10 YEARS OF DEVELOPMENT TRILATERAL DISASTER MANAGEMENT COOPERATION

2009 – 2018

DECEMBER 2019

Trilateral Cooperation Secretariat

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TABLE OF CONTENTS

Overview

There has been an increasing recognition of the importance of promoting disaster risk reduction (DRR) efforts at all levels, which spurred the need for a holistic approach to disaster management through regional and international cooperation. The Republic of Korea (ROK), Japan and the People's Republic of China (China) are neighboring countries. Cross-border and regional cooperation are essential for them to effectively respond to disasters and implement measures to reduce risks, thereby ensuring resilient societies and a safer environment in the region. Such recognition and a sense of shared responsibility were strengthened. Thus, the Trilateral Ministerial Meeting on Disaster Management (formerly Trilateral Heads of Government Agency Meeting on Disaster Management, hereby after Ministerial Meeting) was inaugurated in 2009 to follow the agreement on the *Trilateral Joint Announcement on Disaster Management Cooperation* issued at the 1st Trilateral Summit in 2008.

Since the establishment of the Ministerial Meeting in 2009, the three countries have been gathering biennially and discussing cooperative measures to strengthen their cooperation under this mechanism. They adopt a *Joint Statement* at every Meeting that stipulates reaffirmation of the significance of the existing partnership as well as a future direction. There are also various programs implemented by the three countries as follow-up actions, and such efforts were acknowledged by the three Leaders. In the *Joint Declarations* of the 6th and 7th Trilateral Summit in 2015 and 2018, the three Leaders recognized the achievements of cooperation in disaster management. They reaffirmed that the three countries strengthen cooperation to enhance disaster prevention, disaster relief capabilities and DDR.

The year 2019 marks the 10-year anniversary of this mechanism and by commemorating this moment, the booklet highlights significant achievements and historical development of the cooperation. Let's explore the trilateral disaster management cooperation, and continue towards a new era that leads us to long-lasting prosperity in the region.

** Country order (ROK, Japan and China) based on the chair country order of the 6th Ministerial Meeting.*

Trilateral Ministerial Meeting on Disaster Management

1st Meeting

Date	October 31, 2009	
Venue	Kobe, Japan	
Participants	Japan	MAEHARA Seiji, Minister of State for Disaster Management, Cabinet Office (Chair)
	China	LUO Pingfei, Vice Minister, Ministry of Civil Affairs
	ROK	PARK Yeon-Soo, Administrator, National Emergency Management Agency

Agenda/ Contents	i. Information sharing on the current situation of each country ii. Further trilateral cooperation on disaster management
Outcome	i. *Joint Statement of the 1st Meeting*

2nd Meeting

Date	October 28, 2011	
Venue	Beijing, China	
Participants	China	LUO Pingfei, Vice Minister, Ministry of Civil Affairs (Chair)
	ROK	LI Ki-Hwan, Administrator, National Emergency Management Agency
	Japan	GOTO Hitoshi, Senior Vice Minister, Cabinet Office

Agenda/ Contents	i. Major disaster management cases in each country ii. Information exchange on future prospects iii. Plan of the 3rd Meeting and Expert Meeting
Outcome	i. *Joint Statement of the 2nd Meeting*

3rd Meeting

Date	October 30, 2013	
Venue	Seoul, ROK	
Participants	ROK	NAM Sang Ho, Administrator, National Emergency Management Agency (Chair)
	Japan	NISHIMURA Yasutoshi, Senior Vice-Minister, State for Disaster Management, Cabinet Office
	China	GU Zhaoxi, Vice Minister, Ministry of Civil Affairs

Agenda/ Contents	i. Major disaster management cases in each country ii. Cooperative proposals iii. Technology and information sharing iv. Education and training v. Plan of the 4th Meeting
Outcome	i. *Joint Statement of the 3rd Meeting*

4th Meeting

Date	October 28, 2015	
Venue	Tokyo, Japan	
Participants	Japan	KONO Taro, Minister of State for Disaster Management, Cabinet Office (Chair)
	China	DOU Yupei, Vice Minister, Ministry of Civil Affairs
	ROK	LEE Sung-Ho, Vice Minister, Ministry of Public Safety and Security

Agenda/ Contents	i. Report on emergency responses to recent disasters in each country ii. Future trilateral cooperation for disaster management iii. Plan of the 5th Meeting
Outcome	i. *Joint Statement of the 4th Meeting*

5th Meeting

Date	September 7, 2017	
Venue	Tangshan, China	
Participants	China	GU Zhaoxi, Vice Minister, Ministry of Civil Affairs (Chair)
	ROK	RYU Hee In, Vice Minister, Ministry of the Interior and Safety
	Japan	FUKUDA Mineyuki, State Minister, Cabinet Office

Agenda/ Contents	i. Progress report on disaster management in each country ii. Future trilateral cooperation on disaster management iii. Plan of the 6th Meeting
Outcome	i. *Joint Statement of the 5th Meeting*

** Participant order based on the chair country order of the Ministerial Meeting.*

Follow-up Initiatives

I. Trilateral Expert Meeting on Disaster Management

Overview

The three countries commenced the Trilateral Expert Meeting on Disaster Management as a follow-up to the agreements reached at the 2nd and 3rd Ministerial Meetings that are to establish a mechanism of mutual visits and exchanges, and to share technology and information on disaster management. Under this framework, the three countries exchanged disaster management measures and ideas of promoting trilateral disaster management cooperation.

1st Meeting

Date	December 16, 2011
Venue	Tokyo, Japan
Agenda/ Contents	* The Meeting was held as a side event of the 2nd Expert Group Meeting on the Great East Japan Earthquake. i. Presentation on "Reconstruction Efforts after the Wenchuan Earthquake and Inspirations" by China ii. Presentation on "Comprehensive Emergency Management Measures on Climate Change Agreement" by the ROK iii. Presentation on "Expert Committee's Report on Earthquake and Tsunami Countermeasures based on the Lessons Learned from the Great East Japan Earthquake" by Japan

2nd Meeting

Date	March 26 – 28, 2014
Venue	Jeju, ROK
Agenda/ Contents	* The Meeting was held under the name of the "Trilateral Expert Meeting on Disaster Loss Data and Disaster Risk Reduction Technology Sharing". i. Perspectives from Northeast Asia ii. Setting the Context for Building Disaster Resilience iii. Disaster Statistics for Resilience iv. Risk Assessment Using Disaster Loss Data v. Opportunities for Sharing Disaster Data and DRR Technology vi. Needs for Utilizing Disaster Data and Sharing DRR Technology vii. New Paradigm for Resilience and Development

II. Trilateral Table Top Exercise on Disaster Management

Overview

Following up on an initiative specified in the *Cooperation on Disaster Management* at the 4th Trilateral Summit in 2011, the Trilateral Table Top Exercise (TTX) on Disaster Management was conducted with a view to increasing mutual understanding of humanitarian assistance, disaster relief mechanisms, and coordination process of the affected country and assisting countries in response to large-scale natural disasters. Through exercises, the TTX provided a platform for disaster management related authorities/experts of the three countries to discuss simulated scenarios to launch disaster response emergency plans and enhance cooperation in facilitating the coordination and delivery of humanitarian assistance.

1st TTX

Date	March 14, 2013
Venue	Seoul, ROK
Agenda/ Contents	i. A simulation exercise based on a hypothetical scenario involving a large scale of earthquake in the ROK ii. After action review

2nd TTX

Date	March 6 – 7, 2014
Venue	Tokyo, Japan
Agenda/ Contents	i. A simulation exercise based on a hypothetical scenario involving a large scale earthquake and tsunami striking Japan ii. After action review iii. Site visit to Ariake no Oka Core Wide-area Disaster Prevention base

3rd TTX

Date	April 28 – 29, 2015
Venue	Beijing, China
Agenda/ Contents	i. A simulation exercise based on a hypothetical scenario involving a major earthquake happened in China ii. After action review iii. Site visit to the National Disaster Reduction Center of China (NDRC)

4th TTX

Date	June 22, 2016
Venue	Seoul, ROK
Agenda/ Contents	i. A simulation exercise based on a hypothetical scenario involving a large scale typhoon hitting the Korean Peninsula ii. Share of experience and lessons learned from the international rescue operation in Nepal Earthquake 2015 iii. After action review

III. Trilateral Local Government Exchange Conference on Disaster Risk Reduction

Overview

It is essential to encourage interaction and collaboration at local level in getting prepared to respond to disasters in an appropriate and efficient manner as they are the first to respond when it comes to disasters. The Conference played a meaningful role for local governments of the three countries in sharing experiences and lessons with each other. This allowed the participants to learn the importance of local capacity and leadership in the field of DRR. It also supported the follow-up activities of the Ministerial Meeting.

Date	November 5 – 7, 2014
Venue	Incheon, ROK
Agenda/ Contents	i. Seminar: Sharing Experiences at the Local Government Level on Disaster Risk Reduction 1) Miyagi Prefecture 2) Qinghai Province 3) Incheon Metropolitan City 4) Hyogo Prefecture 5) Sichuan Province 6) Namyang-ju City, Gyeonggi-do Province ii. Training Workshop: 1) Disaster Trends & Challenges of Urban Risk 2) Ten Essentials: Making Cities Resilient Campaign 3) Making Cities Resilient Tools 4) Focus on Governance 5) Focus on Critical Infrastructure 6) Focus on Housing 7) Group Work iii. Site Visit to Incheon Asian Game Main Stadium & Gyeongin Ara Waterway

IV. Workshop on Sendai Framework for Disaster Risk Reduction

Overview

The three countries worked together to enhance their understanding of the *Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework)* by facilitating discussion on its implementation and particularly the role expected from the central government. The Workshop was regarded as one of the follow-up initiatives to the 4th Ministerial Meeting, which is to promote the implementation of the *Sendai Framework*.

The Workshop provided an opportunity for participants to exchange with each other about how the *Sendai Framework* is being implemented in their countries as well as the national plans for future implementation. The participants also took this opportunity to showcase the recent disasters in their countries and the lessons learned. In addition, it provided an opportunity to strengthen cooperation among the three countries to enhance disaster prevention and disaster relief capabilities, which was tasked in the *Joint Declaration* at the 6th Trilateral Summit in 2015.

3rd TTX

Date	March 3 – 4, 2016
Venue	Seoul, ROK
Agenda/ Contents	i. Review of Implementation of the Sendai Framework ii. Implementation of the *Sendai Framework*: Case Studies and Group Discussion 1) Understanding Disaster Risk 2) Strengthening Disaster Risk Governance to Manage Disaster Risk (Governance and Finance) 3) Investing in DDR for Resilience 4) Enhancing Disaster Preparedness for Effective Response, and to "Build Back Better" in Recovery, Rehabilitation and Reconstruction (Environment, Climate Change Adaptation, Infrastructure, Health and Housing) iii. Group Discussion: Next Steps on Implementation of the *Sendai Framework*

V. Trilateral Working-Level Consultation Meeting on Disaster Management

Overview

Due to the importance and the nature of the topic, the Trilateral Working-Level Consultation Meeting on Disaster Management was commenced. The Meeting was designed to better follow up and to discuss substantial projects that can be carried out among the three countries. It became a valuable occasion not only to efficiently follow up on the agreement of the Ministerial Meeting but also to elaborate on the possibility for potential cooperation.

2018 Meeting

Date	November 30, 2018
Venue	Seoul, ROK
Agenda/ Contents	i. Recent Developments & Major Disasters ii. *Joint Statement* Follow-ups 1) Utilizing Education and Training Institutes 2) Civil Society Engagement 3) Future Direction of TTX iii. Review of Future Oriented Cooperation 1) Information Sharing / Communication 2) New Ideas for Cooperation

VI. Meeting among the Three Education and Training Institutes on Disaster Management

Overview

This framework was established and has been developing with the participation of designated education and training institutes, namely, the National Disaster Reduction Centre of China (NDRCC), the Asian Disaster Reduction Center (ADRC) in Japan and the United Nations Office for Disaster Risk Reduction Office for Northeast Asia and Global Education and Training Institute (UNDRR ONEA-GETI) in the ROK.

The Meeting became a platform for the three countries to discuss and undertake feasible joint projects for capacity building based on the agreement at the *Joint Statements* of the 3rd, 4th and 5th Ministerial Meetings. The three institutes agreed on various action plans, including a joint publication on DRR technologies, executing an experience sharing and training forum, and conducting mutual visits.

Date	March 26, 2019
Venue	Seoul, ROK
Agenda/ Contents	i. Proposal on Collaboration Areas & Training Programs ii. Discussion on Feasible Joint Projects

VII. Public Seminar of Trilateral Disaster Risk Reduction and Relief Cooperation

Overview

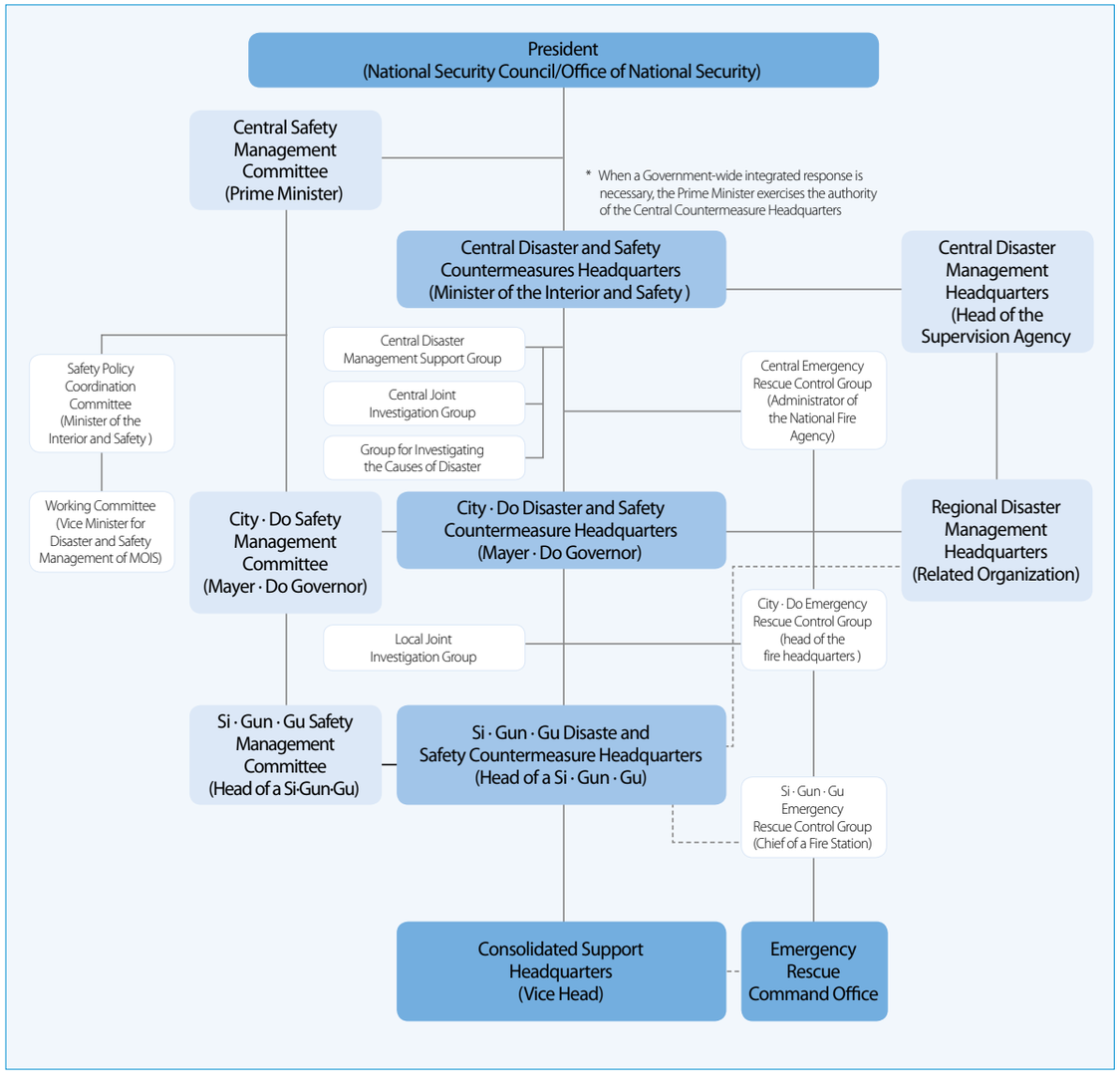
As a follow-up action to the 5th Ministerial Meeting in 2017, the Public Seminar of Trilateral Disaster Risk Reduction and Relief Cooperation brought together representatives from governments, NGOs and education and training institutes engaged in DRR and relief of the three countries. The Seminar was open to the general public to raise awareness of the importance of DRR and relief cooperation among the three countries. Attracting more than 100 people, the Seminar shared challenges, good practices and exchanged views on possible cooperation among different levels of stakeholders engaged in the field.

Date	June 19, 2019
Venue	Seoul, ROK
Agenda/ Contents	i. Disaster Relief Sharing NGOs' coordination mechanisms of disaster response and relief in each country, especially in terms of supporting victims of disasters, and exploring future cooperative measures. ii. DRR Introducing respective activities and current cooperation initiatives for DRR among the designated education and training institutes. Further discussion on the future opportunities of collaboration for enhancing DRR capacity in Asia and the Pacific.

Appendix

I. Recent Major Disasters and Responses

Disaster Management System in the ROK



ROK Case 1

Name of Disaster		Typhoon Kompasu, the 7th typhoon in 2010
Overview	Time & Location	September 1 – 3, 2010. West Coast areas including Gyeonggi-do Province, Chungcheongnam-do Province, Jeollabuk-do Province
	Type	Typhoon
	Extent of Damage	Casualties: 18 persons (6 killed, 12 injured) Displaced persons: 1,339 persons of 547 households Power outage: 1.68 million households Property damage: 167,385 million won
	Action Taken	• Pan-government efforts by central and provincial governments, and related agencies to conduct preliminary inspections and reinforce patrols in disaster-prone areas with a high risk for casualties. • Typhoon information and safety guidelines disseminated in real time, including SMS on emergency disasters, DMB disaster broadcasts, and special disaster broadcasts. • Early response disaster relief provided to displaced persons and rapid-response civil-government-military emergency restoration activities in affected areas.
Good Practices		• Efforts to minimize casualties, including adjusting school and work hours, and closing businesses before the arrival of the typhoon. • Systematic cooperation with regional voluntary counter-disaster groups—established to mitigate government limitations to respond effectively to disasters using administrative power alone—to conduct preliminary inspections of high-risk areas, disseminate on-site situation information, assess damage, and perform emergency restoration work. • Dispatch of on-site situation management group comprising senior Ministry of the Interior and Safety officials to support prompt communication between the central and regional governments in order to share disaster situations and request support.
Lessons Learned		• Recorded as a major dry typhoon, whose gale-force winds caused relatively more damage than rainfall (maximum instantaneous wind speed of 52.4m/s caused large-scale power outages, subway service suspension during commuting hours, fallen trees, and damaged agricultural and fishing facilities), Kompasu revealed the need to revisit the rainfall-focused typhoon response system of the past.
Challenges		• The shortage of equipment and workers to deal with the large-scale power outages occurring mostly in the West Coast areas of Chungcheongnam-do Province and the metropolitan area highlighted the need to address the lengthy time needed to restore services. To this end, a wide-area mutual support system was established to enable the use of equipment and personnel from other unaffected areas for restoration efforts.

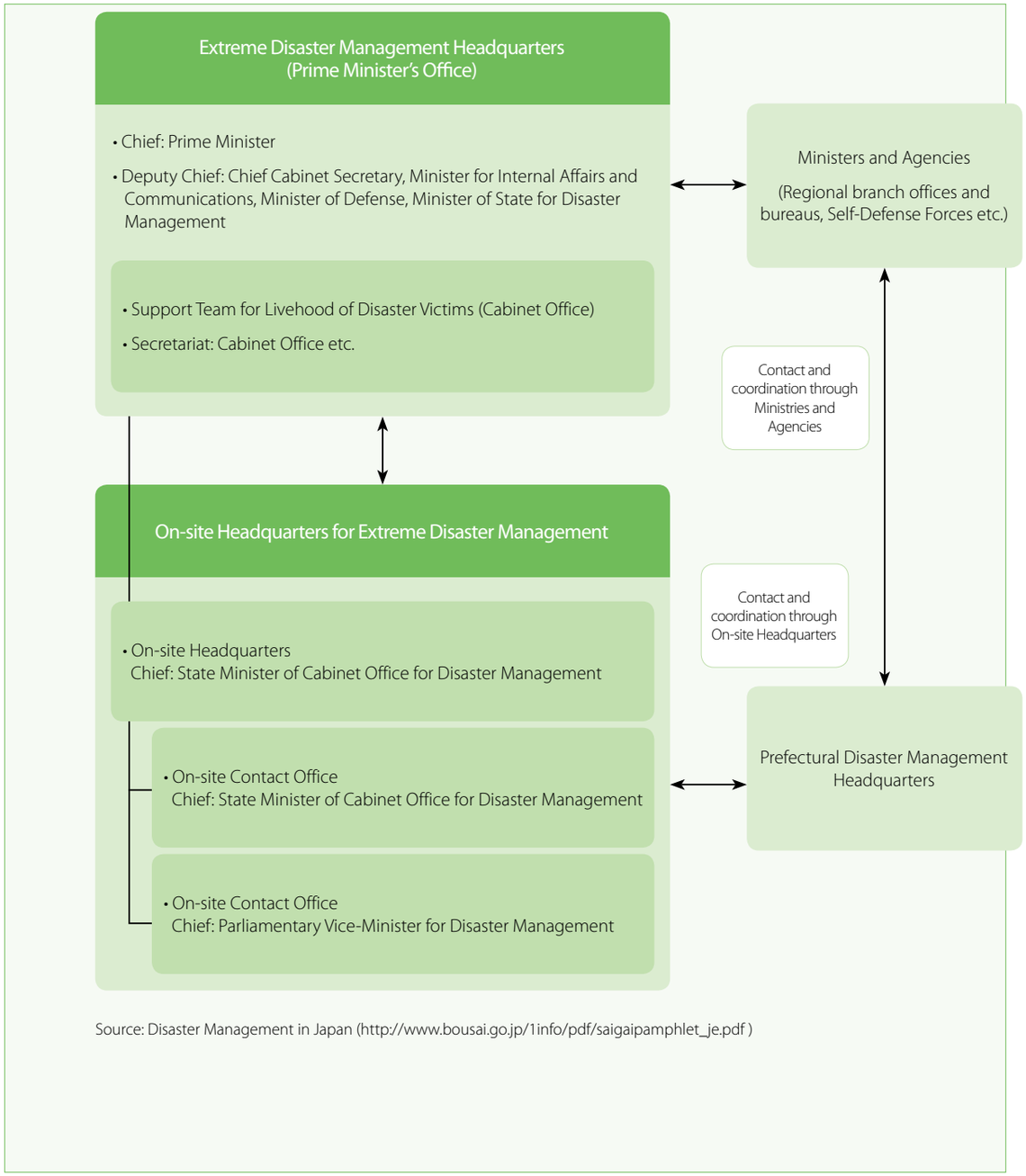
ROK Case 2

Name of Disaster		Pohang earthquake in 2017 (magnitude 5.4)
Overview	Time & Location	November 15, 2017. Gyeongsangbuk-do Province
	Type	Earthquake
	Extent of Damage	Casualties: 135 injured Displaced persons: maximum 1,797 persons Property damage: 85,022 million won (privately-owned facilities 58,159 / public facilities 26,863) * Includes damage caused by aftershocks
	Action Taken	• Rapid response and decision making: Operation of Central Disaster and Safety Countermeasures Headquarters (Nov. 15-Dec. 8) Central Disaster Management Support Group (Nov. 18-Dec. 30), and early Special Disaster Declaration (Nov. 20), etc. • Joint civil-government recovery and restoration effort. • Emergency restoration of key infrastructure, safety inspections of damaged housing, volunteer service and public fund-raising, psychological support for displaced residents and other relief activities, emergency funding, and long-term housing stability measures for those whose homes were damaged.
Good Practices		• Central Disaster Management Support Group established and operated for the first time, comprising 11 government agencies (Ministry of the Interior and Safety, Ministry of Land, Infrastructure and Transport, and Ministry of Education, etc.), to facilitate a pan-governmental approach for on-site support and to serve as a single channel for central government support. • Early recovery through private sector support, including safety inspections of damaged facilities by private sector experts, and volunteers involved in emergency restoration work and delivery of relief aid to displaced residents. • Government offering post-earthquake media briefs on 13 different occasions for 22 days after the occurrence to share situation with the public.
Lessons Learned		• In order to reduce damage from earthquakes, there is a need to conduct routine education and training to familiarize the public with what they need to do in the event of an earthquake, and to enhance the capability of government officials in charge to better cope with earthquakes. • Disaster relief and restoration plan must be established in order to deal with larger-scale earthquakes that can cause numerous casualties, major infrastructure damage and large numbers of displaced persons.
Challenges		• A large number of displaced residents were forced to live in disaster relief facilities due to aftershocks and/or the questionable safety of their housing; prompt joint civilian-government efforts must be organized to inspect the safety of private houses and inform displaced residents of the inspection outcomes so that they can return safely to their homes.

ROK Case 3

Name of Disaster		Wildfire on the East Coast, Gangwon-do Province
Overview	Time & Location	April 4 – 6, 2019. Gangwon-do Province
	Type	Wildfire
	Extent of Damage	Casualties: 3 persons (2 killed, 1 injured) Displaced persons: 1,524 persons in of 658 households Forest damage: 2,832ha Property damage:129,116 million won
	Action Taken	• Wildfire crisis alert level raised to "serious" immediately following the start of the fire; fire was extinguished using 68 available helicopters of the Korea Forest Service and other agencies, 872 fire engines, 3,251 firefighters, and the Wildfire Disaster Special Extinction Group. • After the fire began, several counter-measures were discussed and executed by the situation assessment meetings (17:30, 20:30, and 23:30 on April 4), including dispatch of on-site situation managers, operation of Central Disaster and Safety Countermeasures Headquarters (From 00:00 on April 5, to 12:00 on April. 11), declaration of disaster (09:00 on April 5), operation of Central Disaster Management Support Group (April 5), and special disaster declaration (April 6, Goseong, Sokcho, Gangneung, Donghae, and Inje).
Good Practices		• The Blue House served as control tower (National Crisis Management Center) for quick and seamless responses • All-out effort through mobilization of firefighting personnel and equipment from across the nation. • Systematic cross-government collaboration among Korea Forest Service, National Fire Agency, Ministry of National Defense, and Ministry of the Interior and Safety. • Establishment and operation of Central Disaster Management Support Group comprising officials of the Ministry of the Interior and Safety and other relevant ministries to facilitate cross-government collaboration for rapid actions to support requests from integrated command posts on site. • Post-fire civil-government-military collaboration and committed efforts helped deliver aid to those left homeless by the fires. • From April 6 to 16, after the fire was extinguished, damage assessment conducted by local governments and Central Disaster Damage Joint Investigation Group comprising relevant ministry officials and private sector experts; following deliberation by Central Disaster and Safety Countermeasures Headquarters, disaster damage restoration plan established and pan-governmental support package executed. • In comparison with past large-scale wildfire disasters (wildfire in Yangyang, Gangwon-do Province in 2005), the government promptly launched and operated a response system (incl. Central Disaster and Safety Countermeasures Headquarters), reduced extinguishing time by mobilizing firefighting personnel and equipment from across the nation (time reduced from 32 to 13 hours), and enabled cross-government collaboration for an integrated and prompt recovery and restoration effort.
Lessons Learned		• More helicopters are needed to put out nighttime wildfires and/or fires affected by strong winds; to improve the status of fire-fighting officers to state positions to support all-out efforts for extinguishing large-scale wildfires; and to expand and improve labor conditions of wildfire firefighting groups. • Disaster broadcast system and manuals must be improved to provide prompt disaster broadcasts, and broadcast companies must be able to provide effective updates to expedite resident evacuations.
Challenges		• It is challenging to put out a rash of concurrent large-scale wildfires as well as those that begin after sunset at the onset. • Wildfire patterns can be estimated using wildfire anticipation systems; afterwards, helicopters carrying state-of-the-art systems and aerial firefighting equipment can be inserted for extinguishing fires immediately after sunrise.

Disaster Management System in japan



Source: Disaster Management in Japan (http://www.bousai.go.jp/1info/pdf/saigaipamphlet_je.pdf)

Japan Case 1

Name of Disaster		Great Hanshin-Awaji Earthquake
Overview	Time & Location	January 17, 1995. Hyogo Prefecture
	Type	Earthquake
	Extent of Damage	Casualties: 6,437 killed and missing, 43,792 injured Damage to houses: 104,906
	Action Taken	• Major Disaster Management Headquarters was established after 10 a.m. on January 17, and Extreme Disaster Management Headquarters, headed by the Prime Minister was established by the cabinet decision on January 19.
Good Practices		• Stipulated development of the enabling improvement for disaster reduction volunteer activities in Basic Act on Disaster Management based on the need to efficiently coordinate volunteers. • Designated January 17, the day of the earthquake occurrence, as "Disaster Reduction and Volunteer Day", and the week from January 15 to 21 as "Disaster Reduction and Volunteer Week" by the Cabinet.
Lessons Learned		• It took long time to grasp at the entire damage due to the scale of damage, the disruption of the information network, the suspension of the administrative functions since the Earthquake for the first time affected the city with high level of socioeconomic functions. The government established a system in which senior officials gather at the Prime Minister's Office in the event of a large-scale disaster.
Challenges		• Kobe Port, which was damaged by the Earthquake, greatly reduced its export value after the earthquake. In February 1995, after a decrease of 80% compared to the same month last year, in one year after the disaster, the export value recovered almost up to 80% of the one before the disaster. Regarding Hanshin Port, including Kobe Port, the government will continue to promote international container strategic port policy for establishing a promotion system for efficient port operation.

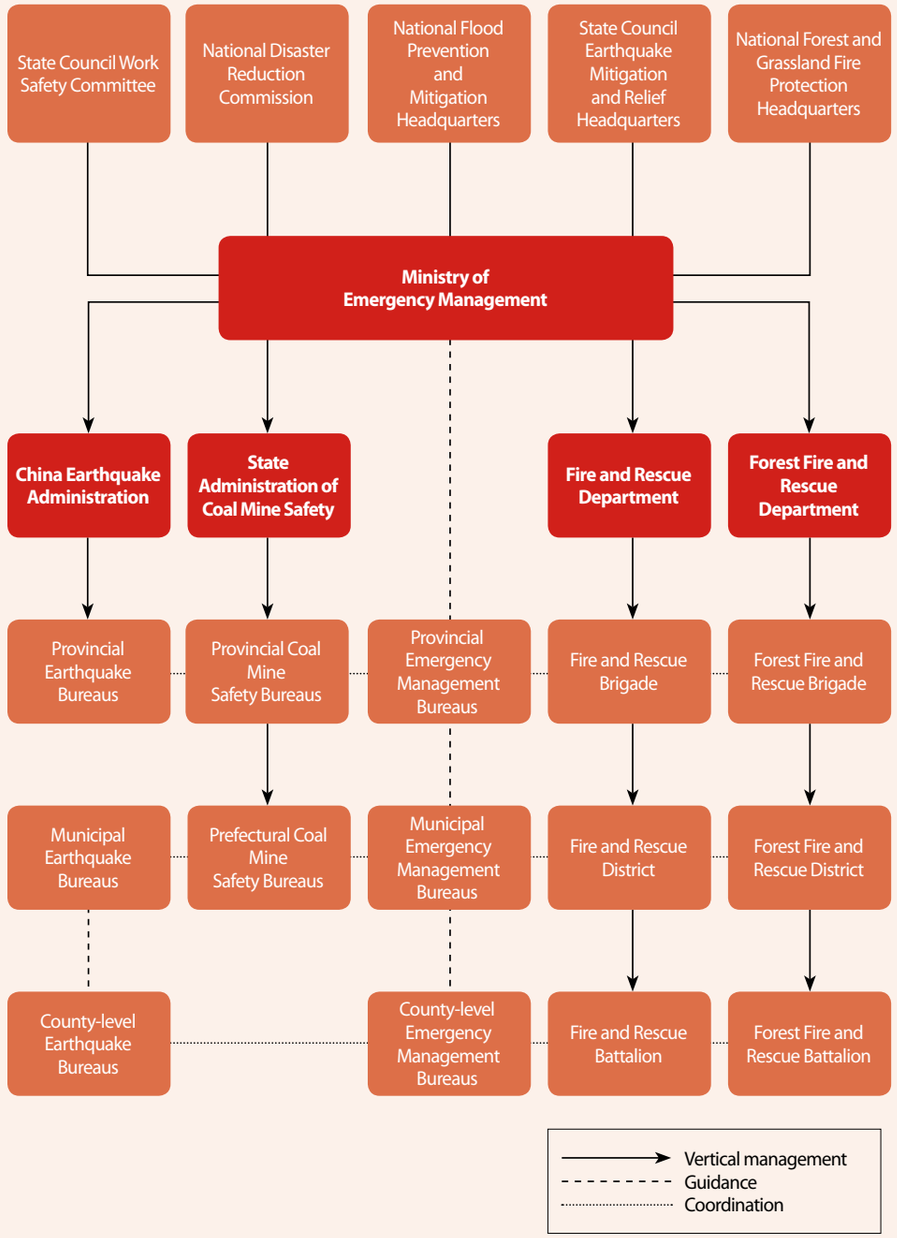
Japan Case 2

Name of Disaster		Great East Japan Earthquake (magnitude 9.0)
Overview	Time & Location	March 11, 2011. Pacific Ocean off the Tohoku area
	Type	Earthquakes and tsunamis followed by nuclear power plant accident
	Extent of Damage	Casualties: 22,252 killed and missing, 6,233 injured Damage to houses: 121,995
	Action Taken	• At 14:50 immediately after the disaster, the government established a disaster management office at the Prime Minister's Office and organized an emergency team. • At 15:14, "Extreme Disaster Management Headquarters", headed by the Prime Minister, was established for the first time after the enactment of the Basic Act on Disaster Management.
Good Practices		• In February 2012, Reconstruction Agency was established with recognizing that reconstruction from the Earthquake, an unprecedented complex catastrophe needs a creative approach to the future. • In order to lead the mainstreaming of DRR in the world, the 3rd United Nations World Conference on Disaster Risk Reduction was organized in Sendai in March 2015, and the importance of "Build Back Better" to build a stronger community for the next disaster was stipulated in the Sendai Framework for Disaster Risk Reduction 2015-2020, agreed by the United Nations member states. • The government designated November 5 as Tsunami Awareness Day and the United Nations decided to make the day as the World Tsunami Day to enhance awareness for tsunami DRR.
Lessons Learned		• Magnitude 9.0 was the largest earthquake in an observation history of Japan, and it was an unprecedented complex catastrophe with major tsunamis and nuclear power plant accidents. Based on regional characteristics, the government gives the highest priority on not losing human lives and promotes DRR that minimizes damage by combining various hard and soft measures.
Challenges		• Two levels were set depending on the scale and frequency of tsunamis in formulating future tsunami countermeasures. Level 1 is a tsunami with a relatively high frequency of occurrence for which government aims at protecting human lives and economic activities mainly with hard structures such as coastal conservation facilities. At level 2, the frequency of occurrence is extremely low, but it is the largest class of tsunamis that will cause tremendous damage for which government aims at protecting human lives as much as possible, with the combination of hard structures and soft measures. Based on the concept of DRR, a comprehensive tsunami countermeasure was established that took all possible measures including both hard structures and soft measures. In December 2011, the "Act on Development of Area Resilient to Tsunami Disaster" was enacted. Currently reconstruction works are still ongoing.

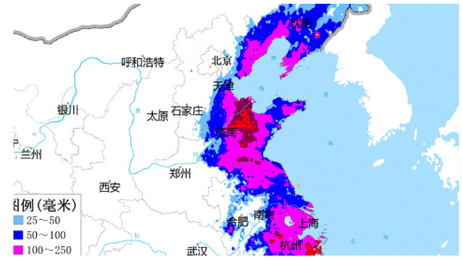
Japan Case 3

Name of Disaster		West Japan Torrential Rain 2018 July
Overview	Time & Location	June 28 – July 8, 2018. West Japan
	Type	Torrential rain that caused flood and landslide
	Extent of Damage	Casualties: 245 killed and missing, 433 injured Damage to houses: 6,767
	Action Taken	• After July 2, the meeting of relevant ministries/agencies was held to be on alert as government. Based on the damage information including those from the Initial Emergency Survey Team by the Cabinet Office, the Major Disaster Management Headquarters was established under the leadership of the State Minister for Disaster Management at 8:00 a.m. on July 8.
Good Practices		• Immediately after the disaster, the Team to Support the Daily Lives of Disaster Victims was established. The senior officials were dispatched from each ministry. "Team for Emergency Procurement and Transportation of Supplies" was set up for push mode support. Furthermore, Information Support Team (ISUT) was formed to share information to support the rapid and efficient disaster response of various organizations utilizing science and technology.
Lessons Learned		• The importance of DRR, mitigation and resilience to protect the lives and assets of the people is further recognized, and the government aims at building a "risk-sensitive society" with an awareness of "protecting one's own life" through education and promotion activities. The government decided to take urgent measures to ensure the functions of important infrastructures by assuring approximately 7 trillion yen in three years.
Challenges		• The heavy rain disaster has become a catastrophe in July 2018, with more than 200 people killed and missing. One of the factors of increased mortality was the absence of proper evacuation actions. Therefore, the government revised and simplified the warning level to five levels for and clarified the actions to be taken by the citizens at each stage to support their evacuation. Community awareness for facilitating evacuation remains challenge and the government promotes community based disaster risk management planning to enhance the awareness.

Disaster Management System in China



China Case 1



Name of Disaster		Super Typhoon Lekima
Overview	Time & Location	August 11 – 14, 2019. Fujian, Zhejiang, Shanghai, Jiangsu, Anhui, Shandong, Hebei, Tianjin, Beijing, Liaoning, Jilin, Heilongjiang
	Type	Typhoon
	Extent of Damage	Casualties: 70 killed and missing Affected : 14.024 million persons in 353 counties of 69 cities in 9 provinces (municipalities) Displaced persons: 2.098 million persons Damage to houses: 15,000 Crop damage: 1,137,000 ha Economic loss: 51.53 billion RMB
	Action Taken	• Monitoring, forecast and early warning. National meteorological, hydrological and oceanic authorities released early warning information on time. Competent authorities at all levels monitored the trends of typhoon closely and released early warning and evacuation information through multiple channels such as mobile applications, TV, internet and billboards in public places. • Emergency response. National Flood Prevention and Drought Relief Headquarters organized 13 audio consultation meetings and sent 11 working groups to frontlines to assist in prevention efforts. • Prevention of secondary disasters. 2.098 million people were relocated and 90,600 ships were properly docked. Measures including suspension of business, schools, production and aviation were adopted. Control of dangerous areas was tightened. • Recue and relief. 525 emergency rescue teams were established in 9 provinces with 456 rescue spots. 42,000 fire rescuers were dispatched to rescue 12,000 people in danger. 620 million RMB fund for flood and typhoon prevention, 630 million RMB for living allowance and more than 100,000 sets of quilts were dispatched to disaster affected people.
Good Practices		• Fulfillment of responsibilities in flood and typhoon prevention, with the principal administrative leader as the core person in charge. • Unified command and coordination among different authorities. • Reliance on people-good mobilization of people, good participation by people in prevention. • Adoption of engineering and non-engineering measures, to improve disaster prevention and reduction capacity. • Enhance capacity of National Fire and Rescue Force, to fully play its role as a national force in emergency rescue.
Lessons Learned		• Risk identification and hazards control were not complete. • Prevention system at grassroots level needs to be further improved. • Information sharing needs to be more efficient. • Rescue equipment needs to be improved.
Challenges		• Strong winds, rains and high tide waves and the secondary disasters as a result such as flood, landslides, mudslides, waterlogging, and collapse of buildings.

China Case 2

Name of Disaster		Jinsha River "11.3" Baige Barrier Lake
Overview	Time & Venue	October 11, 2018. Jinsha River section at the border between Tibet and Sichuan Province
	Type	Barrier Lake
	Extent of Damage	No casualties Possible scenario: once the barrier lake breaks, water flow (50,000 cubic meters/second) will severely damage downstream towns, hydroelectric power stations, roads and bridges
	Action Taken	• Working mechanism between the Ministry of Emergency Management and local competent authorities established to carry out unified command and coordination, working groups dispatched to frontlines. • Coordination between frontline command headquarters in Sichuan Province and Tibet and the inter-ministerial working group to ensure the full play of emergency forces from ministries, local prefectures, militaries and state-owned companies. • Emergency response plan in place to reduce the elevation of weir crest, so as to reduce risks. • A passage way (road) was created in no-man zone, using more than 30 hours, for interventions of the lake. • 73 people were involved in the excavation of flood discharge channel. • 86,000 people in dangerous areas along the river were re-located in advance.
Good Practices		• Response by working together, unified command and coordination. • Analysis-based emergency response plan and good implementation. • Role of grassroots-level governments in organization.
Lessons Learned		• Inadequate capacity risk monitoring and assessment. • Once barrier lake breaks, hard to reach the site. • Inadequate capacity for handling barrier lakes and inadequate rescue capacity.

China Case 3

Name of Disaster		7 Magnitude Earthquake in Jiuzhaigou, Sichuan Province
Overview	Time & Location	August 8, 2017. Jiuzhaigou County, Sichuan Province
	Type	Earthquake
	Extent of Damage	Casualties: 29 killed, 1 missing, 543 injured Affected : 215,000 persons in 5 counties of Mianyang and Aba Economic loss: 8.043 billion RMB
	Action Taken	• Activation of National Level II Earthquake Emergency Response by the Earthquake Response and Relief Headquarters of the State Council, Activation of Level I Earthquake Emergency Response by Sichuan Provincial Earthquake Administration. Governments of all levels of Sichuan fulfilled their responsibilities in disaster mitigation and relief. • Professional rescue and relief teams coordinated and dispatched. • Relief materials and funds allocated to disaster affected people. • Evacuation of tourists and migrant workers, proper settlement of disaster affected people. • Participation by social actors in rescue and relief. • Social stability in disaster affected areas by guiding public opinions.
Good Practices		• Sound command and decision making on the frontlines. • Fast repair of roads, restoration of power supply and telecommunications, efficient relocation of affected people. • Local rescue and relief capacity notably improved. • Orderly participation by social actors in rescue and relief. • High standard "Build Back Better" after the Wenchuan earthquake in 2008, largely reducing disaster losses.
Lessons Learned		• Roads system needs to be further improved. • Publicity and education on disaster response needs to be strengthened. • Safeguard in terms of power supply and telecommunications needs to be improved.
Challenges		• Evacuation of large number of tourists, as the earthquake happened in a tourism spot.

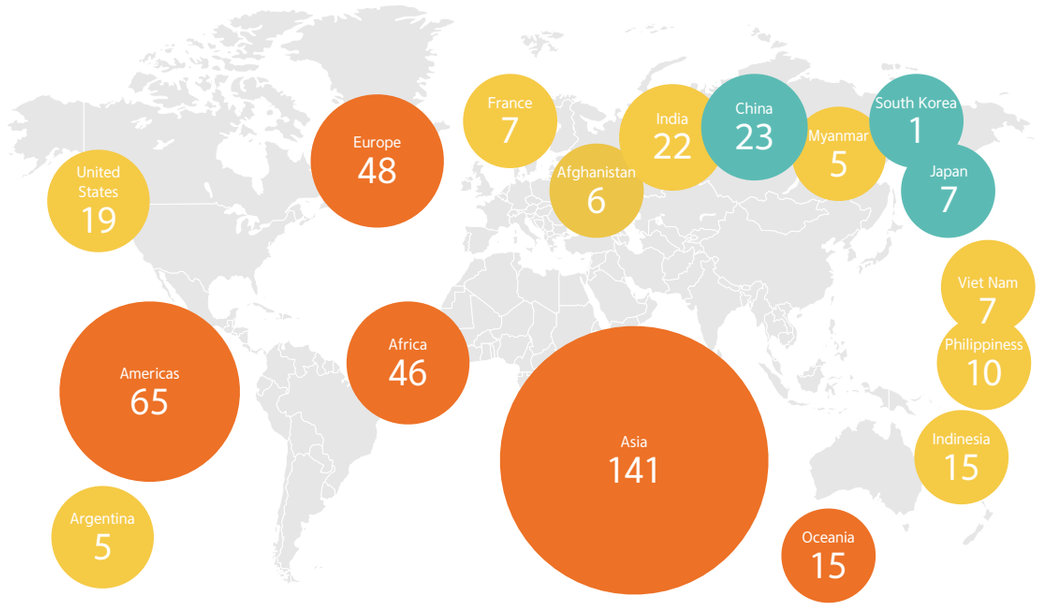
China Case 4

Name of Disaster		"5.02" Extraordinary Forest Fire of Daxinganling Bilahe Forestry Bureau in Inner Mongolia
Overview	Time & Location	May 2, 2017. Beidahe Forest, Inner Mongolia
	Type	Forest fire
	Extent of Damage	Casualties: 6 injured Forest damage: 11,500ha burnt, 8,281ha affected
	Action Taken	• Activation of II level forest fire emergency response plan by National Forest Fire Command Headquarters, joint working groups sent to frontlines to command fire distinguishing. • 9,400 soldiers, 15 planes, 813 vehicles, tools of various kinds were used for fire distinguishing. • Flexible use of fire distinguishing strategies. Using the airborne cable drop, amphibious armored vehicles and other means to quickly deliver distinguishing forces, taking hoisting and fire extinguishing bombs distinguish fire, using pump to suppress the fire, the water gun to encircle the fire head, etc. • Excavation of fire barriers and deep cleaning. • Fire extinguishing for consecutive 60 hours, 65 kilometers of fire line put off, 96 kilometers of fire line cleaned, more than 2,000 fire and smoke spots cleaned, ensuring safety of more than 30,000 people, 30 villages, 2 national farms, 2 townships.
Good Practices		• Joint working groups consist of National Forest Fire Command Headquarters as commander in chief, Administrator of National Forestry Administration as leader and other competent authorities as members, ensuring sound coordination and efficiency of operations. • Mobilization of resources-forest fire rescuers, planes, bulldozers, excavators, etc., were involved on time, providing sufficient support for fire control. • Flexible use of fire extinguishing methods and strategies.
Lessons Learned		• Loopholes in fire source management. • Loopholes in emergency preparedness. • Bad Telecommunications. • Transfer of rescue forces not on time. • Inadequate rescue capacity.
Challenges		• Dry vegetation, high temperature and changeable wind directions made fire distinguishing more difficult. • Fire site was densely covered with vegetation. Ignition point was low, combustion was severe, flame height was more than 10 meters, and the heat radiation was huge. • Criss-crossed wood and large volume of humus made both surface and underground prone to fire. Fire was extremely irregular, posing high risk. It was also difficult to clean. • Complex terrain-some slopes were above 50°. Most of fire points were located on top of mountain or on the ridgeline. Average altitude was 1,000 meters, with no passable road, leading to reliance on aircraft drop. The conditions were too harsh to navigate on foot.

China Case 5

Name of Disaster		Typhoon "Maria" and "Mangkhut"	
Overview	Time & Location	[Maria] July 11, 2018. Fujian Province	[Mangkhut] September 16, 2018. Guangdong Province
	Type	Typhoon	
	Extent of Damage	[Maria (Fujian Province)] Affected: 762,500 persons in 79 counties Damage to houses: 238 Displaced persons: 265,700 persons Crop damage: 25,270ha Economic loss: 2.92 billion RMB * No fatality or missing person	[Mangkhut (Guangdong Province)] Casualties: 5 killed Affected: 2.95 million persons in 1,205 townships of 117 counties of 21 cities Damage to houses: 1,416 persons Displaced persons: 3.13 million Crop damage: 177,026ha Economic loss: 14.47 billion RMB
	Action Taken	• Level III Flood and Typhoon Emergency Response for Maria, Level II for Mangkhut were activated respectively by National Flood Control and Drought Relief Headquarters. Provincial Flood Control Headquarters established coordination and consultation mechanism among 29 member organizations. • Working groups were sent to areas that might be affected by National Flood Control Headquarters, Ministry of Water Resources and Ministry of Emergency Management to assist in risk identification. • Fire rescue teams were dispatched to areas that might be affected in advance by the Ministry of Emergency Management. Central Disaster Relief Warehouse was well prepared to dispatch relief materials. • After the landfall, rescue teams of various kinds from Fujian and Guangdong Provinces effectively conducted rescue and relief. • National Disaster Reduction Commission, Ministry of Emergency Management activated IV National Disaster Relief Plan, coordinating funds and materials that were dispatched to affected people.	
Good Practices		• Meteorological and oceanic authorities strengthened monitoring, forecast and early warning and analysis. • Relevant ministries, according to the instructions by National Flood Control Headquarters and their own plans, coordinated well. • Precautionary measures were taken in Fujian Province, such as docking ships, relocating people in dangerous areas, preparing adequate relief supplies, and discharging some water reservoirs. • National Flood Control Headquarters, Fujian and Guangdong Provinces enhanced publicity (live interviews, typhoon prevention videos, experts interviews) through multiple channels including Wechat, Weibo (SNS) and mobile applications to help people prevent and evacuate properly.	

II. Natural Disasters in Numbers

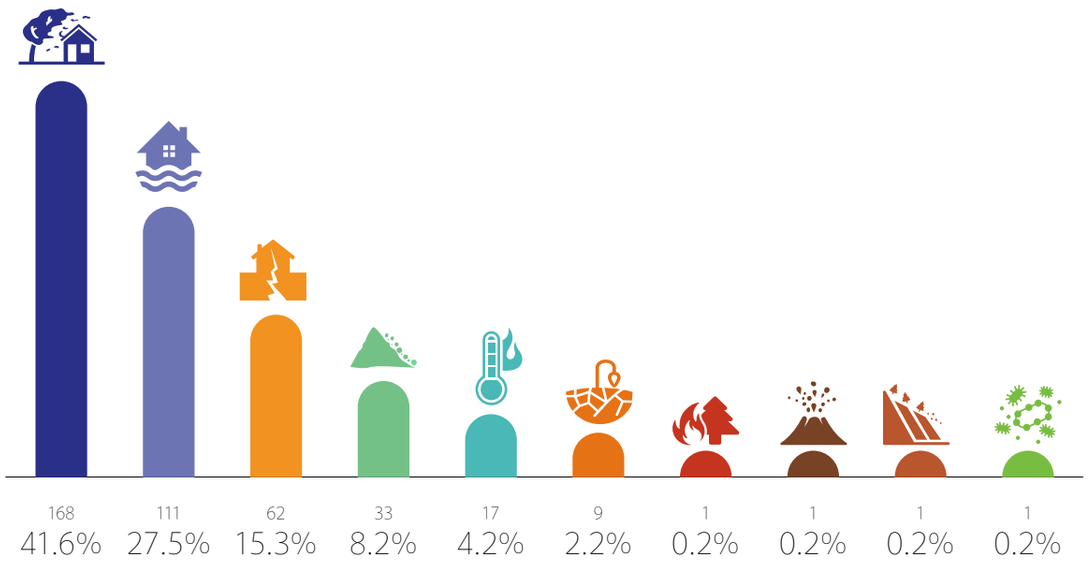


Number of Disasters by Continent in 2018

Americas	65
United States	19
Argentina	5
Europe	48
France	7
Africa	46
Asia	141
Afghanistan	6
India	22

Myanmar	5
China (+Hong Kong & Macao)	23
South Korea	1
Japan	7
Viet Nam	7
Philippines	10
Indonesia	15
Oceania	15

Source: EM-DAT, International Disaster Database, Université catholique de Louvain (UCL), Brussels, Belgium



Number of Disasters per Type in the Three Countries 2009-2018

	China (+Hong Kong & Macao)	Japan	ROK	TOTAL	Percentage	Rank
Storm	118	43	7	168	41.6%	1
Flood	100	8	3	111	27.5%	2
Earthquake	50	10	2	62	15.3%	3
Landslide	29	3	1	33	8.2%	4
Extreme temperature	4	11	2	17	4.2%	5
Drought	9	0	0	9	2.2%	6
Wildfire	1	0	0	1	0.2%	7
Volcanic activity	0	1	0	1	0.2%	7
Mass movement (dry)	1	0	0	1	0.2%	7
Epidemic	0	0	1	1	0.2%	7

Source: EM-DAT, International Disaster Database, Université catholique de Louvain (UCL), Brussels, Belgium

Human and Economic Impact by Major Disaster Types in the Three Countries (2018 versus average 2009-2018)

Storm
(Meteorological)

	2009 - 2018	2018
Occurrence	17	16
Total death	213	134
Total affected	8,962,557	4,636,300
Total damage ('000 US$) (million US$)	6,888	27,675

Flood
(Hydrological)

	2009 - 2018	2018
Occurrence	11	9
Total death	603	490
Total affected	41,817,948	5,198,502
Total damage ('000 US$) (million US$)	12,227	14,070

Earthquake
(Geophysical)

	2009 - 2018	2018
Occurrence	6	4
Total death	2,416	49
Total affected	881,220	54,119
Total damage ('000 US$) (million US$)	25,228	4,579

Extreme temperature
(Climatological)

	2009 - 2018	2018
Occurrence	2	2
Total death	81	119
Total affected	425,709	49,000
Total damage ('000 US$) (million US$)	203	–

Source: EM-DAT, International Disaster Database, Université catholique de Louvain (UCL), Brussels, Belgium

III. Joint Statements

1st Trilateral Heads of Government Agency Meeting on Disaster Management

October 31, 2009
(Kobe, Japan)

I. We, the heads of government agencies on disaster management of Japan, the People's Republic of China and the Republic of Korea held the first commemorative Trilateral Meeting on Disaster Management in Kobe City, Hyogo Prefecture, Japan on 31st October 2009 to strengthen cooperation on disaster management among the three countries based on Trilateral Joint Announcement on Disaster Management Cooperation issued at the First Trilateral Summit held in December 2008.

2. Every year natural disasters occur frequently around the world especially in Asia, inflicting damage on the lives and property of many people. We would like to express our heartfelt condolences and solidarity toward the people and areas affected by the natural disasters.

3. The three countries have always been under threats of natural disasters such as earthquakes, typhoons, floods and sediment related disasters. Moreover, the risk is expected to rise concerning water related disasters including typhoons, floods and sediment related disasters due to climate change as the result of global warming. However, we are convinced that the three countries have accumulated invaluable expertise to prevent and overcome the damages in the future.

In the meeting today, we confirmed the necessity for the three countries to make continued efforts and to strengthen trilateral cooperation on disaster management.

4. Based on the recognition that it is important to share information on the past efforts and current challenges facing each of the three countries in order to promote concrete trilateral cooperation in the future, we confirmed that we will share the information on the following areas, with the cooperation of relevant government agencies in each country. We also affirmed that we should collectively promote research and other efforts on the specific areas in which we reached consensus through the process of sharing information.

(1) Sharing information and technology on the countermeasures to the disasters which are expected to increase due to climate change, and deepening discussion on future technological developments and their utilization among the three countries;

(2) Discussing the future cooperation to promote earthquake-proofing of buildings in the three countries by sharing information on the current efforts and other information on earthquake-proofing of buildings;

(3) Considering the information sharing on the current efforts by the three countries to utilize satellite technologies for disaster management, and, from the viewpoint of humanitarian concern in the wake of disasters, discussing the possibility of cooperation for more efficient and effective operations of utilizing satellite images.

Moreover, we reaffirmed to discuss ways to promote further information sharing regarding knowledge, experience and lessons learned from the past disasters in the three countries.

5. We exchanged views on the further trilateral cooperation on disaster management in the following areas, with cooperation among the relevant government agencies of each country:

(1) Holding expert-level seminars on the training for human resources of disaster management and sharing expertise in this field including training curricula, in light of the importance of human resources development in disaster management;

(2) Strengthening cooperation with international disaster management organizations located in the three countries and in international disaster management conferences to be held in the three countries.

6. We shared the view to hold the trilateral heads of government agency meeting on disaster management in rotation. The next meeting will be held in 2011 in China.

Kobe City, Hyogo Prefecture, Japan, 3lst October 2009

2nd Trilateral Heads of Government Agency Meeting on Disaster Management

October 28, 2011
(Beijing, China)

We, the heads of government agencies on disaster management of the People's Republic of China, Japan and the Republic of Korea, held the 2nd Trilateral Heads of Government Agency Meeting on Disaster Management in Beijing, China on 28 October 2011. We summarized the positive results achieved since the 1st Trilateral Heads of Government Agency Meeting on Disaster Management, reiterated the consensus reached at the 4th Trilateral Summit Meeting on 22 May 2011, put forward concrete cooperative measures, and looked to the future prospects for collaboration with a purpose of further promoting the pragmatic cooperation in the field of disaster management among the three countries.

Confronted with the worsening natural disaster situations in Northeast Asia, we recognized profoundly that the extensive experience and practices which the three countries had accumulated in the long fight against all kinds of disasters are our common wealth, and that learning from each other and cooperating with sincerity are conductive to economic progress, people's happiness and sustainable social development of the three countries.

We witnessed that, in the past two years, the cooperation on disaster management under the trilateral framework has become more and more pragmatic, showing a benign development trend. We reaffirmed that only through joint efforts and concerted responses can we effectively reduce disaster risks, minimize losses from disasters, and bring common benefits to the countries and our peoples.

With this in mind, we determine to strengthen the future cooperation in the following areas:

I Establish a Mechanism of Mutual Visits and Exchanges

----Hold a Trilateral Heads of Government Agency Meeting on Disaster Management every two years based on the principle of rotation, and hold meetings at appropriate intervals among related senior officials/experts in order to conduct comprehensive and substantive cooperation and exchanges in the field of disaster management.

----Establish gradually a mechanism of organizing joint visits to disaster-striken areas. Under the premise of taking into account the progress of recovery and reconstruction in disaster-stricken areas, we will invite each other's disaster management officials and experts to visit disaster areas and share experience in disaster management, recovery and reconstruction.

II Improve the sharing of information and technology

----Share information on laws, regulations, systems and policy regarding disaster management through the existing platform of information network.

----Share research outcomes of catastrophes, including the causes of grave disasters in Asian region, disaster risks and response policies, focusing the research on the Wenchuan Earthquake in China on 12 May 2008, the Great East Earthquake in Japan on 11 March 2011 and other major natural disasters, and promote a disaster prevention system among the three countries.

----Exchange the information timely on major domestic natural disasters through government websites, including the information on periodic disaster situation.

----Establish an emergency communication mechanism, designate 24-hour contact points, clarify communication channels and ensure speedy and efficient communication after disaster occurrences.

III Strengthen Cooperation on Capacity Building of Disaster Mitigation and Relief

----Carry out trainings for disaster management personnels among the three countries based on the existing domestic or international education and training institutions, including trainings on the applied technologies for disaster prevention and reduction in geo-spatial technology.

----Discuss and improve procedures for the provision and acceptance of rescue teams and relief materials after the occurence of major natural disasters among the three counties, subject to national laws and respect for international practices,

----Draw on the international experience and practices of on-site rescue and relief, and study the possibility of establishing an effective mechanism on cooperating to conduct on-site rescues and protect residents in disaster-stricken areas in the three countries.

----Strengthen satellite-based disaster monitoring, and share disaster mitigation geo-spatial data through the existing communication channels among the three countries, and apply relevant geo-spatial data and products obtained from the monitoring of catastrophic disasters.

We hereby share the view that the 3rd Trilateral Heads of Government Agency on Disaster Management among the People's Republic of China, Japan and the Republic of Korea, as well as the preparatory meeting of senior officials/experts will be hosted by the Republic of Korea.

3rd Trilateral Heads of Government Agency Meeting on Disaster Management

October 30, 2013
(Seoul, ROK)

We, the heads of government agencies on disaster management of the Republic of Korea, Japan, and the People's Republic of China participated in the 3rd Trilateral Heads of Government Agency Meeting on Disaster Management among the Republic of Korea Japan-People's Republic of China on October 30, 2013 in Seoul, Korea.

We expressed our deep condolences for the loss of precious lives and devastating damages due to natural disasters including earthquake, flood and extreme heat waves, inflicting the people and affected areas not only from the three countries but around the world.

In addition to this, as experiencing more frequent extreme weather events due to climate change, we reconfirmed the importance and significance of trilateral cooperation on disaster management since three countries are under the same influence of natural disasters such as earthquake and typhoon due to the geographical propinquity.

We also reviewed the outcomes of the 1st and 2nd Trilateral Heads of Government Agency Meeting on Disaster Management and discussed the progress in disaster risk reduction among three countries based on national official reports such as HFA Progress Report and National Policy Report. Moreover, in order to strengthen practical cooperation in the field of disaster management, we agreed to discuss and proceed with the following agendas.

I. Technology and Information Sharing on Disaster Management

(a) Explore the feasibility of enhancing compatibility of information about hazard profile, disaster loss and disaster recovery among three countries and improve its linkage with other existing ones

(b) Initiate joint R&D projects on identifying intensive risk and developing countermeasures in three countries

(c) Explore the feasibility of sharing the information, technology, experience, and lessons on root causes of disasters, underlying risk factors, disaster risk due to climate change and disaster recovery to build back better community

(d) Share sound practices on disaster management utilizing information and communication technology such as Social Network Service (SNS) and mobile communication system

(e) Enhance three countries' cooperation in international and regional conferences on disaster management held in each country, including the Third UN World Conference on Disaster Risk Reduction

II. Education and Training

(a) Design regular programs on Table Top Exercise (ITX) to prepare for natural disasters like earthquake and typhoon

(b) Organize visits to disaster prone areas or severe disasters hit areas in each country at an appropriate time

(c) Develop country-to-country exchange programs among disaster management government officials, researchers and academia

(d) Utilize global and regional education and training institutes located in three countries to develop government officials' capacities for disaster management and disaster risk reduction and provide training opportunities to other two countries as well

(e) Transfer three countries' technology and experience on disaster management to developing countries by jointly organizing training programs and seminars

To engage in an ongoing process of the Joint Statement, we will involve Trilateral Cooperation Secretariat (TCS) to the maximum extent and the host country will be responsible for follow-up procedures of agreed agendas of the meeting until the next meeting.

Based on the principle of the biennial hosting of the meeting, we reached the agreement on Japan's host of the 4th Trilateral Heads of Government Agency on Disaster Management among the Republic of Korea, Japan and China as well as the preparatory meeting of senior officials/experts. We signed the Joint Statement on October 30, 2013 in Seoul, Korea and exchanged the Statement written in English.

4th Trilateral Ministerial Meeting on Disaster Management Cooperation

October 28, 2015
(Tokyo, Japan)

We, the heads of government agencies on disaster management of Japan, the People's Republic of China and the Republic of Korea participated in the 4th Trilateral Ministerial Meeting on Disaster Management among Japan, the People's Republic of China and the Republic of Korea on October 28, 2015 in Tokyo, Japan.

We expressed our deep condolences for the loss of precious lives and devastating damages caused by natural disasters including earthquakes, tsunamis, floods and extreme heat waves not only from the three countries but around the world.

Recognizing the three countries are experiencing more frequent and catastrophic natural disasters such as earthquakes and typhoons, we reconfirmed the importance and significance of trilateral cooperation on disaster management, due to our geographical proximity.

We also reviewed the outcomes of the 1st, 2nd and 3rd Trilateral Heads of Government Agency Meeting on Disaster Management and discussed the progress in disaster risk reduction among the three countries based on national official reports such as HFA Progress Report and National Policy Report. Moreover, in order to strengthen practical cooperation in the field of disaster management and promote the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR) adopted at the Third UN World Conference on Disaster Risk Reduction in March 2015, we decided to discuss and proceed our cooperation in the following areas:

I. Promote the implementation of the SFDRR

a) Explore the feasibility of enhancing compatibility of information about hazard profile, disaster loss and disaster recovery among the three countries and improve its linkage with other existing ones in order to contribute to the monitoring of the global targets defined in the SFDRR.

b) Explore the feasibility of sharing the information, technology, experiences, and lessons being defined as priority in the SFDRR, particularly the actions to invest in disaster risk reduction and to "Build Back Better" at the recovery and reconstruction phase through various opportunities arranged among the three countries.

c) Contribute actively to the mainstreaming of Disaster Risk Reduction in the international community, through negotiations and discussions at international fora such as UNFCCC COP 21 scheduled at the end of 2015.

d) Bring up the SFDRR at international and regional conferences on disaster management held in each country, and promote its implementation.

e) Acknowledging that Japan submitted a proposal of the resolution to establish the World Tsunami Day to the Second Committee of the UN General Assembly, raise awareness of threats and measures against tsunamis through the collaboration among the three countries, in order to mitigate damage caused by tsunamis in the international community.

II. Education and Training

a) Share the experience of and lessons learned from the large-scale disasters which occurred in each country. Stock-take the results of the Trilateral Table Top Exercise (TTX) which has been conducted three times in an understandable manner, and maintain and update the list of each country's contact.

b) Facilitate mutual visits to disaster prone areas or severe disasters hit areas in each country at the reconstruction phase by cooperating one another; thereby learn from each other's disaster prevention/reduction measures and "Build Back Better" efforts.

c) Utilize existing education and training institutes located in the three countries, including the Asian Disaster Reduction Center (ADRC), the National Disaster Reduction Center of China (NDRCC) and the Global Education and Training Institute (GETI), to develop government officials' capacities for disaster management and disaster risk reduction and provide training opportunities to the other two countries as well.

d) Transfer the three countries' technology and experience on disaster management to developing countries by jointly organizing training programs and seminars.

The host country will be responsible for follow-up procedures of determined agendas of the meeting until the next meeting.

We appreciated the efforts made by the Trilateral Cooperation Secretariat (TCS) to promote our joint cooperation on disaster management. We will involve the TCS in the follow-up process of the Joint Statement to the maximum extent.

Based on the principle of the biennial hosting of the meeting, we reached the consensus on the People's Republic of China's host of the 5th Trilateral Ministerial Meeting on Disaster Management among Japan, the People's Republic of China and the Republic of Korea as well as at the preparatory meeting of senior officials/experts. We signed this Joint Statement on October 28, 2015 in Tokyo, Japan, and exchanged this Joint Statement written in English.

5th Trilateral Ministerial Meeting on Disaster Management Cooperation

September 7, 2017
(Tangshan, China)

We, the heads of government agencies on disaster management of the People's Republic of China, the Republic of Korea and Japan participated in the 5th Trilateral Ministerial Meeting on Disaster Management in Tangshan, Hebei Province, China on September 7, 2017.

We expressed our deep condolences for the losses of precious lives and devastating damages caused by natural disasters including floods, typhoons, earthquakes and tsunamis not only from the three countries but around the world. Meanwhile, we have never forgotten the Tangshan Earthquake in 1976, and we appreciate the achievements accomplished in post-disaster reconstruction and the building of new Tangshan in the past 41 years.

Recognizing that climate change is exerting potential impact on sustainable development in the Northeast Asia, resulting in frequent extreme weather and climate events, increase of exposed areas for disaster risks, and greater natural disaster losses and damages in some parts of the region;

Reaffirming that common action by the three countries is needed to deal with climate change and effectively reduce disaster risks and losses to a maximum extent for the benefit of the three countries and their people;

Reviewing the outcomes of the previous four trilateral Ministerial Meetings on Disaster Management and the progress of the three countries in implementing the "Sendai Framework for Disaster Risk Reduction 2015-2030", based on which specific measures have been raised up to improve practical trilateral cooperation of disaster risk reduction and relief among China, Korea and Japan;

We are determined to proceed our future cooperation among the three countries in the following areas:

1. Continue to promote the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR)

a) Improve information and experience sharing among the three countries on the implementation of SFDRR and Asia Regional Plan for Implementation of SFDRR to enhance the capacity in disaster prevention, mitigation, preparedness, response, recovery and rehabilitation, in particular, the implementation of "Build Back Better", considering that the reconstruction of Tangshan is its perfect example.

b) Enhance communication regarding future concrete working objectives, increasing input, and improving measures to achieve the global targets and monitor the progress in line with the priorities for action of SFDRR.

2. Strengthen capacity building on disaster risk reduction and relief

a) Actively participate in the conferences, forums and expos of science and technology on DRR held by the three countries, with the aim to improve policy dialogue, share experiences and practices of science and technology contribution in DRR, and promote the application of science and technology in DRR in Asian countries.

b) Give full play to the existing education and training institutions located in the three countries, including the National Disaster Reduction Center of China (NDRCC), the Global Education and Training Institute (GETI) and the Asian Disaster Reduction Center (ADRC), to carry out the trilateral cooperation on training such as capacity building on disaster management.

c) Enhance exchange of information in the management of disaster relief material reservation, organize visits of relevant facilities in the three countries, and promote personnel exchange for mutual learning on the management of disaster relief material reservation including through Table Top Exercise (TTX).

d) Enhance information and experience sharing on community-based DRR to jointly improve the community's comprehensive DRR capacity and raise awareness of World Tsunami Awareness Day.

e) Share experience and lessons for civil society engagement in disaster risk reduction and relief to promote cooperation among social organizations of the three countries.

We appreciate the efforts made by the Trilateral Cooperation Secretariat (TCS) to promote our joint cooperation on disaster management. We will involve the TCS in the follow-up process of the Joint Statement to the maximum extent. The host country will be responsible for follow–up procedures of determined agendas of the meeting until the next meeting.

Based on the principle of the biennial hosting of the meeting, we reached the consensus on the Republic of Korea's host of the 6th Trilateral Ministerial Meeting on Disaster Management. We signed this Joint Statement in Tangshan, China on September 7, 2017, and exchanged this Joint Statement written in English.

The Trilateral Cooperation Secretariat (TCS) is an international organization established with a vision to promote peace and common prosperity among Japan, the People's Republic of China (China), and the Republic of Korea (ROK). Upon the agreement signed and ratified by each of the three governments, the TCS was officially inaugurated in Seoul, September 2011. The TCS aims to serve as a cooperation hub for trilateral cooperation that encompasses the broad spectrum of sectors and actors. With a view to solidifying the cooperative ties among the three countries, the TCS will strive to ensure that trilateral cooperation remains dynamic and future-oriented in the coming days.

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