Final Research Paper

BUSINESS CONTINUITY PLAN IN JAPAN

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TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND AND SINIFICANCE

On April 24th 2012, the Cabinet approved the guidelines for preparing for the crisis. The government's management system can respond to the problem and rectify the ineffectiveness of the state mechanism in providing services.

Department of Disaster Prevention and Mitigation (DDPM) has implemented the Cabinet resolution. This is in line with the principle of disaster risk management, in the Disaster Risk Reduction Strategy of the National Disaster Risk Management Plan 2015 that assigned the government agencies has Business Continuity Plan.

The Guidebook on SME Business Continuity Planning of the Asia-Pacific Economic Cooperation (APEC) guides through 10 easy steps to build BCP. These 10 steps are based on the International Standard ISO22301.

DDPM has prepared BCP for staff to use as a guide to prepare for service and manage the organization when in crisis to be able to continue to perform tasks in the main mission continuously and efficiently. Now, DDPM has improved/modified BCP in accordance with ISO22301 business continuity management system that requires continuous review and development of the plan according to the PDCA quality management cycle plan (Plan Do Check Act)

1.2 PROBLEM

- Lack of knowledge and understanding about Business Continuity Plan
- Adopting Business Continuity Plan to be applied to the government sector

1.3 QUESTION

- What is the concept and procedure of Business Continuity Plan?
- How to do the Business Continuity Plan to be effective?
- How to make staffs in DDPM to pay attention in Business Continuity Management and Business Continuity Plan?

1.4 SPECIFIC AIMS

- To know and understand concept and procedure of the Business Continuity Management and Business Continuity Plan in Japan.
- To knowing the standards that Japan uses to do Business Continuity Plan
- To develop DDPM’s Business Continuity Plan to be effective, can actually be used and standard

1.5 SCOPE OF STUDY

Investigating, analyzing and comparing Business Continuity Plan between Japan and Thailand in terms of government sector.

CHAPTER 2: DISASTER MANAGEMENT IN JAPAN

2.1 GENERAL INFORMATION

Japan is an island country located in the western Pacific Ocean. Total land area is about 378,000 square kilometers. More than 70 percent of land surface is mountainous. As it is situated along the Circum-Pacific volcanic belt, Japan has several volcanic regions and frequently affected by earthquakes and Tsunami. A major feature of Japan's climate is the clear-cut temperature changes between the four seasons. In spite of its rather small area, the climate differs in regions from a subarctic climate to a subtropical climate. The side of the country which faces the Sea of Japan has a climate with much snow in winter by seasonal winds from the Siberia. Most of the areas have damp rainy season from May to July by the seasonal winds from the Pacific Ocean. From July to September, Japan frequently suffers from Typhoon. The capital is Tokyo. Total population is about 127.77 million. (ADRC,2018).

2.2 JAPAN DISASTER PROFILE

Japan is located in the Circum-Pacific Mobile Belt where seismic and volcanic activities occur constantly. Although the country covers only 0.25% of the land area on the planet, the number of earthquakes and active volcanoes is quite high. In addition, because of geographical, topographical and meteorological conditions, the country is subject to frequent natural disasters such as typhoons, torrential rains, and heavy snowfalls, as well as earthquakes and tsunami (Cabinet Office, 2015).

Japan is affected by Typhoon mostly every year and Volcanic disasters triggered by eruption and volcanic earthquake. Japan is earthquake prone area due to the geological formation with plate boundaries of the Pacific plate, the Philippine Sea plate, the Eurasian plate, and the North American plate.

Every year there is a great loss of people's lives and properties in Japan due to natural disasters. Until he second half of 1950s, large-scale typhoons with earthquakes caused extensive damage and thousands of casualties. Thereafter, with the progress of society's capabilities to respond to disasters and mitigate vulnerabilities to disasters by developing disaster management systems, promoting national land conservation, improving weather forecasting technologies, and upgrading disaster information communications systems, disaster damage has shown a declining tendency.

The past major disaster are as follows:

- Great Hanshin-Awaji Earthquake (January 1995)
  On 17 January 1995, an earthquake with a 7.3 on the Richter scale occurred at Awaji island of Hyogo Prefecture in Western Japan. It killed 6,434 people, injured 43,792 people, destroyed 104,906 houses, half destroyed 144,274 houses, and partially destroyed 390,506 houses. By the fires broke out along with the earthquake, the area of 835,858 square meters was burnt down.

- Mid Niigata Prefecture Earthquake (October 2004)
  On 23 October 2004, the Mid Niigata Prefecture was affected by an earthquake with a 6.8 on the Richter scale. Landslides and destruction of buildings and houses caused 68 dead, and 4,805 injured. 3,175 houses were totally destroyed, 13,810 houses were half destroyed, and 105,573 houses were partially destroyed.

- The Great East Japan Earthquake
  A magnitude 9.0 earthquake hit the northeastern Japan on 11 March 2011, recording the largest earthquake hit in Japan. Its epicenter was located in the coast of Sanriku and its epicentral area stretched from the coasts of Iwate Prefecture to Ibaraki Prefecture. Massive shakes were observed particularly in eastern Japan including Japanese intensity scale of 7 registered in the north of Miyagi Prefecture. Furthermore, this earthquake, a trench-type earthquake occurred near the boundary of the Pacific Plate and the plate beneath Tohoku area, triggered seafloor movements and generated massive tsunami. According to the National Police Agency, this earthquake and tsunami have left unprecedented human suffering: 15,870 people death, 2,814 people missing and 6,114 people injured, as well as property damage: 129,472 totally collapsed buildings, 255,977 half collapsed buildings and 702,928 partially collapsed buildings. Furthermore, the value of the destruction of the social infrastructure, housing, and corporate facilities was estimated at 16.9 trillion yen and it had a great impact on Japanese economy.

2.3 JAPAN DISASTER MANAGEMENT SYSTEM

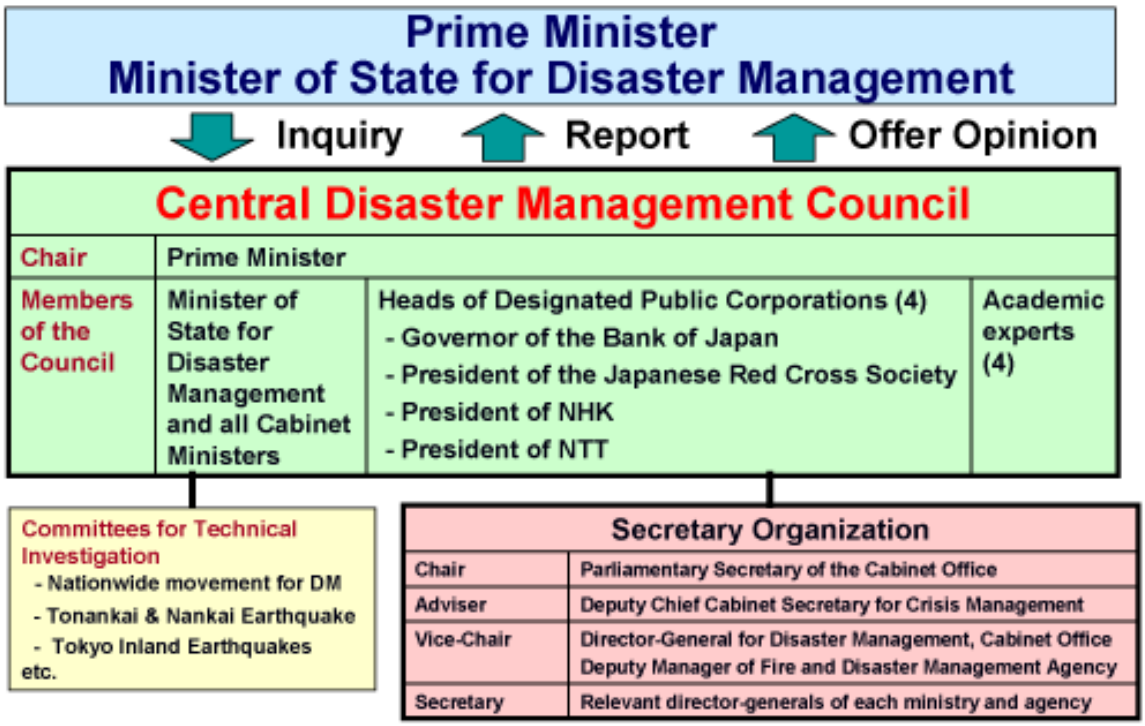
2.3.1 Overview

Under the Disaster Countermeasures Basic Act, the Central Disaster Management Council was formed, its brief being to ensure the comprehensiveness of disaster risk management and to discuss matters of importance with regard to disaster management. The council consists of the Prime Minister, who is the chairperson, Minister of State for Disaster Management, all ministers, heads of major public institutions and experts.

Within the Cabinet Office, which is the secretariat for this Council, the Minister of State for Disaster Management has been assigned as the Minister State for Special Missions for this issue. This Minister is assisted by the department of the Cabinet Office Director-General for Disaster Management his mandate being to handle planning and central coordination with regard to matters relating to basic policy on disaster risk reduction, and matters concerning disaster countermeasures in the event of a large-scale disaster.

In prefectures and local municipalities, the prefectural and municipal Disaster Management Councils are established with the members of representatives of local government organizations including police and fire management department, and designated local public corporations. Implementation of disaster risk management measures is based on the Local Disaster Management Plans drafted by the Councils. (ADRC,2018)

Organization of Central Disaster Management Council



2.3.2 Disaster Management Law

Japan has had the progress in disaster management laws and systems since 1945. It is a national priority to protect national land as well as citizens' lives, livelihoods, and property from natural disasters. The turning point for strengthening the disaster management system came into effect in response to the immense damage caused by Typhoon Ise-wan in 1959, and led to the enactment of the Disaster Countermeasures Basic Act in 1961, which formulates a comprehensive and strategic disaster management system. Thereafter, the disaster management system has been continuously reviewed and revised following the lessons learned from large-scale disasters.

In order to applying to all of the disaster phases of prevention, mitigation and preparedness, emergency response as well as recovery and rehabilitation, relevant laws and regulations were enacted. They include Disaster Countermeasures Basic Act (1961), Erosion Control Act (1897), Disaster Relief Act (1947), Building Standard Law (1950), Landslide Prevention Act (1958), River Act (1964), and Act on Special Measures for Large-scale Earthquakes (1978). (ADRC,2018)

The Disaster Countermeasures Basic Act in 1961 formulates a comprehensive and strategic disaster management system. Thereafter, the disaster management system has been continuously reviewed and revised following the lessons learned from large-scale disasters. (Cabinet Office, 2015)

Outline of the Disaster Countermeasures Basic Act:

1) Clearer definition of the philosophy and the responsibilities for disaster management.
   - Basic idea of disaster countermeasures: Clarification of basic policies including the concept of disaster reduction
   - Responsibilities of the government, prefectures, municipalities, and designated public institutions: Formulation and implementation of the philosophy and plan for disaster management, mutual cooperation

2) Organization: Development and promotion of comprehensive disaster management administration
   - National government: Central Disaster Management Council, major (extreme) disaster management headquarters
   - Prefectural and municipal governments: Local disaster management headquarters

3) Planning system: Development and promotion of systematic disaster management measures

- Central Disaster Management Council: Disaster Management Basic Plan
- Designated local government organizations and public institutions: Disaster management operation plan
- Prefectures and municipalities: Local disaster management plan
- Residents: Community disaster management plan

4) Promotion of Disaster Countermeasures
   - Definition of the roles and responsibilities to be performed by each actor in each stage of prevention, preparedness, response and recovery
   - Primary disaster response procedures including evacuation order by the head of municipalities taking over emergency measures by prefectures or designated administrations in case of the large-scale disaster

5) Protection of affected people and their livelihood
   - Prior preparation of the lists of the people requiring assistance in the case of disaster
   - Clarification of the standards for evacuation centers and facilities in the case of disaster
   - Improvement and expansion of protection measures for affected people through preparation of the certificates and the list of affected people
   - Stipulation of the framework for wide-scale evacuation and goods transportation

6) Financial measures
   - Implementation of laws are funded by each responsible party
   - Financial measures for extreme disasters by the government

7) State of Disaster Emergency
   - Declaration of disaster emergency state →Cabinet decision of government's policy (basic policy for countermeasures)
   - Emergency measures (restriction on distribution of basic necessities, moratorium on financial obligation, urgent enactment of Cabinet Order related to acceptance of international support, automatic enforcement of the Act on Special Measures concerning Preservation of Rights and Interests of Victims of Specified Disaster)

2.3.3 Disaster Management Plans

Japan is governed by a three-tiered administration: the national government, prefectures, and municipalities. The head of each level takes full responsibility for that jurisdiction in a structure similar to that of a nation. Comprehensive disaster prevention plans are developed in accordance with the roles to be performed at each stage. (JMAJ,2016)

Cabinet Office, Government of Japan explains Disaster Management Planning System and Basic Disaster Management Plan as follows:

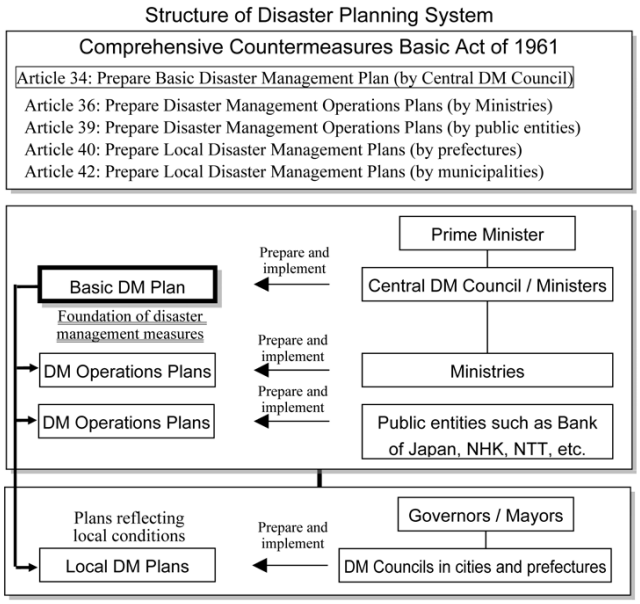
1) Disaster Management Planning System

1.1) Basic Disaster Management Plan: This plan is the highest-level plan and constitutes the basis for disaster management activities prepared by the Central Disaster Management Council based on the Disaster Countermeasures Basic Act.

1.2) Disaster Management Operation Plan: This is a plan made by each designated government organization and designated public corporation based on the Basic Disaster Management Plan

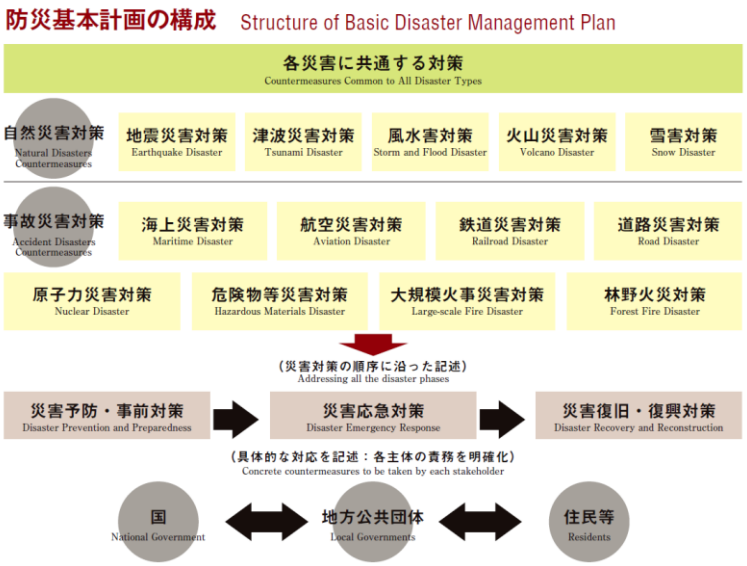
1.3) Local Disaster Management Plan: This is a plan made by each Prefectural and Municipal Disaster Management Council, subject to local circumstances and based on the Basic Disaster Management Plan

1.4) Community Disaster Management Plan: This is a disaster management activities plan at the community level which is established by residents and businesses jointly on a voluntary basis.



2) Basic Disaster Management Plan

The Basic Disaster Management Plan is a comprehensive and long-term disaster management plan forming a foundation for the Disaster Management Operations Plan and Local Disaster Management Plan. It stipulates provisions for the establishment of the disaster management system promotion of disaster management measures, acceleration of post disaster recovery and reconstruction measures, and promotion of scientific and technological research on disaster management.



2.3.4 Emergency Response to Disasters

Cabinet Office, Government of Japan explains Emergency Response to Disasters as follows:

1) Outline of Disaster Emergency Response

In the event of a disaster, the national and local governments quickly collect and share disaster and damage information, and secure communications to carry out effective emergency activities such as emergency rescue and medical operations. Based on such information, local governments set up disaster management headquarters and related organizations establish their own operation mechanisms. The national government collects disaster information at the Cabinet Information Collection Center 24 hours a day. When a large-scale disaster strikes, an emergency team composed of the director-generals of the respective ministries and agencies gathers immediately at the Crisis Management Center in the Prime Minister's Official Residence to grasp and analyze the disaster situation, and report the results to the Prime Minister. Disaster Management meetings at the ministerial or high-ranking senior official level are held, as necessary. According to the level of damage,

the government may establish the Headquarters for Major Disaster Management (headed by the Minister of State for Disaster Management) or the Extreme Disaster Management Headquarters (headed by the Prime Minister), to establish the policies for the disaster countermeasures, and to coordinate various emergency measures to be taken by various organizations. Further, in order to grasp the situation in the disaster area, a government investigation team headed by the Minister of State for Disaster Management may be dispatched, or if quick and swift actions are needed to be taken with overall coordination of emergency activities on site, the government may establish the onsite headquarters for disaster management.

2) Wide-area Support System

In case of large-scale disasters that exceed the response capabilities of the affected local government, various wide-area support mechanisms are mobilized by the National Police Agency (Disaster Response Units), Fire and Disaster Management Agency (Emergency Fire Rescue Team), and Japan Coast Guard. Furthermore, the Self-Defense Forces can be dispatched for emergency response activities upon request from the governor of the affected prefecture. Also, the Disaster Medical Assistance Teams (DMATs) are dispatched to provide wide-area medical services. These teams transport severely injured persons via Self-Defense Forces vehicles and aircrafts to hospitals outside the disaster stricken zone.

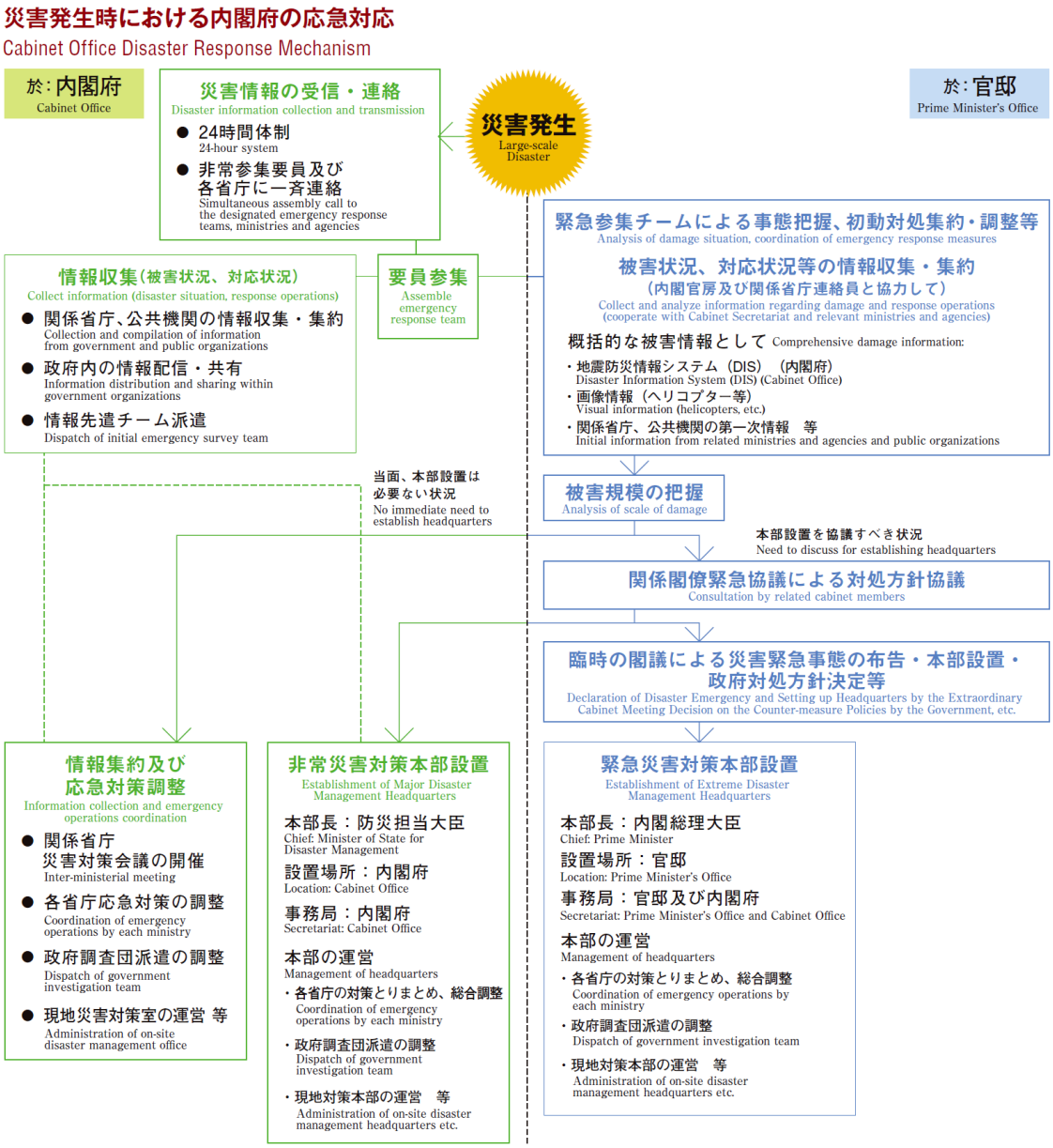
3) System for coordinating activities between the national government and local public entities

In the event of a disaster occurring, municipalities will primarily be engaged in emergency countermeasures as they are the closest to residents. Prefectural administration will get involved when the comprehensive wider-area measures are necessary.

In the event of a large-scale disaster beyond the capability of local public entities struck by the disaster, national government will step in to support the local entity and coordinate mutual support among the local entities.

At the national level, the Extreme Disaster Management Headquarters or the Major Disaster Management Headquarters is set up to promptly collect the disaster information from relevant ministries and local public entities struck by the disaster, and overall coordination is provided for rescue, first aid, medical and emergency supplies as necessary and appropriate. Also, an on-site disaster management headquarters may be set up to promptly coordinate among the affected local entities and collect information and requests from relevant prefectures and to properly conduct the emergency response activities in consideration to the needs for the affected people.

The on-site disaster management headquarters were set up in the affected areas in such cases as the Great East Japan Earthquake in 2011, the heavy snowfall in 2014, the torrential rainfall in August 2014, and the volcanic eruption of Mt. Ontake in 2014. Through joint meetings held in collaboration with the disaster response headquarters organized by the local entities in the affected areas, the national government and the local entities coordinate based on their shared awareness to serve as the government's closest one-stop contact point for requests from the affected local entities. As such, the role of the on-site disaster management headquarters is increasing its importance.



CHAPTER 3 : DISASTER MANAGEMENT IN THAILAND

3.1 GENERAL INFORMATION

The kingdom of Thailand lies in the heart of Southeast Asia, has a land area of 513,120 sq.km. It is bordered by Myanmar (West & North), Laos (North & East), Cambodia (Southeast), and Malaysia (South).The Thai coastline stretches for 3,219 km along both the Gulf of Thailand on the Pacific side, and the Andaman Sea on the Indian Ocean side. 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 is divided into four regions; the North, the Central or the Chao Phraya River Basin, the Northeast or the Korat Plateau and the south or the Southern Peninsula. The northern region terrain is mountainous which render this region to be prone to water-related disasters such as flashflood, landslide and debris flow. The northeastern region is an arid area on Korat Plateau and frequently suffers flashflood and inundation during rainy season, severe drought and cold spell during summer and cool season. The central region, the vast fertile land which is dubbed as the "Rice Bowl" of the country often encounters the repeated riverine flood and urban inundation during the rainy season. The southern region terrain is hilly on the west coast and the coastal plain on the east. This part of Thailand has occasionally frequented flashflood, mudslide, tropical storm and forest fire.

Thailand is unitary state in Southeast Asia and a constitutional monarchy under the king, The King of Thailand, King Vajiralongkorn (or Rama X), is the current monarch, reigning since the death of his father Bhumibol Adulyadej (Rama IX) on 13 October 2016, in actuality he has only exercised the role of monarch since 1 December 2016.

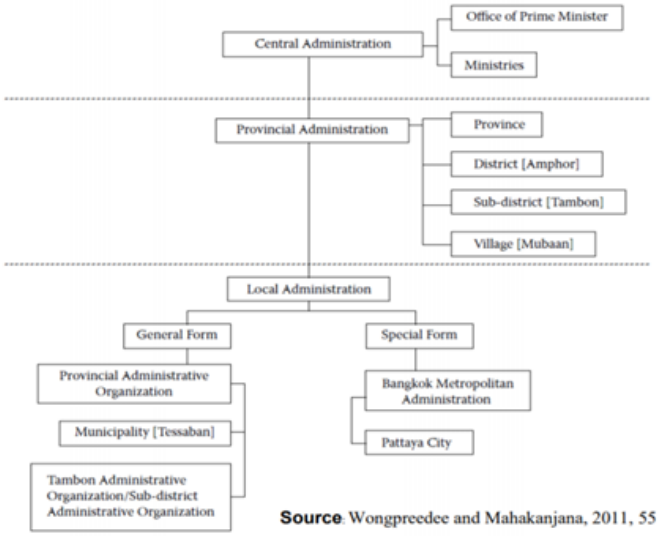
The combination of Thailand administration from three concepts as follows;

1) Centralization
2) Decentralization
3) Deconcentration

Established by the Constitution of Thailand and the State Administration Act, there are three tiers of the administrative structure in Thailand including the central administration, the provincial administration, and local administration. At the central level, there are twenty ministries under the supervision of the Cabinet which play major roles in policy formulation

and implementation. At the provincial level, the administration is a dual system of provincial administration and local administration. The provincial administration combines of Provinces, Districts, Sub-Districts and Villages. The national government delegates some power and authorities to its deconcentrated entities or Provinces and Districts which are in hand of the provincial offices of ministries under the concept of deconcentration. In order to steer and cooperate the operations of numerous governmental agencies in provinces and districts, those provincial offices are headed by a governor and district chief officer who are directly appointed by the Ministry of Interior. On the other hand, the local administration is based on the concept of decentralization where mayors and councils of those local autonomous self-governments are directly selected via local elections allowing them to govern their own local. However, those local autonomous self-governments remain under the supervision of district chief officers, provincial governors and the Minister of the Interior who have the authorities to approve local regulations, local development plans and annual budget plans, local councils, and dismiss local councillors. The local administrative organizations are classified into two types including the general type (Provincial Administration Organisation, Municipalities, and Sub-district Administration Organisation); and two special status cities: Bangkok Metropolitan Administration and the city of Pattaya (Alongkot Meekaew, 2017).

The Administrative Structure of Thailand



Source: Wongpreedee and Mahakanjana, 2011, 55

According to the administration structures of Thailand, therefore, all layers of administrative structures are:

Central Administration consists of ministries, bureaus and departments. The ministries and bureaus are divided into departments.

Provincial Administration consists of 76 provinces (changwat) ; Amnat Charoen, Ang Thong, Bueng Kan, Buriram, Chachoengsao, Chai Nat, Chaiyaphum, Chanthaburi, Chiang Mai, Chiang Rai, Chon Buri, Chumphon, Kalasin, Kamphaeng Phet, Kanchanaburi, Khon Kaen, Krabi, Lampang, Lamphun, Loei, Lop Buri, Mae Hong Son, Maha Sarakham, Mukdahan, Nakhon Nayok, Nakhon Pathom, Nakhon Phanom, Nakhon Ratchasima, Nakhon Sawan, Nakhon Si Thammarat, Nan, Narathiwat, Nong Bua Lamphu, Nong Khai, Nonthaburi, Pathum Thani, Pattani, Phangnga, Phatthalung, Phayao, Phetchabun, Phetchaburi, Phichit, Phitsanulok, Phra Nakhon Si Ayutthaya, Phrae, Phuket, Prachin Buri, Prachuap Khiri Khan, Ranong, Ratchaburi, Rayong, Roi Et, Sa Kaeo, Sakon Nakhon, Samut Prakan, Samut Sakhon, Samut Songkhram, Sara Buri, Satun, Sing Buri, Sisaket, Songkhla, Sukhothai, Suphan Buri, Surat Thani, Surin, Tak, Trang, Trat, Ubon Ratchathani, Udon Thani, Uthai Thani, Uttaradit, Yala, Yasothon.

The provinces are divided into 878 districts (amphoe), 7,255 rural administrative subdistricts (tambon), 75,032 villages (mooban).

Local Administration or Local Administrative Organization is classified into two types including;

1) The general type
   1.1) Provincial Administration Organization / PAO (ong kan borihan suan changwat) : 76 organizations.
   1.2) Municipalities (thetsaban): 2,441 organizations.
   1.3) Sub-district Administration / SAO (ong kan borihan suan tambon): 5,334 organizations
2) Special status cities
   2.1) Bangkok Metropolitan Administration
   2.2) The city of Pattaya

3.2 THAILAND DISASTER PROFILE

Due to its geographical location, Thailand has been highly exposed and vulnerable to natural disasters caused by hydro meteorological hazards such as floods, landslides, storms, droughts, etc. The major disasters that had occurred and claimed hundreds of lives as well as causing significant material loss in Thailand as follows: (DDPM, 2015)

1) Flood
2) Drought
3) Landslides
4) Earthquakes and Tsunami
5) Storms
6) Fires

7) Forest Fires and Haze
8) Transportation Hazards
9) Contagious Disease

The past major disasters are as follows:

- Typhoon Harriet in Surat Thani Province (1962, Death : 911)
- Typhoon Gay in Chumporn Province (1989, Death : 537)
- Major Landslides in Northern and Southern Part of Thailand (1988 and 2001, Death : 361)
- The Indian Ocean Tsunami (2004) had happened in the coastal communities of Thailand's southern provinces along the Andaman Sea rim where the death toll reached 5,395 and 2,817 missing.
- The 2011 Mega Flood (2011 – 2012) was Thailand's most catastrophic flood, 64 out of its 77 provinces including Bangkok, a total of 5,247,125 households or 16,224,304 people were affected; the death toll reached to 1,026 people and total economic damages and losses stood at 1.44 billion Baht (US$ 45.7 billion approximately).
- Flood in the Southern of Thailand (2016 – 2017) since 1stDecember 2016 to 12th February 2017, continuous heavy rain influenced by low depression and the strong northeast monsoon have caused a widespread flooding in southern region of Thailand. The flood has affected 12 provinces. The floods have impacted 12 provinces, 129 Districts, 835 Sub-districts, 6,307 villages and affected 587,544 households and over 1.8 million people. Damages have been reported to 99 people were confirmed dead, 4,314 Places of roads, 348 bridges, 126 weirs,2 reservoirs, 165 government facilities, 2,336 schools and 98 mosques.
- The Minister of Interior decided to raise the level of emergency and incident management to level 3 (Large scale disaster) on January 5th 2017 and set up a front line Emergency Operation and Coordination Centre in Suratthani Province within DDPM regional office. Activation of the National Disaster Command Centre; where the Minister of Interior is appointed as the Incident Commander, is established at DDPM Headquarter.
- Flooding (26th May to 25th October 2018), continuous heavy rain influenced by tropical storm SON TINH and tropical storm BEBINCA have caused a widespread flooding in several provinces in northeast northern southern eastern and central region. The flood has affected 43 provinces, 263 Districts, 1,018 Sub-districts, 5,684 villages and affected 127,820 households and 389,476 people. Damages have been reported to 8 people were confirmed dead

- Tropical Storm “PABUK” (3rd to 6th January 2019), the storm has affected 23 provinces, 113 Districts, 574 Sub-districts, 3,837 villages and affected 265,353 households and 884,642 people. Damages have been reported to 5 deaths and 2 injuries.
- Severe Drought : 1979, 1986, 2005 and 2014

3.3 THAILAND DISASTER MANAGEMENT SYSTEM

3.3.1 Overview:

The disaster management system in Thailand is based on the Disaster Prevention and Mitigation Act 2007 (B.E.2550) and the National Disaster Risk Management Plan 2015 (B.E.2558). The national Committee on Disaster Prevention and Mitigation, is composed of disaster management related ministries, agencies as well as the academia, is the top policy making body. The National Committee is chaired by the Prime minister. Department of Disaster Prevention and Mitigation is the Secretariat and executive arms of the National Committee.

3.3.2 Essences of Disaster Prevention and Mitigation Act 2007 (B.E.2550)

This act has come into force on 6 November, 2007. As the principal legal mechanism for disaster management practices in the country, the Act has provided statutory framework to ensure a coordinated and seamless multi – stakeholder collaborative efforts. The essence of this Act includes;

1) Scope of Disaster

Under this Act in Section 4, “Disaster” means any of these disasters; fire, storm, strong wind, flood, drought, epidemic in human, epidemic in animals, epidemic in aquaculture, and epidemic in plants and other public disaster either natural disasters or human-made disasters, accidents or all other incidents that effect to life, body or properties of the people, of the government. And in this regards, air threats and sabotages are also included.

2) The National Disaster Prevention and Mitigation Committee (NDPMC)

In Section 6 of this Act, there shall be a National Disaster Prevention and Mitigation Committee, consisting of Prime Minister or designated Deputy Prime Minister as a chairperson, Ministry of Interior as first vice chairperson, Permanent Secretary for Interior as second vice chairperson, and Permanent Secretary for Defense, Permanent Secretary for Social Development and Human Security, Permanent Secretary for Agriculture and Cooperatives, Permanent Secretary for Transportation and Communications, Permanent Secretary for National Resources and Environment, Permanent Secretary for Information and Communication Technology (Ministry of Digital Economy and Society, now), Permanent Secretary for Public Health, Direct-General of The Bureau of Budget, Commissioner-General

of Royal Thai Police, Supreme Commander, Commandant of Royal Thai Army, Commandant of Royal Thai Navy, Commandant of Royal Thai Air Force, Director-General of National Security Council, and together with others but more than five intellectuals who are experienced in city planning, and disaster prevention and mitigation shall be appointed by the Cabinet as members. And Director-General of Department of Disaster Prevention and Mitigation as the secretariat of the committee, and not more than other two officials in Department of Disaster Prevention and Mitigation shall be appointed as an assistant secretary.

The committee shall have the powers and duties as follows; (Section 7)

(1) Propose the policy to formulate the National Disaster Prevention and Mitigation plan.

(2) Determine and preapproval the plan under Section 11 (1) before submitting the plan to the Cabinet.

(3) To integrate the development on disaster prevention and mitigation mechanism among Government agencies, Local administrations, and other relevant private sectors effectively.

(4) To recommend, support and promote on any disaster prevention and mitigation activities.

(5) To propose regulations on remuneration, recompenses, and other expenses related to disaster prevention and mitigation operations, and those regulations shall be in accordance to rules and regulations of Ministry of Finance.

(6) To perform other duties according to this and other laws as may be required by the Minister.

3) Department of Disaster Prevention and Mitigation (DDPM)

Department of Disaster Prevention and Mitigation shall be the central government unit to operate any related activities on national disaster prevention and mitigation, and shall have powers and authorities as follows; (Section 11)

(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 effected 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 required by Commander in Chief, Prime Minister, the Committee or the Cabinet

4) Disaster Management Structure

Under this Act, disaster management practice in Thailand can be classified into four levels;

4.1) Policy

To use a plan developed by planning authority at each level as a means to interpret disaster management policy into action which includes;

• National Disaster Risk Management Plan: This plan has been developed by the National Disaster Prevention and Mitigation Committee.

• Provincial Disaster Risk Management Plan

• Bangkok Metropolitan Disaster Risk Management Plan

Provincial and Bangkok Metropolitan Disaster Risk Management Plans are developed by respective planning committee. Both plans should be consistent with the National Plan, and will come into effect upon an approval of the respective governors.

4.2) Incident Commander Level

• The Prime Minister or the Deputy Prime Minister whom assigned by the Prime Minister is responsible for all commanding functions in the event of catastrophic disaster.

• Interior Minister, as the National Incident Commander is responsible for controlling and overseeing disaster management efforts nationwide according to the National Disaster Risk Management Plan.

• Permanent Secretary for Ministry of Interior, as the Deputy National Incident Commander is responsible for assisting the National Incident Commander in controlling and overseeing disaster management efforts.

4.3) Disaster Management Level

• Central Mechanism: Department of Disaster Prevention and Mitigation has been designated as the lead national agency responsible for realization of integrated and coordinated efforts for disaster management.

• Local Mechanism: Provincial government, district, and local administrative organization (Sub district administration organization, Municipality, Pattaya City, and Bangkok Metropolitan Administration) are responsible for carrying out disaster management activities within their respective jurisdictions.

4.4) Operational Level

The local administrative organization is tasked to function as local emergency response unit and to coordinate emergency management across a range of stakeholders. And in case when the scale and intensity of actual disaster go beyond their capabilities to deal with, they are required to request for assistance and support upwards through the chain of command

3.3.3 Essence of National Disaster Risk Management Plan 2015 (B.E.2558)

The National Disaster Risk Management Plan 2015 has consolidated disaster risk management – relates new thinking and concepts, including the development of disaster prevention and preparedness system and the creation of disaster immunity through developing knowledge and wisdom as well as strengthening disaster surveillance system and coping capacity, living in harmony with nature and creating the self – immunity into the communities in line with an approach entitled “sufficiency economy philosophy”. In addition, it has also brought together the thinking on disaster risk reduction for disaster prevention according to the universally recognized thinking… the building of resilience to disaster and sustainability through the creation and enhancement of awareness for disaster risk reduction before, during and after disaster and to provide strategic direction for the implementation of this National Plan in conformity with Disaster Prevention and Mitigation Act B.E. 2550 (2007) and in line with Sendai Framework for Disaster Risk Reduction 2015 – 2030.

The strategies for an implementation of this National Plan comprise a focus on disaster risk reduction, an application of integrated emergency management system, strengthening and enhancing efficiency of sustainable disaster recovery or building back better and safer, and promoting international cooperation on disaster risk reduction. These focused strategies will serve as guidelines to achieving objectives set forth in this National Plan and contributing to successful disaster risk reduction which is a foundation for sustainable development.

The National Disaster Prevention and Mitigation Committee has anticipated that this National Plan will serve as a tool for reducing the impact of disasters, realizing disaster risk management standards in every community as well as for further integrating disaster risk reduction thinking and methods into the national sustainable development process.

This national plan has been approved by the cabinet on 31 March, 2015. Subsequently, all relevant agencies are required to use this plan as a blueprint, framework and guideline in addressing all phases of disaster management in a country. The essence of this national plan includes:

1) Conceptual Framework

Through an application of inclusive disaster risk management concept and building back better and safer principle, this National Plan has been translated into concrete action in a proactive and sustainable manner. Additionally, it has strongly emphasized joint inclusive

efforts across all sectors of society to develop and enhance disaster risk management capacities, promote and strengthen community resilience and preparedness, including promoting inclusive and sustainable post – disaster recovery and reconstruction and international cooperation for disaster risk management to meet internationally recognized standards.

2) Objectives of National Plan

2.1) To provide consistent nationwide concept of operations to enable national and local governments, private sector, and other sectors of society to collectively implement disaster risk management activities in an integrated and systematic manner, and in the same direction.

2.2) To compile the current internationally – recognized guidelines and directions and are used worldwide for disaster risk management that can be applied to disaster risk management in Thai context and to be used in the development of relevant plans at different levels of government such as Provincial Disaster Risk Management Plan, Bangkok Metropolitan Administration Disaster Risk Management Plan, including Disaster Management Action Plan of the local administrative organizations and Emergency Support Function Plans etc., to enable these local authorities to more efficiently and effectively deal with disasters.

2.3) To develop and enhance capacities for disaster risk management which encompasses disaster risk reduction, emergency management and building back better and safer at community, local, national and international levels to further minimize the potential losses from disasters.

3) Disaster Risk Management Strategy

The strategies for disaster risk management outlined in this National Plan are intended to enhance the national efficiency and effectiveness in fulfilling national disaster risk management targets and the objectives set forth, in order to meet international standards; to ensure public safety and protection of life and of public and private property; as well as boosting and maintaining social and economic sustainable stability. The following are four key strategies for disaster risk management.

Strategy 1 Focusing on Disaster Risk Reduction

It is the concept and practice of systematically reducing the chances of being affected by disasters through analyzing and managing the casual factors of disasters and their consequences to reduce exposure to hazards, lessen factors contributing to vulnerability, and strengthen local, individual and community capacity in addressing the existing challenges including protection against the damage and loss that result from possible future disasters.

Strategy 2 Applying Integrated Emergency Management System

This practical strategy has been developed with a view to ensuring that disaster response and emergency management roles and activities are conducted in

compliance with the required standards by way of systematizing the management of resources and ensuring the systematic assignment of roles and responsibilities to respond effectively to disaster incident of any type, as well as minimizing the losses inflicted by disasters on life and property of the people, natural resources, environment, society and the nation.

Strategy 3 Strengthening and Enhancing the Efficiency of Sustainable Disaster Recovery

The practical strategy has been developed for purpose of improving and restoring public utility system, household livelihood systems, and way of living within disaster – affected communities to previous state or to build back better and safer, as deemed appropriate, by mainstreaming disaster risk reduction concerns into disaster recovery interventions that include reconstruction and rehabilitation.

Strategy 4 Promoting and Strengthening International Cooperation for Disaster Risk Management

This practical strategy has been developed for the purpose of building and enhancing national capacity for disaster risk reduction to meet international standards by increasing the efficiency and effectiveness of national – international cooperation system and mechanisms. The implementation of national disaster risk management programmes and activities requires robust multi – stakeholder partnerships and effective cooperation both at national and international levels. In this connection, it is deemed essential to give due consideration to the customary laws, practices and protocols in line with an international cooperation framework.

4) Disaster Risk Management Mechanisms

4.1) At Policy level

(1) National Disaster Prevention and Mitigation Committee

(2) National Safety Council

4.2) At Operational Level

(1) National Disaster Command Headquarters

(2) Central Disaster Management Centre

(3) Provincial Disaster Management Centre

(4) Bangkok Metropolitan Disaster Management Centre

(5) District Disaster Management Centre

(6) Pattaya City Disaster Management Centre

(7) Municipal Disaster Management Centre

(8) Subdistrict Administrative Organization Disaster Management Centre

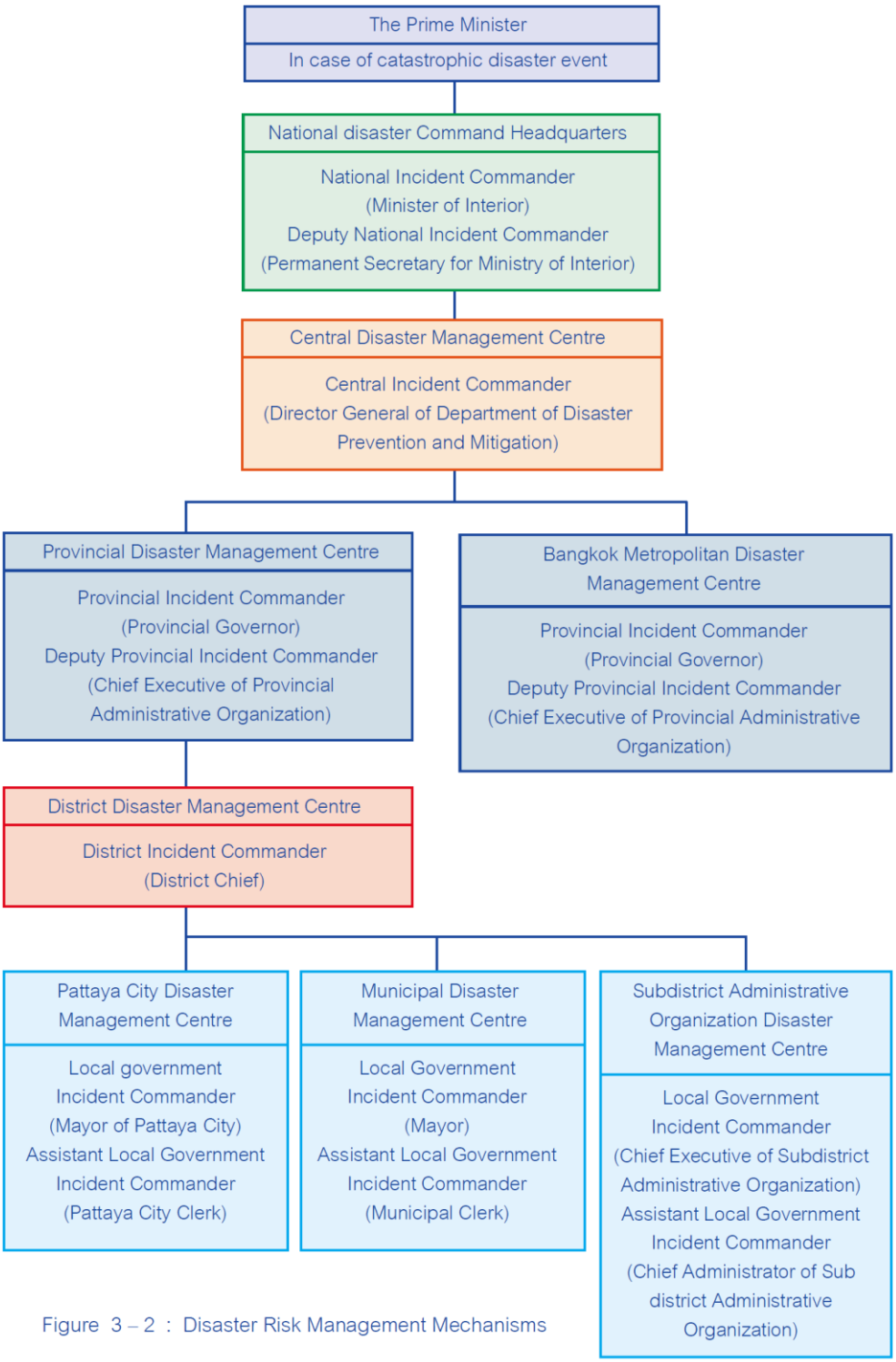
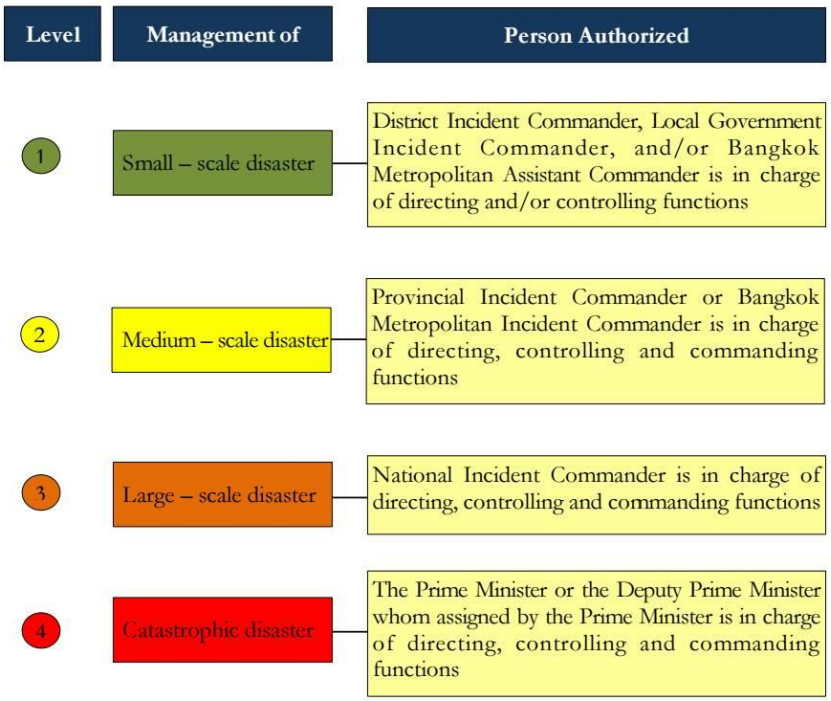


Figure 3 – 2 : Disaster Risk Management Mechanisms

Disaster Risk Management Mechanisms

5) Level of Emergency and Incident Management

In Thai context, level of emergency and incident management is classified into four levels based on a wide range of parameters, including areas affected, size and severity level and complexity, number of population, existing capacity for emergency management as well as the availability and capability of resources. The activation levels are as follows:



It is essential to make use of one of or the combination of the aforementioned parameters when submitting a proposal for upgrading the level of emergency and incident management to level 3 or level 4 to be considered by the National Incident Commander or the Prime Minister respectively as the case may be.

CHAPTER 4: BUSINESS CONTINUITY PLAN

4.1 INTRODUCTION

Business Continuity Management (BCM) is the process which indicates potential threats to the organization Impact on business operations and is a guideline for building capacity for the organization to be resilience, respond and protect the interests of stakeholders, reputation, image and activities that create effective value.

BCM has purpose to protect the chances of occurrence, preparation, response and recovery from events that cause disruption with planning and preparation to minimize the impact and damage from the event and return to the main business after the interruption as soon as possible.

Business Continuity Plan (BCP) is part of BCM. That is “documentation” of the operational procedures that provide guidance to the organization in response to recovery and installation in order to be able to operate at the specified level after the interruption.

In Thailand, from the severe flooding situation in 2011 (B.E. 2554) has reflecting the problems of many government’s systems and mechanisms unable to effectively perform the mission in a crisis. That resulted in solving the problems of public suffering, lack of a good management system. Therefore, it is necessary to have BCM to ensure that the main mission of the government or important public service must be operational or continuous service.

On April 24th 2012, the Cabinet approved the guidelines for preparing for the crisis. The government's management system can respond to the problem and rectify the ineffectiveness of the state mechanism in providing services.

DDPM has implemented the Cabinet resolution. This is in line with the principle of disaster risk management, in the Disaster Risk Reduction Strategy of the National Disaster Risk Management Plan 2015 that assigned in the guidelines for preparing that BCP is a document that contains the critical information the public and private sector business need to stay running in spite of adverse events. The concept of, and practices in public sector continuity management have mainly focused on controlling, overseeing, and protecting critical resources required for essential public business operations and services in order to maximize general public benefits including the benefits for a wide range of the stakeholders. Since the improper or inefficient functioning of the existing internal control, mechanisms, resulted from adverse incident can lead to discontinuity of business operations and provision of services , therefore the relevant government agencies have a responsibility to undertake the intervention actions in order to ensure that the essential business functions and services will stay resilient and get up running following any disaster or disruption in accordance with the cabinet resolution dated April 24th, 2012.

The Guidebook on SME Business Continuity Planning of the Asia-Pacific Economic Cooperation (APEC) guides through 10 easy steps to build BCP. These 10 steps are based on the International Standard ISO22301, for BCP.

Step 1: Determine BCP Purpose, Scope, and Team

Step 2: Prioritized Activities (PA) and Recovery Time Objective (RTO)

Step 3: What Do You Need to Resume Key Activities?

Step 4: Risk Assessment – Know Your Disaster Scenarios

Step 5: Do Not Forget Pre-Disaster Protection and Mitigation

Step 6: Emergency Response to Disaster

Step 7: BC Strategies to Early Resumption

Step 8: Be Financially Prepared

Step 9: Exercise Makes Your Plan Functional

Step 10: Ongoing Review and Improvement

DDPM has prepared BCP for staff to use as a guide to prepare people for service and manage the organization when in crisis to be able to continue to perform tasks in the main mission continuously and efficiently. Now, DDPM has improved/modified BCP in accordance with ISO22301 business continuity management system that requires continuous review and development of the plan according to the PDCA quality management cycle plan (Plan Do Check Act)

4.2 BUSINESS CONTINUITY PLAN IN JAPAN

As a result of the Great East Japan Earthquake in March 2011, many enterprises in Japan suffered serious damage from the massive tsunami and earthquake, and faced shortages of electricity, fuel, and so forth. Economic activities were affected not only domestically but also internationally through supply chains. It is important to learn from this disaster and to prepare for other disasters that are likely to occur in the future. Without effective preparation, the Japanese economy and society may face a crisis if disaster strikes. Even in normal times, without effective preparation, there could be a loss of confidence in the Japanese economy, a slump in purchasing and direct investment from overseas, a shift of production bases to overseas, and so on.

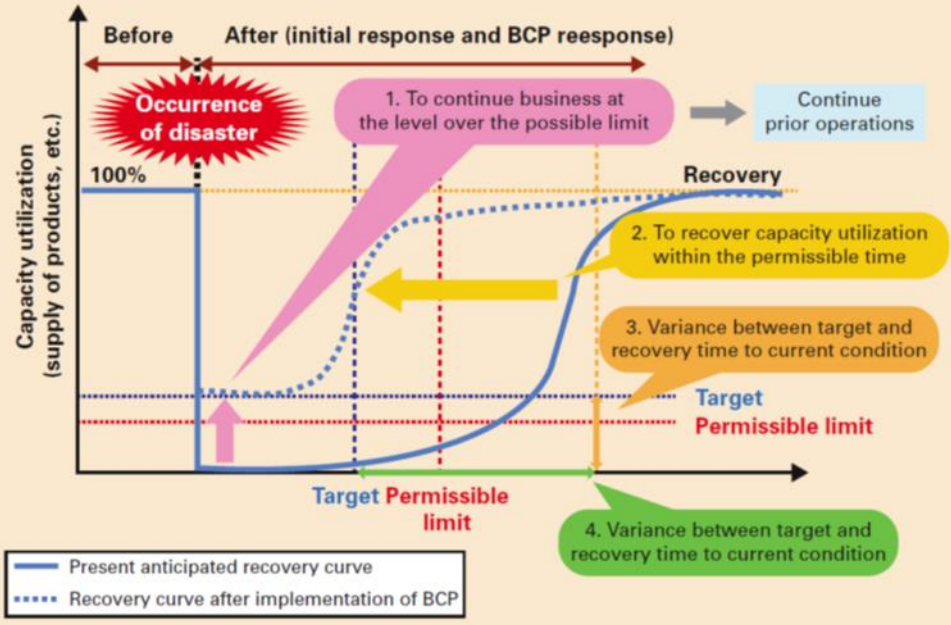
Therefore, enterprises in Japan should consider all possible disasters which could hit Japan or overseas, and prepare for the worst conceivable situations. They should constantly develop a business continuity strategy which can effectively handle the damage caused by a

disaster, take countermeasures, and improve their efforts. In some past disasters, some enterprises were able to restore normal operations quickly because their Business Continuity Plans or coordination with other companies worked effectively. Therefore, it is important for enterprises to utilize such lessons in order to enhance the capability to continue doing business.

As the business operations and environments of become increasingly diverse and complicated, there is a risk that various critical incidents other than disasters could suspend production activities and distribution, causing severe impacts on society in Japan and overseas. Therefore, it is necessary to build an economy and society which can be restored smoothly and seamlessly when the contingency happens. Thus, enterprises must improve their business continuity capabilities.

A business continuity plan (BCP) is one preparation which can help reduce losses and damage when disaster occurs. BCP will identify the potential effects of disruptions to an organization's critical operations if a disaster were to occur, and specifies effective response actions and quick recovery measures.

FIGURE 1: **The business continuity plan concept**



Source: Cabinet Office.

In the Great East Japan Earthquake (GEJE), BCPs served their purpose to some extent, but certain weaknesses were identified. While BCPs helped to keep critical operational functions going, and then to rehabilitate general operations, most small- and medium-sized enterprises had, unfortunately, not even prepared BCPs. Since the private sector plays a major role in creating jobs and supporting local economies, it should be required to prepare BCPs, but with support from the government.

The Business Continuity Plan has been mentions in the Disaster Management in Japan in chapter 3 “Disaster Countermeasures – From Prevention to Preparedness, Response and Recovery”. “The Business Continuity Plan of Central Government (Measures against Tokyo Inland Earthquake)” stipulates the executive systems and work environment essential to continue the government services smoothly in the event of Tokyo Inland Earthquake occurring and in case the political, administrative and economic core functions may be seriously affected by the Earthquake.

Regarding the executive system, the Plan stipulates that, upon Tokyo Inland Earthquake occurring, government staff including those in charge of the administrative management gather at the central government buildings and stay there for a week to continue the emergency priority operations in rotation, so that such emergency priority operations will be smoothly carried out. With regard to the work environment, it stipulates that the government building be constructed to be earthquake resistant with work environment to continue the emergency priority services and administrative work in case of emergency.

Based on this Plan, central government ministries and agencies shall revise the business continuity plans of each ministry and agency, identify services that need to be continued under their responsibility in case of emergency as the emergency priority operations, and they work out system and environment necessary to carry those out.

It is planned that those business continuity plans developed by respective ministries and agencies be reviewed and evaluated by experts, and that these plans as well as the Plan itself be revised based on the result of such evaluation.

In the same manner, the systems for business continuity of local governments in the event of a large-scale disaster are being developed and the Government is to give support to them by way of formulating guidelines.

In Japan, good business continuity practices have already been secured to some degree and have been proven to be effective in practice, and some of these practices in Japan are more advanced than in other countries. Based on these experiences, enterprises should further improve their efforts.

4.2.1 Business Continuity Plan of National Government

When ministries that are responsible for administrative core functions have problems in operation continuity at Tokyo Inland Earthquake, the government cannot collect and analyze damage information, causing serious impacts on rescue and lifesaving, the life of the public, and business activities.

Thus ministries need to conduct critical operations as the government even they themselves are affected and have limitation to access to resources such as personnel, material, information and infrastructure.

Business Continuity Plan of the government is a plan that stipulates operations referred as critical functions as the government to be maintained. Also it aims to appropriately conduct operations even at critical situation through examining resources necessary to implement prioritized operations, and taking necessary measures for simplifying procedure and clarifying a chain of command.

BCP of National Government (for Tokyo Inland Earthquake)'s objectives are maintaining metropolitan core functions and minimizing impacts on the life of the people and the national economy at Tokyo Inland Earthquake.

The important thing in preparation for business continuity of national government is prioritizing operations emergency. Prioritized operations in the Plan shall be included in BCP of each ministry and considering assembly members under the strict criteria, scrutinize prioritized operations at emergency.

Aim to establish a system where emergency operations can be made by shifts for a week without supply from outside, the operation system shall be:

- Establish BCP of whole society
  - Establish the whole government network centered on the Cabinet Office and Cabinet Secretariat
  - Each ministry shall establish network with local government, relevant organization and private organization
- Secure assembly members
  - Examine the number of officers who can assemble office building
  - Considering shift members, secure assembly members
- Emergency delegation of autonomy
- Selection of representing members

Moreover, there is the evaluation of BCP of National Government by Expert Panel for:

- Evaluation of BCP of National Government and BCP of each Ministry
- Evaluation items and methodology for effectiveness of each Ministry
- Evaluation of effectiveness of BCP Guideline for National Government and Ministries

Example: BCP of National Government (Tokyo Inland Earthquake) [Cabinet approval 28 March 2014]

<<Excerpt>>

Issues about temporary alternation when all or part of administrative core functions cannot be maintained

1. Relocate to alternative base

When Prime Minister's Residence cannot be used due to Tokyo Inland Earthquake, Emergency Disaster Management Headquarters shall be changed to the following order after quickly analyzing the damage situation. When Prime Minister's Residence regained functions, it will be returned to the Residence.

① Cabinet Office (Central Government Building No.8. However, before Building No.8 becomes usable, Building No.5)

② Ministry of Defense (Central Command Post)

③ Tachikawa Wide-Area Disaster Management Base (Backup facility for Disaster Management Headquarters)

The Government shall establish a system to conduct overall coordination for emergency prioritized operation including Emergency Disaster Management Headquarters, mainly in the said places.

2. Relocate to alternative building for ministries

When ministries have problems to continue all or some of operations in their office buildings and relocate to alternative bases by 1, they relocate to alternative offices on their BCP by their judgement.

In addition, there is the expert panel on evaluation of BCP of National Government with the objective that (1) evaluation of BCP of National Government and BCP of each Ministry (2) evaluation items and methodology for effectiveness of each ministry and (3) evaluation of effectiveness of BCP Guideline for National Government and Ministries.

There is also a survey of Business Continuity Plan in local government by Fire and Disaster Management Agency (F.D.M.A.), Ministry of Internal Affairs and Communications. For example, the survey will show the number of Prefectures, Cities, Municipalities which has BCP already such as all of Prefectures (47 Prefectures) in Japan have BCP (100%). In the survey, there will be many important contents in BCP's preparation such as personnel allocation, office backup, backup power, fuel, water and food, telecomunication, backup data, priority operation, role of staff, rules for assistance etc. and also a survey drill of BCP.

4.2.2 Business Continuity Plan in Local Government

In Local Government, Business Continuity Plan is the plan to identify prioritized business under the situation a local government is affected and faces limitation in personnel, materials and information, to define operation system and response procedure, to secure necessary resource and to secure continuity of administrative business operation function.

Effects of BCP in Local Government are

1) Realize speedy business continuity even in “the serious situation where a local government is affected”

2) Avoid malfunction of local government due to confusion at disaster occurrence and implement business at early stage

3) Consider labor safety and hygiene issues of officers in charge of disaster response

However, Local Governments need to develop BCP so that they can implement Local Disaster Management Plan and Disaster Response Manual appropriately even under the limitation of resource caused by disaster.

In addition, there are the supports to municipality’s BCP development by the National Government such as guidelines, workshop and etc.

(1) Guidelines

The Cabinet Office published “Handbook for BCP of Local Government at Earthquake” in April 2010 for support to local government’s BCP development, for example;

- There is a revision of the “Handbook” based on lessons from GEJE recent disasters, “Handbook of BCP for Local Government at Large-scale Disaster” (2016), to promote developing more effective BCP; expand target disaster to natural disaster, review based on recent disaster lessons, review based on lessons at GEJE and points in developing effective plan.

- In May 2015, they developed a guidebook for small municipalities since such small municipalities lost administrative functions at GEJE, “Guidebook for BCP Development for Municipalities”, to focus on 6 important elements to cover for small municipalities with population below 100,000; (1) orders to substitute mayors, officers assembly system (2) alternative office for backup (3) preparation for electricity, water, food, etc. (4) various telecommunications methods at disaster time (5) backup important administrative data and (6) prioritization of business at emergency.

(2) Workshop

There is BCP development workshop for municipal offices since 2015, direct support to municipal offices about BCP development in cooperation with hosting prefectures. The workshop consists of lecture and exercise. At exercise, BCP development in group work. For issues that require examination, assigned as homework for a series BCP development process such as in 2018, workshops contain establishment of assistance receipt system.

Example: Miyagi Prefecture Business Continuity Plan (Plan) [Central government office, earthquake]

<<Summary (revised March, 2018)>>

Chapter 1 Basic way of thinking

◆ With business continuity plan

In the event of a large-scale disaster, effectively put limited resources into "emergency priority operations", Plan for early business continuity and recovery / reconstruction

◆ Target organization

Governor bureau of the main government building (administrative government building, parliamentary government building), corporate bureau, Parliamentary secretariat and administrative committee (excluding public safety commission) secretariat

◆ Basic policy

1. Implementation of emergency priority work centered on disaster emergency response work

2. Implement normal operations within the range that does not affect suspension or emergency priority operations

3. The resources necessary for emergency priority work, such as personnel and materials, are coordinated across all agencies

Chapter 2 Disasters and Damage Assumptions

◆ Disaster assumption

It is assumed that it is the same scale as "the Great East Japan Earthquake" among regional disaster prevention plans as earthquake disaster

◆ Damage assumption

- Human damage Dead, missing about 11,700 people
  Up to approximately 320,000 evacuees
- Lifeline damage About 1.42 million power outages,
  about 760,000 line interruptions
- Main government building damage 【Building, water and sewage】
  No major damage
  [Power] Emergency generator
  operation, recovery after 9 hours
  [Telephone] originally disconnected,
  restored after 24 hours

Chapter 3 Emergency Priority Business

◆ Emergency priority work

Selection mainly on division office work based on the disaster countermeasures headquarters summary

※Timeline	Classification	Standard	Number of duties
Disaster-3 hours	Initial stage	Necessary work essential for disaster recovery	165
~ 12 hours	Emergency stage	Implementation of emergency work, urgent and serious work such as victim support	113
~ 1 day			96
~ 3 day			78
~ 14 days	Recovery stage	Operations pertaining to full-scale restoration and reconstruction	39
			491 in total

※ Target time for starting work that defines when to start work after the

Chapter 4 Execution System

◆ Setting of antidisaster headquarter

We set up based on the disaster measures headquarters summary

◆ The gathering situation (※ prediction) of the staff

time	Collection rate	Number of people
~ 3 hours	15%	About 350 people
~ 12 hours	65%	About 1,520 people
~ 1 day	70%	About 1,630 people
~ 3 day	85%	About 1,980 people
~ 14 day	90%	About 2,100 people

* A disaster occurs outside working hours. Enter the office by foot

Chapter 5 Working Environment

◆ Main government building (office)

There is no major damage even if an earthquake occurs, and it can be used as an office

◆ Lifeline

[Electricity] In the case of a power failure, up to 26 hours can be supplied by emergency private power generation

[Waterworks] When water supply was interrupted, water supply is possible for 1.8 days

【Food】 Reserve for 3 days by stockpiling plan

[Communication] Not subject to call restrictions. Securing 20 priority telephone lines during disasters

Chapter 6 Promotion of plan

◆ training

Regarding implementation method, we examine the possibility of cooperation, cooperation with disaster prevention drills

◆ Revision of plan (PDCA)

Promote at the administrative reform promotion headquarters and continuously improve

◆ Others

- Consider the development of a local organization BCP
- We carry out support such as reporting for the municipalities BCP development

4.2.3 Business Continuity Plan in Private Sector

Business continuity Plan identifies the potential effects of disruptions to an organization's critical operations if a disaster were to occur, and specifies effective response actions and quick recovery measures. In the Great East Japan Earthquake (GEJE), BCPs served their purpose to some extent, but certain weaknesses were identified. While BCPs helped to keep critical operational functions going, and then to rehabilitate general operations, most small and medium-sized enterprises had, unfortunately, not even prepared BCPs. Since the private sector plays a major role in creating jobs and supporting local economies, it should be required to prepare BCPs, but with support from the government.

Preparedness in private sector is important because social functions and stakeholders in modern developed societies are highly interconnected and interdependent, any disruptive incident can affect an entire region. A single incident can have an extensive impact both domestically and internationally, by undermining supply chains and value chains.

Examples of direct and indirect negative effects include:

· Loss of human life and injury.
· Damage to physical assets, the environment, and natural resources.
· Disruption of public utilities, such as electricity, water, transport, and telecommunications.
· Disruption of citizens' daily livelihoods.
· Disruption of local government administrative functions.
· Reduced supplies of daily goods and services.
· Bankruptcy of private companies, lost economic opportunities, and income loss.
· Unemployment and economic downturns.

The private sector plays a major role in creating employment and supporting the local economy, thereby ensuring regional sustainability. In the event of a disaster, the role of the private sector becomes even more important in this respect. In each phase of disaster risk management, it:

· Provides evacuation shelters and relief goods.

· Ensure employment so that victims can regain their livelihoods quickly.

· Provides labor, services, and products essential to the speedy recovery of social functions, roads, transportation, supermarkets, schools, hospitals, and other functions.

Effective cooperation among disaster-resilient private sector players helps ensure a resilient and sustainable civil society. One lesson learned from past catastrophic events such as the Great Hanshin-Awaji (Kobe) Earthquake, Hurricane Katrina, the GEJE, and Thailand flood is that the private sector plays an important role in reducing national and regional economic damage when it is well prepared.

Practices at the GEJE

☺ **The case of a large distribution company.** Seven & I Holdings Co., Ltd. Operates convenience stores, general merchandise stores, department stores, and supermarkets. The company has revised its BCPs seven times since the Kobe earthquake in 1995. A supermarket in Ishinomaki City, one of the most devastated cities, started selling foods and other goods outside its own buildings starting at 6 p.m. on March 11. On the next day, all 10 supermarkets opened in the Tohoku Region. The decision to reopen in times of disaster was delegated to the individual shops, which could assess the situation quickly. Multiple logistics routes were secured and 400 workers were brought from other areas to support the stores in the devastated areas.

☺ **The case of an SME.** The Suzuki Kogyo Co. is a waste management company with 67 employees in Sendai City, which suffered from the GEJE. The company equipped itself with satellite phones and standby generators, and conducted training and drills based on a BCP formulated in 2008. The emergency center was established at 3.30 p.m., 45 minutes following the earthquake on March 11. Two days later the company resumed the critical operation of treating medical waste from dialysis. Other companies took over the waste management operations.

The private sector in Japan has made substantial efforts to adopt BCPs, which proved to be useful when put into action following the GEJE. At the same time, however, some lessons were learned that could make corporate BCPs even stronger and more effective. Until recently there had been an attitude of tolerance toward business disruptions caused by disasters of a certain scale, as they were considered to constitute force majeure. Public opinion has shifted since March 11. Now, even if the scale and intensity of a disaster exceeds assumptions and predictions, disruptions are deemed to constitute negligence, and top managers are expected to be able to take appropriate measures to ensure the continuity of critical operations. Companies should:

Ensure BCP effectiveness through regular drills and continuous education. These drills and training must target specific departments in the company and should address specific capacities and skills; generic training is of no use. The plan should list specific activities and give detailed directions to be followed in emergencies and to facilities recovery. These should be explained in detail to those officials and employees who are expected to implement them. Drills and training should be regular and ongoing, and some coordination at the sectoral level is recommended.

Radically shift from a "disaster-based" to a "consequence-based" perspective in strategy development. Private companies should formulate their BCPs to reflect the results or outcomes they expect from implementation, rather than specific measures to counter specific disasters. They should identify key services, and examine how long the service will be disrupted and how they can shorten the disruption time.

Focus more on supply chain disruption risk by knowing more about the situations of stakeholders. In addition to the company's own operations, BCPs should address supply chain issues that affect other companies and markets. To facilities this, meetings should be held regularly with companies in the same sector and with supply chain companies, first to assess the potential risks and then to develop concerted measures to ensure business continuity throughout the supply chain.

In consideration of lessons learned from critical incidents threatening business continuity, the establishment of related institutions, changes in the economy and society, and so forth, the "Business Continuity Guidelines – Strategies and Responses for Surviving Critical Incidents –" are announced by the Cabinet Office, Government of Japan. These Guidelines are intended mainly for private enterprises, including all enterprises, both for-profit and non-profit organizations, regardless of type of industry, business or size.

The Guidelines describe the outline, necessity, effectiveness, implementation methods, establishment methods, points to remember, etc. of good practice in business continuity, or Business Continuity Management (BCM) including Business Continuity Plans (BCP), in order to encourage enterprises in Japan to ensure good practice in business continuity, thereby improving the business continuity capabilities of Japan as a whole. Both the government and the economic community as a whole strongly expect good practice in business continuity to become widespread. Therefore, enterprises must actively consider this matter.

An analysis of the responses following the GEJE and the great flood in Thailand in 2011 revealed that some Japanese enterprises had established world-leading BCMs. However, many enterprises have not established sufficiently good practice in business continuity. Therefore, these Guidelines aim to help such enterprises and industries as a whole to improve their business continuity capabilities by encouraging them either to launch such efforts or to review and improve their efforts, and to encourage enterprises to collaboration with

each other inside and outside their regions in consideration of the importance of supply chains. These efforts are expected to improve the value of enterprises, organizations and industries.

The incidents covered by these Guidelines are natural disasters which disrupt the business (especially the supply of products and services) of enterprises and can also cover any incidents which may suspend business operations such as large-scale accidents, communicable disease pandemics, terrorist acts and disruption of supply chains.

The Guidelines take into account the conditions of BCMs in Japan and confirm in principle with the concepts of international standards and good practices in foreign countries. Other than, it includes many recommendations and examples, but enterprises are encouraged to take only those measures that suit them. It is important for enterprises to develop their own ideas.

The composition of Guidelines follows this table:

Composition	Chapter	Outline
Introduction	Outline of the Guidelines	Explanations of the outline (targets, purpose, status, etc.) of the Guidelines as a whole
Text	Chapter 1: Necessity and Outline of Good Practice in Business Continuity	Basic matters of good practice in business continuity and the necessity and advantages of promoting good practice
	Chapter 2: Establishment of Policy	Establishment of the basic policy of Business Continuity Management (BCM) and creation of a system to establish and implement BCM
	Chapter 3: Analysis and Examination	“Business impact analysis” by which critical operations to be continued in the event of an incident and whether or not such critical operations should be recovered are analyzed, and “risk analysis and assessment” by which such risks are identified for which measures should be taken on a priority basis
	Chapter 4: Examination and Finalization of Business Continuity Strategies and Measures	Business continuity strategy for restoration by the recovery time objective and continuing critical operations
	Chapter 5: Establishment of Plans	Establishment and documentation of a plan under BCM
	Chapter 6: Proactive Measures and Implementation of Education and Training	Proactive measures based on a plan, and implementation of education and training
	Chapter 7: Review and Improvement	Review and improvement of BCM
	Chapter 8: Recommendations to the Management and the Economic Community	Recommendations on the importance of promoting good practice in business continuity and matters to consider in promoting good practice, to the management and the economic community
Appendix	1. Glossary	Explanations of terms used in these Guidelines
	2. Reference Books	List of references used in establishing and revising the Guidelines
Exhibit	Checklist	Checklist used for checking the status of achieving good practice in business continuity

BCP identifies an organization's critical operations and the potential effects of a disaster, specifying the response and recovery measures the business can take to avoid or minimize disruptions and continue operations at an acceptable level. The GEJE caused 656 private companies to go bankrupt within a year. Fully 88 percent of those business were located outside the Tohoku region and failed because of supply-chain problems. A BCP is essential regardless of where a business is based. According to a recent survey, between 80 and 90 percent of medium-sized and large companies indicated that their BCPs had been effective during the response and recovery phase. For these reasons show that well-prepared BCPs can prevent disruptions.

4.3 BUSINESS CONTINUITY PLAN IN THAILAND

In Thailand, BCP are available in the private sector because in the private sector, it is a business that is expected to profit and must not lose. So when a business interruption causes the business to be unable to perform at the same level as before the incident and loss of income or many customers until unable to receive the service interruption. It also tarnishes the reputation and image of the organization. Thus, in the private sector, it is necessary to have BCP in order to continue business operations, no interruption in critical conditions which has evolved from the recovery of information technology systems and disaster events (Disaster Recovery) to protect the chances of occurrence, preparation, response and recovery from incidents that cause disruption.

Before having BCP in the organization, there must be a Business Continuity Management (BCM). BCM is the whole body of the management process which indicates the threat to the organization, the impact of that threat on business operations and provide guidelines for building capacity for the organization to be flexible. To respond and protect the interests of stakeholders, reputation, image and activities that create effective value with the main objective to minimize disasters affecting the organization and is able to resume its main business after the interruption as soon as possible.

The benefits of BCM and BCP are as follows:

1. Create collateral for customers and investors
2. Reduce financial impacts
3. Build the ability to compete in the event of a disaster
4. Make sure at the time of returning to service
5. Reduce confusion and reduce wrong decisions
6. Make safety for employees and other related parties

From the severe flooding situation in 2011 (B.E. 2554) has reflecting the problems of many government's systems and mechanisms unable to effectively perform the mission in a crisis. That resulted in solving the problems of public suffering, lack of a good management system. Therefore, it is necessary to have BCM to ensure that the main mission of the government or important public service must be operational or continuous service. So on April 24th 2012, the Cabinet approved the guidelines for preparing for the crisis. The government's management system can respond to the problem and rectify the ineffectiveness of the state mechanism in providing services. By issuing a notice of the Ministry of Industry on industrial product standards Business continuity management system (ISO22301) on 25th September 2013.

ISO22301 is the international standard that helps organizations put business continuity plans in place to protect them, and help them recover from, disruptive incidents when they happen. It also helps you to identify potential threats to your business and to build the capacity to deal with unforeseen events.

These 10 steps are based on the International Standard ISO22301, for Business Continuity Plan.

Step 1: **Determine BCP Purpose, Scope, and Team**

When you start BCP planning, you need to create a solid foundation (or framework) for your company's BCP program by addressing these three elements:

1) Purpose: Why is your company introducing BCP?

2) Scope: Which parts of your company will introduce BCP?

3) Leader: Who will serve as leader of your BCP activities?

It is very important that not only top management show visible strong leadership, but also that all employees are fully aware of the BCP framework (purpose, scope, and leader).

Step 2: **Prioritized Activities (PA) and Recovery Time Objective (RTO)**

You will consider what is your company's lifeline product or service? Which product or service should be recovered (be delivered) as the first priority when a natural disaster (or an accident) disrupts the company's operations? Which business activity makes a top selling product? Which shop sells most in your company? Those critically important business activities are called Prioritized Activities (PAs). You have to identify the Prioritized Activities of your company. As the second step, you should know the impact (timeline) of total disruption to the main activities listed. How soon would the total disruption of these activities become unacceptable to your company? (This period is called Maximum Tolerable Period of Disruption / MTPD). What must be done to get your business operational again in the shortest possible timeframe, before heading towards exiting the business or filing for bankruptcy? The importance of this simple analysis is to focus only on the impacts of disruption, setting aside risk factors. By disregarding risk factors, such as occurrence probability and severity of

damage, during the process of analyzing your business and identifying Prioritized Activities, you will gain a clearer understanding of how soon your company has to resume operations to avoid bankruptcy.

Step 3: **What Do You Need to Resume Key Activities?**

Prioritized Activities (PAs) are supported by various internal and external resources. When disrupted, PAs are going to be resumed and those supporting resources should be available and ready. In Step 3, you need to identify and list the necessary resources in Form 3-1. In the subsequent steps, you will review risks to the listed resources, and their vulnerabilities. You will consider what measures are necessary to protect, secure availability, or prepare alternative options. Therefore, this list is very important and basic information in your BCP planning.

Step 4: **Risk Assessment – Know Your Disaster Scenarios**

You need to clearly identify risks which may seriously threaten your company (or may lead to a catastrophic scenario). You list the kinds of risks your company is exposed to. You analyze and evaluate those risks, and select risks which your company needs to take measures with 'high priority'. You also need to analyze and estimate to what extent your critical resources may be damaged by such risks, and how long it will take to restore such damaged resources. You compare the estimated restoration period with your company's Recovery Time Objective (RTO), set in Step 2, and determine which resources are critical to avoid catastrophic scenarios.

Step 5: **Do Not Forget Pre-Disaster Protection and Mitigation**

To successfully resume operations as planned, the damage to the supporting resources should be contained, to the extent that early repair and restoration would be possible. If such important resources sustain very severe damaged, your company may fall into a disaster scenario, and be forced to give up the recovery effort, or shut down for a long period of time. This would be the end of the business and therefore, the story! This is why pre-incident strategies of protection and mitigation are very important.

Step 6: **Emergency Response to Disaster**

You consider immediate necessary responses to take, when the incidents occur, to prevent the emergency situation from becoming an uncontrollable crisis. It is called emergency response or incident response. The first priority of emergency response is to protect and rescue people. Stabilization, to remove harm and secure premises, ensure safety and security of yourself, staff and customers protection of assets, and prevention of further damage. The potential for secondary disasters should also be considered.

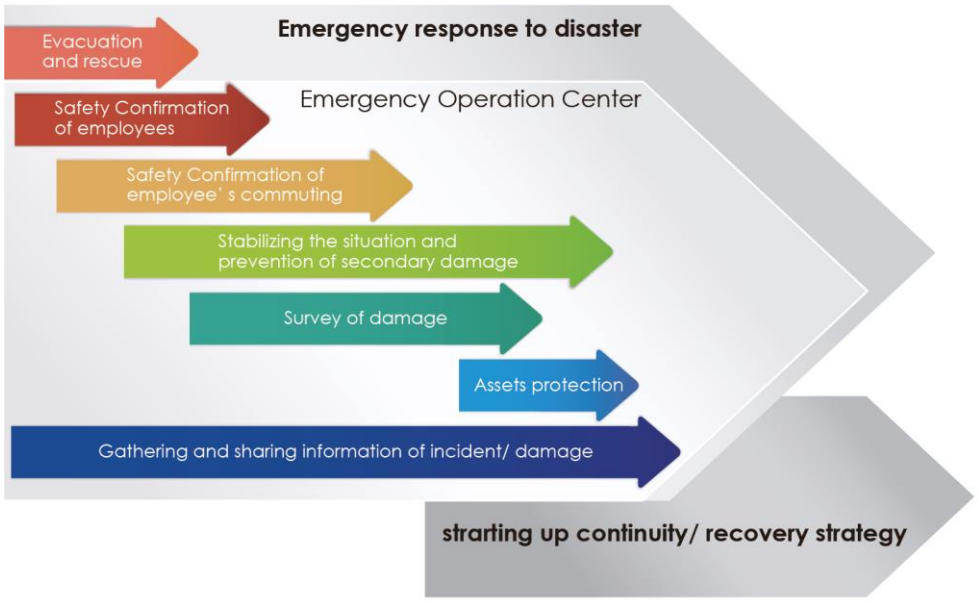


Figure 6-1 Emergency response to disaster

Step 7: **BC Strategies to Early Resumption**

You develop your company's Business Continuity Strategies (BC Strategies) for resumption of Prioritized Activities (PAs) within Recovery Time Objectives (RTOs). You need to identify and prepare the internal and external supporting resources that are necessary to resume those activities. There are key concepts for planning your BC Strategies that you need to consider to resume Prioritized Activities (PAs). In considering the concepts of BC Strategies, you are going to make plans for your own BC Strategies to achieve RTO of PAs.

Strategy 1: Resume PA at the damaged/affected site.

Strategy 2: Resume PA at an alternative site (either in-house or external facility)

Strategy 3: Resume PA by alternative methods (or workaround methods)

Step 8: **Be Financially Prepared**

The objective of Step 8 is to recognize the financial conditions of your company in case of an emergency, and to prepare appropriate measures in advance, to avoid bankruptcy even if income is suspended. If your company's operation is suspended, your company will lose revenue but still be required to pay ordinary expenditure such as, payroll and rent. And if your facilities are damaged, you will need cost recovery of your damaged facilities.

Step 9: **Exercise Makes Your Plan Functional**

Planning and executing plans are different tasks. Your company's Business Continuity Plans should effectively work in the case of an emergency as planned. The purpose of exercise is to ensure that your company's plans work effectively and achieve its objectives. Exercise is intended to not only test its performance, but also to empower employees and provide them with education and training to enhance their knowledge and expertise.

Some examples of the main exercises are listed below.

- Evacuation Drill: test and practice safe and prompt evacuation to the designated location.

- Safety Confirmation Exercise: test and practice employees' emergency calls and safety confirmation.

- Launching EOC Exercise: test and practice starting up EOC launch and conducting designated roles by EOC members.

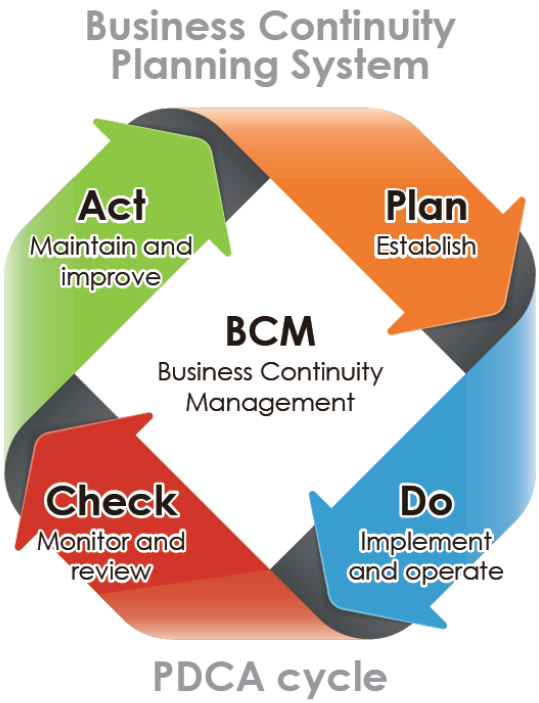
- Backup Data Recovery Exercise: test and practice recovery by backing up data.

- Re-starting Operation Exercise: test and practice resuming operations after disruption.

- Launching Alternative Site Exercise: test and practice starting up operations at an alternate site.

Step 10: **Ongoing Review and Improvement**

To make your company's BCP most effective, you should monitor and review your company's BCP activities. Your entire BCP activities – before, during and after an incident - should be reviewed. Moreover, senior management have to proactively initiate a review of the company's BCP at least annually, and ensure that your company's BCP has been managed effectively and the PDCA cycle is working.



The National Disaster Risk Management Plan 2015 has mentioned Business Continuity Plan in Disaster Risk Reduction Strategy 2 : Developing Disaster Risk Reduction Measures , Guidelines 2.8 : Business Continuity Plan , “This action plan is a document that contains the critical information the public and private sector business need to stay running in spite of adverse events. The concept of, and practices in public sector business continuity management have mainly focused on controlling, overseeing, and protecting critical resources required for essential public business operations and services in order to maximize general public benefits including the benefits for a wide range of the stakeholders. Since the improper or inefficient functioning of the existing internal control, mechanisms, resulted from adverse incident can lead to discontinuity of business operations and provision of services, therefore the relevant government agencies have a responsibility to undertake the intervention actions in order to ensure that the essential business functions and services will stay resilient and get up running following any disaster or disruption in accordance with the cabinet resolution dated April 24, 2012”.

Department of Disaster Prevention and Mitigation has proceeded in accordance with the Cabinet resolution and the National Disaster Risk Management Plan, 2015 approved the BCP by Director-General of DDPM on March 7th, 2017 to allow the staff of the DDPM to use as guidelines preparation for public service and organization management to be able to continuously perform tasks according to the main mission and be effective when in crisis. With the appointment of the crisis readiness committee of DDPM on 27th June, 2018. The committee is consist of Director-General of DDPM as a consultant, Deputy Director-General assigned of DDPM as the chairman, Every Division of DDPM’s Directors as committees, Director of Disaster Prevention and Mitigation Policy Division as committee and secretary and Director of the Management System Development Group as committee and joint secretary. This committee have the authority to set policies or guidelines for managing the continuity management plan in crisis situations of DDPM, prepare and drive the BCP of DDPM, follow up and evaluate the performance according to the BCP of DDPM, give suggestions to improve and review the plan and promote and support the cultivation of the concept of continuity management as part of the corporate culture.

However, APEC Guidebook requires BCP to have PDCA. Therefore, the concept of DDPM’s BCP is to be improved to be more efficient. By studying BCP research in Japan, including best practices to adjust to the context of Thailand and improve the BCP of DDPM in accordance with international standards and efficiency.

CHAPTER 5: LESSONS LEARNED FROM JAPAN

In this last chapter of the study comprises of the lessons learned from Japan and interesting issues from Japan for developing the Business Continuity Plan of Department of Disaster Prevention and Mitigation.

5.1 LESSONS LEARNED FROM JAPAN

Well-prepared business continuity plans prevent disruptions. BCP identifies an organization's critical operations and the potential effects of a disaster, specifying the response and recovery measures the business can take to avoid or minimize disruptions and continue operations at an acceptable level. A BCP is essential regardless of where a business is based.

Raise public awareness. Efforts should be made to raise awareness about BCPs and develop effective BCPs to achieve greater regional resilience. Practices and lessons from disasters should be widely shared with organizations.

Start from a small disaster. Organizations could begin with a small hazard scenario as the first step in formulating BCPs, and then add greater or different kinds of hazards. For example, in Japan, since earthquakes are a very familiar hazard, most companies start by preparing BCPs for earthquakes which are considered easier to produce. They then proceed to develop BCOs for more complicated disasters, such as pandemics.

Mobilize government support. Governments may feel that providing support to BCPs for the private sector is not their role. But securing livelihoods and the local economy is certainly a relevant public sector concern. Governments should provide private companies with the necessary information such as risk assessments and guidelines for producing BCPs. Also, governments should collaborate with chambers of commerce and other industrial associations that provide support to these companies.

Promotion of Business Continuity Plans (BCPs) and Business Continuity Management (BCM). Promoting the formulating and implementation of Business Continuity Plans (BCPs) and Business Continuity Management (BCM) stipulating management strategies in normal time are extremely vital for ensuring the continuation of business in the event of a disaster.

Development of Business Continuity Systems.

(1) Development of Business Continuity Systems by National Government's Ministries and Agencies: The national government's ministries and agencies have reviewed their business continuity plans (BCPs) as required according to the Business Continuity Plan of the National Government (Measures for the Tokyo Inland Earthquake). Based on this plan, the Cabinet Office assessed its BCP with experts. The government service continuity system will also be implemented in the event of a potential Metropolitan Inland Earthquake through these initiatives to continue administrative operations smoothly.

(2) Development of Business Continuity Systems by Local Governments: The local government must ensure its administrative function works for ongoing operations required, even when a disaster occurs, hence the importance of the local government providing its own BCP. The Cabinet Office published the Business Continuity Plan Formulation Guidelines for Municipalities, aiming to make it easier for small municipalities to prepare a BCP and has been holding workshops to train relevant municipal employees in preparing BCPs. Through such initiatives, the Cabinet Office will continue to support local governments in strengthening and enhancing their business continuity systems.

Should a major disaster occur, it will be difficult for the affected municipalities to carry out an extensive range of disaster response operations singlehandedly. The local government also needs to develop an aid acceptance system to accept assistance from the national government, other local governments, private companies and volunteer organizations, etc. smoothly and effectively.

(3) Development of Business Continuity Systems by private sector companies: The Cabinet Office conducts a fact-finding survey every second fiscal year, to ascertain what proportion of private sector companies have prepared a BCP and investigate their disaster preparedness initiatives. The Cabinet Office will continue to undertake initiatives to popularize and raise awareness of BCP preparation based on the outcomes of surveys, with the aim of encouraging companies to formulate a BCP and engage in BCM.

5.2 THE INTERESTING ISSUES FROM JAPAN

- In Japan, the government support BCP for the private sector as can be seen from the government is the policymaker about BCP in the Disaster Management in Japan and they established the Business Continuity Guidelines –Strategies and Responses for Surviving Critical Incidents –.

- The organizations/companies that have BCP, they can take to avoid or minimize disruption and continue operation and had been effective during the response and recovery phase. Ex: a supermarket in Ishiomaki City, one of the most devastated cities, can start selling foods and other goods outside its own building at 6 p.m. on March 11. Or a waste management company in Sendai City, which suffered from GEJE, can establish the emergency center at 3.30 p.m., 45 minutes following the earthquake on March 11 and 2 days later they resumed the critical operation of treating medical waste from dialysis.

- In Japan, there are BCP of Local Governments.

- Japan’s BCP has content covering the stockpiling of goods.

- Evaluation of BCP of National Government, organize meetings 4 times a year

- The Cabinet Office survey on BCP preparation every 2 years

5.3 CHALLENGES FOR THAILAND

(1) Department of Disaster Prevention and Mitigation has Business Continuity Plan which is accordance the international standards and can actually to be used.

(2) Business Continuity Plan of Department of Disaster Prevention and Mitigation can be a model for other agencies and the local government.

(3) The National Government supports the local government having Business Continuity Plan.

Thus, if there is well-prepared BCP, BCP will be an effective for strengthening DDPM's disaster management.

REFERENCE

Cabinet Office, Government of Japan. Disaster Management in Japan. Retrieved from http://www.bousai.go.jp

Cabinet Office Japan, White Paper, Disaster Management in Japan 2018. Retrieved from http://www.bousai.go.jp/kyoiku/panf/pdf/WP2018_DM_Full_Version.pdf

DDPM. (2015). National Disaster Risk Management Plan. Bangkok: Department of Disaster Prevention and Mitigation.

Toshinori OGATA.(2016). Disaster Management in Japan. Japan Med Assoc J. 2016 Jul; 59(1): 27–30. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5059167/

Taiki SAITO. DISASTER MANAGEMENT OF LOCAL GOVERNMENT IN JAPAN. Retrieved from http://www.uncrd.or.jp/hyogo/hesi/pdf/peru/saito.pdf

Cabinet Office Japan, Government of Japan. Business Continuity Guidelines – Strategies and Responses for Surviving Critical Incidents – Third Edition.

International Bank for Reconstruction and Development, The World Bank. The Great East Japan Earthquake, Learning from Megadisasters, Knowledge Notes Executive Summary.

Takahiro Ono, Asian Disaster Reduction Center and Mikio Ishiwatari, World Bank. Knowledge Note 2-4, Cluster 2: Nonstructural Measures, Business continuity Plans.

The Asia-Pacific Economic Cooperation (APEC). The Guidebook on SME Business Continuity Planning

Ministry of Internal Affairs and Communications, Survey BCP of the Local Governments.

WEBSITE

- http://www.adrc.asia/index.php
- http://bcpjapan.jp/
- https://www.preventionweb.net/publications/view/29163
- http://www.dri.ne.jp/en
- https://www.cao.go.jp

PRESENTATION MATERIALS

- DM Issues by Ms. Shiomi Yumi, Asian Disaster Reduction Center (ADRC)
- BCP of National Government and BCP of Local Governments by Mr. Maekawa Atsushi, Deputy Director, Disaster Management Planning, The Business Continuity Plan of Central, The Cabinet Office
- Effectiveness of BCP by Mr. Yamaguchi Norihiko, Deputy Director, Disaster Preparedness, Public Relations and International Cooperation, The Cabinet Office
- Insurance Risk Management by Mr. Takahoro Ono, General Manager Business Department.A, Risk Consulting Office, Mitsubishi Corporation Insurance Co.,Ltd.
- Business Continuity Management by Mr. Apichai Phongphotakul