Part I Current Disaster Risk Management Measures in Japan

Japan is prone to various natural disasters due to its natural conditions. Even looking at a year of FY2019, Japan was struck by various disasters, including Typhoon Faxai in September 2019 and Typhoon Hagibis in October 2019. Part I looks at Japan's recent disaster risk management policies with a special focus on measures intensely promoted in FY2019.

Chapter 1 Current Disaster Risk Management Measures

Section 1: Reducing Disaster Risk in Advance through Self-help and Mutual Support and Promotion of Disaster Risk Reduction Activities in Cooperation with Various Stakeholders

1-1 Raising Awareness of Disaster Risk Reduction among the Public

As Japan is a disaster-prone country, the government has constantly promoted initiatives that constitute "public support," including the development of embankments and other hard infrastructure, as well as non- structural measures such as preparation of hazard maps before disaster occurs. In the event of a disaster, public support extends to emergency rescue operations, support for human resources by dispatching supporting officials to affected areas, push-mode support (i.e. emergency delivery of necessities and relief supplies to shelters and evacuees, initiated without waiting for a request from affected prefectures), and financial support through the designation of a Disaster of Extreme Severity and pursuant to the Act on Support for Reconstructing Livelihoods of affected people.

However, there are concerns about the limits of public support in the event of a major disaster such as the Nankai Trough Earthquake, which is anticipated to occur in due course. A study showed that, in fact, when the Great Hanshin-Awaji Earthquake occurred, about 80% of people were rescued through self-help (including help from their families) or mutual support (such as assistance of their neighbors), while only about 20% were rescued by public support services such as rescue teams (Fig. 1-1-1). Amid the increasingly difficult environment surrounding local government, such as the widening of municipal areas due to municipal mergers and the decrease in the number of civil servants in local governments, our ageing society sees an increase in the number of elderly people who need special care in the event of a disaster. To this end, it is vital that every one of us takes concrete actions for disaster prevention and mitigation, which means that each community member takes specific disaster mitigation actions with a recognition that it is no one but themselves who can protect their life and that local residents help each other.

| Fig. 1-1-1 | Types of Rescuers and Number of People Rescued at the Time of the Great Hanshin-Awaji Earthquake |
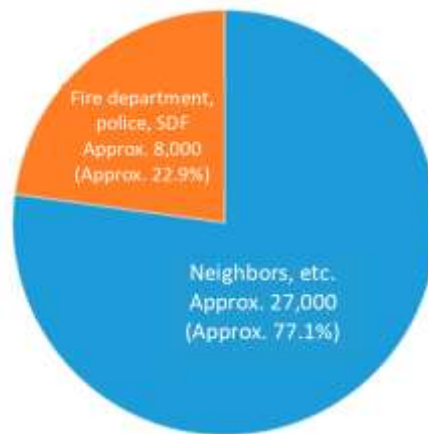
Source: *Prediction of Loss of Human Lives Due to Catastrophic Earthquake Disaster* (Yoshiaki Kawada; 1997; Natural Disaster Sciences Vol. 16, No.1
(Featured in the 2016 White Paper on Disaster Management, "Future Disaster Management")

Specific activities to prevent and mitigate disasters may include preparedness by understanding the disaster risk in communities, confirming evacuation routes, stockpiling food, and other measures. To protect themselves from frequent flood disasters, it is important to evacuate areas as soon as possible, taking into account information such as evacuation advisories issued by the local governments, as well as an appropriate understanding of local disaster risks using hazard maps and other tools.
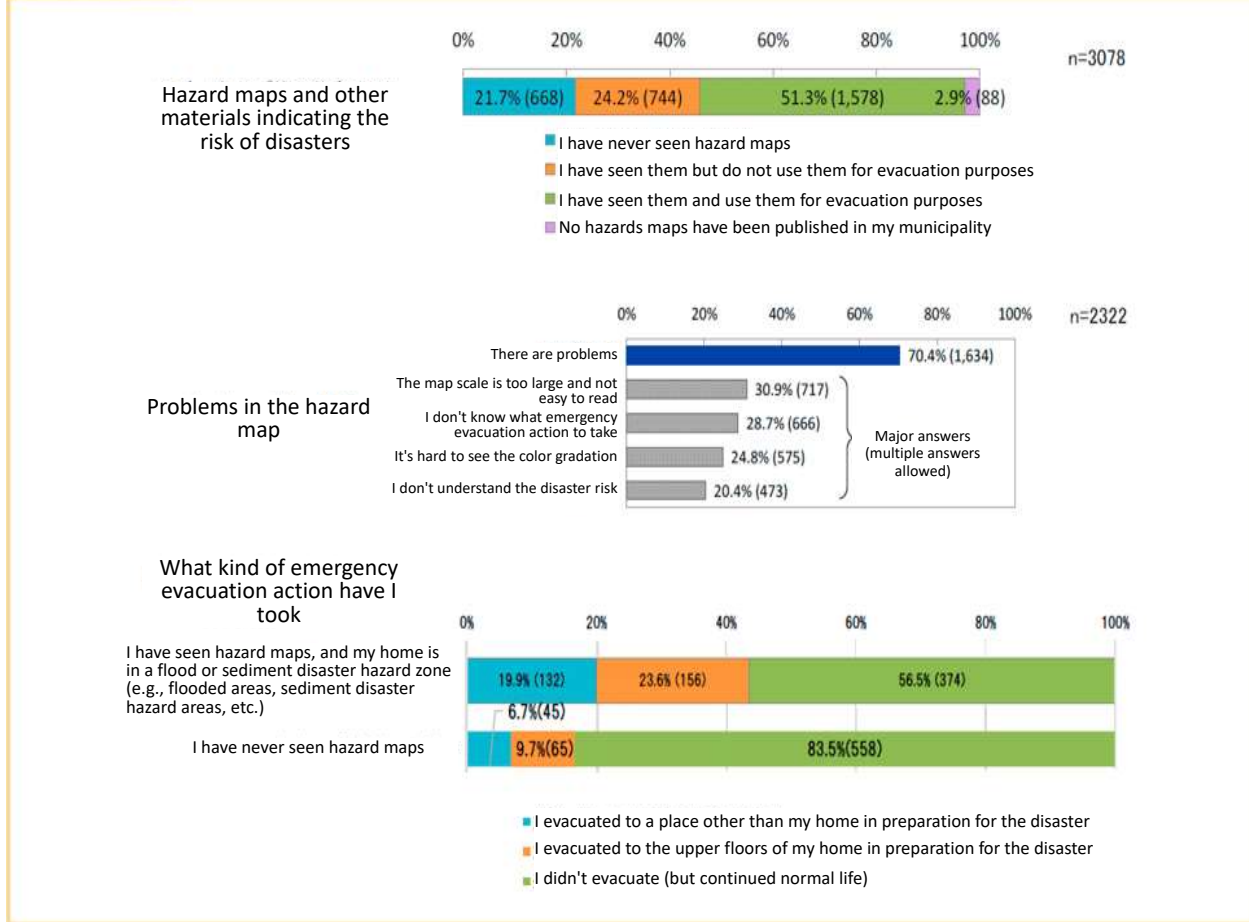
According to the results of a questionnaire survey (Figure 1-1-2) conducted by web monitors in municipalities that experienced loss of human life due to the Typhoon Hagibis in 2019, etc., roughly half (51.3%) of respondents answered that they had seen hazard maps and other materials illustrating disaster risks and used them for evacuation purposes, while half (45.9%) answered that they had never seen such maps or had done so but did not use them for evacuation purposes.

More than 40% (43.5%) of respondents who had seen hazard maps and with homes in a flood or sediment disaster hazard zone (e.g. flooded areas, sediment disaster hazard areas, etc.), took some kind of evacuation action. Conversely, more than 10% (16.4%) of the respondents who had never seen hazard maps took some kind of action to evacuate. A significant contrast emerged in their evacuation actions. (Figure 1-1-2)

Accordingly, it is important to understand the disaster risks and actions to be taken before a disaster so that people can respond appropriately in the event of a disaster. However, the same survey showed that about 30% of respondents answered that they could understand the disaster risk but not the action to be taken just by looking at the hazard maps, etc.; about 20% answered that they could not understand the disaster risk; about 30% answered that it was difficult to understand the scale and coloration on the map; and about 70% of respondents answered that there were some problems with the hazard maps, etc.
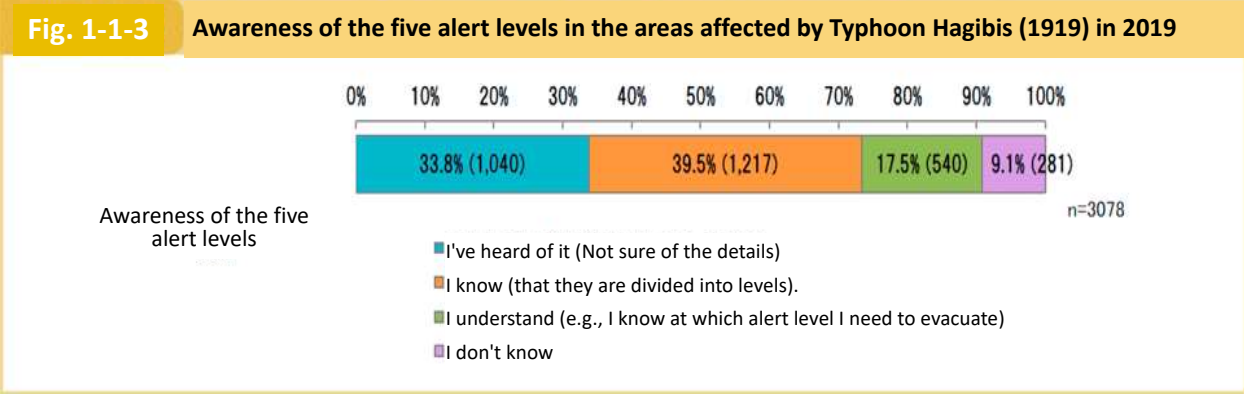
Fig. 1-1-2 Awareness of hazard maps among municipal residents affected by Typhoon Hagibis (1919) in 2019, etc. and the types of emergency evacuation actions they took

Hazard maps and other materials indicating the risk of disasters (n=3078)

| 21.7% (668) | 24.2% (744) | 51.3% (1,578) | 2.9% (88) |

- I have never seen hazard maps
- I have seen them but do not use them for evacuation purposes
- I have seen them and use them for evacuation purposes
- No hazards maps have been published in my municipality

Problems in the hazard map (n=2322)

- There are problems: 70.4% (1,634)
- The map scale is too large and not easy to read: 30.9% (717)
- I don't know what emergency evacuation action to take: 28.7% (666)
- It's hard to see the color gradation: 24.8% (575)
- I don't understand the disaster risk: 20.4% (473)

Major answers (multiple answers allowed)

What kind of emergency evacuation action have I took

I have seen hazard maps, and my home is in a flood or sediment disaster hazard zone (e.g., flooded areas, sediment disaster hazard areas, etc.)

| 19.9% (132) | 23.6% (156) | 56.5% (374) |

6.7% (45)

I have never seen hazard maps

| 9.7% (65) | 83.5% (558) |

- I evacuated to a place other than my home in preparation for the disaster
- I evacuated to the upper floors of my home in preparation for the disaster
- I didn't evacuate (but continued normal life)

Source: Working Group on Evacuation from Disasters Caused by the Typhoon Hagibis (1919) in 2019, etc. Formulated by the Cabinet Office from a survey "Questionnaire Results for Residents" conducted on January 11-13, 2020

In deciding whether and when people need to evacuate, it is important to accurately understand the information issued by the local governments. The five alert levels, which have been in operation since the flood season of 2019, provide disaster-prevention information very clearly so that residents can better understand, unconsciously, what actions they should take. This is based on the lessons learned from the Heavy Rain Event of July 2018. People at alert level 3 or below who need more time to evacuate should start evacuating and all people at level 4 in hazardous places should evacuate. At level 5, a disaster has already occurred and it may be dangerous to move outdoors, for example to a designated emergency evacuation site, etc. Accordingly, people must strive to save their own lives, for example by taking refuge in a safer upper floor or a room not facing the mountain.

When the awareness of this alert level information was surveyed, 17.5% of the respondents answered that they understood it. About 90% (90.9%) of the respondents knew about the alert levels, but did not necessarily understand how they should respond, such as evacuation behavior. Accordingly, the meanings of the alert levels must be further promoted. (Figure 1-1-3)
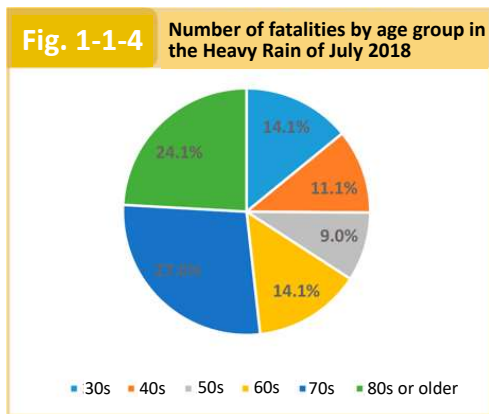
Fig. 1-1-3 | Awareness of the five alert levels in the areas affected by Typhoon Hagibis (1919) in 2019

Awareness of the five alert levels

- I've heard of it (Not sure of the details)
- I know (that they are divided into levels).
- I understand (e.g., I know at which alert level I need to evacuate)
- I don't know

33.8% (1,040) 39.5% (1,217) 17.5% (540) 9.1% (281)

n=3078

Source: Working Group on Evacuation from Disasters Caused by the Hagibis Typhoon in 2019, etc. Formulated by the Cabinet Office from a survey "Questionnaire Results for Residents"
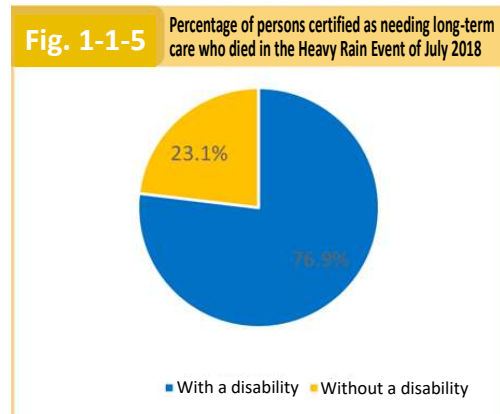
To protect against natural disasters such as wind and flooding, people need to understand the hazard maps, information issued by the local governments and safe evacuation routes, then evacuate to a safe place at the right time. This will mean acquiring the necessary knowledge, participating in evacuation drills, and acting in the event of an emergency, which is known as "reducing the disaster risk in advance".

Another major issue involves how to support the evacuation of people who need time to evacuate or who are unable to do so alone, such as the elderly, persons with disabilities and young children.

In the Heavy Rain Event of July 2018, 199 people died in Okayama, Hiroshima, and Ehime prefectures, around 70% (131) of whom were in their 60s or older. Also, according to Okayama Prefecture, people with disabilities accounted for three-quarters of all fatalities caused by this disaster in the prefecture. In the Typhoon Hagibis in 2019, about 80% (67 people) of the fatalities were in their 60s or older. (Figures 1-1-4 and 1-1-5)

Fig. 1-1-4 | Number of fatalities by age group in the Heavy Rain of July 2018

14.1%
11.1%
9.0%
14.1%
24.1%

- 30s - 40s - 50s - 60s - 70s - 80s or older

Source: Formulated by the Cabinet Office based on materials from the 3rd Working Group on the Review of Evacuation from Flood and Sediment Disasters Caused by the Heavy Rain Event of July 2018

Fig. 1-1-5 | Percentage of persons certified as needing long-term care who died in the Heavy Rain Event of July 2018

23.1%
76.9%

- With a disability - Without a disability

Source: Okayama Prefecture "the Heavy Rain Event of July 2018" Disaster Verification Committee (Disaster Assessment Report for the Heavy Rain of July 2018)

Naganuma District, Nagano City, Nagano Prefecture, was severely damaged by the levee collapse of the Chikuma River during Typhoon Hagibis in 2019. As part of the efforts to create a Community Disaster Management Plan, residents deepened their awareness of disaster risks in the area and created the "Naganuma District Evacuation Rule Book", which defines their own evacuation rules. They also took measures in advance to call for the evacuation of persons requiring special care, such as having welfare commissioners give a roll call based on a list of names. These measures allowed many people to evacuate and reaffirmed the importance of

mutual aid in protecting themselves from disasters.

Based on these survey data and lessons learned from disasters, the Cabinet Office and related ministries and agencies will support the public and local communities by continuously providing opportunities for awareness-raising and training to promote disaster mitigation through safe evacuation and other activities. It ensures that each and every citizen is equipped with "knowledge" of disaster risks and actions to be taken and empowered to "act" on that knowledge and that communities are established to "support" mutually. At the same time, the government will promote effective Community Disaster Management Plans and individual evacuation plans to ensure diverse stakeholders, such as welfare workers and school officials, can help.

This section focuses on "Reducing Disaster Risk in Advance" through "self-help" and "mutual support" and introduces various measures to promote cooperation among diverse stakeholders.

Column: Hazard Map Portal Site

The Ministry of Land, Infrastructure, Transport and Tourism and the Geospatial Information Authority of Japan (GSI) provides information on disaster risk to residents in an easy-to-understand manner. Since April 2007, a hazard map portal has been in operation to allow residents to easily search the hazards maps prepared by municipalities nationwide for each type of disaster.

One of the contents, the 'overlaying hazard map', overlays various disaster risk information on a map to provide useful information for disaster prevention.

For example, to identify dangerous areas in the event of heavy rainfall, the map shows "areas at risk of flooding," "areas at risk of sediment disaster," and "roads at risk of being closed off," etc., all of which can be useful in planning evacuation routes.

Identify dangerous areas in the event of heavy rainfall

"areas at risk of flooding," "areas at risk of sediment disaster," and "roads at risk of being closed off," can be found on a single map.

Image of a road blocked by landslides

Image of a pre-regulated section

Image of the expected road

Images of flooding

Areas at risk of being flooded during a flood

Roads at risk of being flooded (Could be impassable in case of heavy rain)

Introduction to the Use of the "Overlaying Hazard Map"

The report by the Working Group on the Review of Evacuation from Flood and Sediment Disasters Caused by Typhoon Hagibis in 2019, Disaster Management Committee of the National Disaster Management Council, suggested that while detailed geomorphological classification information is extremely useful for indicating disaster risk, it should also be developed for small- and medium-sized rivers and elsewhere, as many areas are undeveloped. This geomorphological classification information will also be posted on the hazard map

portal site to make the site more useful for learning about local disaster risks.

Source: Hazard map portal site: https://disaportal.gsi.go.jp/

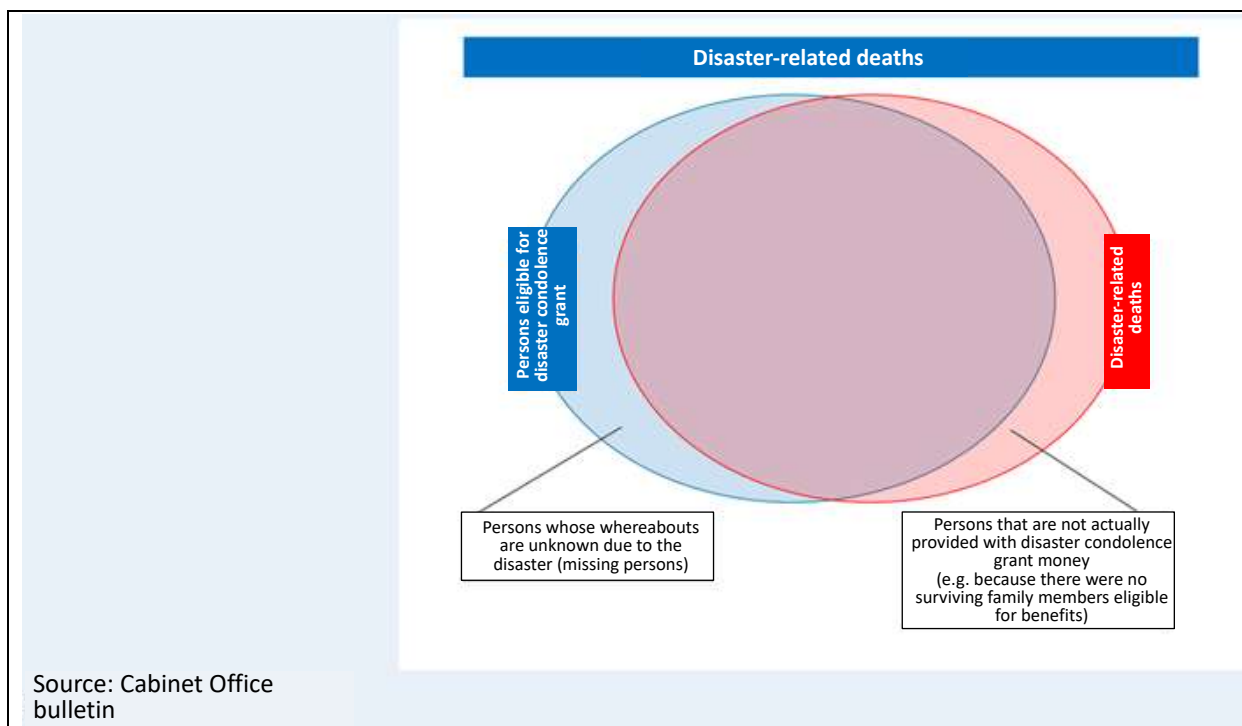
Column: Definitions of Disaster-Related Deaths

The so-called "disaster-related deaths", in which people die not as a direct or physical result of collapsing buildings and tsunamis, but as a result of injuries aggravated by disasters or illnesses caused by the physical burden of evacuation, etc., have been widely publicized in the media after major disasters (i.e. the 1995 Great Hanshin-Awaji Earthquake, the 2011 Great East Japan Earthquake, the 2016 Kumamoto Earthquake, etc.), but there was no clear definition of "disaster-related deaths" by the government.

The Fire and Disaster Management Agency has defined the term "death" as "death caused by the disaster, the body of which is found, or a person whose body cannot be found, but who is certain to have died". The Agency has also defined disaster-related deaths as "those having died due to the aggravation of injury caused by disaster or the illness caused by the physical burden of living in an evacuation shelter, etc. and those deemed to have died due to the disaster in accordance with the Act on Provision of Disaster Condolence Grant (No. 82 of 1973)". The Reconstruction Agency has defined "disaster-related deaths" in the Great East Japan Earthquake as "those who died due to the aggravation of injuries caused by the Great East Japan Earthquake and who are eligible for the provision of disaster condolence grants under the Act on Provision of Disaster Condolence Grand" and has obtained information on the number of such deaths.

The government has been working to improve the living environment in evacuation shelters to reduce the number of so-called disaster-related deaths, which are caused by living in evacuation shelters and other factors in the event of a disaster. Recognizing that the first step in reducing disaster-related deaths is to ascertain the number of such deaths, the government established a definition of disaster-related deaths in April 2019 and shared it with the related ministries and agencies, as well as disseminating it to local governments.

In the future, it plans to collect, analyze, organize, and publish past cases and judicial precedents, etc. of disaster-related deaths from the Great East Japan Earthquake, the 2016 Kumamoto Earthquake, and other disasters.

Disaster-related deaths: Those died due to the aggravation of the injury caused by the disaster or illness caused by the physical burden of living in an evacuation shelter, etc. and those deemed to have died due to the disaster in accordance with the Act on Provision of Disaster Condolence Grant (No. 82 of 1973). (This includes those for which no disaster condolence money is actually paid but excludes those whose whereabouts are unknown due to the disaster in question (missing persons)).

Disaster-related deaths

Persons eligible for disaster condolence grant

Disaster-related deaths

Persons whose whereabouts are unknown due to the disaster (missing persons)

Persons that are not actually provided with disaster condolence grant money (e.g. because there were no surviving family members eligible for benefits)

Source: Cabinet Office bulletin

1-2 National Council for Promoting Disaster Risk Reduction and the National Conference on Promoting Disaster Risk Reduction

The Sendai Framework for Disaster Risk Reduction (hereinafter referred to as DRR) 2015-2030 (SFDRR), adopted at the Third UN World Conference on DRR in Sendai in March 2015, prescribed that all stakeholders (including companies, academia, volunteers, community groups and media) should be encouraged to take DRR initiatives. In response, the National Council for Promoting DRR (NCPDRR) comprising leaders of 39 groups working on disaster risk management, was set up in September 2015 under the leadership of Mr. Abe, Prime Minister, who chairs the National Disaster Management Council.

The NCPDRR and other organizations have promoted activities to enhance community preparedness for large-scale disasters, built on a combination of public support by the government, self-help by each member of the public, and mutual support among communities, companies, schools, and volunteers.

(1) The 4th National Conference on Promoting Disaster Risk Reduction (2019 National Conference on Promoting Disaster Risk Reduction)

With the NCPDRR and the Council for Promoting DRR, which comprises industry organizations related to disaster reduction, the Cabinet Office held the National Conference on Promoting Risk Reduction 2019 on 19 (Sat) and 20 (Sun) October 2019 at the Sasashima-Live Area in Nagoya City, Japan, under the theme of "Preparing for Major Disasters - Learn, Connect, Strengthen - Make Disaster Preparedness More Everyday." The mission of the meeting was to present DRR activities conducted by the government, academia, private companies, NPOs and other civic organizations nationwide, to promote efforts through self-help and mutual support and cooperation with diverse stakeholders and increase awareness of the importance of DRR.

In the opening session (opening remarks and high-level dialogue), Mr. Takeda, Minister of State for Disaster Management, made an opening declaration. He stressed the importance of public support as well as self-help and mutual support in the face of major disasters, for which cooperation between various entities such as

private companies and academic societies was necessary. Following this, Mr. Omura, Governor of Aichi Prefecture and Mr. Kawamura, Mayor of Nagoya City, gave welcome speeches, stating the significance of holding a national convention to promote disaster prevention in Nagoya City to mark the 60th anniversary of the Isewan typhoon and the importance of passing on the lessons learned. In the organizer's speech, Mr. Otsuka, the chairman of the National Council for Promoting DRR (President of the Japanese Red Cross Society), spoke about the necessity of disaster prevention and disaster mitigation efforts by a wide range of generations. In the high-level dialogue that followed, Mr. Okuno, Director of the Nagoya Urban Center (Chairman of the National Land Council) and Dr. Fukuwa, Director of the Disaster Mitigation Research Center at Nagoya University, discussed the importance of working with industry, government and academia to improve disaster-prevention capabilities on "Strengthening National and Regional Preparedness for the Nankai Trough Earthquake and Earthquakes Directly Beneath the Capital".

During the event, a total of 28 sessions were held over two days. In thematic sessions organized by the Cabinet Office and other organizations, concrete measures against the Nankai Trough Earthquake and future self-help and mutual support were discussed. In the high-level session "Preparedness for the Nankai Trough Earthquake", the participants reaffirmed the need for integrated hardware and software measures to mitigate disaster and strengthened national resilience and discussed the need to protect the economy and industry, as well as local communities and residents, by working with industry, academia and government. In conclusion, Mr. Taira, State Minister of the Cabinet Office, emphasized the importance of integrating disaster prevention, information technology and science and technology to implement effective disaster mitigation policies by exploiting new technologies. This conference aimed to support areas affected by Typhoon Hagibis in 2019, soon after the disaster and called for sharing of information on disaster response and the participation of volunteers, etc. in the support of the affected areas by working with disaster volunteers and NPOs. Discussions were also held on how the government, the Disaster Volunteer Center (Social Welfare Councils) and the private sector (NPOs, companies, etc.) could collaborate to provide seamless support for recovery and reconstruction efforts. Various disaster mitigation activities were also presented through 96 exhibitions and 44 workshops to promote household stockpiling and DRR activities for children. Many events were held in the 11 outdoor exhibits, including the display of seismic and firefighting vehicles and a water discharge experience.

In the closing session, Mr. Akimoto, Vice-Chairman of the National Council for Promoting DRR (President of the Japan Firefighters Association), stated his gratitude for the participant who shared the importance of self-help and mutual support, cooperation among diverse stakeholders in disaster management. Dr. Fukuwa, Director of the Center, discussed the conference theme, "Cooperation," and noted that the conference had been a great success in demonstrating cooperation across regions and generations. To conclude, Ms. Imai, Parliamentary Vice-Minister of the Cabinet Office, thanked the participants and expressed his hope for next year's conference. This conference was attended by about 15,000 visitors and reaffirmed the importance of raising awareness of DRR across the region and building an "awareness of DRR" society to prepare for all kinds of natural disasters by combining "public support" initiatives, "self-help", in which each citizen works on their own and "mutual support", in which communities, companies, schools, volunteers, etc. help each other.

Mr. Takeda, Minister of State for Disaster Management, giving opening remarks

Organizer's speech from Mr. Otsuka, the Chairman of the Board

The High-Level Discussions

Nagoya City "Thinking about Stockpiling at Home with Parents and Children" Workshop

Welcome speech from Mr. Akimoto, Vice-Chairman

General review by Dr. Fukuwa, Director of the Center

(2) The 5th National Council for Promoting Disaster Risk Reduction

The 5th National Council for Promoting DRR was held at the Great Hall of the Prime Minister's Office on December 12, 2019. At the beginning of the meeting, Mr. Abe, Prime Minister, expressed his gratitude to the various organizations for their disaster-prevention efforts and said, "As disasters become more frequent and intense, it is important for national and local governments to do their utmost for disaster-prevention measures. He also noted the importance of building a "disaster-prepared society" by combining "self-help", in which each citizen has to protect their own life and "mutual aid", in which local communities, businesses, schools and volunteers help each other, to raise awareness of disaster prevention community-wide and prepare for all kinds of natural disasters.

Subsequently, the Cabinet Office reported on the aforementioned National Conference on Promoting Risk Reduction 2019 and other activities, while the Social Welfare Councils and the Japan Commercial Broadcasters Association introduced efforts to raise awareness of DRR through self-help and mutual support.

The 5th National Council for Promoting DRR (Mr. Abe, Prime Minister)

1-3 Initiatives for Disaster Drills

In the event of a natural disaster, national government institutions, local governments, designated public corporations, and other institutions involved in disaster risk management must work as a unity in cooperation with local residents to respond appropriately to that disaster. Accordingly, it is vital to implement DRR initiatives before disaster occurs, such as drills involving collaboration between relevant organizations. For this reason, institutions involved in disaster risk management implement disaster risk management drill based on the Basic Act on Disaster Management, Basic Plan for DRR, and other regulations to check and confirm the emergency measures to be taken when a natural disaster occurs and to enhance residents' awareness of disasters.

In FY2019, the following drills were conducted in accordance with the 2019 Comprehensive Disaster Risk Management Drill Framework, which prescribed the basic policy on conducting disaster risk management drills and details of the government's comprehensive disaster risk management drills.

(1) Comprehensive Disaster Risk Management Drills on "Disaster Preparedness Day"

On September 1, 2019, which is Disaster Preparedness Day in Japan, a drill was conducted based on the scenario of operating government disaster headquarters. First, Mr. Abe, Prime Minister, and the Cabinet Office gathered at the Prime Minister's Office and conducted an operational drill of an Extreme Disaster Management Headquarters (a Disaster Response Headquarters set up in the event of an especially unusual and catastrophic major disaster, such as the Great East Japan Earthquake). This included videoconferences with Governor Morita of Chiba Prefecture to ascertain the extent of the damage and the support requested, as well as reports by members of the Cabinet Office about the damage and the response to the disaster. Participants worked with local governments and other bodies to confirm response guidelines that assigned the highest priority to saving human lives, dispatch a governmental investigation team, and establish an On-site Disaster Management Headquarters. Throughout this process, they sought to ensure that the systems required for implementing emergency measures in the immediate aftermath of an earthquake were in place, along with checking the procedures. In addition, part of the meeting was opened up to the media. Afterwards, Mr. Abe, Prime Minister, held a press conference and made a televised appeal to the public via NHK to request their cooperation, self-help, and mutual support in the event of a disaster and informed them of the government's initial response measures.

The same day, a joint disaster drill involving nine cities and prefectures was also held in Funabashi, Chiba Prefecture, as the main venue. Mr. Abe, Prime Minister, flew from the Prime Minister's Office to the drill site

by helicopter and observed a firefighting drill on the Funabashi-East Wharf, as well as a search and rescue drill for people having fallen into the sea and other maritime drills. The Prime Minister then participated in a training session on the operation of the Disaster Volunteer Center as a volunteer, where he observed a series of procedures from registration of volunteers to the completion of their duties. Finally, the participants observed a hands-on training session for local residents and a rescue drill in which a number of related organizations such as the fire department, police, Self-Defense Forces and NPOs participated.

Video conference to determine damage in drills to operate the government headquarters

Mr. Abe, Prime Minister, joining in a training on the operation of the Disaster Volunteer Center
(Prime Minister's Official Residence website)

(2) Government Tabletop Exercises

The government conducted a tabletop exercise for a Tokyo Inland Earthquake in August 2019 and another exercise for a Nankai Trough Earthquake in February 2020 to improve the knowledge and proficiency of officials from relevant ministries and agencies and enhance collaboration with relevant organizations. Using simulations that replicated near real life disaster situations, participants tackled practical exercises based on specific plans for emergency response activities. The drills were followed by a review of the effectiveness of emergency measures prescribed in plans and manuals.

Drills on the assumption of a Tokyo Inland Earthquake by the extreme disaster management headquarters

Drills on the assumption of a Nankai Trough Earthquake by the extreme disaster management headquarters

The government held regional drills for running on-site extreme disaster management headquarters in the event of the Nankai Trough Earthquake in collaboration with prefectures anticipated to be exposed to hazard, specifically in the Shikoku region (Kagawa Prefecture) in October 2019, Chubu region (Aichi Prefecture) in November 2019, Kyushu region (Kumamoto Prefecture) in December 2019, and Kinki region (Osaka Prefecture) in January 2020. It also held a drill for the operation of the on-site extreme disaster management headquarters in Tokyo in August 2019 based on a Tokyo Inland Earthquake scenario.

Welcome speech from Mr. Taira, Vice-Minister of the Cabinet Office, the head of the extreme disaster management headquarters of Chubu

Ms. Imai, Parliamentary Vice-Minister of Cabinet Office, directing as the head of the extreme disaster management headquarters of Kyushu

1-4 Tsunami Preparedness Initiatives

On November 5, which is the Tsunami Preparedness Day in Japan and the World Tsunami Awareness Day, the Cabinet Office, relevant ministries and agencies, local governments, and private companies, among others, conduct nationwide initiatives to raise awareness of tsunami preparedness.

(1) Tsunami Evacuation Drills

Around the Tsunami Preparedness Day (November 5) in FY2019, the national government (14 ministries and agencies), local governments (171 government bodies) and private companies (73 organizations) held earthquake and tsunami preparedness drills nationwide, in which approximately 910,000 people took part.

These included drills for residents held by the Cabinet Office in partnership with local governments in seven locations nationwide (Hiroo Town in Hokkaido, Nishinomiya City in Hyogo Prefecture, Inami Town in Wakayama Prefecture, Seiyo City in Ehime Prefecture, Kochi City in Kochi Prefecture, Shimabara City in Nagasaki Prefecture and Kagoshima City in Kagoshima Prefecture). Approximately 9,000 citizens participated; learning how to protect themselves if an earthquake were to hit the area (ShakeOut drill) and evacuate to the nearest evacuation site once tremors subsided (evacuation drill). Various other drills were also held according to regional disaster management plans in order to practice skills such as setting up a shelter, installing disaster management headquarters, preparing and serving food to evacuees and first aid.

ShakeOut drill (Inami Town, Wakayama Prefecture)

Tsunami Evacuation Drills with the participation of surrounding companies (Kagoshima City, Kagoshima Prefecture)

Evacuation drill for persons requiring special care
(Shimabara City, Nagasaki Prefecture)

Opening of shelter (Nishinomiya City, Hyogo Prefecture)

(2) Public Awareness Campaigns Conducted by the Cabinet Office

(i) Public Awareness Campaign for Tsunami Preparedness

The campaign was deployed nationwide to boost public awareness of appropriate emergency evacuation in the event of a tsunami. The FY2019 campaign included displaying public awareness posters at various locations, including company and local government buildings and customer-facing cash registers at major convenience stores and supermarkets nationwide.

FY2019 public awareness poster

(ii) FY2019 Public Awareness Event on Tsunami Preparedness Day

On November 5, the Tsunami Preparedness Day, the Cabinet Office, National Council for Promoting Disaster Risk Reduction and Council for Promoting Disaster Risk Reduction jointly hold the Special Tsunami Preparedness Day Event "Tsunami × Regional Disaster Risk Management × Companies" to promote awareness of tsunami preparedness, in which companies, administrative bodies, and voluntary disaster risk management organizations participated.

The event featured seminars on the "Introduction of Areas that Support Development of Community Disaster

Management Plans" and "Tsunami Preparedness through Collaboration between Local Communities and Private Sector", as well as a corporate exhibition to promote tsunami preparedness efforts.

In his opening remarks, Mr. Takeda, Minister of State for Disaster Management, stated that the Cabinet Office has been working on Community Disaster Management Plans to reduce the risk of tsunami in the region. He stressed the importance of supporting local tsunami preparedness, the contribution of the private sector and academia's superior disaster-prevention technology to tsunami preparedness and the importance of industry-government-academia collaboration to explore more effective tsunami countermeasures.

Dr. Fumihiko Imamura, Director of the International Research Institute of Disaster Science, Tohoku University, gave a keynote speech on "Tsunami Disaster Risk and Self-help and Mutual Support in Japan". In his speech, he emphasized how tsunami disasters are low-frequency catastrophes with involving numerous fatalities; conversely, there is scope to reduce the loss of human life to zero provided lessons of mutual support are applied and appropriate evacuation actions taken. He also stressed the importance of passing on the experience of disaster to the next generation as a lesson to be learned and the need of support and cooperation for this purpose.

Concerning areas like the development of Community Disaster Management Plans, the participants actively discussed problems faced by merged municipalities and the challenges of tsunami evacuation in areas visited by many foreign tourists.

Opening remarks by Mr. Takeda, Minister of State for Disaster Management

Special Tsunami Preparedness Day Event

According to a survey of the event participants (143 valid responses), the following were identified as

"Activities I would like to do in future based on the event" (multiple responses): "Strengthen DRR activities at my company" (63), "Enhance disaster-prevention activities at my company and other institutions" (56). These indicate a high level of interest in DRR activities among participants, including those from companies.

Q. What action would you like to take based on what you learned through this event? (Multiple answers allowed)
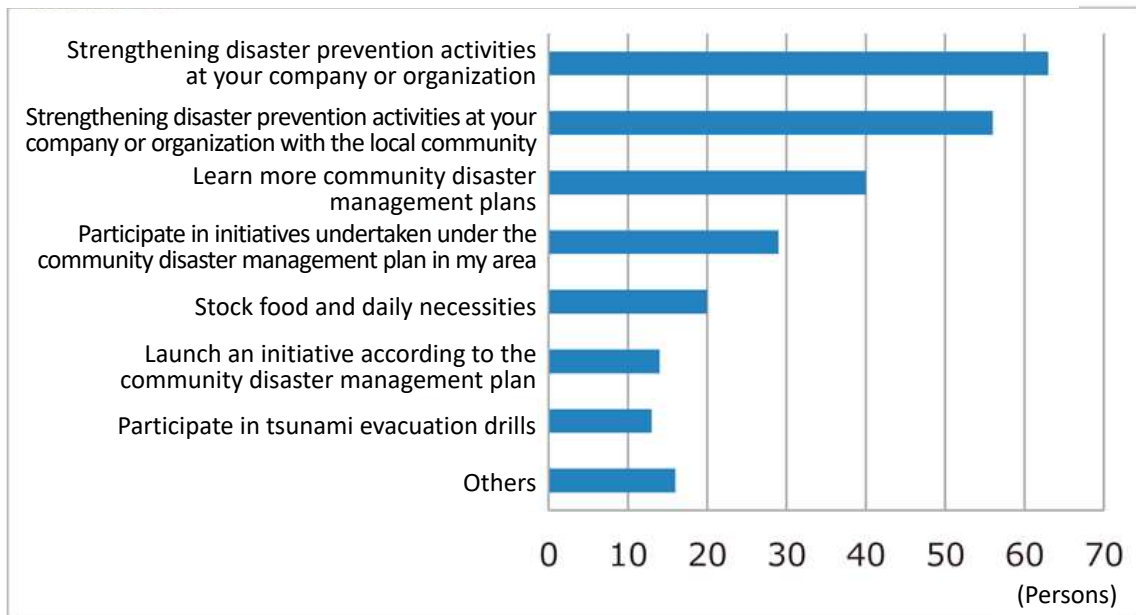
Source: Cabinet Office

1-5 Citizen-led Initiatives (Promoting Community Disaster Management Plans)

The community disaster management planning system was established following the amendment of the Basic Act on Disaster Management in 2014 with an aim to enhance regional disaster resilience through the promotion of self-help and mutual support initiatives based on cooperation among residents (including companies operating in the area). This system allows community residents (including business operators with offices there) to draft a community disaster risk management plan and present it in the municipal council for disaster management to be reflected in the municipal disaster risk management plan.

As of April 1, 2019, 3,028 districts have undertaken activities to formulate disaster reduction plans, and another 827 districts have formulated a community disaster risk management plan to be included in the municipal disaster risk management plan. Six years after the establishment of the system, formulating a Community Disaster Management Plan is becoming more and more common.

(1) Significance of a Community Disaster Management Plan

A Community Disaster Management Plan is a tool for local residents to build a safe neighborhood based on the spirit of self-help and mutual support and in accordance with local disaster risks and population characteristics. The mutual support efforts set out in the plan also ensure that we and our parents can live in peace in old age through our own efforts. Proactive planning and implementation by adults in the community will not only enhance community safety but also serve as a disaster education tool for the next generation to protect the community.

(2) Trends of Community Disaster Management Plans

The Cabinet Office analyzed cases of 579 districts (23 municipalities) that have been reflected in community disaster management plans during FY 2018. It was found that they have the following common characteristics.

(i) Activities for preparing a community disaster risk management plan were started at the initiative of the local (municipal) government in 96% of the communities. It is important to ensure the government-initiated activities for developing Community Disaster Management Plans, in order to encourage residents to engage in such activities, keeping in mind that a community disaster management plan should be prepared at the initiative of the residents in principle.

(ii) Some residents investigated disaster risks, hazard areas, and social characteristics of the area (such as the ratio of older people and daytime and night-time populations) in their communities. For example, residents examined past disasters in the area (e.g. Nishi District, Atsubetsu, Sapporo City), checked hazard areas by laying a disaster map provided by the government over a detailed map of the area (e.g. Kasumidai District, Ami Town, Ibaraki Prefecture; Nara District, Kumagaya City, Saitama Prefecture), mapped hazard spots and issues identified in field studies (e.g. Shimoji District, Kochi City, Kochi Prefecture), and analyzed the constitution, history, natural and social environment of the community (e.g. Miharudai District, Mishima City, Shizuoka Prefecture).
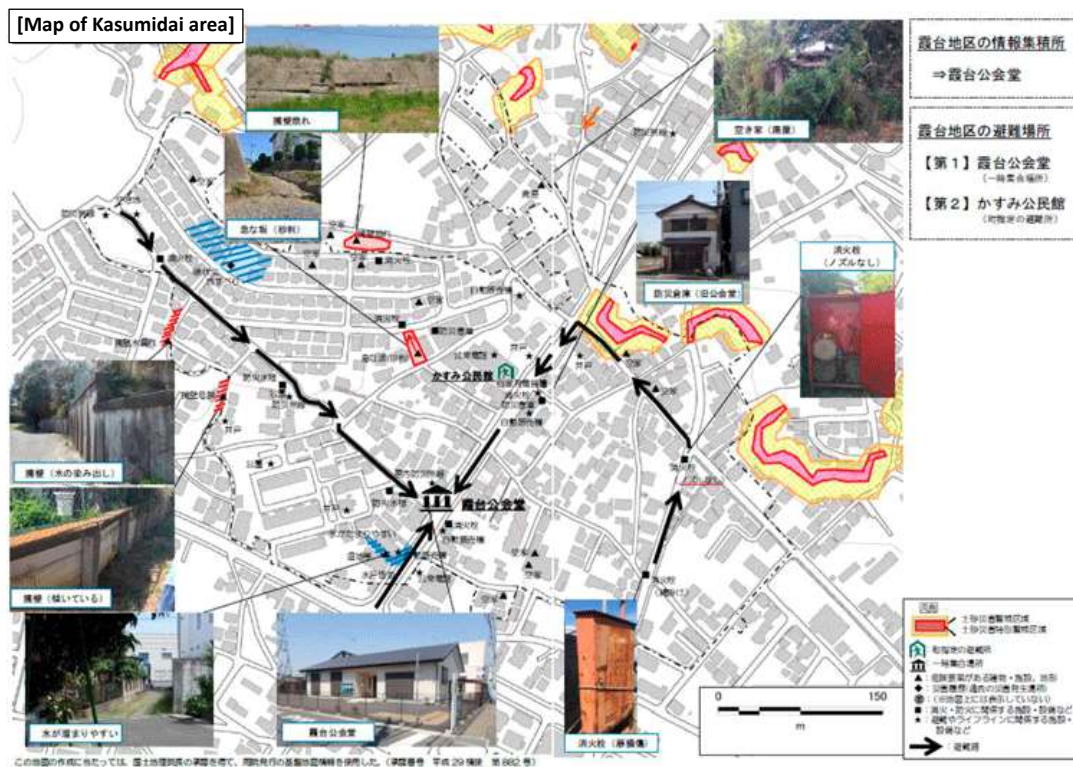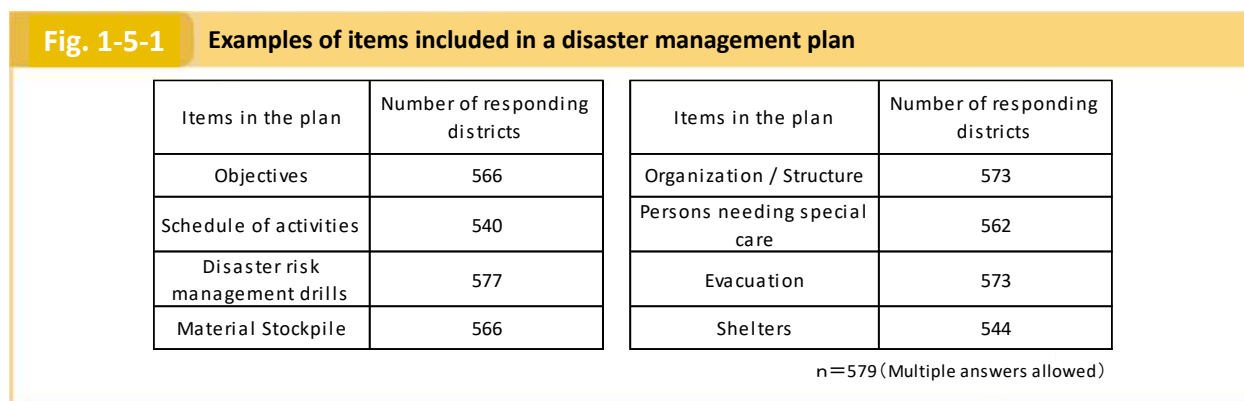

Map of hazardous areas created by the neighborhood association

Source: Kasumidai Area Disaster Management Plan (Ami Town, Ibaraki Prefecture)
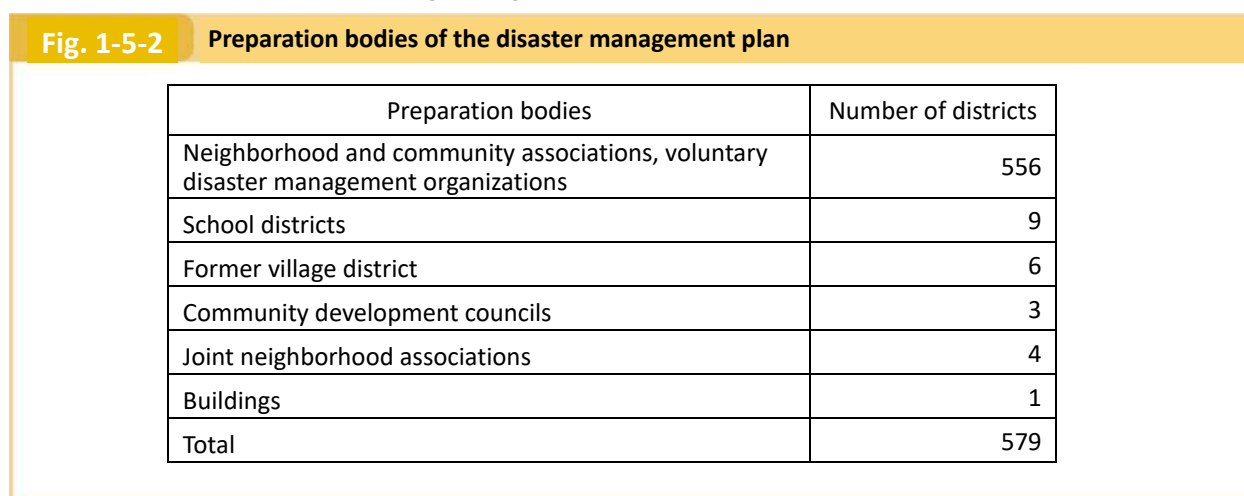
(iii) Most of the districts include long-term plans such as targets and schedules for activities, disaster drills, organization and systems and key aspects for saving lives such as persons requiring special care and evacuation. (Figure 1-5-1).

Fig. 1-5-1 **Examples of items included in a disaster management plan**

Items in the plan	Number of responding districts	Items in the plan	Number of responding districts
Objectives	566	Organization / Structure	573
Schedule of activities	540	Persons needing special care	562
Disaster risk management drills	577	Evacuation	573
Material Stockpile	566	Shelters	544

n＝579（Multiple answers allowed）

Source: Case study analysis of the Cabinet Office survey (disaster management plan that led to the revision of the regional disaster management plan), as of April 2019

(4) Many community disaster risk management plans define neighborhood and community associations, voluntary disaster management organizations as preparation bodies of the plan. Although only a few are involved, it emerged that school districts and community development councils have also been involved in this process. It is expected that the types of preparation bodies involved in making the plans will diversify depending on the social characteristics of the region (Figure 1-5-2).

Fig. 1-5-2 **Preparation bodies of the disaster management plan**

Preparation bodies	Number of districts
Neighborhood and community associations, voluntary disaster management organizations	556
School districts	9
Former village district	6
Community development councils	3
Joint neighborhood associations	4
Buildings	1
Total	579

Source: Case study analysis of the Cabinet Office survey (disaster management plan that led to the revision of the regional disaster management plan), as of April 2019

(2) Initiatives by the Cabinet Office

(1) Preparation and publication of the Guidelines for Drafting Community Disaster Management Plans

To promote the preparation of community disaster management plans, it is important for municipalities to reach out to their districts. Guidelines for Drafting Community Disaster Management Plans have been prepared and published to support the preparation of the plan and facilitate the efforts of municipal officials in developing and promoting the same. It is important that community disaster management plans first focus on the key aspects of life-saving evacuation, to reaffirm their role as an important tool for defining mutual aid evacuation methods. This guidebook clearly shows that a community disaster management plan can be created

with only a single evacuation component.

(2) Supporting the activities of Chikubo'z, a network of local communities working on community disaster management plans

Chikubo'z is a network of local communities working on community disaster management plans and a platform for local government officials to exchange information on issues related to disaster management plans and share their experiences on a daily basis. As of the end of March 2020, this network had 326 local government officials involved in supporting preparation for Community Disaster Management Plans and workshops were held occasionally.

Mr. YAMAMOTO, Minister of State for Disaster Management (then) and the Chikubo'z meeting participants (members of the Chikubo'z)

(3) Establishment of the Community Disaster Risk Management Plan Library

A library is available on the Cabinet Office's website to categorize the community disaster management plans defined in the municipal disaster risk management plan according to the contents (target issues, countermeasures and bodies involved) and support the preparation of the plans by the planning body.

Source: Cabinet Office website
(Reference: http://www.bousai.go.jp/kyoiku/chikubousai/chikubo/chikubo/index.html)

1-6 Development of an Enabling Environment for Volunteer Activities

Volunteer activities in affected areas have played an increasingly vital role. Individual volunteers, NPOs, and other organizations that gathered in the affected areas have provided support for affected people in the fields that are difficult for public support to reach. The Cabinet Office has strived to make an environment that facilitates volunteers' support for the affected people. In the event of a major disaster, it has become more common for the government, NPOs and volunteers to collaborate with each other, share information and complement each other's activities to support the victims.

For the Faxai and Hagibis typhoons in 2019, they held regular information-sharing meetings to coordinate operation areas and support activities for the affected people in the affected areas, including Miyagi, Fukushima, Ibaraki, Tochigi, Saitama, Chiba, Tokyo, Nagano and Shizuoka Prefectures. Aiming at sharing information and issues on a wide scale and finding effective solutions, the Cabinet Office, the Japan National Council of Social Welfare, the Central Community Chest of Japan, the Japan Voluntary Organizations Active in Disaster (JVOAD) and other organizations involved in disaster relief held "regular information-sharing meetings" to coordinate and supplement relief activities and to call for volunteer participation.

In order to prepare for major disasters, which are predicted to occur in the future, it is important for each region to have established a collaborative network among the government, volunteers, and NPOs before a disaster occurs. The Cabinet Office and JVOAD signed a "Tripartite Collaboration between Government, NPOs and Volunteers / Declaration of Collaboration Tie-up" in May 2019. Under the Declaration, the Cabinet Office has been cooperating with JVOAD to establish a regional cooperation system before the disaster and hold regular information-sharing meetings in the event of a disaster. The Cabinet Office also co-sponsored the JVOAD Forum held by JVOAD in May 2019, in which Mr. Yamamoto, then Minister of State for Disaster Management, was a participant. He called on volunteers, including community officials and those involved in NPOs, to further promote cooperation.

Welcome speech from Mr. Yamamoto, then Minister of State for Disaster Management, at JVOAD Forum

Signing of the Tie-up Declaration

Recent Trends Concerning DRR Volunteer Activities

<Major disasters and volunteer activities>			<Trends concerning volunteerism>	<Measures taken by the government>
(Year)	(Disaster)	(Total number of volunteers)		
1995	**The Great Hanshin-Awaji Earthquake**	**Approx. 1,377,000**	☆Volunteerism for affected people support became more active (beginning year of volunteerism). ★The situation became chaotic as many volunteers rushed to disaster affected areas.	■Amendment of the Basic Act on Disaster Management (1995) Stipulated that the government would strive to establish an environment for disaster volunteerism
1997	The marine accident involving the M.V. Nakhodka	Approx. 270,000		
2004	The Typhoon Tokage (0423)	Approx. 56,000	☆It became common that Councils of Social Welfare establish and manage disaster volunteer centers (VCs).	■Investigative Committee on Volunteer Activities Launched by the Cabinet Office in 2004
2004	**The Mid Niigata Prefecture Earthquake**	**Approx. 95,000**		
2007	Noto Hanto Earthquake	Approx. 15,000		
2007	Chuetsu-oki Earthquake	Approx. 15,000		
2009	The Typhoon Etau (0909)	Approx. 22,000	☆Volunteer activities by NPOs, NGOs, companies, etc. (approx. 4 million volunteers worked outside the management of disaster VCs)	
2011	**The Great East Japan Earthquake**	**Approx. 1,500,000**	☆Various needs were fulfilled by expert volunteers. ★Building a network became a challenge.	■Amendment of the Basic Act on Disaster Management (2013) Stipulated that the government would strive for effective collaboration with volunteers The Basic Plan for DRR was also revised.
2014	Hiroshima Torrential Rain	Approx. 43,000		
2015	Torrential Rain in the Kanto and Tohoku Regions	Approx. 47,000	★The need for **intermediaries** to coordinate NPO volunteer activities was noted.	
2016	**The Kumamoto Earthquake**	**Approx. 118,000**	☆**Information sharing meetings** were held under **tripartite collaboration** among the government, NPOs, and volunteers (Hinokuni Meeting)	■Guidebook for tripartite collaboration (April 2018)
2017	**Northern Kyushu Heavy Rain**	**Approx. 60,000**	☆The JVOAD was established as an intermediary.	■Revision of the Basic Plan for DRR (2018) Stipulated that the government would strive to establish a collaborative network incorporating intermediaries
2018	**Heavy Rain Event of July 2018**	**Approx. 263,000**	☆Information meetings were held in the affected areas.	
2018	Hokkaido Eastern Iburi Earthquake	Approx. 11,000	☆Information meetings were held on prefectural and national levels.	■Revision of the Basic Plan for DRR (2019) Clearly stating to "promote the development of information sharing meetings
2019	Heavy Rain Event of August 2019 related to the rain front	Approx. 11,000	☆Progress in the establishment of the tripartite collaborative network system before disasters	
2019	The Typhoon Faxai (1915)	Approx. 23,000		■Declaration of Collaboration Tie-up with JVOAD (2019)
2019	The Typhoon Hagibis (1919)	Approx. 185,000		

Source: Formulated by the Cabinet Office based on materials provided by the Ministry of Health, Labour and Welfare, and documents and reports by the Japan National Council of Social Welfare

(1) Promotion of Cooperation Between the Government, NPOs, and Volunteers

The Cabinet Office held a Study Group on Developing an Environment for DRR Volunteer Activities in 2017. The study group issued in April 2018 the Guidebook for the Government in Collaboration and Coordination with NPOs and Volunteers, which mainly covered tasks assigned to administrative officers before and after a disaster, with a view to promoting collaboration and coordination with NPOs and volunteers.

(Reference: http://www.bousai.go.jp/kaigirep/kentokai/bousai_volunteer_kankyoseibi/index.html）

According to a survey conducted by the Cabinet Office, as of April 1, 2019, 35 prefectures responded that they had a framework to prepare for a disaster through discussions among government, NPOs and volunteers before the disaster. There is an urgent need to clarify the role of supporters in the event of a disaster by establishing and strengthening the cooperation framework at the prefectural level. It is equally important to establish cooperation between municipalities and promote coordination over a wide area beyond prefectures in preparation for a major disaster such as the Nankai Trough Earthquake.

Prefecture	Name of collaborative networks
Hokkaido	Disaster Volunteer Network
Miyagi	Miyagi Disaster Relief Volunteer Center Support Network Association
Yamagata	Yamagata Disaster Relief Volunteers Network Association
Fukushima	Fukushima Disaster Relief Volunteer Network
Ibaraki	Ibaraki Disaster Volunteer Network
Tochigi	Disaster Volunteer Network
Gunma	Gunma Disaster Relief Volunteer Network Association
Kanagawa	Kanagawa Disaster Relief Volunteer Support Center
Niigata	Niigata Disaster Relief Volunteer Coordination Council
Toyama	Toyama Disaster Relief Volunteer Association
Ishikawa	Ishikawa Disaster Relief Volunteer Association
Fukui	Fukui Disaster Relief Volunteer Center Association
Gifu	Gifu Disaster Relief Volunteer Coordination Meeting
Shizuoka	Disaster Relief Volunteer Network Committee for the Nankai Trough Earthquake
Aichi	Aichi Volunteer Association for Disaster Prevention
Mie	Mie Disaster Relief Volunteer Support Center
Shiga	Shiga Disaster Relief Volunteer Center Management Council
Kyoto	Kyoto Disaster Support Agreement Network for Coordinating Disaster Volunteers
Hyogo	Liaison Conference of Organizations Related to Support for Disaster Relief Volunteer Activities
Nara	Nara Disaster Relief Platform Association
Wakayama	Wakayama Disaster Relief Volunteer Center
Tottori	Liaison Association of Related Organizations for Disaster Relief Volunteers
Shimane	Shimane Liaison Association of Related Organizations for Disaster Relief Volunteers
Okayama	Disaster Support Network Okayama
Hiroshima	Hiroshima Volunteer Network for Disaster Survivors
Yamaguchi	Yamaguchi Disaster Relief Volunteer Activities Support Network
Kochi	Kochi Disaster Relief Volunteer Support Headquarters
Ehime	Ehime Information Support Meeting for Heavy Rain Disaster
Fukuoka	Fukuoka Disaster Relief Volunteer Association
Saga	Saga Disaster Relief Volunteer Network
Nagasaki	Nagasaki Disaster Relief Volunteer Association
Kumamoto	Kumamoto Disaster Relief Volunteer Center Association
Oita	Oita Disaster Relief Volunteer Network
Kagoshima	Welfare and Disaster Relief Volunteer Network
Okinawa	Liaison Association of Related Organizations for the Operation of the Disaster Volunteer Center

With collaborative network (35)
Without collaborative network (8)
Tripartite collaboration in preparation (4)

* Regarding presence/absence of a collaborative network, the Cabinet Office determines whether the local governments, social welfare councils, and various entities such as NPOs are members of the network. (As of April 1, 2019)

Source: Cabinet Office

In view of these issues, in January 2020, a "Gathering of Disaster Prevention and Volunteer Activities" was held in Kobe City, Hyogo Prefecture, to mark the 25th anniversary of the Great Hanshin-Awaji Earthquake. Looking back on the environment surrounding volunteers since the Great Hanshin-Awaji Earthquake, known as the beginning year of volunteerism, those involved in the volunteer sector gathered to engage in lively discussion about the challenges ahead.

Gathering of Disaster Prevention and Volunteer Activities

Welcome speech from Ms. Imai, Parliamentary Vice-Minister of Cabinet Office

Conference venue

(2) Seminars and Drills in Collaboration With Government, NPOs and Volunteers

In order to ensure smooth collaboration and coordination among the government, NPOs, and volunteers in the event of a disaster, it is important to promote mutual interaction and understanding before the disaster through seminars and drills. The Cabinet Office holds seminars and drills using the above guidebook to help governments, Social Welfare Councils, and other volunteer center staff, and NPOs meet face-to-face to discuss various issues in collaboration and to gain deeper mutual understanding.

In 2019, the government held Seminars for Collaboration and Coordination among the Government, NPOs, and Volunteers in the Event of a Disaster in six prefectures (Nara, Ehime, Shiga, Kanagawa, Saga, and Iwate Prefectures). Each seminar had approximately 100 participants from the government, Councils of Social Welfare, and NPOs. The seminars revealed the importance of building a face-to-face relationship among the government, volunteers, and NPOs from before a disaster in order to ensure that they can smoothly work in coordination to support affected people in the event of a disaster. There was also a workshop aimed at building a collaborative network with various support entities, which helped participants gain clearer understanding on such collaboration.

Seminars for Collaboration and Coordination among the Government, NPOs, and Volunteers in the Event of a Disaster

Also, drills were conducted in Shizuoka Prefecture in December 2019. Given concern over the damage caused by the Nankai Trough Earthquake, Shizuoka Prefecture established a Disaster Volunteer Network Committee for Preparing for the Nankai Trough Earthquake in 1995, which involved collaboration among the government, NPOs and volunteers. The drill drew about 200 participants from the government, Social Welfare Councils and NPOs to review the activities of the tripartite collaboration in recent disasters and share information promptly after a disaster. To set up regular information-sharing meetings, mock events were held.

Collaborative drills between government and volunteers

1-7 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) formulated by the Cabinet in March 2014. Based on the Plan, the Cabinet Office conducts annual assessment on its BCP with experts and improves effectiveness through cooperation training with each ministry and agency. The government service continuity system will be implemented in the event of a potential Metropolitan Inland Earthquake through these initiatives to smoothly continue administrative operations.

(2) Development of Business Continuity Systems by Local Governments

Local governments need to maintain their administrative function and continue to work even when a disaster occurs. Therefore, it is extremely important for them to have their own BCP in place and establish its implementation system before a disaster occurs. The BCP preparation rate of local governments had reached 100% by the end of FY2016. In terms of municipalities (including special zones), this ratio increased from the previous survey by 9 points to 90% in June 2019 (Fig. 1-7-1).

The Cabinet Office published the Business Continuity Plan Formulation Guidelines for Municipalities in May FY2015, aiming to make BCP planning easier for all municipalities, including small municipalities. In addition, the Cabinet Office amended the Business Continuity Manual for Local Governments During Earthquake Disasters to take account of past disasters, published the revised version in February 2016 under the title Business Continuity Manual for Local Governments During Major Disasters, and distributed it to local governments.

Should a major disaster occur, it will be difficult for the affected municipalities to carry out an extensive range of disaster response operations singlehandedly. Accordingly, the Cabinet Office published the Guidelines on Local Government Aid Acceptance Systems in Case of Disaster in FY2016, based on an understanding that local governments should have a BCP in place and establish a system to promptly and appropriately receive assistance from the national government, other local governments, private companies, volunteer organizations and others, and share information and making various arrangements. The Cabinet Office formulated "Guidelines on Aid-Assistance Plan for Municipalities in Relation to the Acceptance of Manpower" in April 2020. These were designed so that municipalities without full-time disaster management staff and other concerns about disaster management systems could understand how to develop aid-assistance systems and prepare plans with as little burden as possible.

Moreover, since FY2015, the Cabinet Office has held workshops (co-organized by the Cabinet Office and the Fire and Disaster Management Agency) to train relevant municipal employees in order to support the establishment of a system for business continuity in local governments.

Together with the Ministry of Internal Affairs and Communications (MIC) and the Fire and Disaster Management Agency, the Cabinet Office will continue to promote through the above initiatives the establishment of business continuity systems in local governments, which involves the formulation of BCPs, enhancement of the Six Critical Factors* in formulated BCPs, and the establishment of a structure to receive support.

Note) Six Critical Factors (Reference: Guidelines for Business Continuity of Local Governments):

(1) clearly defined leadership structure in the case of absence of the mayor, and a system to gather employees; (2) specification of an alternative building to use when the local government's main building has become unavailable; (3) procurement of electricity, water, food, etc. (which are necessary for employees to perform their duties); (4) various communication means that tend to be available even in the event of a disaster; (5) backup of important administrative data; and (6) priority duties in the event of a disaster.

| Fig. 1-7-1 | BCP Preparation Rate in Local Governments |

The BCP preparation rate reached 100% in prefectures and 90% in municipalities as of June 1, 2019.

Prefectures

Date	Prepared	Not prepared
November 2009	11%	89%
April 2011	38%	62%
August 2013	60%	40%
December 2015	89%	11%
April 2016	100%	
June 2017	100%	
June 2018	100%	
June 2019	100%	

Municipalities

Date	Prepared	Not prepared
November 2009	0.1%	99.9%
April 2011	4%	96%
August 2013	13%	87%
December 2015	37%	63%
April 2016	42%	58%
June 2017	64%	36%
June 2018	81%	19%
June 2019	90%	10%

Source: November 2009   Survey of Business Continuity Plans Based on an Earthquake Disaster (Cabinet Office and Fire and Disaster Management Agency Survey)

April 2011   Local Government Information Management Report (March 2012) Ministry of Internal Affairs and Communications Local Administration Bureau Regional Information Policy Office Survey

August 2013   BCP Preparation Rate for Large-Scale Earthquakes and Other Natural Disasters (preliminary figures) (Fire and Disaster Management Agency Survey)

December 2015   Survey of the Preparation of Business Continuity Plans and the Formulation of Specific Criteria for the Issuance of Evacuation Advisories by Local Governments (Fire and Disaster Management Agency Survey)

April 2016, June 2017, June 2018 and June 2019   Survey Results of the Current Status of the Preparation of Business Continuity Plans by Local Governments (Fire and Disaster Management Agency Survey)

(3) Development of Business Continuity Systems by private sector companies

The Great East Japan Earthquake in 2011 clearly highlighted the importance of incorporating business continuity management (BCM) into the routine management strategy of companies. As such, in 2013, the Cabinet Office revised the guidelines to incorporate the concept of BCM and published them under the title "Business Continuity Guidelines (Third Edition) - Strategies and Responses for Surviving Critical Incidents –". While the government is working on the promotion of them currently, companies are encouraged to build a business continuity system in accordance with these Third Edition Guidelines.

In terms of specific government targets, the Annual Plan for National Resilience 2019 currently sets a goal

of ensuring that 100% (nationwide) of large companies and 50% (nationwide) of medium-sized companies have prepared BCPs by 2020. The Cabinet Office conducts a survey every second fiscal year, to ascertain what proportion of private sector companies have prepared a BCP and investigate their disaster preparedness initiatives. The results of the FY2019 Survey on Company Business Continuity and Disaster Preparedness Initiatives, which was conducted in February 2020, showed that formulation of BCPs was on the rise, with 68.4% of large companies (64.0% in the previous survey) and 34.4% of medium-sized companies (31.8% in the previous survey). When companies currently in the process of formulating a BCP are also included, these figures rise to approximately 83% and 53%, respectively (Fig. 1-7-2) (Fig. 1-7-3).
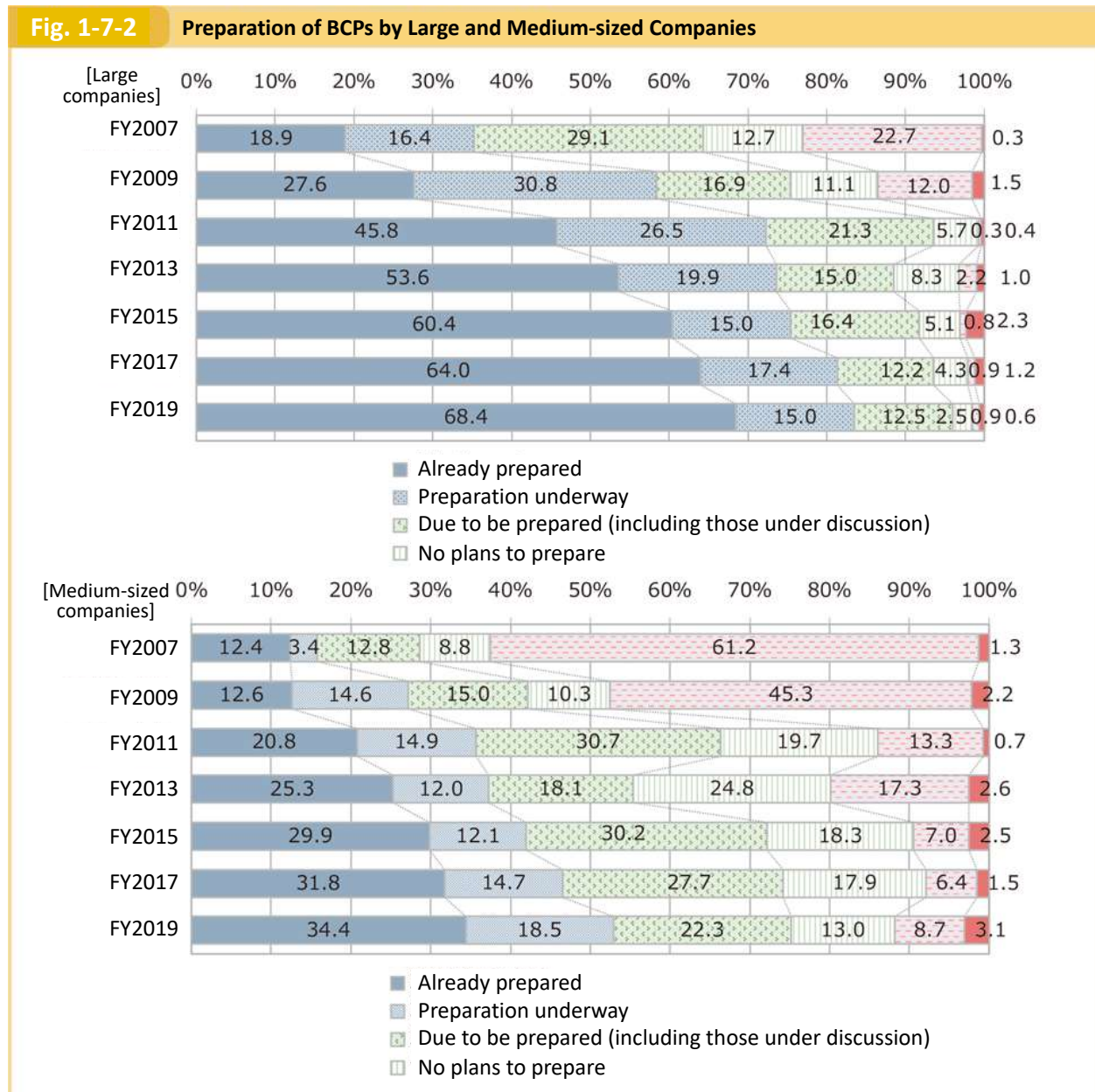
Fig. 1-7-2   Preparation of BCPs by Large and Medium-sized Companies

		Overall	Large companies (with capital of more than 1 billion yen and more than 50 regular employees, etc.)	Medium-sized companies (less than 1 billion yen and more than 50 regular employees, etc.)	Other companies (other than large and medium-sized companies with capital of over 100 million yen)
Overall	Number of companies	1651	554	518	579
	Proportion of companies that have formulated a BCP	**41.8**	**68.4**	**34.4**	**38.2**
Affected/not affected by the disaster — Affected	Number of companies	853	308	280	265
	Proportion of companies that have formulated a BCP	**42.0**	**65.6**	**31.1**	**40.6**
Affected/not affected by the disaster — Not affected	Number of companies	791	245	234	312
	Proportion of companies that have formulated a BCP	**41.8**	**72.0**	**38.4**	**36.4**

Source: Formulated by Cabinet Office (Release of the Results of the FY2019 Fact-Finding Survey on Company Business Continuity and Disaster Preparedness Initiative)

In this survey, the most common reason for starting (or planning) to formulate a BCP was "as part of risk management" (34.4% of large companies and 27.8% of medium-sized companies), rather than "past experience of a disaster or accident" (18.3% of large companies and 10.7% of medium-sized companies). (Figure 1-7-4)

The results show that 37.1% of large companies and 29.7% of medium-sized companies "review BCPs annually" and 36.0% of large companies and 36.1% of medium-sized companies "review BCPs regularly, but not annually." This means that more than 60% of medium-sized companies review it regularly. (Figure 1-7-5)

Furthermore, 204 large- and 87 medium-sized companies having already formulated a BCP and been affected by the Great East Japan Earthquake were asked whether or not their BCPs were helpful at the time of the disaster. Consequently, 62.8% of large companies and 66.7% of medium-sized companies answered that they were "very useful" and "somewhat useful," respectively; while 1.9% of large companies and 3.1% of medium-sized companies responded that the BCP was "not useful at all." This indicates that the effectiveness of the BCP is being felt. (Figure 1-7-6)

Fig. 1-7-4 The most common reason for starting to formulate (or planning to formulate) a BCP and the status of the responses

Reason	Large companies	Medium-sized companies
As part of risk management	34.4	27.8
Experience of past disasters and accidents	18.3	10.7
From the perspective of corporate social responsibility	14.9	8.8
Requests by the parent / group companies	8.6	20.1
Instructions from executive management	5.5	6.1
Requests from business partners	5.0	4.6
Checking guidelines and other guidelines from national, local, and industry associations	2.3	1.5
Requests from industry associations	1.7	1.4
Requests from shareholders	0.7	2.1
Preferential treatment by law, bidding conditions	0.5	0.2
Recommendations from consulting firms	0.4	0.7
Results of seismic assessment	0.2	0.3
To improve the corporate image	0.2	0.7
Attending workshops and seminars sponsored by the government, local governments, NPOs, and industry groups	0.2	1.5
Requests from banks and creditors	0.0	0.3
Reading newspapers, magazines, books, etc.	0.0	0.2
Others	1.2	1.0
No response	5.8	11.9

Single choice response, n: 533 Large companies, 391 Medium-sized companies

Target: Companies that have, are in the process of formulating, or plan to formulate BCPs

Source: Formulated by Cabinet Office (Release of the Results of the FY2019 Fact-Finding Survey on Company Business Continuity and Disaster Preparedness Initiative)

Fig. 1-7-5 Status of Responses to BCP Review

	Large companies	Medium-sized companies
We review BCPs every year	37.1	29.7
We review BCPs on a regular basis, but not every year	36.0	36.1
We have reviewed BCPs (irregularly)	20.3	24.4
We do not review BCPs	4.2	5.3
Others	2.3	3.8
No response	0.0	0.6
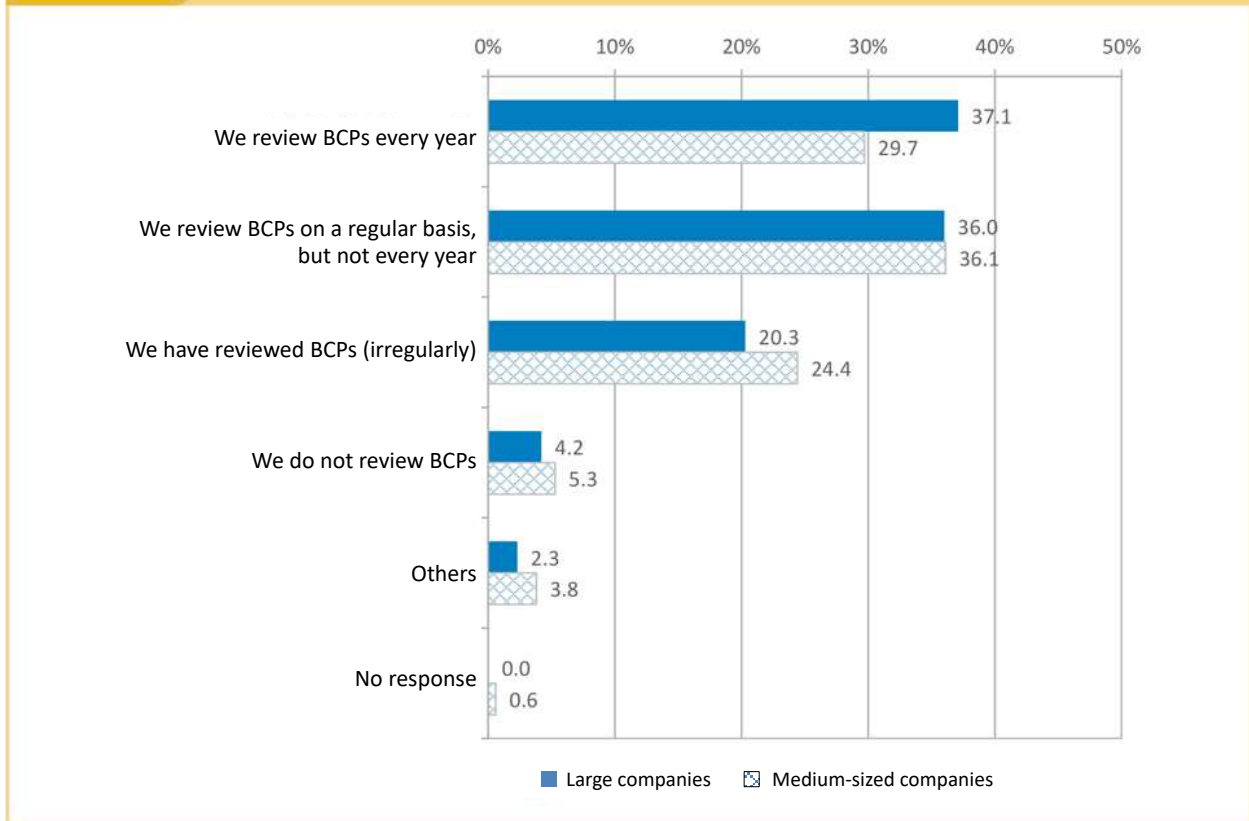
Single choice response, n: 384 Large companies, 177 Medium-sized companies
Target: Companies that have already formulated BCPs
Source: Formulated by Cabinet Office (Release of the Results of the FY2019 Fact-Finding Survey on Company Business Continuity and Disaster Preparedness Initiative)

Fig. 1-7-6 Responses to whether the BCP was helpful in the event of a disaster

Source: Formulated by Cabinet Office (Release of the Results of the FY2019 Fact-Finding Survey on Company Business Continuity and Disaster Preparedness Initiative)
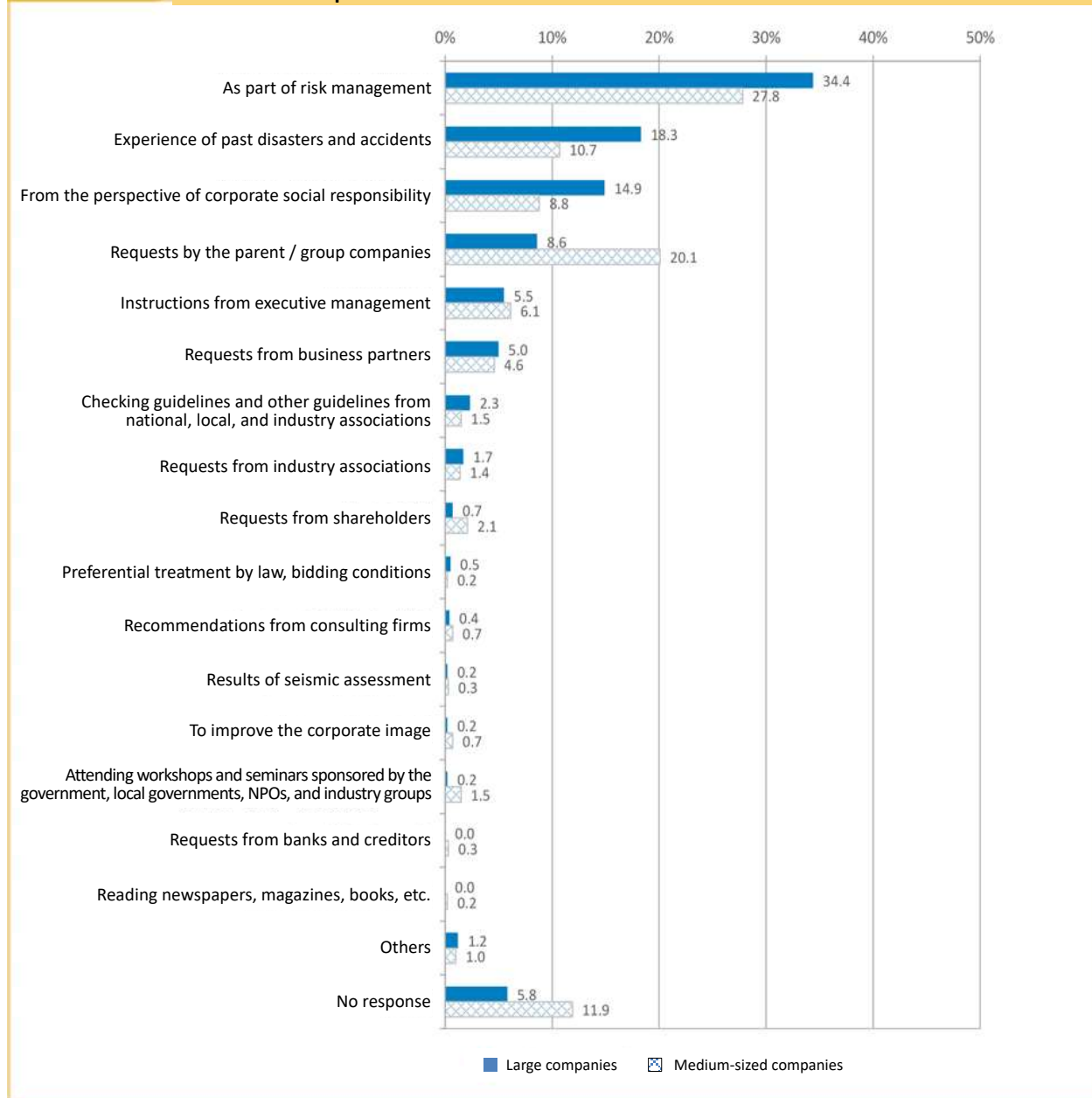
In addition, the respondents were asked about new initiatives they wanted to take in disaster response in future. Consequently, the most common response from large companies was to start or review drills (e.g. confirming the safety of employees, returning home, gathering together, etc.) (61.9%) and from medium-sized companies to ensure the safety of employees and their families (48.7%). The second most common response was "formulation and review of BCP" (59.8%) among large companies, while it was "awareness of possible risks and analysis of the impact on business" (47.7%) among medium-sized companies. The fourth most common answer (45.2%) was "formulation and review of the BCP" from among large companies. (Figure 1-7-7).

The Cabinet Office will continue to promote awareness to improve the rates of BCP development and promotion in companies, referring to the results of this survey.

Fig. 1-7-7	New initiatives for disaster response in the future (N=1,651)

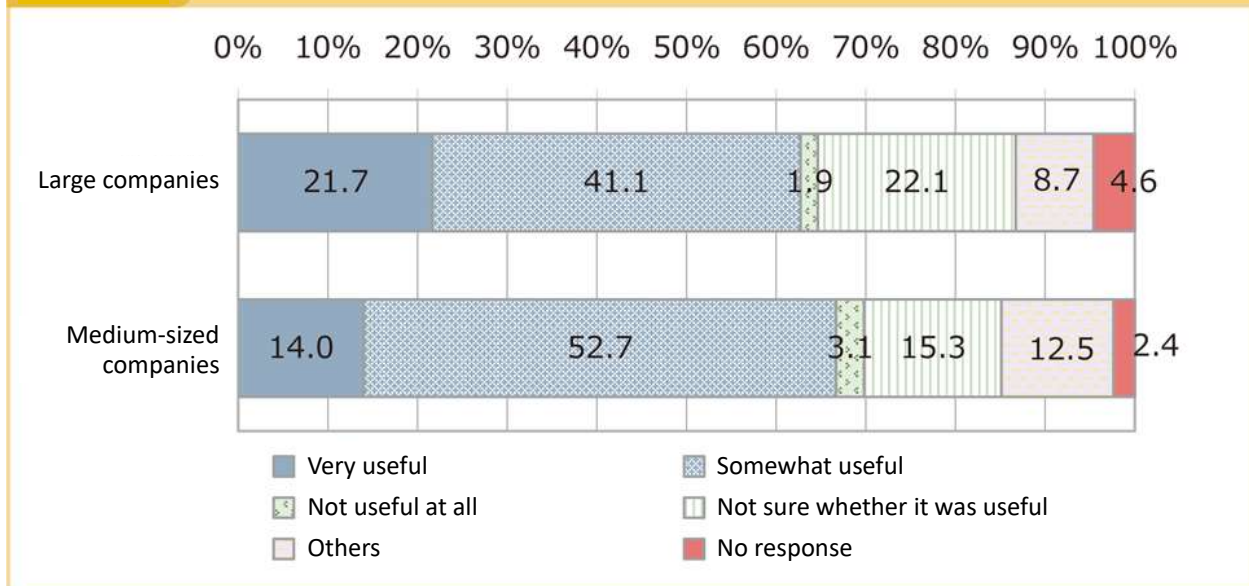| Initiative	Large companies	Medium-sized companies
Confirming the safety of employees, returning home, gathering together, etc.	61.9	45.0
Formulation and review of BCP	59.8	45.2
Purchasing or additional buying stockpiled goods (water, food, disaster supplies)	59.1	45.3
Identifying potential risks to your company and analyzing the impact on business operations	54.7	47.7
Ensuring the safety of employees and their families	54.6	48.7
Introducing electronic systems (including disaster applications, etc.) for safety confirmation and mutual communication	51.1	36.6
Clarifying safety procedures, evacuation methods, and evacuation routes for emergency evacuation	49.9	38.2
Formulating your company's basic risk response policy	49.7	43.4
Appointing a person in charge of disaster response and creating a disaster risk relief team	38.2	24.4
Purchasing an emergency generator	38.1	23.4
Installing disaster emergency radios and priority telephone links in disaster service (satellite phone)	34.2	15.4
Securing or preparing alternative facilities and buildings for head office functions and sales offices, etc.	34.1	18.6
Earthquake-proofing and seismic isolation work and seismic fixation of owned assets	34.0	19.2
Securing alternative suppliers, developing alternative sales outlets, collecting information, etc.	28.5	13.0
Encouraging employees to attend disaster prevention seminars periodically and to acquire disaster management-related qualifications (e.g., death due to a disaster) or establishing a subsidy system for employees	27.8	14.5
Securing the means of transportation for in-house products	21.4	9.5
Signing agreements (e.g., supply of substitutes and financial support, etc. in the event of a disaster)	18.5	9.2
None in particular	3.1	2.3
Others	1.3	0.8
No response	5.7	8.6

Multiple choice response, n: 554 Large companies, 518 Medium-sized companies
Target: All Companies
Source: Formulated by Cabinet Office (Release of the Results of the FY2019 Fact-Finding Survey on Company Business Continuity and Disaster Preparedness Initiative)
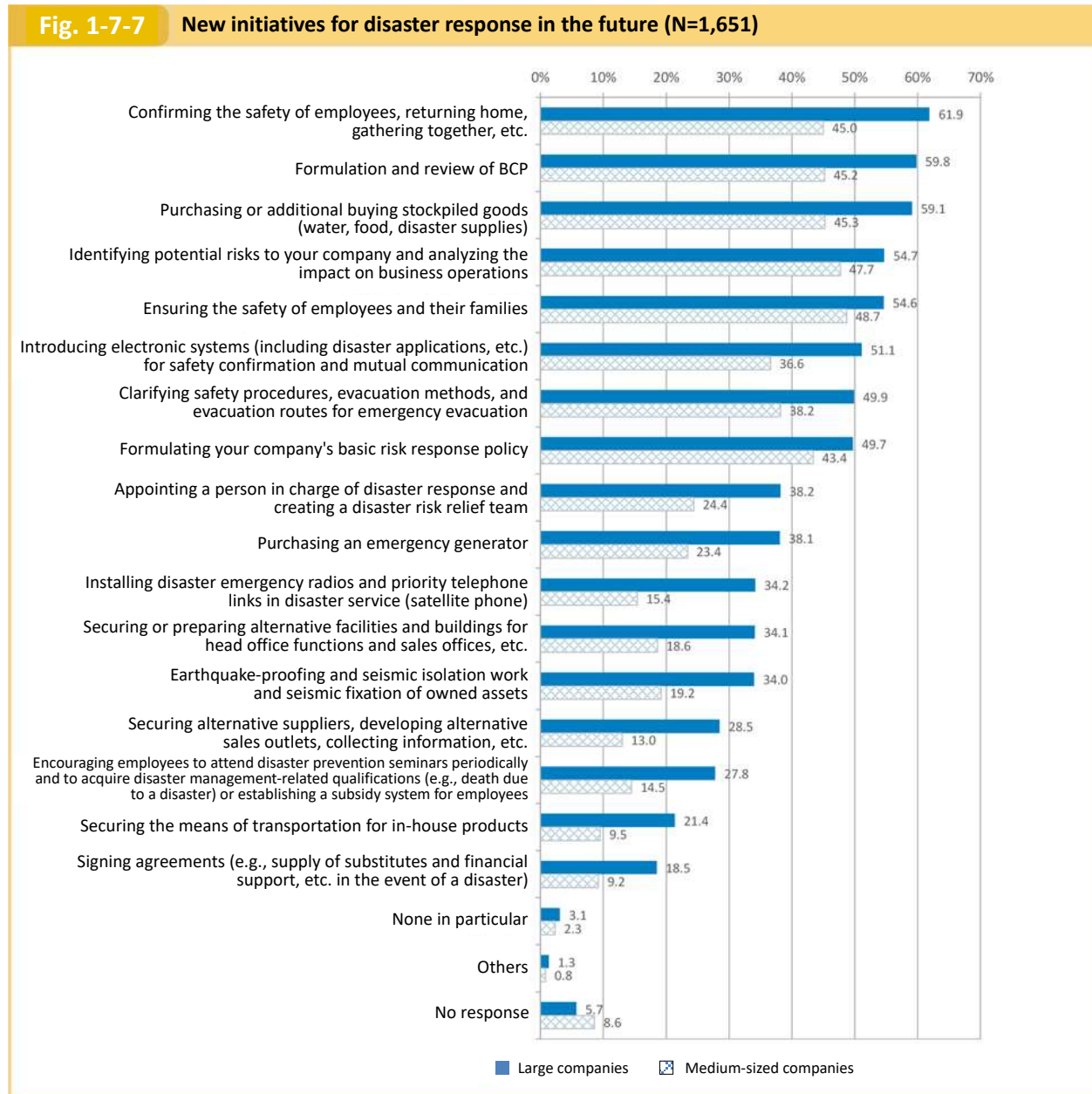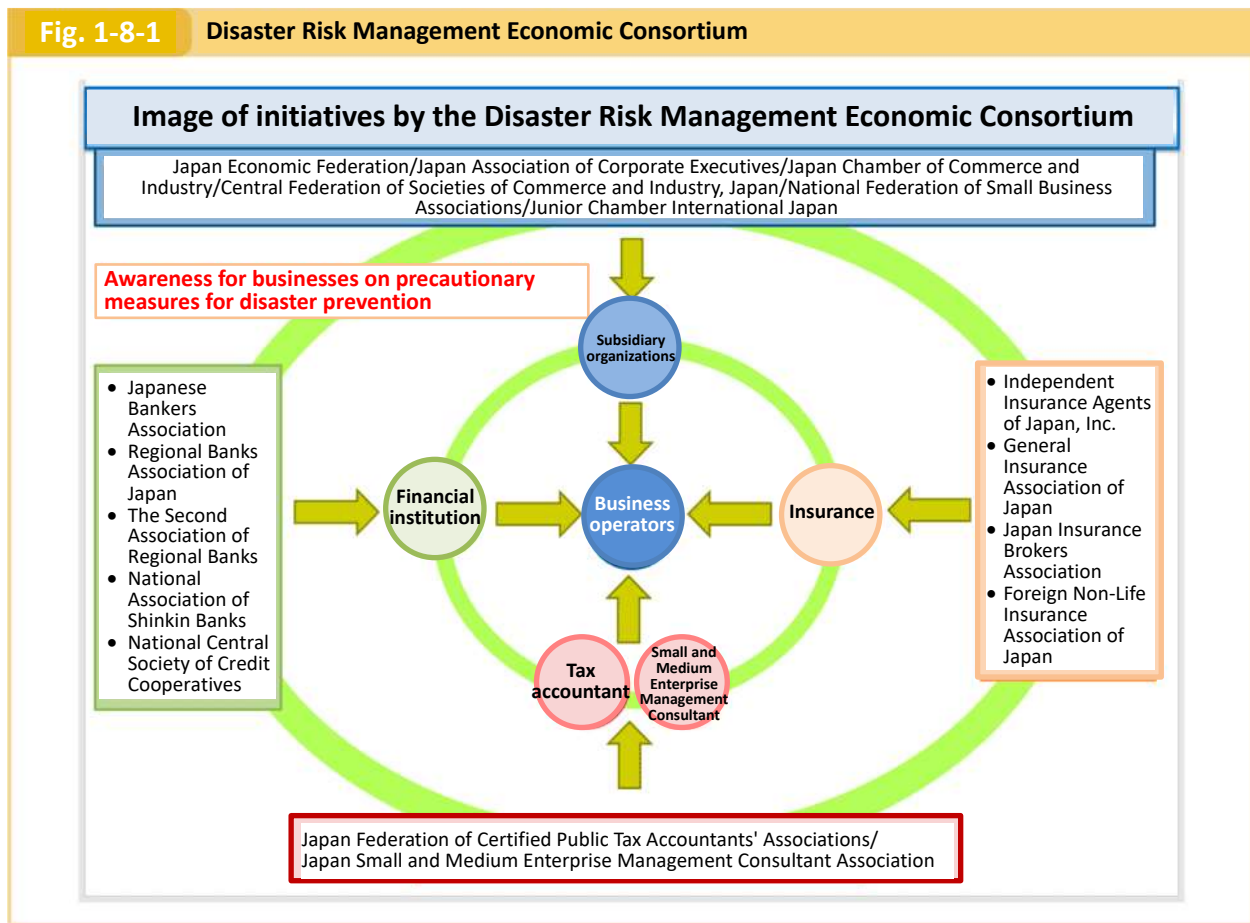
1-8 Partnerships with Private Sector

To improve the capability of disaster risk management in the entire society, private business operators must also improve their preparations for large-scale natural disasters. In this context, the Disaster Risk Management Economic Consortium was launched on March 23, 2018 to provide a venue for exchanging opinions and communicating with each other (Fig. 1-8-1).

The Cabinet Office promotes such private initiatives by sharing information under the framework of public-private collaboration. In FY2019, the Cabinet Office published a simulation of flood damage (losses estimation tool) on its website for corporate use.

(Reference: http://www.bousai.go.jp/kyoiku/consortium/index.html)

Fig. 1-8-1	Disaster Risk Management Economic Consortium

Image of initiatives by the Disaster Risk Management Economic Consortium

Japan Economic Federation/Japan Association of Corporate Executives/Japan Chamber of Commerce and Industry/Central Federation of Societies of Commerce and Industry, Japan/National Federation of Small Business Associations/Junior Chamber International Japan

Awareness for businesses on precautionary measures for disaster prevention

- Japanese Bankers Association
- Regional Banks Association of Japan
- The Second Association of Regional Banks
- National Association of Shinkin Banks
- National Central Society of Credit Cooperatives

Subsidiary organizations

Financial institution → Business operators ← Insurance

Tax accountant

Small and Medium Enterprise Management Consultant

- Independent Insurance Agents of Japan, Inc.
- General Insurance Association of Japan
- Japan Insurance Brokers Association
- Foreign Non-Life Insurance Association of Japan

Japan Federation of Certified Public Tax Accountants' Associations/ Japan Small and Medium Enterprise Management Consultant Association

Source: Cabinet Office

The Disaster Risk Management Economic Consortium issued the Principles of Disaster Risk Management Economic Action as the common concept of business operators on preparations for disasters (Figure 1-8-2).

In FY2019 the members of the 17 economic groups carried out awareness-raising activities to ensure that the Principles are known and understood by their subordinate groups. Also, two secretariat meetings were held for information sharing and interaction among the consortium members, information provision on disaster prevention from various government organizations, and presentations by experts.

Principles of Disaster Risk Management Economic Action

March 23, 2018
Disaster Management Economic Consortium

[Preface]

Since Japan is prone to natural disasters, it is important for business operators to make decisions aware that disaster risk management is what underpins business management. For large scale disasters in particular, it is critical for business operators to make preparations as described in (1) to (4) below based on self-help and mutual support approaches because of the limitations of public support.

(1) Business operators adequately recognize and determine disaster risks on their own.

(2) Business operators take measures against disasters using effective disaster risk management by combining risk control (seismic retrofitting, BCP measures, etc.) and risk finance (purchase of insurance, loans, cash holding, etc.) depending on the recognized disaster risks.

(3) Business operators raise awareness among their executives and employees on disaster management through disaster management education to make proactive activities possible.

(4) Business operators ensure collaboration and communication with their business partners essential for their business management such as financial institutions, employers' associations and other related organizations, and take self-help and mutual support-based disaster management measures.

The Principles of Disaster Risk Management Economic Action must be respected in the activities of consortium members to boost disaster risk management capability across society by making self-help and mutual support-based preparations.

[Principles of Disaster Risk Management Economic Action]

1. The members of the Disaster Risk Management Economic Consortium must strive to achieve the preparations (1) to (4) as described in the Preface.

2. The members of the Disaster Risk Management Economic Consortium must strive to the improve disaster risk management capability across the entire society by sharing as much insight as possible and distributing information to business operators.

3. The members of the Disaster Risk Management Economic Consortium must strive to promote public awareness and education to improve the disaster risk management capability of business operators by employing ingenuity, according to the characteristics of the industries to which the members belong.

End.

Source: Cabinet Office website
(Reference: http://www.bousai.go.jp/kyoiku/consortium/index.html)

1-9 Initiatives by Academic Communities

A wide range of research is being conducted in Japan on the subject of disaster risk management, including hazards such as earthquakes, tsunamis, volcanoes, and meteorological phenomena; civil engineering; buildings; seismic proof structures; emergency medical care; environmental health and other medical care and hygiene issues; geography; history and other aspects of human life; information; and energy. The Great East Japan Earthquake led to an awareness that disaster risk management and mitigation research from a comprehensive

perspective that integrated all these fields is essential, giving rise to a need for interdisciplinary collaboration through information sharing and interaction with other fields across the boundaries of different specialisms. Accordingly, following discussions with the Science Council of Japan and various other relevant academic societies, the Japan Academic Network for Disaster Reduction (JANDR) was established to serve as a network of academic societies involved in disaster risk management, mitigation, and reconstruction. The network comprised 47 academic societies among its membership at the time of its launch in January 2016, but this figure had grown to 57 by the end of March 2020.

With an aim to strengthen pre-disaster and emergency collaboration between academia and the government, the JANDR held the first Liaison Conference on Disaster Risk Management among the Science Council of Japan, Academic Societies, and Government Ministries and Agencies in June, 2018, which was participated by 56 member academic societies, the JANDR, Science Council of Japan (SCJ), and the representatives of ministries and agencies engaged in DRR. In the 2nd Liaison Conference in June 2019, cooperation to facilitate medical and nursing activities after disaster was discussed. In December 2019, an Emergency Briefing Session on the East Japan Typhoon No. 19 was held and the results of the investigation on Typhoon Hagibis (1919) in 2019 were shared among the societies.

Second Liaison Conference on Disaster Risk Management among the Science Council of Japan, Academic Societies, and Government Ministries and Agencies

1-10 Initiatives from the Perspective of Gender Equality

In the Fourth Basic Plan for Gender Equality (approved by the Cabinet on December 25, 2015) and the Basic Plan for DRR (approved by the National Disaster Management Council on February 16, 2016), the Cabinet Office has specified that the different needs of men and women should be taken into consideration in all aspects of disaster risk management including prevention, emergency response, and recovery and reconstruction. Moreover, these plans call for promoting women's participation in decision-making process in disaster planning

and reconstruction. (Figs. 1-10-1 to 1-10-3).

Various problems emerged in the Great East Japan Earthquake due to insufficient consideration of stockpiling and provision of supplies and the shelter operation. Among the issues raised were the lack of specific supplies for women and a failure to provide breastfeeding or changing places. From these circumstances, the Cabinet Office consolidated "Guidelines for disaster planning, response and reconstruction for a gender-equal perspective" based on past experiences in responding to disasters, such as the Great East Japan Earthquake. Serving as a basic set of guidelines for local governments in their efforts to take necessary measures and responses from the perspective of gender equality, these are shared with local governments and related agencies and organizations.

In accordance with these guidelines, the Cabinet Office has been encouraged local governments to increase the proportion of female members in local disaster management councils in normal times, to reflect the perspective of gender equality in the preparation and revision of local disaster management plans, and to take measures such as shelter operation from the perspective of gender equality in the event of a large-scale disaster. The use of the guidelines was again notified prior to the approach of Typhoon Hagibis (1919) in 2019.

In October 2019, a study group comprising experts (Study Group on Disaster Prevention and Recovery Efforts from a Gender-Equal Perspective) was held to revise the guidelines to reflect lessons learned, challenges and initiatives from the perspective of gender equality, focusing on disasters that have occurred since the guidelines were created.

In the study, interviews were held with a total of 47 organizations nationwide regarding their recovery efforts after the Great East Japan Earthquake, their disaster responses to major disasters from the Kumamoto Earthquake in 2008 to Faxai and Hagibis Typhoons in 2019, and their measures to prepare for future large-scale disasters.

Based on the results of the interviews, the study group released a summary of the discussion in March 2020, consisting of recommendations and a new draft guideline as an annex.

Fig. 1-10-1　Female Member in Local Disaster Management Councils
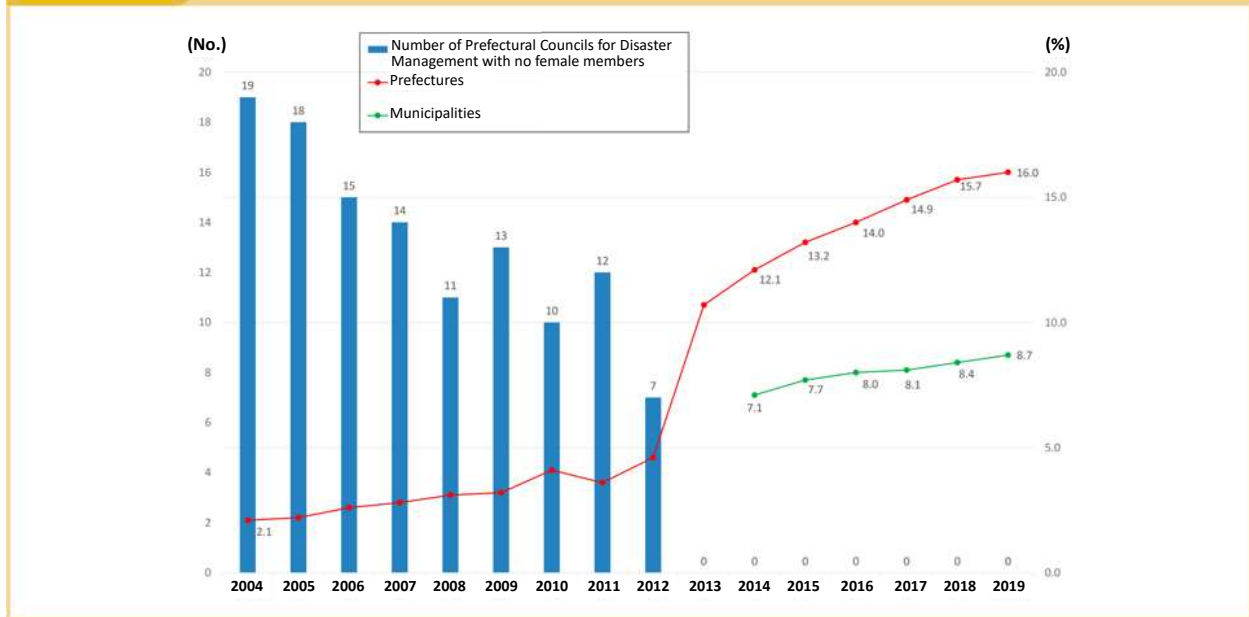
Note: Following its revision in June 2012, the Basic Act on Disaster Management specified that members of voluntary disaster management organizations and/or individuals with a relevant academic background should be added to the membership of the Local Disaster Management Council in addition to the staff of disaster management organizations who are already ex officio members, to reflect the views of a more diverse range of bodies in preparing the Local Plans for DRR and similar.

Notes: 1. Figures for April 1 each year, in principle.

2. Due to the impact of the Great East Japan Earthquake, figures for 2011 do not include parts of Iwate Prefecture (Hanamaki City, Rikuzentakata City, Kamaishi City, Otsuchi Town), Miyagi Prefecture (Onagawa Town, Minamisanriku Town) and Fukushima Prefecture (Minamisoma City, Shimogo Town, Hirono Town, Naraha Town, Tomioka Town, Okuma Town, Futaba Town, Namie Town, Iitate Village), while figures for 2012 do not include parts of Fukushima Prefecture (Kawauchi Village, Katsurao Village and Iitate Village).

Source: Compiled from Cabinet Office, Progress of Local Government Measures Focused on Women or the Promotion of a Gender-Equal Society

Fig. 1-10-2

Fig. 1-10-2 **Female Member in Prefectural Councils for Disaster Management**

Prefecture	Total No. of members	No. of female members	Percentage of female (%)			Prefecture	Total No. of members	No. of female members	Percentage of female (%)
Tokushima	81	39	48.1	40% or more, 3 councils		Yamanashi	64	6	9.4
Shimane	73	34	46.6			Shizuoka	58	5	8.6
Tottori	65	28	43.1			Osaka	58	5	8.6
Saga	70	18	25.7	20% - 30%, 5 councils		Mie	60	5	8.3
Kanagawa	57	13	22.8			Ehime	61	5	8.2
Niigata	72	16	22.2			Miyazaki	53	4	7.5
Kyoto	66	14	21.2			Hokkaido	68	5	7.4
Shiga	59	12	20.3			Aichi	68	5	7.4
Nagano	77	15	19.5			Hiroshima	59	4	6.8
Tochigi	52	10	19.2			Akita	60	4	6.7
Nagasaki	68	13	19.1			Fukuoka	61	4	6.6
Iwate	76	14	18.4			Fukui	56	3	5.4
Saitama	69	12	17.4			Total	2,904	466	16.0
Aomori	59	10	16.9						
Toyama	67	11	16.4						
Gifu	61	10	16.4						
Miyagi	58	9	15.5						
Okayama	58	9	15.5						
Chiba	52	8	15.4						
Tokyo	73	11	15.1						
Fukushima	54	8	14.8	10% - 20%, 27 councils					
Hyogo	56	8	14.3						
Kagawa	60	8	13.3						
Okinawa	54	7	13.0						
Yamagata	62	8	12.9						
Gunma	47	6	12.8						
Wakayama	55	7	12.7						
Kochi	58	7	12.1						
Ibaraki	51	6	11.8						
Yamaguchi	60	7	11.7						
Nara	61	7	11.5						
Kagoshima	63	7	11.1						
Kumamoto	56	6	10.7						
Oita	58	6	10.3						
Ishikawa	70	7	10.0						

10% or less, 12 councils

(Note) 1. Formulated based on the Progress of Local Government Measures Focused on Women or the Promotion of a Gender-Equal Society (FY2019) (Cabinet Office).
2. The data is as of April 1, 2019, in principle. However, the date may vary depending on the situation of each local government.
3. The percentage of females is rounded to the nearest tenth.
4. Some islands are omitted for editorial reasons.

Source: Formulated from the Progress of Local Government Measures Focused on Women or the Promotion of a Gender-Equal Society (2019) by the Cabinet Office

Fig. 1-10-3 **Targets for Prefectural Councils for Disaster Management and Municipal Councils for Disaster Management in the Fourth Basic Plan for Gender Equality**

Item	Current	Target (Deadline)
Female Representation in Prefectural Councils for Disaster Management	13.2% (2015)	30% (2020)
Female Representation in Municipal Councils for Disaster Management	・Number of bodies with no female as members: 515 (2014) ・Female as a proportion of the membership: 7.7% (2015)	・Number of bodies with no female as members: 0 (2020) ・Female as a proportion of the membership: 10% (ASAP), aiming for 30% in due course (2020)

Source: Formulated by the Cabinet Office from the Fourth Basic Plan for Gender Equality

Column: Female Disaster Prevention Leaders Fostered by Local Communities (Equal-Net Sendai and Kita Sendai Area Neighborhood Association)

Equal-Net Sendai, an NPO, launched a three-year training course in Sendai City in 2013 to train women who will be responsible for local disaster prevention. The NPO provides the necessary know-how and financial support for the course, as well as a mechanism for course graduates to be involved in managing the following year's course and establish a network connecting each region. It also provides support for the candidates trained in the course until they have a place to work and become active in the community. At present, each of the established networks is working independently in collaboration with local organizations, which also provides opportunities for them to be appointed to decision-making positions related to disaster prevention.

These efforts led to the implementation of the "Female Disaster Prevention Leader Training Course" as part of the community development project in 2017 at the Kita Sendai Area Neighborhood Association in Aoba Ward, Sendai City, Miyagi Prefecture. Neighborhood associations belonging to the Kita Sendai Area Neighborhood Association recommend participants, mainly women who are active in the PTA or children's associations and the goal is to train 100 persons in three years. Participants in this course are requested to be appointed by their respective town chairmen as secretaries of the Kita Sendai Area Disaster-Prevention Council. They are required to become members of the Kita Sendai Women's Disaster Prevention Network and continue their activities. A system is in place to ensure that the trained female disaster prevention leaders are linked to local disaster-prevention activities.

(Left) Female Disaster Prevention Leader Training Course
(Middle) Workshop on Toilet Issues at Evacuation Shelters (for local residents)
(Right) Let's make it together! Evacuation Shelter Design Workshop (for elementary and junior high school students)