident prevention to the Cabinet as well as suggest concrete practices and coordinate among the government agencies. The chairman of the committee is Prime Minister or appointed Deputy Prime Minister, and the Director-General of Department of Disaster Prevention and Mitigation serves as secretary and committee member.

1.3) National Disaster Warning System Management Committee

This committee has been tasked to propose the policies, measures, and directions to formulate national early warning system management plan as well as related projects for concerned agencies. The chairman of the committee is Prime Minister or appointed Deputy Prime Minister, and the Director-General of Department of Disaster Prevention and Mitigation serves as secretary and committee member.

2) Operation level

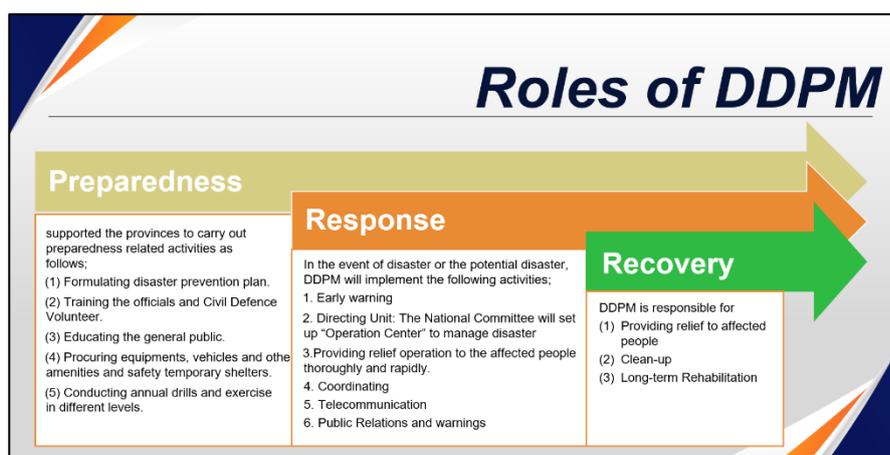
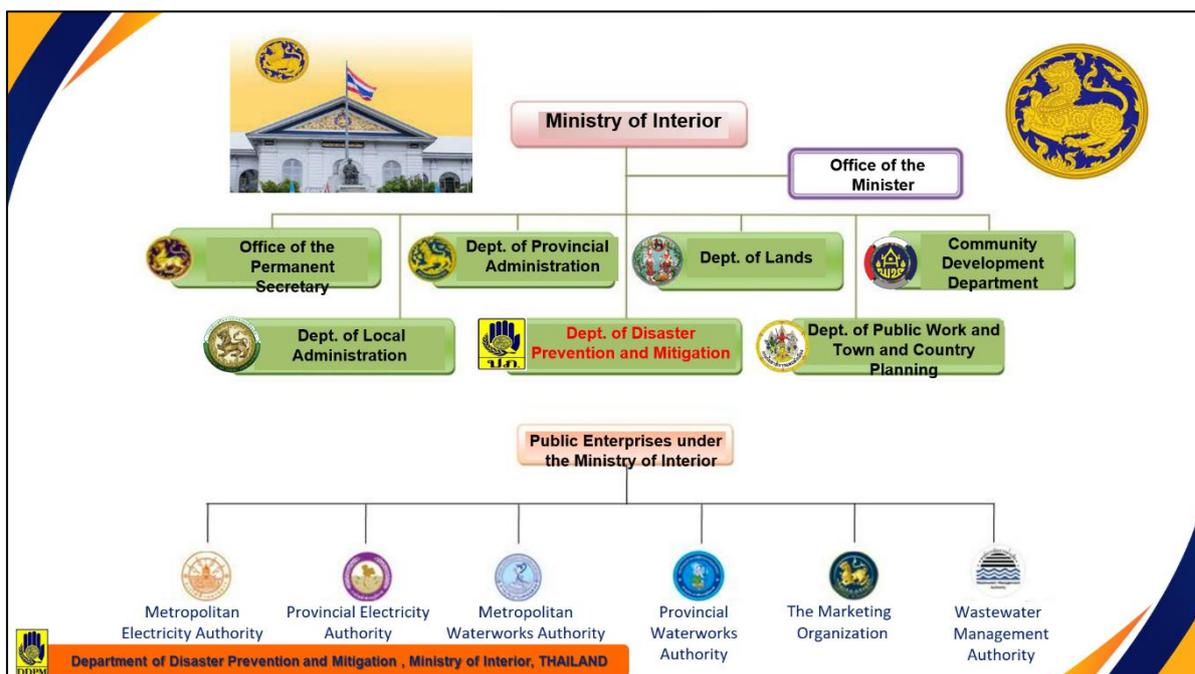
The structure of coordination center is set up for implementing disaster risk management from national to local level. The incident commander is also designated to give commands and control disaster responses in each level of disasters that occurs in authorized areas. An emergency and incident management in Thai context is classified into four levels based on a wide range of parameters.



4.3 Department of Disaster Prevention and Mitigation

As a result of the major government administration reform that became effective on 3 October 2002, disaster management-related government agencies/units

were brought together to form a new department under the Ministry of Interior entitled “Department of Disaster Prevention and Mitigation (DDPM)”.



According to Article 11 of Disaster Prevention and Mitigation Act B.E. 2550 (2007), the Department of Disaster Prevention and Mitigation (DDPM) is appointed to be the central government unit to operate any related activities on national risk management, and have responsibilities and authorities as follows:

- 1) Formulates the National Disaster Prevention and Mitigation Plan for the committee to seek for an approval by the Cabinet
- 2) Organizes and researches on procedures and measures to prevent and mitigate all impacts of disasters effectively

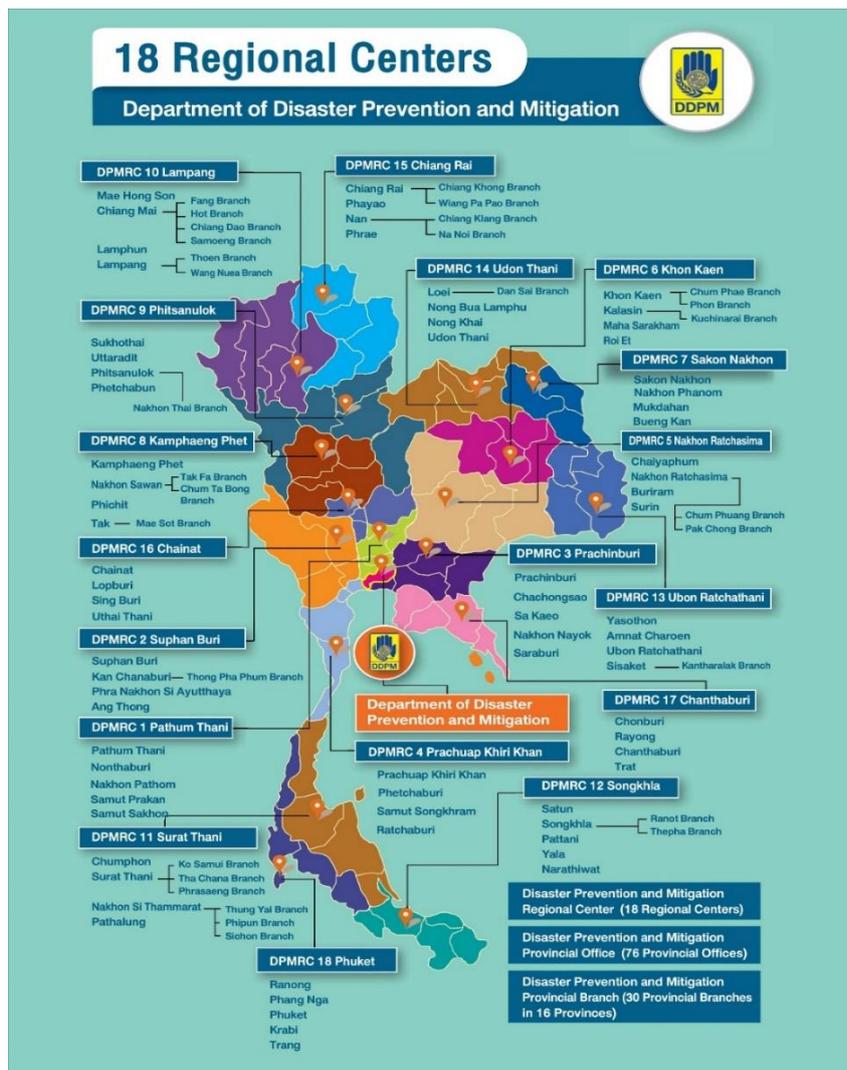
3) Operates, cooperates, supports and assists other government services, local administrations, and other relevant private sectors on disaster prevention and mitigation. And provides aids to disaster affected people

4) Guides, and provides consultancy, and train other government services, local administrations and other private sectors on disaster prevention and mitigation

5) Follow-up, assesses and evaluates all activities related to disaster prevention and mitigation at all levels

6) Perform other duties in accordance to this and other law or as may be required by Incident Commander, Prime Minister, the Committee or the Cabinet.

DDPM headquarter is located at Bangkok. It has 18 Regional Centers, 76 Provincial Offices, and 30 sub-Provincial Offices. Additionally, it also has Disaster Prevention and Mitigation Training Institute and Fire and Rescue Academy. There are 2,500 total staffs: 500 in headquarter and 2,000 around Thailand with over 2 million Civil Defense Volunteers registered. The locations of DDPM regional centers are as picture below:



5. Recent Projects on Disaster Risk Reduction

DDPM has been working closely with national and international partner organizations as well as countries in all areas of disaster management including disaster monitoring, early warning, prevention and mitigation and mitigation, preparedness and response, disaster relief and recovery.

As the National Disaster Prevention and Mitigation Plan 2021 - 2027 has been approved by the Cabinet, Thailand has followed its strategies in order to accomplish the vision to create sustainable resilience for the country. Following are examples of recent DRR activities that DDPM has conducted and continued working on which are supporting the implementation of Thailand's disaster risk management strategies:

Strategy 1: Enhance disaster risk management capacity

1) Building awareness in disaster risk reduction in all levels

1.1 The Launch of The National Disaster Prevention and Mitigation Plan 2021 - 2027 with the theme “Reduce Risk, Prevent Threat, Moving the society forward with National DPM Plan” was held on 9 January 2023 at the Rama Gardens Hotel, Bangkok. The event provided an opportunity for stakeholders to deepen their understanding of the newly developed plan, therefore able to explore the roles and responsibilities to respond in the potential risks by applying whole-of-the nation approach in systematic manner. The event activities consist of 1) Opening Remarks by Deputy of Prime Minister and Chairman of National Disaster Prevention and Mitigation Committee 2) Keynote Speech by Minister of Interior and 3) Panel Discussion on “Disaster Risk Management through Partnership”. There were 11 partner international organizations attending the event as follows: UNDRR, UNESCAP, UNICEF, UN-Habitat, UN Women, UNDP, IOM, ADPC, GIZ, ICRC, and SDC.



1.2 The First National Assembly with the theme “Reduce existing risks, and Prevent new risks, as well as Promote DRR partnership for resilient Thailand” was held on 24 - 25 July 2023 at Miracle Grand Convention Hotel, Bangkok. The event served as a national platform as mentioned in the National DPM Plan to provide an opportunity for all sectors of the society to sharer knowledge and experiences in order to seek solutions to commonly recognized challenges, and to come up with recommendations for developing national disaster risk management policy. The event welcomed Mr. Marco Toscano - Rivalta, Chief of UNDRR Asia-Pacific Regional Office to deliver special remarks under the topic on “Linkage of Climate Change and Disaster Risk Management”. There were 5 panel discussion which focused on 1) DRR implementation to build resilient community 2) Inclusive DRR policy 3) Resilient recovery 4) Sustainable flood management in accordance with Royal initiative and 5) Innovations for end-to-end early warning system.



1.3 Thailand’s Midterm Review of the Sendai Framework for Disaster Risk Reduction 2015 - 2030 (MTR SF) by working with UNDRR Asia-Pacific Regional Office and ADPC in conducting National Consultation Workshop in which more than 30 National DRR Focal Points were able to report on their progress in DRR and SFDRR implementation to the Voluntary National Report (VNR). The MTR SF Process in Thailand was one of the best practices because of utilizing easy to understand infographic to explain the core and principles of SFDRR, structure of VNR and its process, and the propose of MTR SF along with SFDRR Implementation Worksheet to attract and assist the National DRR Focal Points in providing their implementation progress. The VNR was successfully submitted to UNDRR on the early of the year 2023.



1.4 Webinar series on promoting Bangkok Principles for the implementation of the health aspects of the Sendai Framework for Disaster Risk Reduction 2015-2030 was conducted on January 2022 in collaboration with UNDRR Asia-Pacific Regional Office with the main objective in disseminating DRR knowledge especially on Sendai Framework and Bangkok Principles, among Thailand's DRR Focal Points and cultivate network and relationship to enhance Thailand DRR Network. The webinar series were divided into 4 topics: 1) Introduction and Recap on the Health Aspects of the Sendai Framework for Disaster Risk Reduction 2015-2030 and the Bangkok Principles 2) Reducing health risks in vulnerable groups 3) Sharing experiences of local projects on integrating Health and Disaster Risk Reduction and 4) Inclusive risk communication during combination of multi-hazard and health emergencies and combating the Infodemic. There were more than 800 accounts joining total 4-day webinar series with 13 organizations joining as speakers. About 90% of participants were satisfied with the webinar series and would like DDPM to increase the duration time for each speakers' presentation and discussion as well as organize a repetitive session for their interested topic.



1.5 Crisis Response Conference was held on 5 - 6 September 2023 at Anantara Siam Hotel, Bangkok, in collaboration with UK Embassy and Thailand's Office of National Security Council (ONSC). The objective of the conference is to bring together Thai and international partners in order to develop a collective understanding on crisis response mechanisms in Thailand in consideration of responses to major incidents that might affect foreign tourists.



Strategy 2: Advance the effectiveness of the disaster management plan and promote the application of innovations in disaster management

1) Developing Disaster Information Collection and Database

Thailand's national e-learning course on **Disaster-related Statistics Framework (DRSF)** was conducted from 20 June - 8 September 2023 in Thai language. The course was jointly organized with UNESCAP, aiming to build national capacities for the compilation of disaster related statistics for enhancing disaster risk management and promote risk-informed sustainable development in Thailand as well as to facilitate national monitoring and reporting on SFDRR and the 2030 Agenda for Sustainable Development. By the end of the course, more than 200 officials completed their learning and received a certificate.



2) Capacity building through Community-based Disaster Risk Management (CBDRM) concept and method

Since 2005 DDPM has conducted **Community-based Disaster Risk Management (CBDRM) Program**, which is an effective approach to building capacity and encouraging the community to understand their risks and proactively develop the DRM plan in accordance with their contexts, by giving priority to the 33,030 communities designated as flood-prone area to be target group. As of 2023, 15,000 communities were trained. Moreover, CBDRM concept can also be adapt to specific disasters, contexts, or vulnerable groups. For example, in 2019, DDPM in collaboration with IOM has conducted CBDRM for migrant people under MICIC initiative in Ranong, Chiang Mai, and Pathum Thani province. Moreover, CBDRM also has been applied in developing community preventive plan for disaster caused by wild elephants since 2020 targeting 20 risk areas.



3) Developing an effective disaster risk communication and multi-hazard EWS

DDPM on process to **developing warning dissemination channel by Cell Broadcast** to increase access to early warning information. With Cell Broadcast it is possible to send a text message to Thousands or even millions of people at the same time in near real time with specific location. Therefore, DDPM visited Japan to conduct the "Study Visit Program for Enhancing the Capacity of a National Early Warning System and Establishing Cell Broadcast System in Thailand", with support by ADRC in arranging a meeting with respective organizations involved in the river early warning and information dissemination system such as MLIT, FDMA, the Sumida City Office, NTT Docomo, and JTEC.

Strategy 3: Promote international DRR partnership

1) Developing capacity in providing and receiving international humanitarian assistance

1.1) Developing the National Urban Search and Rescue (USAR) Team that meets the International Search and Rescue Advisory Group (INSARAG) standards as stated in the National Disaster Prevention and Mitigation 2021 – 2027 in order to support Thailand's DRM policy in increasing human resources with expertise in line with international standards. Therefore, Thailand has been intensively participating in INSARAG activities as well as hosting the INSARAG Asia-Pacific Regional Earthquake Exercise in 2019, and will enter the INSARAG External Classification (IEC) in the second half of 2025 under the mentorship of Fire and Rescue NSW, Australia (AUS02). On February 2023, THA-10 (USAR Thailand) deployed to assist the mission of Türkiye Earthquake M7.8 which was the first experience in activating coordination mechanism for USAR fully deployment oversea.



1.2 Developing experts in Damage and Need Assessment (DANA) according to international standards ex. United Nations Disaster Assessment and Coordination (UNDAC) and ASEAN-Emergency Response and Assessment Team (ASEAN-ERAT), as well as supporting to host the UNDAC or ASEAN-ERAT training course and to deploy trained staff for international mission. In 2023, one DDPM staff was deployed in ASEAN-ERAT mission to assist Myanmar in case of MOCHA Cyclone.



2) Promote Thailand’s leading role in disaster risk management in welcoming of the study visit from countries and international organizations

On 9 May 2023 General Anupong Paojinda, Minister of Interior, Mr. Boontham Lertsukekasem, Director-General of the Department of Disaster Prevention and Mitigation (DDPM), and executives received His Royal Highness the Crown Prince Tupoto’a Ulukala and Her Royal Highness The Princess Angelika Latufuipeka Tuk’aho of The Kingdom of Tonga, Ambassador of the Kingdom of Tonga to the Kingdom of Thailand on the occasion of their Royal Highnesses visit to the Department of Disaster Prevention and Mitigation. The Royal visit to DDPM was part of Their Royal Highness’s interest in Thailand Disaster Management System, especially disaster early warning system. On this occasion, DDPM provided briefing on the topics of National Disaster Prevention and Mitigation Plan, Law and Regulations, Structure of Incident Command and Early Warning Systems and the law on emergency relief fund.

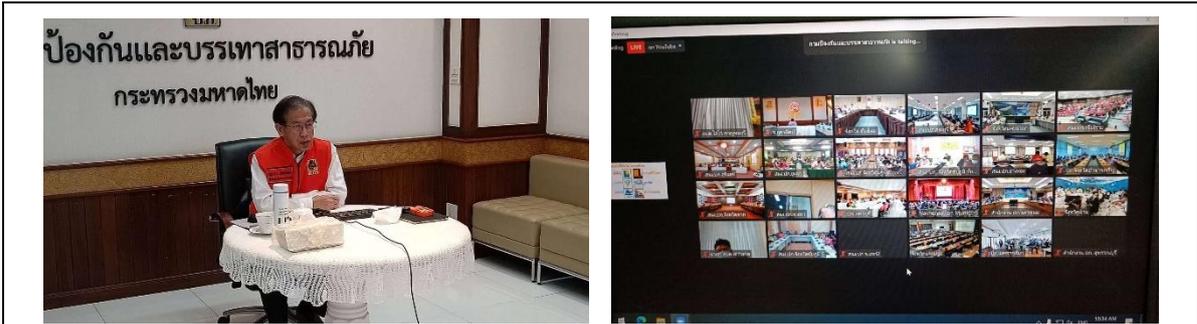


Strategy 4: Promote effective and integrated emergency management system

1) Developing guidelines for emergency management system and operations

DDPM places important on developing unified emergency management system as well as disaster relief system which follows the mandates of the Disaster Prevention and Mitigation Act B.E. 2550 (2007). In these regards, DDPM has developed and published several guidelines to provide standards for emergency management on level of disasters such as guideline for governors to manage flood and earthquake incident, guideline for district and local government incident commander, guideline on Thailand incident command system, and guideline for establishing and managing temporary shelter. Moreover, online training to uplift DRM capacity for mayor during 2021 - 2022, and also conducted exercise to test coordination among DDPM executives and staff to respond to tsunami incident via LINE.





Furthermore, DDPM in collaboration with IOM under MICIC Initiative has conducted training of trainers and table-top exercise on shelter management, which concerns special needs of vulnerable groups including migrants, for DDPM staff as well as responsible agencies such as Ministry of Social Development and Human Security, Bangkok Metropolitan Administration (BMA), and Thai Red Cross since 2020.



In addition, on June 6, 2022, the Ministry of Interior signed a Statement of Commitment to Sustainable Thailand to promote cooperation in driving the Sustainable Development Goals through collaboration with the United Nations Country Team (UNCT) under the theme: “77 provinces, 77 commitments towards the Sustainable Development Goals” and to reinforce the intention to drive Thailand toward the Sustainable Development Goals in various dimensions concretely. Thailand’s localization of the SDGs focuses on integration of 5 key elements in the Provincial Development Plan in order to accomplish sustainable development: 1) Food security 2) Circular Economy 3) Ecotourism 4) Bio-Circular-Green (BCG) model and 5) Disaster Risk Management Localization by applying UNDRR’s Ten Essentials for Making Cities Resilient. The projects under SDGs Localization will accelerate Thailand’s commitment to the 2030 agenda.



6. Counterpart of ADRC

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