

Part I. Status of Disaster Management Measures in Japan

Japan is prone to various types of natural disasters due to its natural conditions, and many disasters occurred in FY2022, including heavy rains in August and Typhoons Nanmadol and Talas in 2022. Part 1 discusses recent disaster management measures, particularly those intensively conducted in FY2022.

Chapter 1. Status of Initiatives for Disaster Management Measures

Section 1. Promotion of Disaster Risk Reduction in Advance through Self-Help and Mutual Support and Disaster Risk Reduction Activities through Collaboration Among Diverse Actors

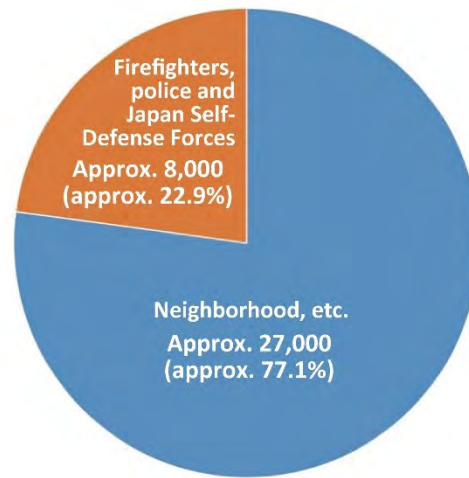
1-1 Raising Public Awareness of Disaster Risk Reduction

Japan has traditionally experienced many natural disasters due to its topography, weather, and other natural conditions. Therefore, in order to prepare for the eventuality of a disaster, our country takes structural measures to prevent or mitigate damage from disasters, such as the construction of embankments and improvement of earthquake resistance capacities during the ordinal period, and non-structural measures as well to realize appropriate actions in the event of a disaster, such as hazard mapping and education for disaster risk reduction. When a disaster strikes, the government of Japan continues to provide "public support" in many forms. This includes rescue and lifesaving measures for affected people immediately after the disaster strikes and dispatching national and local government officials to the affected areas to provide personnel support. This public support also covers providing push-type support to transport relief supplies to shelters and evacuees without waiting for a request from the affected areas, and providing financial support through designation as a Disaster of Extreme Severity and the "Act on Support for Reconstructing Livelihoods of Disaster Victims."

However, there are concerns about the limits of public support in the event of large-scale and wide-area disasters, such as Nankai Trough Earthquake, Megaquake in the Vicinity of the Japan and Chishima Trenches, or meteorological disasters that have become more severe and frequent in recent years.

After Great Hanshin-Awaji Earthquake, about 80% of those buried alive were rescued by "self-help" including family members and "mutual support" by neighbors, and only about 20% were rescued by "public support" such as rescue teams (Fig. 1-1-1).

The environment for local governments is getting severe since the areas under their jurisdiction have widened due to municipal mergers, and the number of local government officials has decreased, while the number of persons requiring special care in an aging society is increasing. Therefore, it is important for each citizen to view disasters as "their own matter" rather than "someone else's matter," to raise their awareness of disaster prevention and mitigation, and to take concrete actions to build a community that fosters a disaster awareness of "protecting one's own life" and "helping among local residents."

Fig. 1-1-1**The Number of Rescuers and Those who were rescued in the Great Hanshin-Awaji Earthquake**

Source: prepared by the Cabinet Office (published in the 2008 edition of the White Paper on Disaster Management, Special Feature on "Future Disaster Management"), data taken from Kawata Yoshiaki's "Prediction of Loss of Human Lives Due to Large-Scale Earthquake Disaster" Natural Science and Technology, Vol. 16, No. 1,(1997).

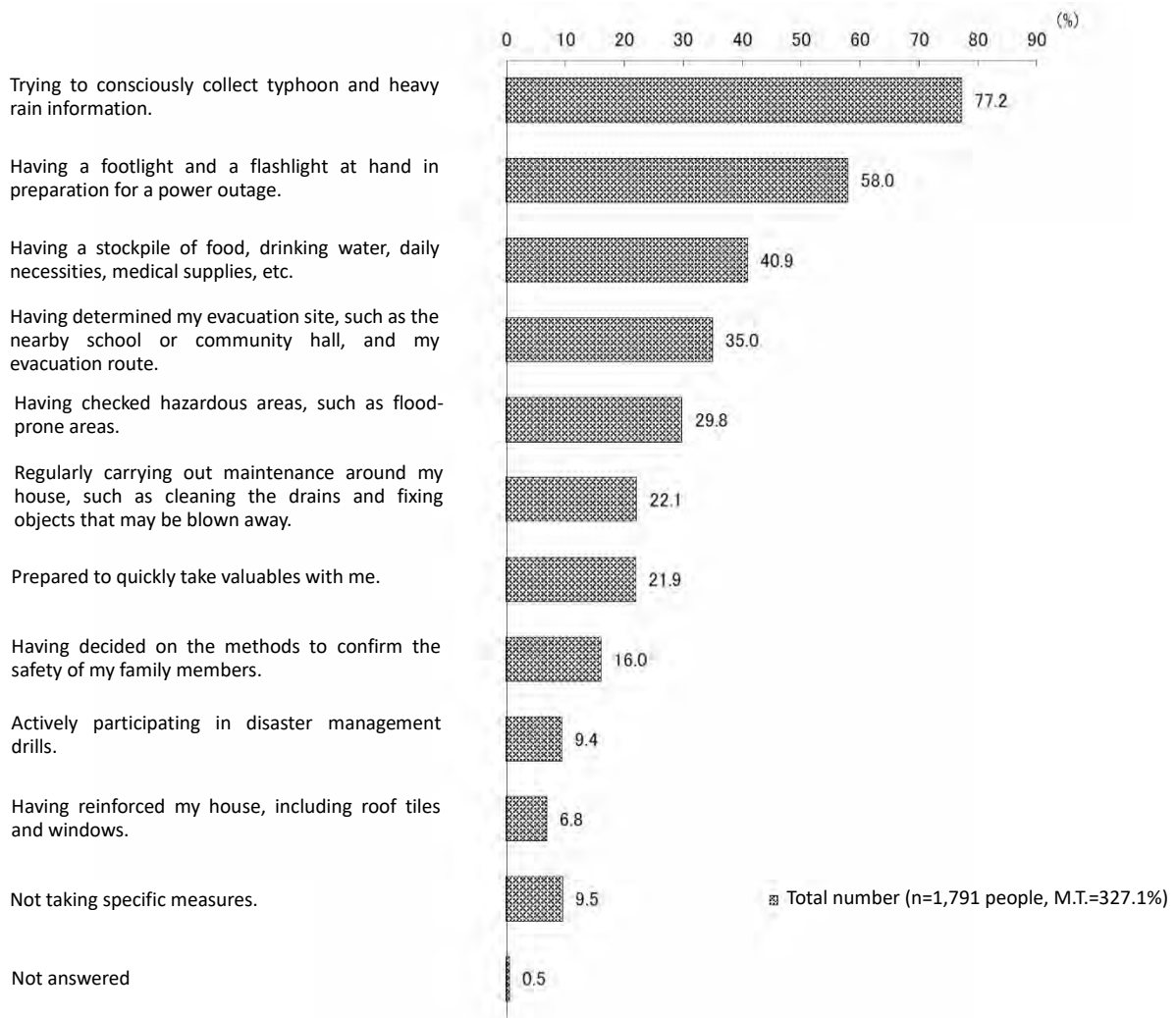
Specific actions for disaster prevention and mitigation may include, first of all, "self-help," such as understanding the disaster risks in the community, "preparing" in advance by securing furniture and stockpiling food and other supplies, and participating in evacuation drills to be prepared to take appropriate evacuation actions. In addition, it is necessary to make efforts to mitigate damage from disasters through "mutual support," such as neighbors helping each other at the time of a disaster.

According to the results of the "Public Opinion Survey of Disaster Management," which was conducted by the Cabinet Office in September 2022, the situation regarding people's efforts for earthquake countermeasures, as well as their awareness of the importance of self-help and concrete countermeasures, is as explained in Special Feature 1, Chapter 2, Section 4, "Changes in People's Disaster Management Awareness, and Progress in Self-Help and Mutual Support Initiatives." The most common measures, which were taken in preparation for typhoons and heavy rains, were "consciously collecting typhoon information" (77.2%), "preparing footlights, flashlights, etc." (58.0%), "stockpiling food, drinking water, medicines, etc." (40.9%), and "predetermining an evacuation site and route" (35.0%) (Fig. 1-1-2).

The status of "mutual support" efforts is also as described in Special Feature 1, Chapter 2, Section 4.

(Reference : <https://survey.gov-online.go.jp/r04/r04-bousai/index.html>)

Fig. 1-1-2 Measures to prepare for a storm and flood disaster (multiple answers allowed)



Source: "Public Opinion Survey of Disaster Management," prepared by the Cabinet Office (Survey in September 2022)

Although administrations make constant efforts to enrich "public support," it is getting more difficult to prevent disasters with only structural measures such as existing disaster prevention facilities and non-structural measures led by the administrations against sudden and severe disasters. This is due to the severe and frequent occurrence of meteorological disasters caused by global warming and the increase in the number of elderly people who need support in an aging society. It is necessary not only to maintain disaster risk management mainly by the administrations, but also to shift to the policies that focus on residents' "self-help" and "mutual support" based on a common understanding among the entire nation. Currently, as the disaster resilience differs depending on regions, there is a need to build a society that can effectively respond to disasters by developing nationwide measures of "local communities" that are highly aware of disaster risk reduction.

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

The "National Council for Promoting Disaster Risk Reduction" consists of experts from various fields such as six local administrative associations, the business community, the educational community, and the medical and

welfare sectors. It was established in 2015 and has been promoting public relations in cooperation with the National Disaster Management Council, involving various sectors in exchanging information and opinions and collaboration.

(1) National Conference on Promoting Disaster Risk Reduction (Bosai-Kokutai) 2022

The "National Conference on Promoting Disaster Risk Reduction (Bosai-Kokutai) 2022" was held from October 22 to 23, 2022 in Kobe City, Hyogo Prefecture. This conference was collaboratively hosted by the Cabinet Office, the National Council for Promoting Disaster Risk Reduction, and the Council for Promoting Disaster Risk Reduction (an organization consisting of industry groups which work to promote a national movement for disaster mitigation). The theme of the National Conference on Promoting Disaster Risk Reduction was "Disaster Experiences and Lessons for the Future — Never Forget, Pass on, Utilize, and Prepare," and it aimed to provide an opportunity to reaffirm the importance of passing on disaster experiences and lessons to future generations and to emphasize the importance of each of us working on disaster management on a daily basis.

At its opening, Mr. Tani, Minister of State for Disaster Management, gave an opening address on behalf of the organizers, saying, "I hope this national conference becomes a catalyst for new encounters and connections, spreading the circle of disaster management throughout Japan and further contributing to strengthening the nation's disaster management capabilities." After that, Mr. Seike, chairperson of the National Council for Promoting Disaster Risk Reduction (and president of the Japanese Red Cross Society) gave a speech as the organizer, and Mr. Saito, the governor of Hyogo Prefecture, and Mr. Hisamoto, the mayor of Kobe City, gave speeches as representatives of the venue. In the opening discussion held under the theme of "Lessons Learned and Disaster Management Education for the Future," the participants exchanged opinions on what lessons should be learned from past major disasters, such as the Great Hanshin-Awaji Earthquake, and how to pass them on to the next generation through discussions on how communities and schools should cooperate in disaster management education and how to provide disaster management education for young children. In the high-level session hosted by the Cabinet Office with the theme of "Large Disasters and Me — Disaster Experiences and Lessons Passed on by Top Leaders," prominent figures representing the venue and various sectors in Japan and overseas, including the governor of Hyogo Prefecture, the mayor of Kobe City, and Ms. Mizutori, the Special Representative of the United Nations Secretary-General for Disaster Risk Reduction and head of the United Nations Office for Disaster Risk Reduction (UNDRR), shared their personal disaster experiences and their disaster management priorities from their respective positions, and they also looked ahead to the future.

In addition, various groups from governments, public interest groups, academia, the private sector, and NPOs held topical sessions to discuss lessons learned from disasters and the increasingly important self-help and mutual support efforts. Workshops were also held where various disaster management actors from across the country gathered to share examples of their daily disaster management and mitigation efforts, as well as related concerns and issues. Moreover, there were presentation and poster sessions at booths, an Ignite Stage where exhibiting organizations presented their initiatives on stage for the first time in this series of event, as well as outdoor exhibitions featuring vehicles. A total of 319 organizations introduced their disaster management and mitigation activities.

In the closing remarks, Mr. Akimoto, Vice-Chairman of the National Council for Promoting Disaster Risk Reduction (President of the Japan Firefighters Association), delivered the host address, and Mr. Kawata, Executive

Director of the Great Hanshin-Awaji Earthquake Memorial Disaster Reduction and Human Renovation Institution, gave a summary of the conference, and reported on the “Local Planning and Information Sharing Meeting,” an initiative to prepare for an exhibition in the host prefecture Hyogo. In addition, a video message was received from Mr. Kuroiwa, the Governor of the next host prefecture Kanagawa. State Minister of Cabinet Office, Mr. Hoshino thanked the participants and expressed his expectations for the next conference. The conference was attended by approximately 12,000 people on-site and viewed 11,000 times online. This conference confirmed the importance of increasing the disaster resilience of the country as a whole through not only "public support" by the government(s), but also "self-help;" each citizen gains preparedness against disaster with the awareness that they must protect their own lives, and "mutual support;" communities, schools, businesses and volunteers help each other.



Opening remarks by Minister of State for Disaster Management Tani



Host address by Chairperson Seike (opening)



Opening discussion



High level session



Session by IRDR, Sub-committee of the Science Council of Japan



Host address by Vice-Chairperson Akimoto (Closing Remarks)

(2) The 8th National Council for Promoting Disaster Risk Reduction

The 8th National Council for Promoting Disaster Risk Reduction was held in the Grand Hall, Prime Minister's Office of Japan on December 14, 2022. At the beginning of the meeting, Prime Minister Kishida expressed his appreciation for the efforts of the member organizations of the National Council for Promoting Disaster Risk Reduction and then he noted his expectations for the plenary session saying, "As disasters become more frequent and severe, it is important for each and every citizen to raise their disaster management awareness, such as checking their daily preparations, and to enhance Japan's disaster resilience." Since 2023 marks the 100th anniversary of the Great Kanto Earthquake, with various initiatives planned in many places, he also expressed his hope for receiving even greater cooperation from the affiliated bodies of the National Council for Promoting Disaster Risk Reduction.

Following this, reports on activities such as the "National Conference on Promoting Disaster Risk Reduction (Bosai Kokutai) 2022" were shared, and the National Governors' Association and the Japan Voluntary Organizations Active in Disaster (JVOAD) introduced their efforts to raise awareness of disaster risk reduction through self-help and mutual support.



The 8th National Council for Promoting Disaster Risk Reduction
(Attended by Prime Minister Kishida)

The Council also confirmed its policy of actively conducting awareness-raising activities and related events in light of the 100th anniversary of the Great Kanto Earthquake. The Cabinet Office called for the use of the common logo mark for the "100th Anniversary of the Great Kanto Earthquake" in events by the national government, local governments, and private organizations. The Cabinet Office has set up the special website page "100th Anniversary of the Great Kanto Earthquake," which includes an overview of the earthquake and related events.



Common logo mark for "100th Anniversary of the Great Kanto Earthquake"
"The 100th Anniversary of the Great Kanto Earthquake" Special website

1-3 Measures on Disaster Management Drill and Disaster Risk Reduction Education

In the event of a disaster, as national government agencies, local governments, and other public corporations,

and other disaster management-related organizations must work in unison to take appropriate measures in cooperation with residents, it is important for the related organizations to make disaster risk reduction efforts such as drills in cooperation with each other from ordinary times. Therefore, in accordance with the "Basic Act on Disaster Management," the Basic Disaster Management Plan and other various regulations, disaster management-related organizations are required to conduct disaster drills to verify and confirm emergency countermeasures in the event of a disaster, and to raise disaster risk reduction awareness among residents.

In FY2022, based on the "FY2022 Comprehensive Disaster Management Drill Framework" (decided by the National Disaster Management Council on June 17, 2022), which stipulates the basic policy for conducting disaster risk reduction drills and comprehensive disaster management drills by the government, the following various drills were conducted.

(1) "Disaster Preparedness Day" Comprehensive Disaster Management Drill

On September 1, 2022, Disaster Preparedness Day, a government headquarters operation drill was conducted under the assumption in the immediate aftermath of the earthquake, taking COVID-19 countermeasures into consideration. First, Prime Minister Kishida and other cabinet members gathered on foot at the Prime Minister's Office to conduct a drill for operating the Extreme Disaster Management Headquarters meeting. At the same meeting, the Council ascertained the state of damages and requests for assistance through videoconference with Aichi Governor Omura received reports on the damage and response from each cabinet minister, confirmed the policy for responding to the situation by putting human lives first. With these steps and more, the Council secured a system for implementing emergency countermeasures immediately after the earthquake and confirmed procedures in cooperation with local governments. After the meeting, Prime Minister Kishida held a press conference to urge the public via NHK to take actions to protect their lives and sent out the message that a "Nankai Trough Earthquake Extra Information (mega-earthquake alert)" had been issued and that people should be prepared to evacuate immediately if they feel any tremors in the next seven days. Additionally, the government conducted training for procedures necessary to set up an Extreme Disaster Management Headquarters and declare an emergency.

On the same day, a joint disaster management drill involving nine prefectures and cities was held, with Chiba City, Chiba Prefecture, as the main venue, and Prime Minister Kishida and related cabinet members participated in on-site survey training. Prime Minister Kishida observed a rescue drill by the fire department, police, and Self-Defense Forces, and he experienced a simulated earthquake using a disaster management promotion vehicle (VR seismic simulation vehicle), observed the preparation of a disaster risk management map, and watched the installation of partitions for cardboard beds.



Government Headquarters Operation Training



On-site survey training in collaboration with 9 prefectures and cities' joint disaster management drill

(Source: Prime Minister's Office website)

(2) Government tabletop exercises

In December 2022, Extreme Disaster Management Headquarters operation drill (Cabinet Office (Central Government Bldg. No. 8)) was conducted in cooperation with On-site Extreme Disaster Management Headquarters drill (Main Wide-area Disaster Management Base Facility in the Tokyo Bay Waterfront (Ariake Hill)) on the assumption of a Tokyo Inland Earthquake. In this drill, officials from relevant government ministries and agencies, as well as from Tokyo, Saitama, Chiba, and Kanagawa Prefectures assembled and conducted an on-site situation-setting drill simulating an actual disaster and a discussion-type drill to discuss issues that require collaboration among related organizations in the event of a disaster.



Extreme Disaster Management Headquarters Operation Drill assuming Tokyo Inland Earthquake



Extreme Disaster Management Headquarters Operation Drill assuming Nankai Trough Earthquake (Kyusyu)

In the regional block drills, in cooperation with prefectures that are considered to be affected, On-site Extreme Disaster Management Headquarters drills were conducted on the assumption of a Nankai Trough Earthquake. Site situation-setting and discussion-based drills were conducted with concerned parties assembling at the sites of Kinki region (Osaka City) in November 2022, Kyushu region (Kumamoto City) in December 2022, and Chubu region (Nagoya City) in February 2023.

These drills improved the knowledge and skills of relevant government officials and strengthened cooperation with related agencies, and based on these drills, the effectiveness of the emergency countermeasures stipulated in the various plans and manuals was verified.

Furthermore, in June 2022, a drill was conducted for the operation of the Relief Goods Procurement and Transport Coordination Support System and for opening the relief supply bases. In this drill, officials from related ministries and agencies, local government officials, and other participants checked the relief supply bases and

requested and distributed relief supplies using the online Relief Goods Procurement and Transport Coordination Support System.

(3) Disaster Risk Reduction Education

In order for all citizens to protect their own lives during disasters, it is extremely important for each citizen to be able to take appropriate actions in the event of a disaster. For this reason, it is necessary to implement practical disaster risk reduction education throughout the country so that people, from as early as their childhood, can acquire the necessary disaster management knowledge and proactive disaster management actions.

The government, therefore, is promoting the following initiatives based on the "Third Plan for Promoting School Safety," which was approved by the Cabinet in March 2022:

- Develop and disseminate a new disaster risk reduction education guide taking into account developmental stages so that all schools nationwide can provide practical disaster risk reduction education and evacuation drills that teach local disaster risks, normalcy biases, and other necessary knowledge.
- Prepare teaching materials and data that are easy to use in schools and disseminate them. Especially regarding disaster risk reduction education from early childhood, education materials for young children, including a template for communicating information and raising awareness at home, should be developed to enhance disaster risk reduction education for parents and young children.
- Conduct regular and specific assessments of disaster risk reduction education in schools nationwide, including the status of implementation of practical evacuation drills and their reviews, set key indicators, and publicly announce the findings.

In FY2022, the Ministry of Education, Culture, Sports, Science and Technology created guidelines for disaster risk reduction education for elementary school teachers, and the Cabinet Office created guidelines for promoting disaster risk reduction education in collaboration with communities and schools.

1-4 Measures for Tsunami Disaster Prevention

(1) Evacuation Drills against Tsunami

Mainly during the period before and after "Tsunami Disaster Prevention Day (November 5)" in FY2022, disaster drills against earthquake and tsunami were held nationwide by the national government, local governments, and private companies with approximately 1.95 million people participating.

Mainly during the period mentioned above, the Cabinet Office collaborated with local governments and implemented drills with the participation of residents in 11 places nationwide (Nemuro City, Hokkaido Prefecture; Sakata City, Yamagata Prefecture; Kitaibaraki City, Ibaraki Prefecture; Hiratsuka City, Kanagawa Prefecture; Kakegawa City, Shizuoka Prefecture; Tokoname City, Aichi Prefecture; Nachikatsuura Town, Wakayama Prefecture; Fukuyama City, Hiroshima Prefecture; Tokushima City, Tokushima Prefecture; Saijo City, Ehime Prefecture, Naha City, Okinawa Prefecture). These drills included drills to protect oneself in the event of an earthquake (shakeout drills) and drills to evacuate from a tsunami after the shaking subsides (tsunami evacuation drills) as well as drills to confirm safety, set up shelters and operate them according to the local disaster management plan. A workshop was held before and after each drill to provide an opportunity for residents to learn about local damage assumptions and geographical conditions, and to review local evacuation plans. A total of approximately 12,000 people participated in the drills and workshops.



Drill to protect oneself
(Tokushima City, Tokushima Prefecture)



Tsunami evacuation drill
(Nachikatsuura Town, Wakayama Prefecture)



Shelter setup training
(Tokoname City, Aichi Prefecture)

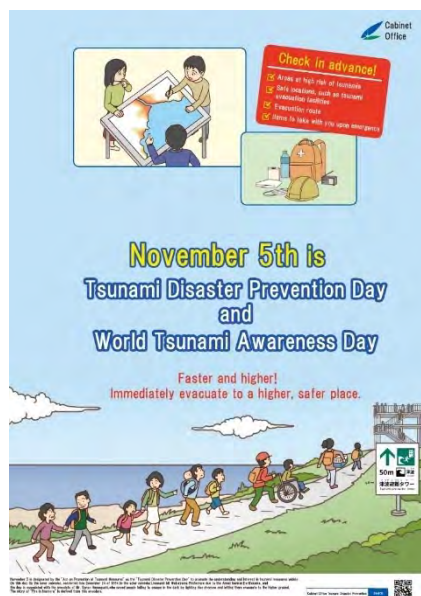


Disaster management-related workshop
(Naha City, Okinawa Prefecture)

(2) Activities to Raise Public Awareness

1. Activities to raise public awareness on tsunami disaster

In order to publicize "Tsunami Disaster Prevention Day" and "World Tsunami Awareness Day" and promote awareness and activities of disaster prevention against tsunami, efforts to raise public awareness through various media, for instance, posters at nationwide companies and local governments, and cash register screens at major convenience stores and supermarkets in FY 2022 were taken.



FY 2022 poster for tsunami disaster management awareness building

2. "Tsunami Disaster Prevention Day" Special Event in FY2022

On November 5, "Tsunami Disaster Prevention Day" and "World Tsunami Awareness Day", the Cabinet Office, National Council for Promoting Disaster Risk Reduction, and Council for Promoting Disaster Risk Reduction organized "Tsunami Disaster Prevention Day" Special Event held mainly in Tokyo.

At the event, following a greeting by Minister of State for Disaster Management, Mr. Tani, a keynote speech titled "Evolving Tsunami Disaster Prevention — Challenging Taboos through Tsunami Evacuation Drills" was delivered by Mr. Imamura, the director of the International Research Institute of Disaster Science, Tohoku University. In the panel discussion that followed, representatives from the sub venues, Nemuro City in Hokkaido and Nachikatsuura Town in Wakayama Prefecture, introduced the tsunami disaster prevention efforts of their respective regions online, and they exchanged opinions with the main venue.

Archived movies of the event are available on the "special website for disaster prevention against tsunami."
(Reference: <https://tsunamibousai.jp/>)



Opening remarks by Minister of State for Disaster Management Tani



Part 1. Keynote speech by Director Fumihiko Imamura



Part 2. Panel discussion

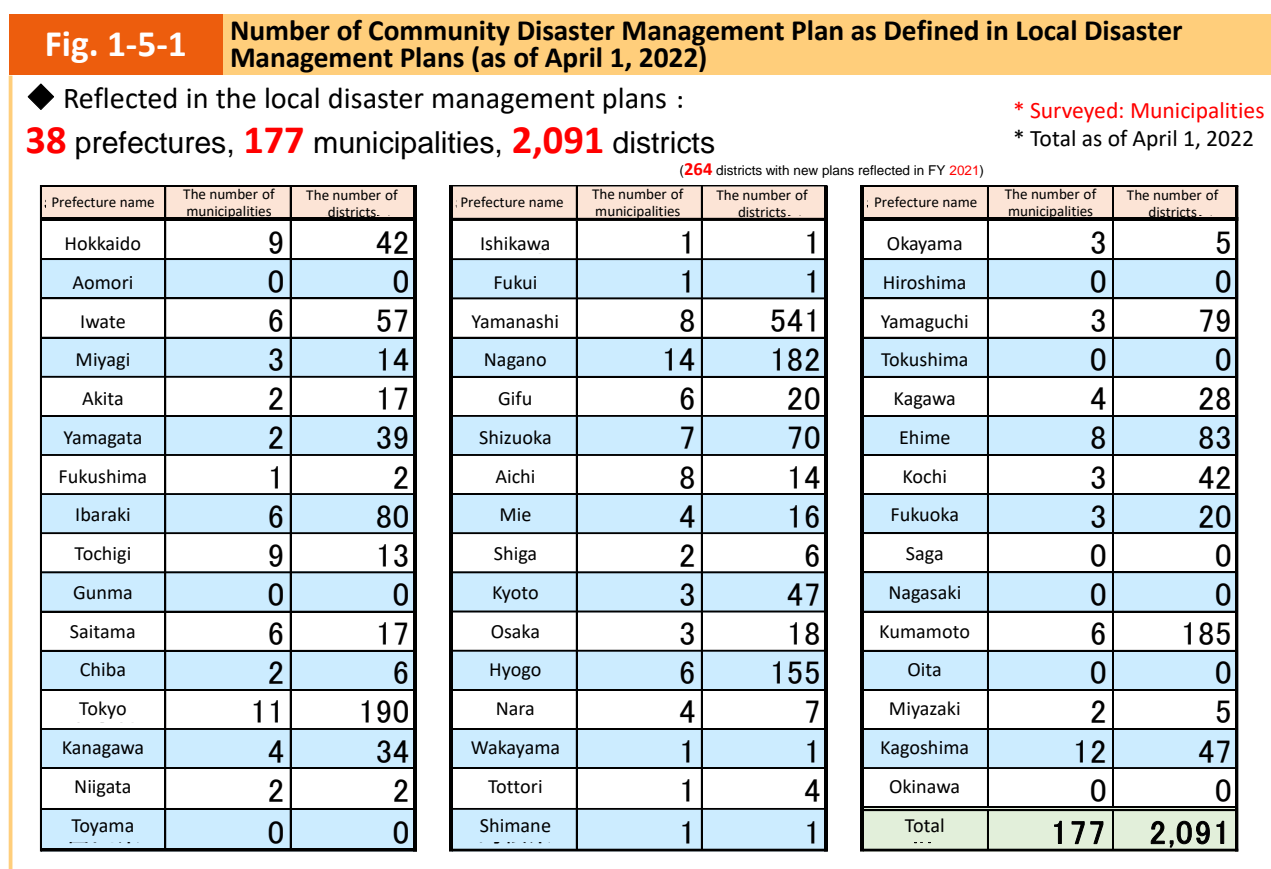
1-5 Resident-led Initiatives (Promotion of Community Disaster Management Plans)

The Community Disaster Management Planning System was established following the amendment of the "Basic Act on Disaster Management" in 2013 to promote voluntary disaster risk reduction activities through self-help and mutual support and to enhance regional disaster resilience as community residents (including business operators in the area) and municipalities cooperate each other. This allows community residents to prepare a Community Disaster Management Plan (draft) and make a proposal to the Municipal Disaster Management Council that the Community Disaster Management Plan be stipulated in the Municipal Disaster Management Plan.

Community Disaster Management Plans are designed to link mutual support and public support following

discussions by various entities in the community, including residents, business establishments and welfare personnel to freely define the contents of the draft plan, which is then set in the Municipal Disaster Management Plan. The topic in the discussion covers local disaster risks, disaster risk reduction actions and activities during ordinary times and disasters. In addition to the content of the plan, the process of creating the plan, including repeated discussions among district residents and others, is also important for strengthening the power of mutual support.

As of April 1, 2022, the Community Disaster Management Plans were stipulated under the local disaster management plans in 2,091 districts from 177 cities, towns and villages in 38 prefectures, and the actions for developing the Community Disaster Management Plans have been taken in 5,162 districts from 333 cities, towns and villages in 45 prefectures. Nine years have passed since the system was established, and it is expected that Community Disaster Management Plans will become even more widespread (Fig. 1-5-1, Fig. 1-5-2).



Source: Cabinet Office data

Fig. 1-5-2 Number of Activities Toward the Formulation Community Disaster Management Plan (as of April 1, 2022)

◆ Working toward the formulation of Community Disaster Management Plans (Note):

45 prefectures, **333** municipalities, **5,162** districts

* Surveyed: Municipalities

* Total as of April 1, 2022

(Note) Including those that have been proposed to municipalities but not yet reflected in the local disaster management plans

Prefecture name	The number of municipalities	The number of districts	Prefecture name	The number of municipalities	The number of districts	Prefecture name	The number of municipalities	The number of districts
Hokkaido	7	35	Ishikawa	7	228	Okayama	9	110
Aomori	3	10	Fukui	16	823	Hiroshima	5	100
Iwate	3	42	Yamanashi	12	81	Yamaguchi	3	30
Miyagi	7	123	Nagano	13	47	Tokushima	5	18
Akita	3	3	Gifu	6	53	Kagawa	12	32
Yamagata	4	66	Shizuoka	4	79	Ehime	5	30
Fukushima	9	24	Aichi	12	34	Kochi	2	4
Ibaraki	7	28	Mie	15	97	Fukuoka	8	78
Tochigi	21	78	Shiga	8	174	Saga	0	0
Gunma	7	102	Kyoto	4	16	Nagasaki	2	17
Saitama	11	158	Osaka	12	392	Kumamoto	17	346
Chiba	4	13	Hyogo	10	409	Oita	1	305
Tokyo	4	44	Nara	3	5	Miyazaki	7	32
Kanagawa	7	32	Wakayama	0	0	Kagoshima	13	642
Niigata	7	166	Tottori	2	7	Okinawa	5	6
Toyama	7	23	Shimane	4	20	Total	333	5,162

Source: Cabinet Office data

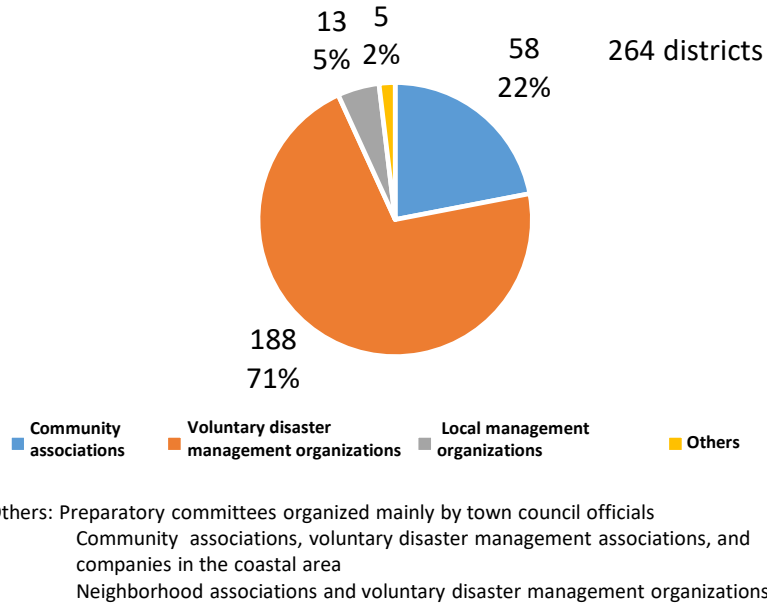
(1) Trends in Community Disaster Management Plans

The Cabinet Office analyzed case studies of 264 districts in local disaster management plans stipulated in FY2021 under the local disaster management plans, and found the following characteristics (Fig. 1-5-3 to Fig. 1-5-5).

1. The Community Disaster Management Plans were prepared by the community association in 22%, and the voluntary disaster management organizations in 71% of all the respondents.
2. Regarding the populations in each community, 42% respondents showed that there were 500 residents or less in the community, and 62% respondents indicated that 1,000 residents or less were in the community.
3. As for the trigger to establish the Community Disaster Management Plan, 82% of the respondents started to formulate the plan following the "encouragement by the administrations." This suggests that it is important for the administrations to encourage the development of Community Disaster Management Plans.

Fig. 1-5-3

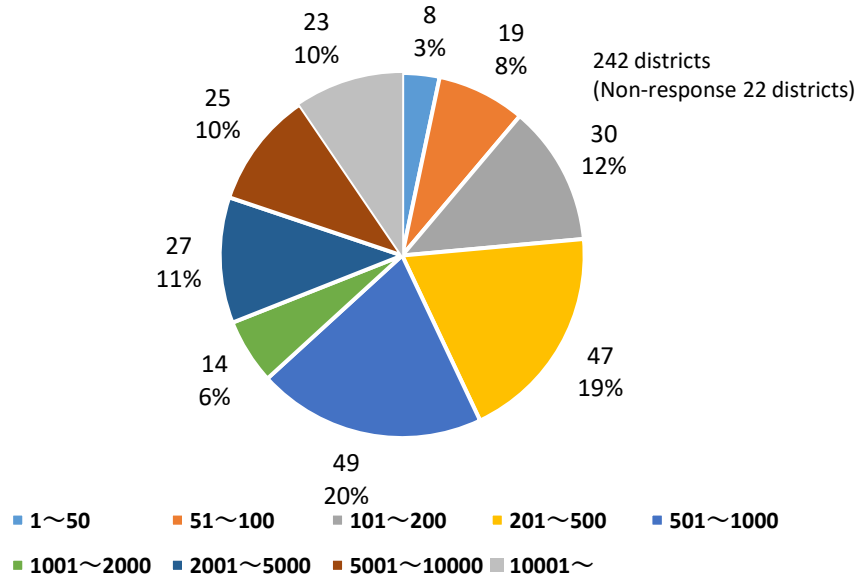
Entities That Prepared Their Community Disaster Management Plans in FY2021



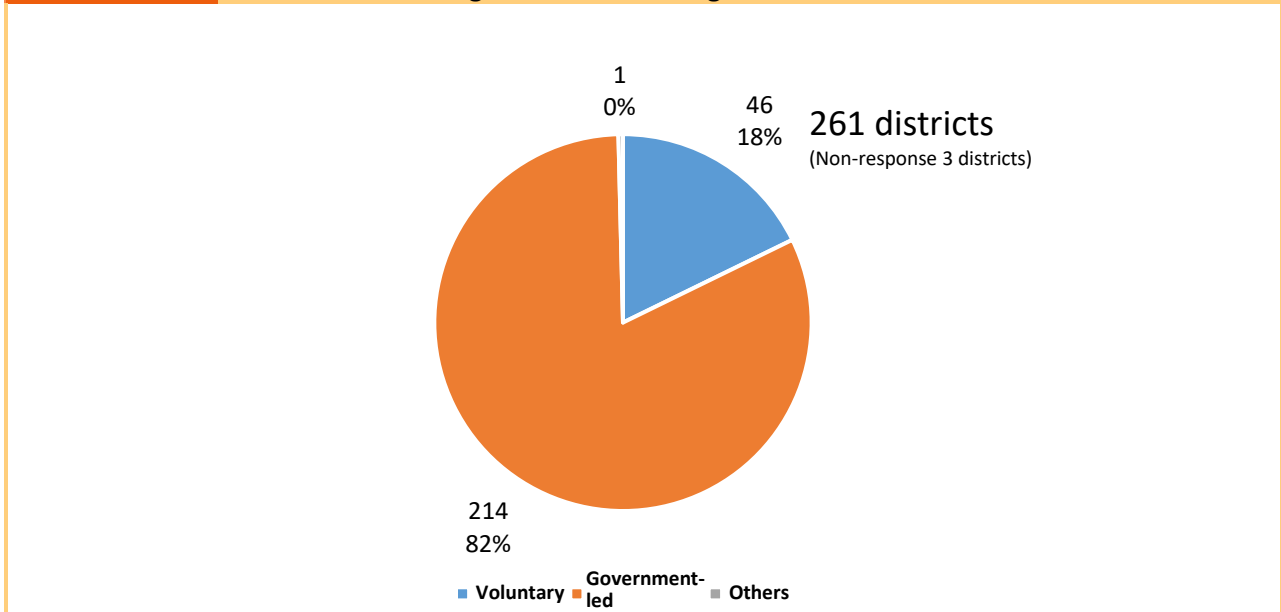
Source: Cabinet Office data

Fig. 1-5-4

The Number of Districts by Population in Community Disaster Management Plan Defined in Local Disaster Management Plans During FY2021



Source: Cabinet Office data

Fig. 1-5-5**Prompt for the Preparation of a Community Disaster Management Plan as Defined in Local Disaster Management Plans During FY2021**

Source: Cabinet Office data

(2) Cabinet Efforts to Promote the Formulation of Community Disaster Management Plans

To promote the formulation of Community Disaster Management Plans, the Cabinet Office is preparing materials that can be used as references, such as Guidelines for Community Disaster Management Plan. The Cabinet Office is also establishing a “Community Disaster Management Plan Library,” which will list Community Disaster Management Plans by region and theme. In FY2022, the Cabinet Office organized the following forums and training sessions:

(Reference: <https://www.bousai.go.jp/kyoiku/chikubousai/index.html>)

1. Holding the Community Disaster Management Plan Forum in 2023

The Cabinet Office held the “Community Disaster Management Plan Forum 2023” on March 26, 2023, to facilitate the sharing of examples and experiences from each region and to promote the development of their Community Disaster Management Plans. This forum showcased initiatives by Tsutsujigaoka, Akishima City, Tokyo, and Takagi-cho, Kokubunji City, Tokyo, under the theme of “Preparing for Imminent Megaquakes” and also initiatives by Mutsu City, Aomori Prefecture, and Mabi-cho, Kurashiki City, Okayama Prefecture, under the theme of “Preparing for Severe and More Frequent Heavy Rain Disasters.” The forum included active exchanges of opinions on each theme. An archived video of this forum is now available.

2. Basic Workshop on the Preparation of Community Disaster Management Plans

The “Basic Workshop on the Preparation of Community Disaster Management Plans” was held twice on October 26, 2022, and December 6, 2022, via livestream to promote the preparation and support for Community Disaster Management Plans by introducing different viewpoints and approaches to those who are involved in the preparation of such plans.

At the workshop, researchers, local government officials, and others involved in supporting the preparation of Community Disaster Management Plans shared their experiences and answered questions from the participants.

Archived videos are now available for these two workshops.

3. Support for activities of Chikubo'z, a network of local governments promoting Community Disaster Management Plans

"Chikubo'z" is a platform for local government officials who are engaged in supporting the preparation of Community Disaster Management Plans to exchange information and share experiences on issues related to the preparation for such plans on a daily basis. On October 21 2022, "Chikubo'z Opinion Exchange Meeting" was held in a hybrid format combining on-site in Kobe City, Hyogo Prefecture and online for local government officials, to exchange opinions together with experts regarding support for Community Disaster Management Plans.

1-6 Environmental Improvement for Volunteer Activities

At the time of a disaster, volunteers, NPOs and various other organizations rush to the affected areas to provide detailed disaster support and play an important role. The Cabinet Office has been working to make environmental improvements to facilitate activities by volunteers and NPOs to support affected people. In recent years, it has become a well-established practice for various entities supporting affected people, such as government agencies, volunteers, NPOs and others, to collaborate, share information, and coordinate their activities in the event of a large-scale disaster.

(1) Promotion of collaboration among various affected people supporting entities such as governments, volunteers, NPOs and others

According to the "Survey on Collaboration and Coordination Among Various Affected People Supporting Entities FY2022" conducted by the Cabinet Office in January, 2023, all 43 of the surveyed prefectures have systems in place for information sharing and other forms of cooperation in the event of a disaster. However, although a coordination system is in place, the state of coordination varies from one prefecture to another. A survey found that the prefectures feel the roles of government agencies, volunteers, NPOs and others in disaster relief activities need to be organized, and that the roles of governments in particular are not well organized and understood within the governments.

(2) Disaster Risk Reduction and Volunteer Meeting

On January 22, 2023, the Cabinet Office held the "Disaster Risk Reduction and Volunteer Meeting." The theme of this meeting was "Modern-Day Challenges in Supporting Affected People and the Spread of Disaster Relief Volunteer Activities 100 Years after the Great Kanto Earthquake." The meeting attracted about 70 participants at the Tokyo venue and about 200 participants online. In the first part of this meeting, themed "Looking Back on the Initiatives of Volunteers Who Engaged in Disaster Responses in the Great Kanto Earthquake on its 100th anniversary," the Cabinet Office explained the outline of the damage caused by the earthquake. Private organizations (the Japanese Red Cross Society, the Japan National Council of Social Welfare, and Tokyo YMCA) that were involved in relief activities at that time of the earthquake also gave relay talks.

In the second part of the meeting, a panel discussion was held under the theme of "Discussing Diverse Initiatives to Expand the Base of Volunteers" to discuss current disaster relief activities by various private sector entities (Nihon Bousaishi Kai, the business community, and volunteer groups).

Disaster Risk Reduction and Volunteer Meeting



Speech by Mr. Minister of State for Disaster Management Tani



Relay talks

(3) Training sessions to promote cooperation among various affected people supporting entities such as governments, volunteers, and NPOs

In order to ensure smooth collaboration and cooperation among governments, volunteers and NPOs including intermediary disaster support organizations (including intermediary disaster support organizations), in the event of a disaster, it is necessary to promote exchange and mutual understanding through training and other means from ordinary times. The Cabinet Office holds training sessions where governments, the Council of Social Welfare and other personnel from disaster volunteer centers and NPOs meet to discuss various issues in collaboration and cooperation, and deepen mutual understanding.

In FY2022, based on the current situation in which the construction of collaborative systems has been progressing in various parts of Japan, the "Training Course on Promoting Collaboration among Various Affected People Supporting Entities" was held several times with different target audiences. The "Basic Training" was held as a livestream and attended by approximately 210 participants from 26 prefectures. Government administrators, councils of social welfare, and intermediary disaster support organizations explained the need for collaboration among diverse actors. The "Building Collaborative Relationships Training" was attended by five prefectures, with the participation of various affected people including the governments, the Council of Social Welfare, NPOs and others at each site (some participants participated online due to COVID-19 countermeasures). During the training, in the light of presentations on its collaborative states of local governments, the Council of Social Welfare, NPOs and others that had already worked to build a system of collaboration and cooperation, the participating local governments exchanged opinions to further build collaborative and cooperative systems.



Training Course on Promoting Collaboration among Various Affected People Supporting Entities (Building Collaborative Relationships Training)

(4) Model Training for “Evacuation Life Support Leaders and Supporters”

In recent years, natural disasters have become more severe and frequent. And for evacuees, stays in shelters have been more prolonged, sometimes for weeks or months, making the improvement of evacuation living conditions a challenge. Amid the various tasks that arise after a disaster, there is a limit to how much local government officials can continue to play a central role in the operation of shelters after they are setup. Therefore the principles of “self-help” and “mutual support” cannot be overlooked upon assistance for affected people. Furthermore, the prolonged operation of shelters requires specialized knowledge and skills.

Thus, taking into account recommendations of the "Working Group on Disaster Risk Reduction Education and Public Awareness (Disaster Relief Volunteer Team)" compiled in May 2021, the Cabinet Office is endeavoring to realize an "ecosystem for human resource cultivation for evacuation life support and disaster management" that will provide systematic skill enhancement opportunities to motivated individuals, increase the number of those who can play a central role in supporting the lives of evacuees in each region, and strengthen the disaster resilience of communities.

In FY2022, a training program was established to promote the nurturing of "Evacuation Life Support Leaders and Supporters" who are responsible for providing evacuation life support. Model training was conducted in five areas across Japan (Maebashi City, Gunma Prefecture; Ueda City, Nagano Prefecture; Mihama Town, Aichi Prefecture; Suita City, Osaka Prefecture; and Yakage-cho, Okayama Prefecture).

The model training consisted of preliminary on-demand learning (eight sessions lasting about 20 minutes) and drills that lasted three days. During the drills, an environmental improvement exercise was held at a venue simulating shelter conditions, and an interpersonal communication exercise was carried out using role-playing activities.



“Evacuation life support leaders and supporters” model training

1-7 Establishment of a Business Continuity System

(1) Establishment of a Business Continuity System for the National Government's Ministries and Agencies

In the past, the national government's ministries and agencies, which are the administrative organs of the nation, have formulated business continuity plans for each of them, and have promoted initiatives for business continuity from the perspective of ensuring that pivotal functions of the capital continue to function in the event of a Tokyo Inland Earthquake or other disaster. In March 2014, the Cabinet approved the "Business Continuity Plan of the Central Government (Measures against a Tokyo Inland Earthquake)" (hereinafter referred to as the "Government Business Continuity Plan") based on the "Act on Special Measures against Tokyo Inland Earthquake (Act No. 88 of 2013), where the national government's ministries and agencies reevaluated their business continuity plans that they had in place up to that point in time.

The Cabinet Office developed guidelines in June 2007 to support the development of Business Continuity Plans for central ministries and agencies. Subsequently, the guidelines were reviewed to address changes in social conditions and emerging issues and were recently revised in April 2022. Furthermore, based on the Business Continuity Plan of the central government, the effectiveness of the Business Continuity Plans of central ministries and agencies has been evaluated by experts. In response, the central ministries and agencies have reviewed and improved their Business Continuity Plans as necessary.

Through these efforts, the government intends to establish a business continuity system that will enable smooth continuation of business operations even in the event of a Tokyo Inland Earthquake.

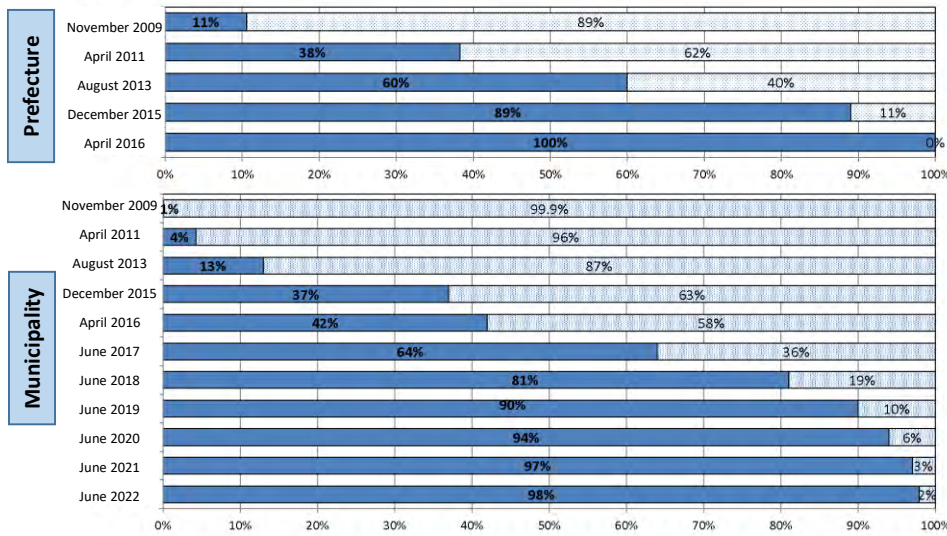
(2) Establishment of a Business Continuity System for Local Governments

Local governments must secure administrative functions and continue operations even in the event of a disaster. Therefore, it is extremely important for local governments to formulate a business continuity plan and establish a business continuity system. The percentage of local governments with business continuity plans in place reached 100% of all prefectures in FY2016, and approximately 98% of all municipalities as of June 2022, up 1 percentage points from the previous year (Fig. 1-7-1).

Fig. 1-7-1

State of the Business Continuity Plans (BCP) Formulated in Local Governments

As of June 1, 2022, the state of BCP formulation by prefecture is 100% and by municipality's is approximately 98%.



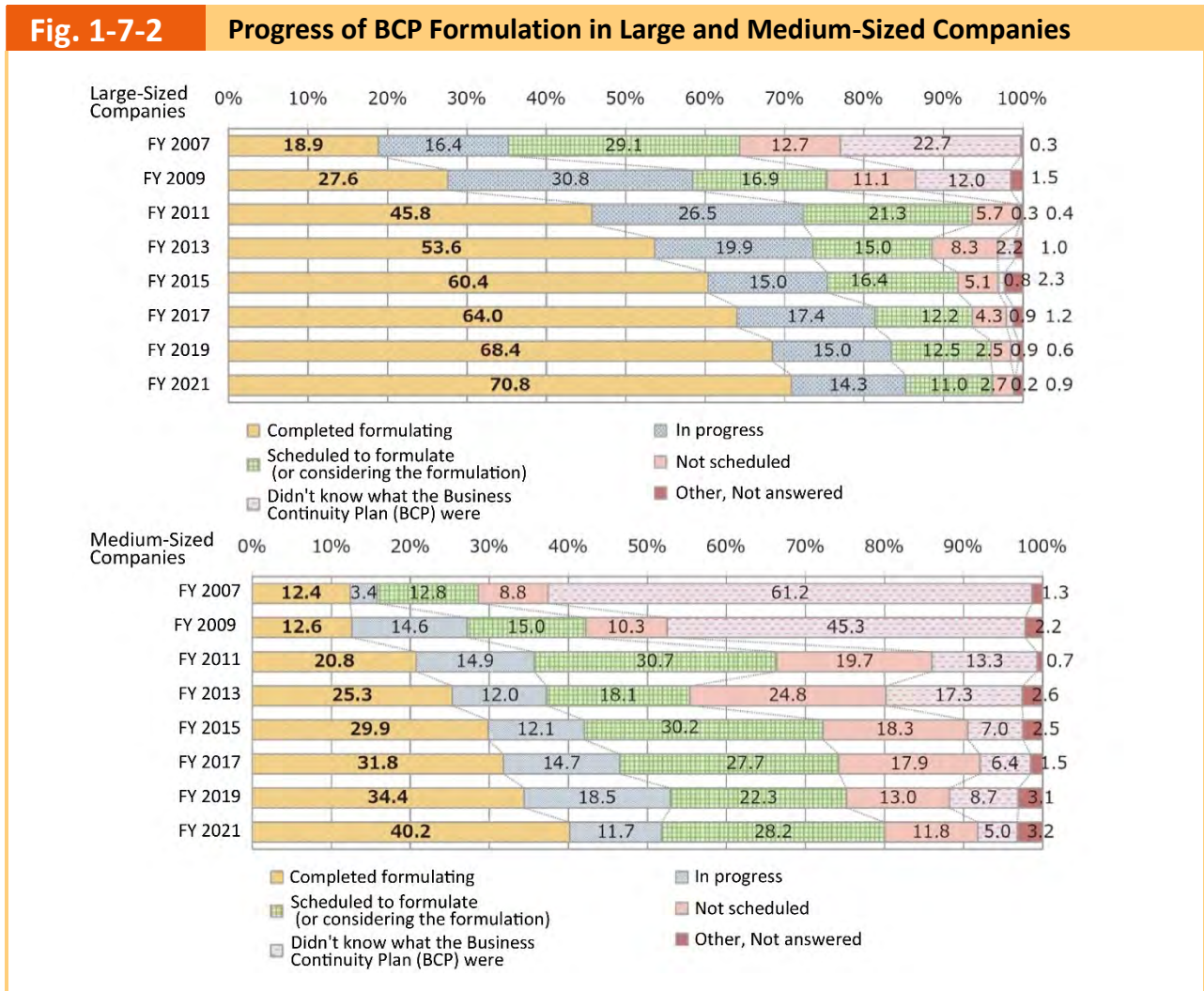
Source: November 2009: Survey on the Status of Business Continuity Systems in the Event of an Earthquake (survey by the Cabinet Office (Disaster Management and Fire and Disaster Management Agency, Ministry of Internal Affairs and Communications)
 April 2011 : Local Autonomy Information Management Overview (March 2012) (Regional Information Policy Office, Local Administration Bureau, Ministry of Internal Affairs and Communications)
 August 2013: Preliminary Figures for the Rate of BCP Formulation for Natural Disasters such as Large-Scale Earthquakes (Fire and Disaster Management Agency survey, Ministry of Internal Affairs and Communications)
 December 2015: Survey on the "Status of Formulation of Business Continuity Plans" and "Status of Formulation of Specific Standards for Issuing Evacuation Recommendations" in Local Governments (Fire and Disaster Management Agency survey, Ministry of Internal Affairs and Communications)
 April 2016, June 2017, June 2018, June 2019, June 2020 and June 2021: Results of a Survey on the Status of Business Continuity Planning in Local Governments (Fire and Disaster Management Agency survey, Ministry of Internal Affairs and Communications)
 June 2022: Results of a Survey on the Status of Business Continuity Planning in Local Governments (Fire and Disaster Management Agency survey, Ministry of Internal Affairs and Communications)

The Cabinet Office developed the "Business Continuity Plan Formulation Guidelines for Municipalities (in May 2015)," the "Guidelines for Business Continuity of Local Governments in the Event of a Major Disaster (revised in February 2016)" and the "Guide to Formulate Aid Acceptance Plans Regarding the Receipt of Human Support for Municipalities (revised in June 2021)" and familiarized them to the public. Furthermore, to support the establishment of a business continuity system in local governments, the Cabinet Office and the Fire and Disaster Management Agency have jointly hosted a training seminar for officials in charge of disaster management in municipalities every year since FY2015.

(3) Establishment of a Business Continuity Systems for Private Companies

Should a large-scale disaster cause the business activities of companies to stagnate, the impact would not be limited to the companies themselves. It could also have a significant impact, with such as the disruption of supply chains, on related business partners as well as the local economy and society and eventually Japan as a whole. Therefore, it is extremely important to ensure the continuity of corporate business activities in the event of a large-scale disaster. Therefore, in 2005, the Cabinet Office established the Guidelines to promote the formulation of business continuity plans (BCP) by companies, and in 2013, the Guidelines were revised to incorporate the concept of business continuity management (BCM), taking into account changes in social conditions and other factors. In recent times, a revised version of the Guidelines was published in March 2023 is being promoted, encouraging the formulation of BCPs in accordance with the guidelines.

The Cabinet Office has conducted a fact-finding survey on the private sector's initiatives, including the rate of BCP formulation, on a biannual basis. According to the "2021 Survey on Business Continuity and Disaster Risk Reduction Efforts of Corporations," there was an observed increase of the formulation of a BCP where 70.8% of large companies (68.4% in the previous survey in 2019) and 40.2% of medium-sized companies (34.4% in the previous survey) had formulated a BCP. Including those in the process of formulating a BCP, about 85% of large companies and 52% of medium-sized companies have it (Fig. 1-7-2).



Source: Cabinet Office using "The Fact-Finding Survey for Business Continuity and Disaster Management in Companies in FY 2021."
https://www.bousai.go.jp/kyoiku/kigyuu/pdf/chosa_201516.pdf

1-8 Collaboration with Industry

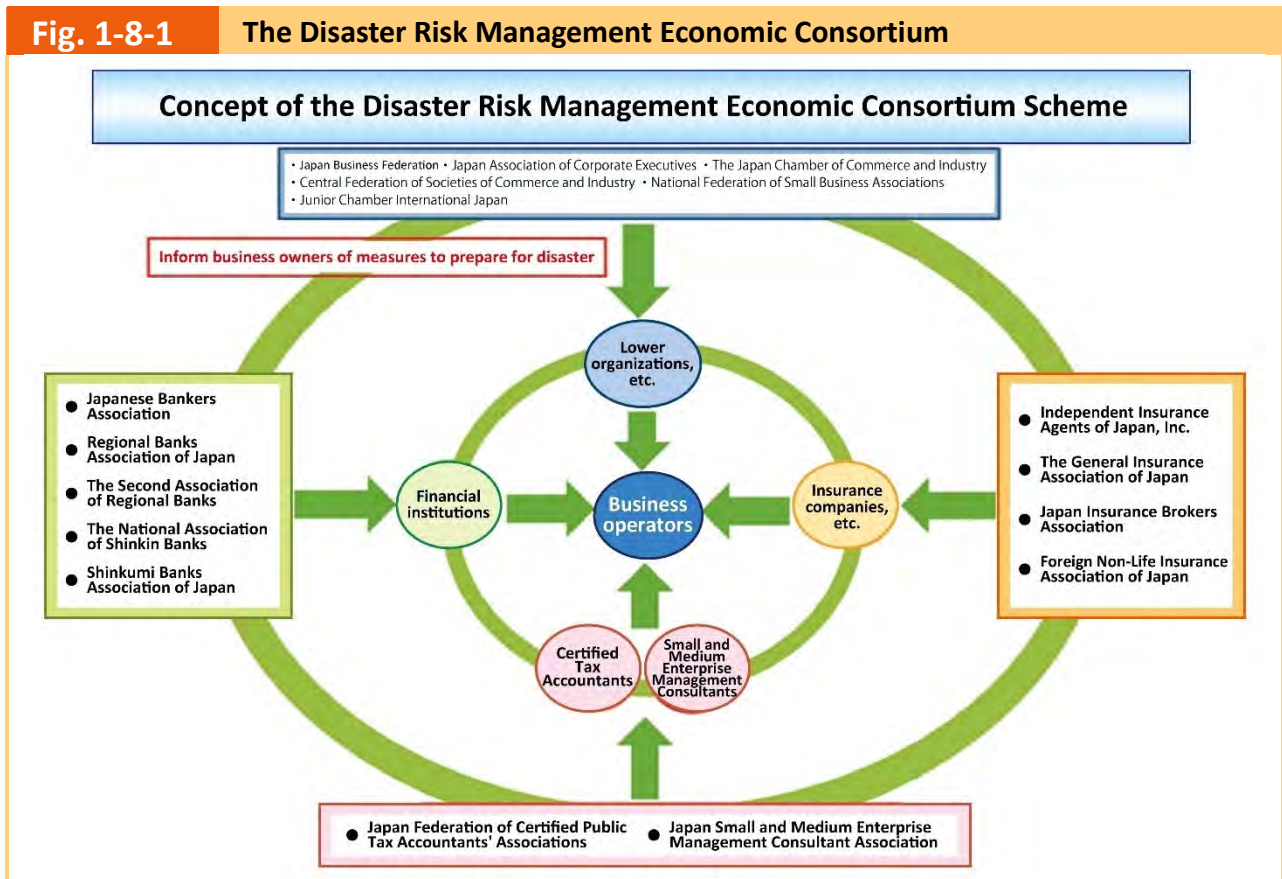
(1) Disaster Risk Management Economic Consortium

In order to improve the disaster risk management capacity of society as a whole, there is a need for business operators to improve their advance preparedness for large-scale natural disasters. For this purpose, the "Disaster Risk Management Economic Consortium" was established in 2018, as a forum for business operators to exchange views and ideas (Fig. 1-8-1).

The "Disaster Risk Management Economic Consortium" has formulated the "Principles of Disaster Management Economic Action," which are designed to promote and educate business operators to improve their disaster risk management capabilities through creative ideas tailored to the characteristics of each industry. In FY2022,

members of 17 organizations were mainly engaged in activities for spreading and raising awareness of these principles to their respective subsidiary organizations. Specifically, two administrative subcommittee meetings were held to exchange opinions among the members, as well as to introduce the Cabinet Office's policies on disaster management and to hear lectures by experts.

(Reference: <https://www.bousai.go.jp/kyoiku/consortium/index.html>)



Source: Cabinet Office data

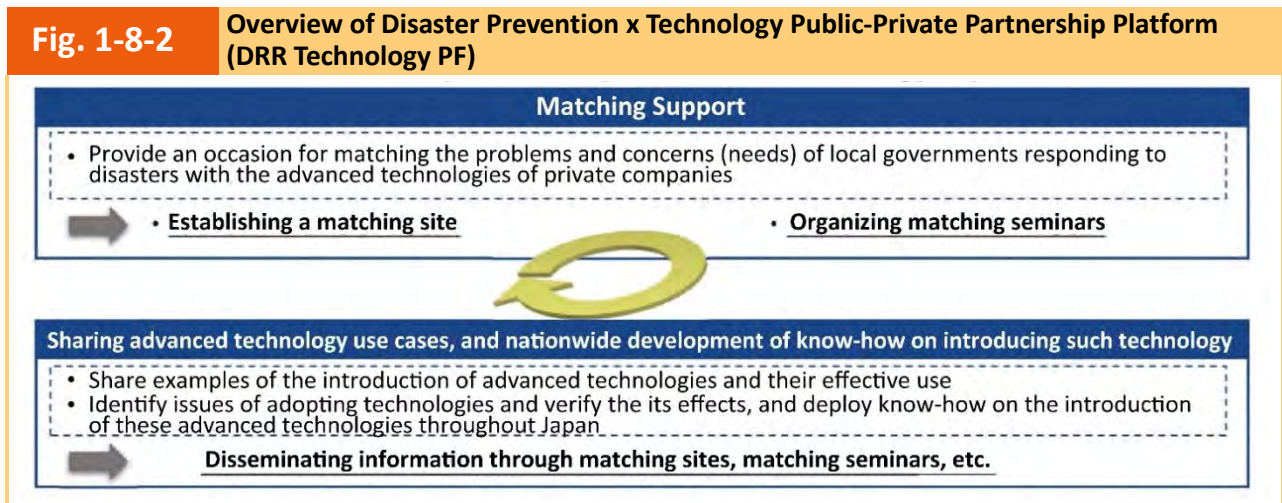
(2) Disaster Risk Reduction x Technology Public-Private Partnership Platform

In order to respond more effectively and efficiently to the increasingly severe and frequent disasters that have occurred in recent years, it is essential for local governments to actively utilize advanced technologies, including digital technologies. Some local governments have already started using advanced technologies and demonstrated their effectiveness in disaster response. However, many local governments have not yet introduced such technologies due to limited opportunities to collect information on advanced technologies and introduce them.

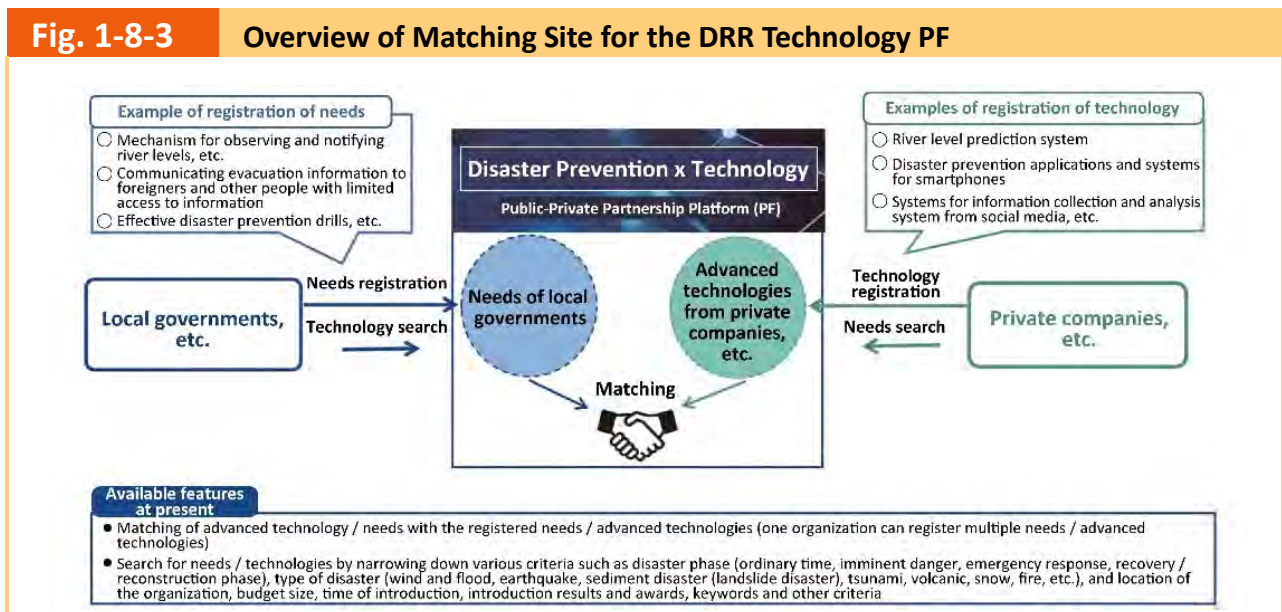
For this reason, in FY2021, the Cabinet Office established the "Disaster Risk Reduction x Technology Public-Private Partnership Platform" (hereinafter referred to as "DRR Technology PF"). This platform was designed as a forum for matching the needs of local governments in disaster response and private companies with advanced technologies and for the horizontal deployment of examples of effective use of advanced technologies by local governments (Fig. 1-8-2).

The Cabinet Office has established a permanent website (hereinafter referred to as the "Matching Site") and organized seminars (hereinafter referred to as the "Matching Seminars") to provide a venue for interaction between local governments and private companies, etc.

The Matching Site has been in operation since July 2021, allowing local governments to register their disaster risk reduction issues and needs in conjunction with private companies to register their useful technologies for disaster risk reduction. As of the end of March 2023, approximately 270 local governments and 800 private companies, etc. have registered on the Matching Site (Fig. 1-8-3).



Source: Cabinet Office data



Source: Cabinet Office data

Registered technologies are automatically matched with potential needs. They can also be freely searched by narrowing down criteria such as disaster phases from "ordinary times" to "recovery and reconstruction period," disaster types such as "storm and flood disaster" and "earthquake," and the costs and results of introducing these technologies. In addition, registered organizations can contact other parties with useful information using the contact information registered on the Matching Site.

(Reference: <https://www.bosaitech-pf.go.jp/>)

A total of six matching seminars were held by the end of FY2022. In the first three matching seminars, the business outline of the DRR Technology PF was explained; the advanced technologies actually introduced into local governments were presented; the unique disaster management of some local governments was introduced; and

individual consultations were held in which private companies directly introduced their own technologies to local governments or local governments consulted on their issues and needs with companies on a one-on-one basis. From the fourth matching seminar onwards, in addition to the contents of the first three, public-private disaster management efforts in coordination with a public-private partnership network operated by local governments were introduced.

Moreover, the "Project for Supporting Municipalities as DRR Technology PF Models" was launched by selecting, as models, municipalities that were willing to commercialize the technology but had not yet made progress in matching or commercializing it. They were provided with support to help them identify issues they had with introducing and matching technology and also to verify the effectiveness of their measures dealing with this.

Through these efforts, local governments are provided with opportunities to learn about advanced technologies, private companies introduce their technologies to local governments, and local governments share issues with companies, creating new opportunities for introducing these technologies.

【Column】

Development of a Certification System to Quantify and Visualize the Resilience of Real Estate to Natural Disasters

In recent years, Japan has seen a trend toward the frequent occurrence of a variety of natural disasters. It has become an important responsibility for those involved in real estate to minimize damage from natural disasters to buildings, enhance post-disaster resilience (recuperative power), and ensure the safety and security of people. In addition, the need to understand and disclose physical risks as a societal trend due to climate change in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) is increasing, and every year there is a growing need to respond from an ESG perspective.

However, there is no mechanism to visualize the resilience of real estate that is based on the characteristics of Japan. Although there are risk assessment tools overseas, they do not necessarily fit Japan's characteristics because their judgments are based only on information about land, and they overemphasize chronic risks, such as storm surges. In Japan, urgent risks, such as typhoons, are priority issues, and not only the issue of land but operational aspects, such as the robustness and redundancy of buildings and the responsiveness and readiness in the event of a disaster, should be also considered.

In response, seven companies, including general incorporated foundations and private companies, established the "Resilience Review Committee in the Real Estate Field (D-ism Project)" and also developed "ResReal," which is Japan's first system for quantifying and visualizing the resilience of real estate before its certification. The first certification was launched at the end of January 2023, targeting resilience against flood damage. The ResReal certification targets land and buildings and their operational aspects. It quantifies their performance on a five-point scale, which makes it possible to take measures to achieve a higher score. In addition, all evaluation items for scoring are disclosed, making it possible to obtain the indicators necessary to improve resilience.

ResReal can be used by real estate owners to develop resilience enhancement measures and disclose information in accordance with the TCFD recommendations. It can also be used as a criterion for selecting a building or for developing buildings that are highly resistant against natural disasters. In this way, ResReal can serve as a "decision-making criterion" for a variety of decisions, which is expected to increase the awareness of real estate resilience and reduce damage to buildings, thereby enhancing public safety. Moreover, the certification system for environmental and wellness performance is already in place, and analysis has proven that the economic value of real estate that has these certifications is high. In the future, it is expected that awareness of the increase in economic value of real estate that is resilient will become evident.

○ Certification logo mark



Source: ResReal website

(Reference: <https://resreal.jp/>)

1-9 Initiatives in the Academic Field

In Japan, research is being performed on disaster risk reduction in various fields, including natural phenomena such as earthquakes, tsunamis, volcanoes and heavy rain; structures such as civil engineering and architecture; medicine and hygiene such as emergency medicine and environmental sanitation; human activities such as the economy, geography, and history; and other various fields such as information and energy. In the wake of the Great East Japan Earthquake, there was a recognition that research on disaster prevention and mitigation from a comprehensive and multidisciplinary perspective in these fields is essential. And it was also recognized that the promotion of information sharing and exchange with different disciplines beyond the boundaries of specialized fields and engagement in interdisciplinary collaboration is needed. To this end, after discussions at the Science Council of Japan and related academic societies, the “Japan Academic Network for Disaster Reduction” was established in January 2016 as a network of academic societies involved in disaster prevention, mitigation and recovery, bringing together 47 academic societies. As of the end of February 2023, 62 academic societies (59 groups of regular members and 3 associations of special members) participate in this academic network.

In August 2022, the academic network, together with the Science Council of Japan’s Council of Japan Academic Network for Disaster Reduction, held the fourth "Liaison Conference on Disaster Management among the Science Council of Japan, Academic Societies, and Government Ministries and Agencies" under the theme of "Environmental Changes Surrounding Natural Disasters and Disaster Management Policies: Preparing for Emerging Diverse Crises," at which both the national government's ministries and agencies and academic circles presented their respective efforts. In May and October 2022, the academic network held a public symposium, in which opinions on the roles of disaster risk reduction science were widely exchanged.



The 4th Liaison Conference on Disaster Management among the Science Council of Japan, Academic Societies, and Government Ministries and Agencies

1-10 Strengthening Disaster Response Efforts from Gender-Equality Perspectives

Disasters threaten the lives of all people, but they are known to affect people differently depending on their gender, age, disability, etc. To realize a disaster-resilient society, it is important to minimize the impact of disasters

on people by considering the different needs of women, children, the elderly, people with disabilities, and other vulnerable people. The Cabinet Office has been promoting efforts for disaster management and reconstruction from the perspective of gender equality.

As of April 2022, the percentage of female members of prefectural disaster management councils and municipal disaster management councils remained unchanged at 19.2% and 10.3%, respectively. The Fifth Basic Plan for Gender Equality (approved by the Cabinet on December 25, 2020) set a goal of increasing the percentage of female members of prefectural and municipal disaster management councils to 30% by 2025. The participation of women in the decision-making process for disaster management is an urgent issue.

In May 2022, the Cabinet Office disseminated the results of a survey on local governments' disaster management efforts, focusing on the perspective of gender equality and based on "Women's Perspectives for Strengthening Disaster Response Capabilities — Guidelines for Disaster Prevention and Reconstruction from the Perspective of Gender Equality" (prepared in May 2020 and hereinafter referred to as the "Guidelines"). The survey suggested two key findings: about 60% of municipalities nationwide lacked any female personnel assigned to disaster/risk management departments. In addition, municipalities with a higher proportion of female members in local disaster prevention councils were stockpiling disaster relief supplies catering to the needs of a diverse range of people, as compared to municipalities with no female council members. The Cabinet Office has been conducting follow ups on local governments' initiatives which are implemented based on the Guidelines.

(Reference : https://www.gender.go.jp/policy/saigai/fukkou/chousa_r03.html)

In FY2022, based on the results of the survey on the implementation status of the Guidelines, the Cabinet Office gathered and compiled good practices of initiatives to promote the participation of women in the decision-making processes at the forefront of disaster management and response at the municipality level. In February 2023, the Cabinet Office conducted three thematic training sessions for staff members responsible for gender equality and disaster/risk management in local governments across the country in order to enhance their understanding of disaster management from a gender-equality perspective and to help them implement it in their respective local governments. These training sessions included lectures on each theme by experts, the presentation of model examples of local governments' efforts in revising their plans and initiatives from a gender-equality perspective, and question-and-answer sessions in the form of panel discussions.

In addition to the above, at the "National Conference on Promoting Disaster Risk Reduction (BOSAI Kokutai) 2022" held in Kobe City, Hyogo Prefecture, projects aimed at fostering connections among female administrative personnel engaged in disaster management, local female disaster management actors, female disaster prevention experts, and related individuals across their organizations were exhibited, strengthening cooperation with local communities and the private sector.

The Cabinet Office will continue to promote the participation of women as active players in the decision-making processes in the field of disaster management and response so that diverse viewpoints can be reflected in disaster management and reconstruction, and disaster responses that leave no one behind can be achieved.

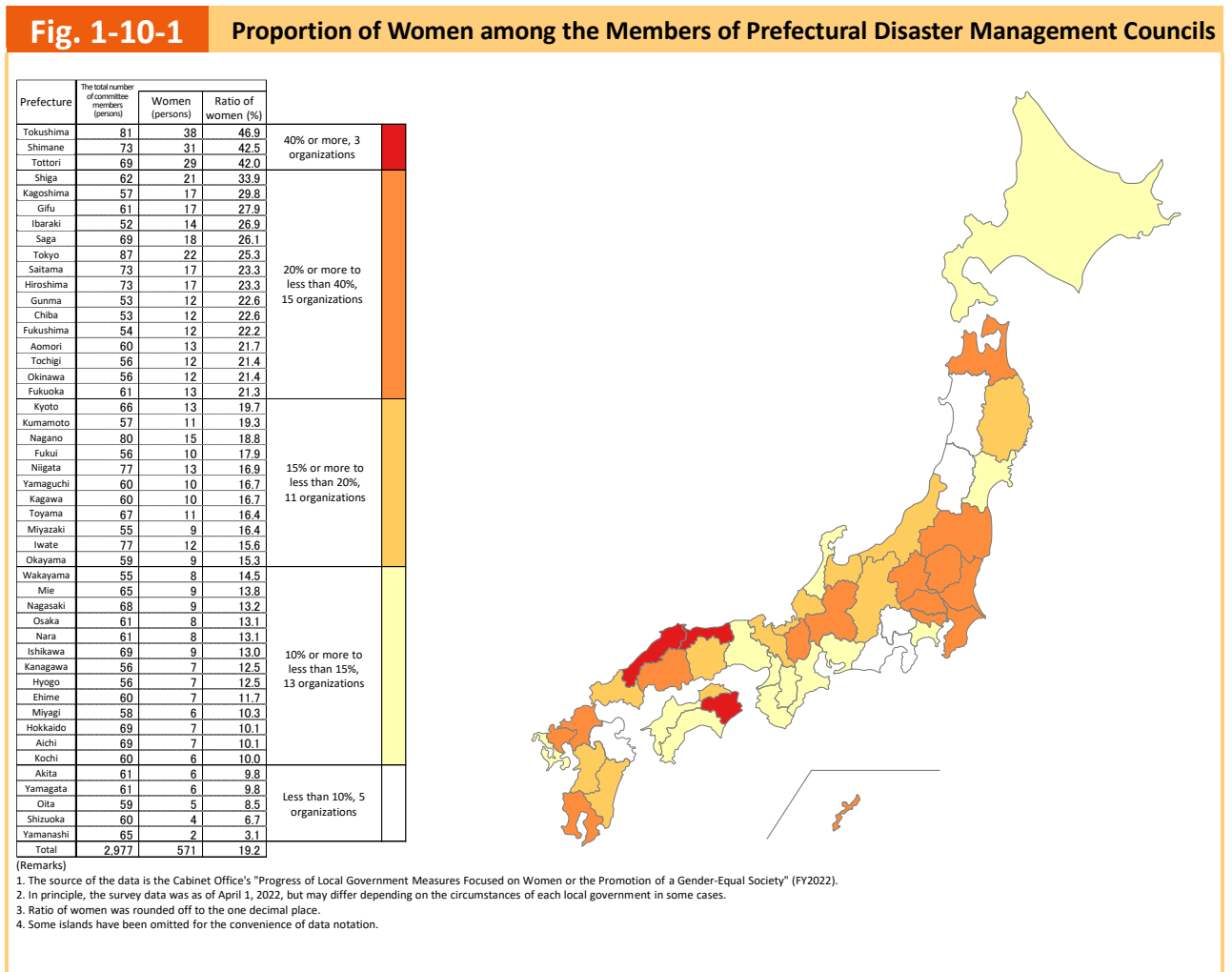
*Main measures in the Fifth Basic Plan for Gender Equality:

- Promote the government and local governments to lead disaster risk reduction and recovery efforts from a gender perspective through closer collaboration and cooperation between disaster/ risk management departments and gender equality departments from the normal time.
- Request each prefecture to promote increase the engagement of women in Prefectural Disaster

Management Councils with regard to the percentage of female members of such councils. In addition, in order to quickly eliminate the number of Municipal Disaster Management Councils without female members and to promote to increase the ratio of female council members, collaborate with prefectures to develop good practices in municipalities where women are actively appointed to these councils. (Fig. 1.10-1, Fig. 1.10-2)

- Encourage local governments to assign female and gender equality staff to the local Disaster Management Headquarters and promote understanding of efforts under a gender perspective among male members of the headquarters from normal time.
- Follow up and "visualize" the state of efforts of gender equality in disaster risk reduction by local governments based on the guidelines.

(Reference: https://www.gender.go.jp/about_danjo/basic_plans/5th/pdf/2-08.pdf)



Source: Compiled by the Cabinet Office from the "Progress in the Formation of Gender Equal Society or Woman-related Policies in Local Governments (2022)"

Fig. 1-10-2 Performance Targets for Prefectural and Municipal Disaster Management Councils under the Fifth Basic Plan for Gender Equality, along with Actual Values

Item	Present Status	Performance Target (Deadline)
Ratio of Women among Prefectural Disaster Management Councils' committee members	19.2% (2022)	30% (2025)
Ratio of Women among Municipal Disaster Management Councils' committee members		
The number of organizations with no woman committee members	285 (2022)	0 (2025)
Ratio of Women among committee members	10.3% (2022)	Aiming for 15% (in early stage), and even for 30% (by 2025)

Source: Compiled the Cabinet Office from the "Fifth Basic Plan for Gender Equality 'Toward a Reiwa Society Where All Women and Girls Can Thrive and Achieve Their Full Potential'" (Cabinet decision on December 25, 2020) and "Progress in the Formation of Gender Equal Society or Woman-related Policies in Local Governments (2022)"

Section 2. Disaster Management System, Disaster Response and Preparedness

2-1 Amendment of Basic Disaster Management Plan

The Basic Disaster Management Plan is a basic plan for disaster management in Japan that is prepared by the National Disaster Management Council in accordance with Article 34, Paragraph 1 of the Basic Act on Disaster Management, and "must be reviewed each year in the light of the findings of scientific research pertaining to disasters and disaster management, conditions of disasters that have occurred, and the effect of emergency disaster control measures taken against the disasters, and... when found necessary," the Council is to revise it. Based on the Basic Disaster Management Plan, local governments must prepare local disaster management plans, and designated administrative organizations and designated public corporations need to prepare disaster management operational plans.

(Reference: <https://www.bousai.go.jp/taisaku/keikaku/kihon.html>)

The Basic Disaster Management Plan was recently revised in June 2022 (Fig. 2-1-1). The main revisions were made based on the disasters that occurred in FY2021, and include measures to prevent disasters caused by soil embankments and to improve the efficiency of rescue activities by publicizing the names of people whose safety is unknown. The revisions also included the necessity of dissemination of information on large-scale volcanic eruptions overseas and the appropriate issuance of evacuation instructions in the event of a tsunami.

Other revisions have also been made in light of recent developments in disaster management policies, such as the promotion of the introduction of advanced technologies in disaster response by local governments.

Fig. 2-1-1

Outline of the Revised Basic Disaster Management Plan (June 2022)

Outline of the Revised Basic Disaster Management Plan (June 2022)

Basic Disaster Management Plan
 This is a comprehensive and long-term plan for disaster management in Japan prepared by the National Disaster Management Council based on the Basic Act on Disaster Management. This plan serves as the basis for disaster management operational plans prepared by designated administrative organs and designated public corporations, as well as local disaster management plans prepared by local governments.

Major Revisions

Revisions in response to disasters in FY2021

<Heavy rainfall from July 1, 2021>

- [Measures to prevent disasters caused by embankments](#)
 - The national government's support to prefectures' measures against hazardous areas
 - Local governments' guidance to urge the prompt remediation of embankments deemed hazardous
- [Announcement of the names and other information of persons whose safety is unknown to facilitate rescue operations](#)
 - Arrangement of procedures to announce names and other information of persons whose safety is unknown from normal times
 - Promptly narrowing down the list of missing persons by announcing their names and other information in the event of a disaster
- [Promotion of appropriate evacuation actions and issuance of appropriate evacuation-related information](#)
 - Promotion of disaster risk reduction education in schools with the participation of volunteer firefighters
 - Advice from weather disaster risk reduction advisors on evacuation information issuance

<Damage caused by pumice stones erupted from the submarine volcano "Fukutoku Okanoba">

- [Removal of drifting pumice stones from shipping lanes](#)
 - Removal of pumice stones by the government, port authorities, and fishing port administrators to clear shipping lanes for safe navigation

<Tidal level changes due to volcanic eruptions in the Tonga Islands>

- [Information dissemination in the event of a large-scale volcanic eruption overseas and issuance of appropriate evacuation orders in the event of a tsunami](#)
 - Dissemination of information on tidal level changes caused by a large-scale eruption overseas
 - Setting areas subject to an evacuation order according to anticipated tsunami heights in municipalities

Revisions based on amendments to relevant laws and ordinances

<Revision of the Act on Promotion of Tsunami Countermeasures>

- [Promotion of measures against tsunamis](#)
 - Utilization of digital technologies in tsunami countermeasures
 - Promotion of the development of evacuation facilities according to regional characteristics

<Revision of the Act on Special Measures concerning Countermeasures for Heavy Snowfall Areas>

- [Promotion of snow damage countermeasures in heavy snowfall areas](#)
 - Promoting the installation of safety rope anchors
 - Promoting the development and diffusion of technologies to solve snow-related problems

<Revision of the Act on Maritime Traffic Safety>

- [Ensuring the safety of vessel traffic](#)
 - Issuance of evacuation advisories to vessels in the three major bays to warn them of hazards to their traffic due to extreme weather conditions

<Revision of the Civil Aeronautics Regulations>

- [Ensuring the safety of aircraft involved in disaster response measures](#)
 - Coordination of requests by prefectures to designate airspace for emergency operations. Coordination of prefectures' applications for flight permission for unmanned aircraft in the airspace

Other Revisions Based on Recent Policy Developments, etc.

- Development of an environment for disaster information data linkage
- Consideration for food allergies in shelters
- Promotion of the introduction of advanced technologies in disaster responses by local governments
- Development of emergency power generation facilities using renewable energy at shelters
- Reinforcement of an information dissemination system and a system for observing stationary linear mesoscale systems
- Promotion of general electricity transmission and distribution utilities' non-use of power poles

Source: Cabinet Office data

2-2 Enrichment of Training Programs for the Head and Staff of Local Governments

Prompt and accurate disaster response depends on the knowledge and experiences of the head and staff of local governments. Based on this, the Cabinet Office has planned and put into operation the "Training of Disaster Prevention Specialists" for the staff of local governments from FY2013 to develop human resources who are able to "respond to crisis situations promptly and accurately" and "form networks between the national and local governments."

In FY2022, the "Training Program at Ariake Hill" was put into operation from September to October in 2022 and from January to March in 2023. This training program covers knowledge and skills in overall disaster management operations from the basics of disaster management related with laws and regulations to disaster management governance. In addition, the "Training Program for Local Governments" was delivered in 7 locations around Japan. This program meets the demands and actual situations in local regions, which are considered by the hosting prefectures. Furthermore, the "Follow-Up Training Program" was given in March for those who completed the Training Program at Ariake Hill to further improve their skill and to strengthen the human network.

In addition, regarding the "Disaster Response e-Learning," which is designed to help support staff members who perform disaster management operations on-site for disaster responses to quickly learn basic knowledge relevant to their assigned tasks, the following three new themes have been introduced: "Support for Persons Requiring Special Care," "Disaster Waste Disposal," and "Epidemic Prevention and Corpse Disposal." The

operation of the existing three themes, "Opening and Operating Shelters," "Survey for Residence Damage Certification and Issuance of Disaster Damage Certificates," and "Assessment and Communication of Evacuation Information," will also continue.

In planning and operating these training programs, the Cabinet Office established a planning and review committee for "Nurturing Disaster Management Specialists" consisting of disaster management-related experts, and it reviewed and expanded the contents of training while taking into account advice based on the social situation and needs.

In the event of a large-scale disaster, the heads of local governments and those responsible for crisis and disaster management need to deliver a prompt and accurate disaster response as they work closely with the national government and other local governments. Therefore, the Cabinet Office and the Fire and Disaster Management Agency jointly hosted the “National Seminar on Disaster and Crisis Management for Heads of Local Government” for mayors of cities, wards and towns and villages nationwide, with the aim of enabling them to exert effective leadership in the event of a disaster and providing them with support to enhance their response capabilities in disaster crisis management. At the same time, the Cabinet Secretariat, the Cabinet Office, and the Fire and Disaster Management Agency jointly hosted the “Special Training Program in Disaster and Crisis Management” for heads of departments and chiefs of crisis management departments of prefectures. In addition, they hosted the “Training Programs for Supervisors at Local Governments in Crisis and Disaster Management” for supervisors in municipalities so they could learn about crisis and disaster management to deepen their skills and specialties necessary at each phase including the initial response and disaster response. This contributes to forming a “face-to-face relationship” from ordinary times.



"Online Training Program for Training of Disaster Prevention Specialists (Training Program at Ariake Hill)"



"Exercise for Training of Disaster Prevention Specialists (Training Program for Local Governments)"



"Disaster Response e-Learning (Opening and Operating Shelters)"



"National Seminar on Disaster and Crisis Management for Heads of Local Government"

【Column】

Full-Scale Operation of the Disaster Waste Treatment Support Staff System (Staff Bank)

When a large-scale disaster occurs, an enormous amount of disaster waste, equivalent to several years' worth of waste in normal times, is generated all at once, placing a heavy burden on the staff engaged in waste-related work at the affected local governments. In August 2021, the Ministry of the Environment started to operate the Disaster Waste Treatment Support Staff System (Staff Bank), consisting of local government personnel with experience and knowledge in disaster waste disposal, to assist affected local governments in determining disaster waste disposal policies and administrative procedures.

In FY2022, when this system was first put into full operation, disaster waste disposal support staff equivalent to 20 man-days were dispatched from five cities and towns to the local governments (five municipalities) affected by heavy rain in August 2022 to provide advice on the operation of temporary storage facilities and assist in the preparation of disaster reports required for applications for subsidies for disaster waste disposal projects. In the 2022 Typhoon Talas disaster, a total of eight man-days of disaster waste disposal support staff were dispatched from one city to the affected local government (one town) to provide assistance, such as advice on the removal of damaged houses and disaster waste disposal. The local government that received the assistance expressed its gratitude for the sympathetic support from the fellow local government personnel. The disaster waste disposal support staff who was engaged the disaster sites also expressed their intention to maintain the relationship and offer assistance in various situations in the future.

The Disaster Waste Treatment Support Staff System has only recently been launched, and there is a need to improve and expand the system in the future. The Ministry of the Environment will continue to work on improving the system to make it more responsive to affected local governments by registering new support staff according to the fields they can handle and their experience and by providing training opportunities to improve their skills.

Ministry of the Environment Website: Disaster Waste Treatment Support Staff System

(Reference: http://kouikishori.env.go.jp/action/jinzai_bank/index.html)



Yokohama City officials from Kanagawa Prefecture providing support in Ajigasawa Town, Aomori Prefecture
(Ministry of Environment material)

【Column】

Cooperative Efforts among Relevant Divisions within a City Office to Provide Nutrition and Dietary Support to "Leave No One Behind" in Preparation for a Large-Scale Disaster

In Gosen City, Niigata Prefecture, staff from the city's Disaster Prevention Section, General Affairs Division, and registered dietitians from the Health and Welfare Division, the Children's Division, and the School Education Division are working together to consider how nutrition and dietary support should be provided in the event of a large-scale disaster, and they are promoting initiatives for the efficient management and use of stockpiled food.

At the beginning of these efforts, the challenges were improving the nutritional balance of stockpiled food and dealing with those requiring special care, such as infants and those with food allergies. To resolve these issues and also understand the current situation of food stockpiles, the registered dietitians checked the contents and raw materials of existing stockpiled food using a list prepared by the Disaster Prevention Section.

Under these circumstances, in April 2020, the Ministry of Health, Labour and Welfare published a "Simple nutrition-based stockpiling simulator for calculating the amount of food stock for large-scale disasters." The simulator was developed to promote food stockpiling in order to provide nutrition and dietary support in the event of a large-scale disaster, taking into consideration health and nutritional aspects and the people requiring special care. The simulator allows a rough estimate of the required quantity of stockpiled food based on basic information possessed by local governments. This made it possible for Gosen City to estimate the nutritional needs of its citizens in the event of a large-scale disaster and to obtain data on nutritional excesses or deficiencies. Previous disaster experiences in Japan have made it obvious that excesses or deficiencies in nutrition are likely to occur after a large-scale disaster. To ensure nutrition and dietary support so that no one in the community is left behind, Gosen City is currently using the simulator to consider stockpiled food and improve nutrition in cooperation with the Disaster Prevention Section and registered dietitians.

Gosen City is also utilizing stockpiled foodstuffs before their expiration dates as teaching materials for disaster risk reduction education. Elementary schools' social studies, junior high schools' Home Economics, communities' health classes, salons for the elderly, and parent-child cooking courses at child-rearing support centers and nursery schools are teaching citizens how to sample (taste-test) and use stockpiled food. When it replaces stockpiled food, the Disaster Prevention Section listens to the opinions of local residents at disaster risk reduction education sites to improve its quality.

Gosen City believes that data-based management of stockpiled food and its utilization in disaster risk reduction education are the cornerstones for maximizing health-crisis management with a limited budget. The city will continue to promote efforts for nutrition and dietary support of its citizens in preparation for large-scale disasters in close cooperation with the Disaster Prevention Section and registered dietitians.



Disaster risk reduction education through parent-child cooking at a nursery school

Aim and usage of simple nutrition-based stockpiling simulator for large-scale disasters

- The aim of this simulator is to have those in charge of disaster management departments in local governments acknowledge the importance of food stockpiling which focus on peoples' health/nutrition, and special needs, and to encourage such stockpiling.

Name	Simple nutrition-based stockpiling simulator for calculating the amount of food stock for large-scale disasters
Background	<ul style="list-style-type: none"> • This simulator was created as part of Ministry of Health, Labour and Welfare's budgeted project "Research and Analysis toward 'Nutrition for Growth Summit 2020' (tentative name)" under the supervision of an advisory committee whose members include experts on disaster nutrition.
Aim	<ul style="list-style-type: none"> • To enable each local government to calculate the approximate amount of required food stock, with focus on peoples' health/nutrition and special needs. • To enhance acknowledgment and understanding in local governments toward emergency stockpiling, in aim to establish a stronger support system for nutrition and dietary habits in preparation for large-scale disasters (disaster nutrition).
Intended Users	<p>Those working in disaster management departments in local governments, etc. *This simulator should be used upon coordination with such persons as registered dietitians in health promotion departments as necessary.</p>
Functions	<ul style="list-style-type: none"> • It is designed to calculate automatically the amount of required food stock via Excel® once the basic information of each local government (number of intended persons, etc.) is entered into the system. • Upon excluding items considered unsuitable for stockpiling by referencing government publications, the simulator is then able to calculate the optimal amount of food stock of selected items in consideration to nutritional aspects. <p>(Reference) Ministry of Agriculture, Forestry and Fisheries: "Disaster Stockpiling Guide" (March 2019) Ministry of Agriculture, Forestry and Fisheries: "Household Emergency Stockpiling Guide" (February 2014) Ministry of Education, Culture, Sports, Science and Technology: "Food Composition Database" "Standard Tables of Food Composition in Japan - 2005 - (Seventh Revised Edition) 2018 Addendum"</p>

The basic concept adopted for the calculation of optimal amount of food stock with consideration to nutritional aspects

This tool uses the "demand" and "supply" concepts to calculate the optimal amount of food stock in consideration to nutritional aspects.

"Demand" is the "total required amount" of nutrient factors that is calculated by multiplying the amount of each daily required amount (calories, protein, vitamins, etc.) and the number of applicable days.

"Supply" is the "total supply amount" which is the sum of each nutrient factor included in foods selected. The simulator calculates the optimal amount of food stock to match (or nearly match) "demand" and "supply" in consideration to nutritional aspects.

Ministry of Health, Labour and Welfare of Japan 'Simple simulator for calculating nutritional food stocks in preparation for large-scale disasters' (only available in Japanese)

https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000089299_00004.html

2-3 Securing Designated Emergency Evacuation Sites and Designated Shelters

A "designated emergency evacuation site" is a facility or place where residents evacuate in an emergency to ensure the safety of their lives under imminent danger of a tsunami or flood. And a "designated shelter" is a facility designed to allow evacuees to stay for a necessary time period until the danger of disaster is over, or to temporarily let residents who are unable to return home stay due to disaster.

At the time of the Great East Japan Earthquake, evacuation sites and shelters were not always clearly distinguished, which unfortunately became a factor in the spread of damage. Therefore, the Cabinet Office amended the "Basic Act on Disaster Management" in 2013, requiring the mayors of municipalities to designate

designated emergency evacuation sites and designated shelters separately in advance and to inform (publicly notify) residents of these details. The status of the designated emergency evacuation sites as of April 1, 2022, is shown in Fig. 2-3-1.

Fig. 2-3-1 Designation of Designated Emergency Evacuation Sites

	Designation of designated emergency evacuation sites							
	Floods	Slope failure, debris flow and landslide	Storm surge	Earthquakes	Tsunami	Large-scale fire	Inundation by Heavy Rain	Volcanic Phenomenon
The number of designated sites	70,979	66,671	22,577	85,901	39,118	40,550	37,990	10,665
Estimated accommodation capacity (10,000 people)	12,263	13,426	5,992	23,872	8,874	17,813	7,621	2,705

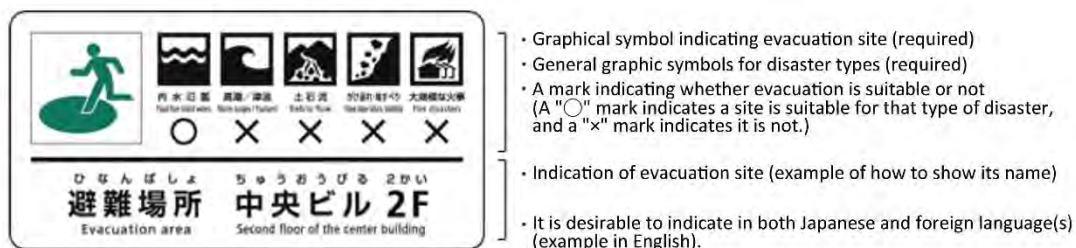
Source: Prepared by the Cabinet Office based on the Fire and Disaster Management Agency's "Status of Regional Disaster Management Administration" (with multiple responses for each category)

The designated emergency evacuation sites are also available on the Geospatial Information Authority of Japan's web map, "GSI Maps." (Reference: <https://www.gsi.go.jp/bousaichiri/hinanbasho.html>)

The Cabinet Office, together with the Fire and Disaster Management Agency, is urging local governments to designate their emergency evacuation sites. In addition, since the designated emergency evacuation sites are to be designated for each type of disaster, the local governments nationwide are being encouraged to follow the "Hazard Specific Evacuation Guidance Sign System (JISZ 9098) (March, 2016) when they install or update guidance sign plates. This system was established to help evacuees make clear decisions (Fig. 2-3-2). The International Standard for the Hazard Specific Evacuation Guidance Sign System (ISO 22578) was issued in February 2022.

(Reference: <https://www.bousai.go.jp/kyoiku/zukigo/index.html>)

Fig. 2-3-2 Example of Information Board Using the Hazard Specific Evacuation Guidance Sign System



Source: Cabinet Office data

In addition, the number of designated shelters in accordance with Article 49-7 of the "Basic Act on Disaster Management" has increased from 48,014 as of October 1, 2014, to 82,184 as of December 1, 2022.

It is considered important to improve the quality of life and ensure a good living environment even under conditions where people are forced to live inconveniently in shelters during a disaster. For this reason, the Cabinet Office has broadly examined issues related to the promotion of designation of shelters and welfare shelters in municipalities, the improvement of toilets in shelters, and the development of support systems and consultation services for persons requiring special care.

In recent years, the "Sub-Working Group Concerning Evacuation of the Elderly and people with special needs

Based on Typhoon Hagibis in 2019 (hereafter referred to as “SWG for the Elderly and Persons with disabilities”) was held in FY2020, and in this sub-working group, it was considered to be appropriate that new system should be established to specify the recipients by welfare shelter, and by disclosing the referenced information in advance at the time of designating the welfare shelters, to clarify that they are the facilities where only they and their family can evacuate.. In light of this, the "Regulation for Enforcement of the Basic Act on Disaster Management" (Prime Minister's Office Order No. 52, 1962) and the "Guidelines for Securing and Managing Welfare Shelters" and others were revised in May 2021.

Moreover, there have been needs at shelters such as measures to prevent infectious disease, to improve living conditions, to ensure appropriate opening and disaster prevention functional facilities according to the location and to manage shelters from a female perspective. Accordingly, in April 2022, the "Implementation Direction of Ensuring Satisfactory Living Conditions at Shelters," was published, based on which the "Shelter Management Guidelines" and the "Guidelines for Securing and Managing Toilets at Shelters" were prepared.

In July 2022, the Cabinet Office published the “Examples of Efforts to Improve the Living Environment and Countermeasures against COVID-19 in Shelters” to present examples of advanced initiatives in shelter operations.

(Reference : <https://www.bousai.go.jp/taisaku/hinanjo/index.html>)

2-4 Formulation of Individual Evacuation Plans

In recent years, a large number of the elderly and persons with disabilities have been affected by disasters. Therefore, in the final reports of SWG for the Elderly and Persons with disabilities, the Sub-Working Group indicated that creating individual evacuation plans should be accelerated more, and it was necessary for the elderly and persons with disabilities to evacuate smoothly and promptly by such plans. Individual evacuation plans were designed to support those who require assistance evacuating such as the elderly and persons with disabilities who have difficulty in evacuating on their own. From the viewpoint of encouraging more municipalities across the country to formulate these plans which had already been under formulation in some municipalities, it was considered appropriate to obligate them to make efforts.

Based on suggestions by SWG for the Elderly and Persons with disabilities, and under the amendment and enforcement of the "Basic Act on Disaster Management" in May 2021, "Guidelines for Measures for Residents in Need of Assistance in Evacuation" were revised and published to promote the smooth formulation of individual evacuation plans in municipalities. The guidelines suggest the municipalities to formulate plans for those who are deemed as high priority that require assistance evacuating within around five years and showed the formulation steps.

For required costs to formulate these plans, new local allocation tax measures were taken in FY2021, and they will continue in FY2023.

Since regional circumstances, such as disaster states, hazard situations, climates, as well as population sizes, age distributions and shelter securement statuses, vary depending on the municipality, each municipality faces different challenges when creating these plans.

In order to address this concern, pilot projects for formulating individual evacuation plans were conducted in designated organizations in 34 cities, wards, towns, and villages as well as 18 prefectures in FY2021, and in designated organizations in 23 cities, wards, towns, and villages as well as 11 prefectures in FY2022 to build an effective, efficient method for formulating these plans, and the process and knowledge were shared with local

governments across Japan.

- <Summary of Pilot Projects of Individual Evacuation Plan Formulation>
- Accumulation of Best Practices which Achieve Effective Individual Evacuation Plans
 - ・Accumulate best practices which achieve effective individual evacuation plans responding to various issues in each region.
 - ・Aim for establishing an efficient formulation process. To do so, municipalities need coaching and advice from experts who are knowledgeable about the formulation of individual evacuation plans. Also, the entire process of formulation should be done in a pilot project with participation from welfare specialists and local experts.
 - Offer of Opportunities to Share Know-How among local governments
 - ・ Offer opportunities where municipalities across the country can share knowledge and skills from projects effectively by creating events to share their current situation and exchange their opinions.
 - Spread Information about the Results
 - ・Spread the knowledge and skills from pilot projects via web portal, presentations, reports and case study books, and educate municipalities nationwide.

Based on the initiatives of the designated organizations (model groups), a streamlined procedure for preparing individual evacuation plans was presented to municipal officials and related parties with the aim of promoting awareness and dissemination (Fig. 2-4-1).

Fig. 2-4-1 To Those Working on Individual Evacuation Plans (Excerpt)

The figure illustrates the process of creating individual evacuation plans. On the left, a collage of photos shows community members participating in workshops. The central flowchart details the steps:

- 準備 (Preparation):** Gather information from designated organizations and prepare forms in Excel or Word.
- 確認 (Confirmation):** Confirm details with designated organizations.
- 完成 (Completion):** Finalize the plan after necessary corrections.

 On the right, a sample form titled 'Individual Evacuation Plan' is shown, with fields for name, address, phone number, and other personal details.

Source: Cabinet Office data
https://www.bousai.go.jp/taisaku/hisaisyagyousei/pdf/230302_hinan.pdf

These projects ensured the effectiveness of evacuation of residents in need of assistance in evacuation and encouraged the formulation of individual evacuation plans nationwide.

2-5 Study to Enhance Support for Affected People

Based on the current status of systems and efforts for supporting disaster-affected people, the Cabinet Office established the "Study Group on Support for Affected People" in May 2022 with the aim of examining more efficient and high-quality support for affected people. The study group is discussing issues, such as improving the environment for evacuees, securing and improving their housing, strengthening cooperation among various actors who are supporting affected people, and disaster case management (an initiative to provide continuous, attentive support to affected people through the cooperation of related parties, based on an understanding of each affected

person's situation to resolve various issues faced by them). Based on the discussions by the study group and as described below, initiatives are ongoing, such as preparing a guide for disaster case management, holding briefing sessions, and implementing model projects to strengthen cooperation with NPOs and volunteers. In addition, the study group will continue to discuss and implement feasible measures to enhance and strengthen support for affected people.

Regarding disaster case management, the Cabinet Office has positioned it in the Basic Disaster Management Plan, and it has prepared the "Case Book of Disaster Case Management Initiatives," which contains examples of advanced initiatives by local governments.

In FY2022, the Cabinet Office established the "Academic Experts Committee for Preparing Disaster Case Management Guidance for FY2022" to prepare a standardized guide for local governments nationwide to implement disaster case management regardless of their disaster experience. The committee discussed preparations to be made during normal times and specific measures to be taken after a disaster. The guidance was developed in March 2023 and disseminated to all local governments.

(Reference: <https://www.bousai.go.jp/taisaku/hisaisyagyousei/case/index.html>)

Starting in FY2023, the Cabinet Office will continue its efforts to promote the dissemination of disaster case management by utilizing the aforementioned case book and guidance. This will include briefing sessions targeting a wide range of stakeholders, such as local government officials, welfare personnel, and NPOs.

2-6 Use of Digital Technology in Disaster Management

(1) Consolidation of Information during Disasters

In the event of a disaster, it is important to share information collected by national and local governments and private companies, such as the damage situation, the movement of evacuees, and the situation of relief supplies. To this end, the Cabinet Office has established the National and Local Governments and the Private Sector Disaster Information Hub Promotion Team since 2017 to facilitate the use of digital technologies and promote the act of exchanging information through rules of the method and period of information sharing among relevant organizations through a disaster information hub (hereinafter referred to as the "hub" (see Fig. 2-6-1)).

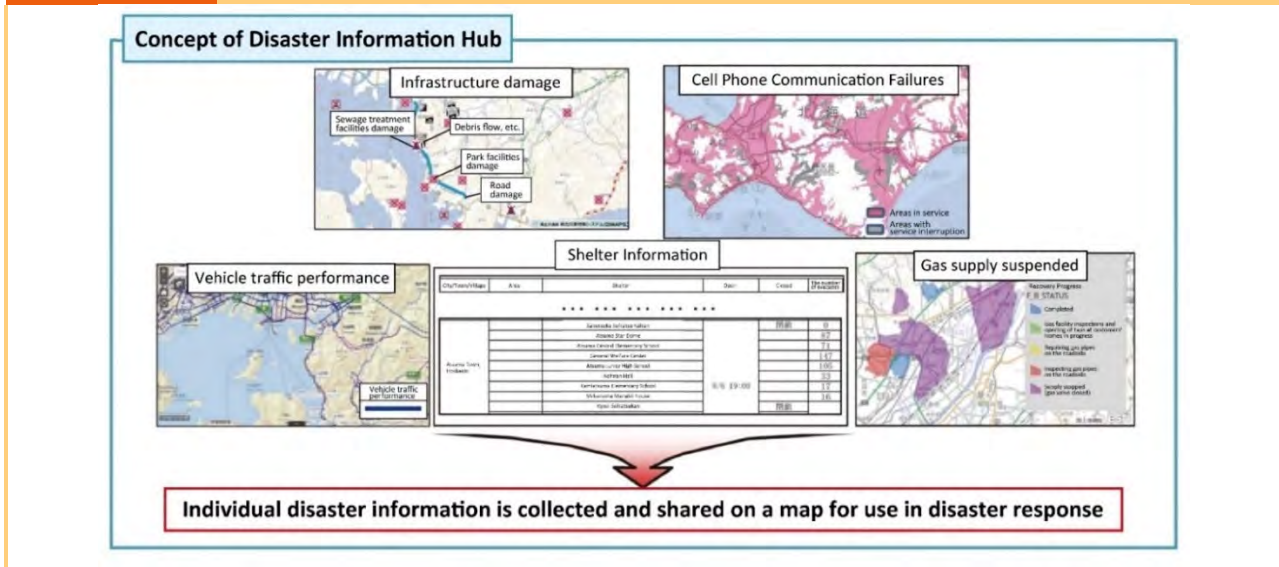
(Reference: <https://www.bousai.go.jp/kaigirep/saigaijyouhouhub/index.html>)

Based on these studies, in FY2019, the ISUT (Information Support Team) began operation to support the disaster response of local governments by aggregating, mapping, and providing information on disaster damage and shelters in the event of a large-scale disaster. At the site of a disaster, some information, such as information on damage and disaster waste, changes from moment to moment that cannot be shared in advance (i.e. dynamic information) exists. The ISUT will collect, organize, and map such information, and establish the ISUT website for displaying an electronic map, and share this with relevant organizations (i.e. government agencies and designated public corporations) so that it can support quick and accurate decision-making by disaster response organizations.

So far, the ISUT has responded to disasters such as the Heavy Rain Event of July 2018, Typhoon Hagibis in 2019, the Heavy Rain of July 2020, and the debris flow in Atami caused by the rains from July 1, 2021. The ISUT initiated information sharing before the occurrence of disasters in FY2022, including pre-disaster information on Typhoons Nanmadol and Talas, heavy snowfall starting from December 17, 2022 and from January 20, 2023. It also provided information support to disaster response organizations through the ISUT website, sharing information on disaster waste generation, snowfall, road restrictions and road closures.

Furthermore, in order for the ISUT to conduct its activities more quickly and effectively, its operations, such as mapping, have been partially outsourced to the private sector since 2021, and this has further enhanced the system. Training programs on the use of the ISUT website were also implemented.

Fig. 2-6-1 "Disaster Information Hub" Conceptual Diagram

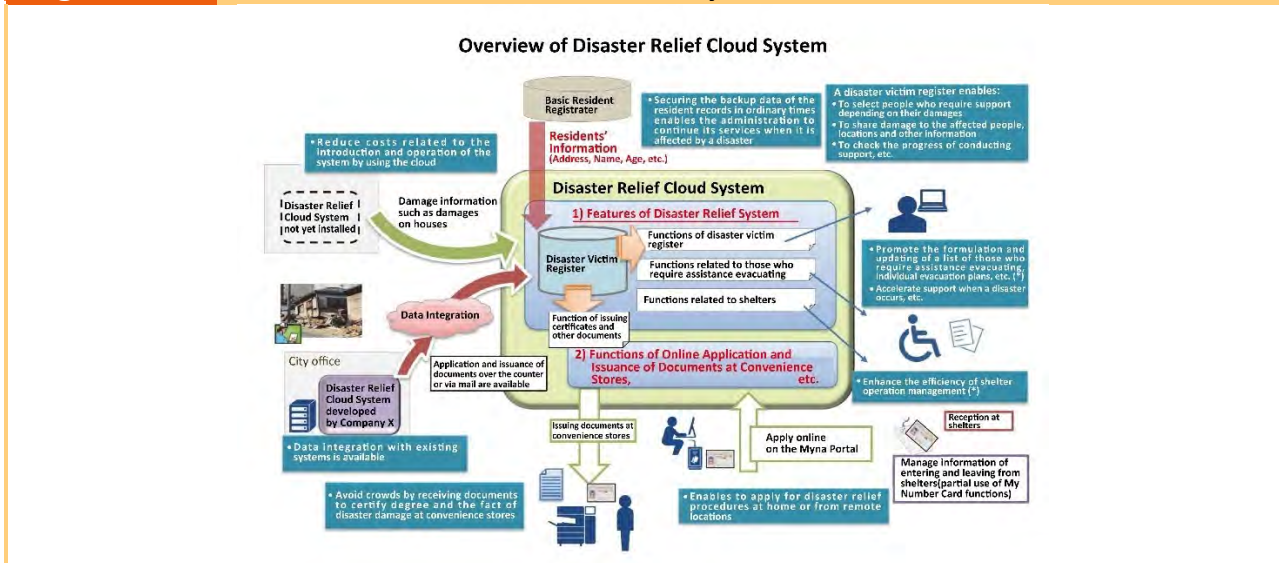


Source: Cabinet Office data

(2) Building Disaster Victims Supporting Cloud Systems

The Cabinet Office developed the "Disaster victims Supporting Cloud System" from FY2021 to FY2022. This system enables not only municipal offices to obtain support in formulating individual evacuation plans in ordinary times and prepare disaster victim register based on Resident Registration data in times of disaster, but also affected people to apply for a Disaster Affected Certificate and other governmental documents online and receive them at convenience stores by using their My Number Card once a disaster occurs. The Japan Agency for Local Authority Information Systems (J-LIS) solicited participating municipalities and started operation.

Fig. 2-6-2 Overview of Disaster Relief Cloud System



Source: Cabinet Office data

(3) Key Measures Taken Based on Recommendations from the Disaster Management Technology Working Group on Digital Transformation (DX) in Disaster Management

Based on the proposals of the "Digital and Disaster Management Technology Working Group" compiled in May 2021, the Cabinet Office is promoting various initiatives centered on the following to drive disaster management digital transformation.

① Development of Next Comprehensive Disaster Management Information System

The Integrated Disaster Management Information System is a system designed to share disaster information as geospatial information and support prompt and accurate decision-making by the government in the event of a disaster. However, it is essential to further enhance its information collection and other functions. The next system, scheduled to be operational in FY2024, will incorporate the mechanism of SIP4D (Shared Information Platform for Disaster Management), which the National Research Institute for Earth Science and Disaster Resilience is operating as part of its research and development activities. The scope of its use will be expanded to include local governments and designated public institutions in addition to central ministries and agencies. In order to realize and strengthen functions such as information collection, analysis, processing, and sharing, as well as to link the system with other disaster response organizations, studies are being conducted on information items and handling rules that are necessary in the event of a disaster.

② Measures to Enhance Disaster Response with "Disaster Management IoT" data

At disaster sites, a variety of cameras, disaster management helicopters, and drones are used to confirm the situation. To appropriately acquire and share the vast and diverse data from these various IoT among disaster-affected municipalities and disaster management organizations, a research project is ongoing to organize technical standards for data formats and device specifications. Additionally, a verification system has been launched to verify the effectiveness of the project.

③ A Study on the Handling of Personal Information in the Field of Disaster Management

In the past, personal information protection ordinances in each municipality had different rules for handling personal information (the so-called "2,000-piece problem"), but the Related Acts on Digital Reform will set up common rules, and a system to monitor and supervise the way to handle personal information were established in a centralized manner. Taking this as an opportunity, the Cabinet Office established the "Study Group on the Handling of Personal Information in the Field of Disaster Management" in March 2022. In March 2023, the Cabinet Office developed the "Guidelines for Handling Personal Information in the Field of Disaster Management" to clarify the handling of personal information and prevent local governments and other relevant entities from facing ambiguities in their handling of personal information during a disaster or normal times. These guidelines are based on the following two policies.

- a Given that the initial 72 hours following a disaster are crucial for life-saving efforts, proactive use of personal information should be considered.
- b However, when using personal information, it is necessary to protect the rights and interests of individuals in accordance with the Act on the Protection of Personal Information and the Basic Act on Disaster

Management. For example, it is necessary to give sufficient consideration to those who are especially in need of protecting their rights and interests, such as victims of domestic violence or stalking.

2-7 Holding Meetings for Immediate Natural Disaster Response and Coordination Team

In order for the government to quickly and smoothly carry out initial response and emergency measures immediately after a large-scale disaster strikes, it is important for the Deputy Chief Cabinet Secretary for Crisis Management and the Director General of government in charge of disaster management to establish a "face-to-face relationship" from a regular basis, and to ensure appropriate role-sharing and mutual collaboration and cooperation.

For this purpose, the "Meetings for Immediate Natural Disaster Response and Coordination Team" have been held to exchange and share information among related parties.

In addition, when large-scale disasters such as the Heavy Rain Event of July 2018 and Typhoon Hagibis in 2019 (T1919) occurred, the government organized a cross-ministry team to support the lives of the affected under the supervision of the Deputy Chief Cabinet Secretary (Administrative Affairs) in order to provide more detailed, prompt and powerful livelihood support to the affected people. Through this team, the government was able to quickly restore power and water services at the initial phase, assess the needs of the affected people and provide push-mode support such as water, food, cardboard beds and partitions. The government has improved the living environment in shelters, dispatched staff to the affected municipalities, and secured housing and worked as one to quickly provide support for the livelihoods of the affected people by putting together a package of measures to rebuild the life and livelihood of the affected areas.

Based on these experiences, since FY2020, the Basic Disaster Management Plan has clearly stated that in the event of a large-scale disaster in the future, a "team to support the lives and livelihood restoration of affected" would be established to provide prompt and smooth support to rebuild the lives and livelihood of the affected people, and the establishment of such a team has been made a rule.

2-8 Consideration of Ships Utilization Medical Care Provision System in Times of Disaster

Regarding hospital ships (ships whose main function is to provide medical services on board in times of disaster, etc., the same applies hereinafter), the government has conducted research, study and demonstration trainings using existing ships.

In June 2021, the "Act on Promotion of Development of Ships Utilization Medical Care Provision System in Times of Disaster, etc." (Act No. 79 of 2021) was passed through legislation introduced by a Diet member and is scheduled to be enforced within three years from the date of promulgation.

The Act aims to promote the development of ships utilization medical care provision system in preparation for disasters, etc. The basic policies include: (1) role-sharing and collaboration with land-based medical services, (2) ownership of ships (including those owned by parties other than the national government) to be used primarily for providing medical care in times of disaster, etc., (3) securing personnel, (4) human resource development, (5) securing supplies, (6) utilization during normal times, and (7) private sector utilization. The Act also mandates the establishment of Headquarters for the Promotion of Ships Utilization Medical Care in the Cabinet. Based on these basic policies, the government is to take any necessary legislative or financial measures and to formulate a plan to promote development.

In October of the same year, the government held a liaison conference of relevant ministries and agencies,

and in July 2022, established Preparatory Office for Establishment of Headquarters for the Promotion of Ships Utilization Medical Care in the Cabinet Secretariat, as part of promotion of the preparation for the enforcement of the Act in a unified government-wide effort. In February 2023, the relevant government ministries and agencies and medical organizations collaborated to conduct a drill ranging from the initial response to the completion of disaster medical activities using a Self-Defense Forces vessel, etc. In addition, they conducted a survey on the current status of private vessels that are capable of providing medical care in times of disaster, performed a demonstration drill using private vessels, and investigated how to strengthen cooperation with the private sector in disaster medical care.

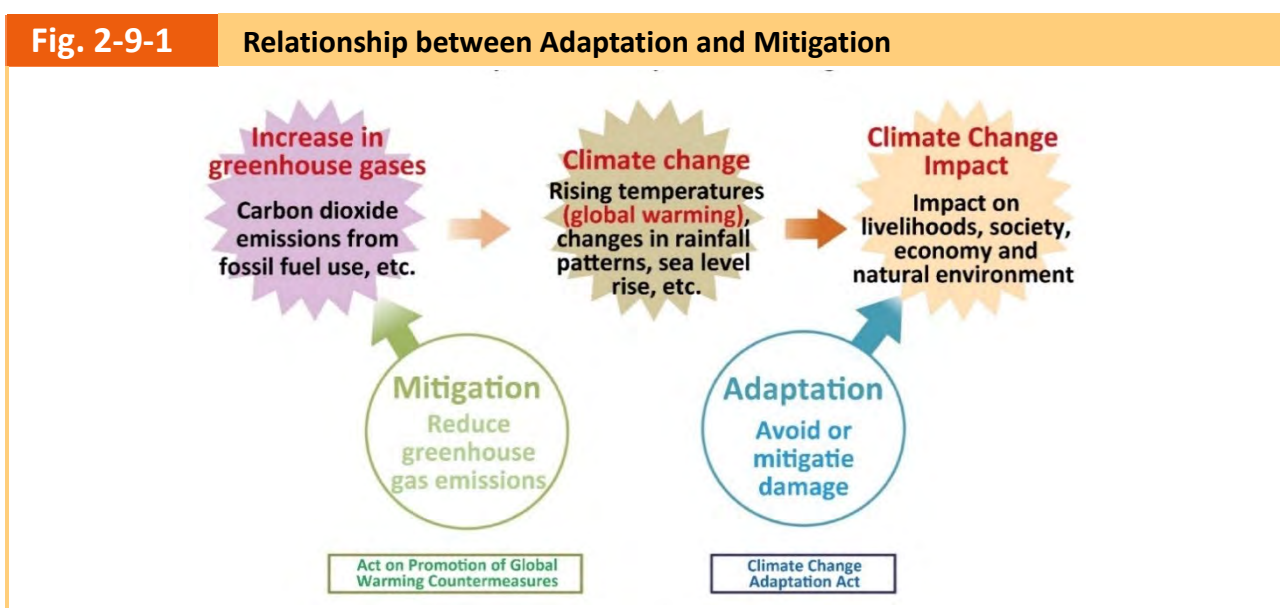
The government will continue to work towards the development of ships utilization medical care provision system in times of disaster, etc. while taking advantage of the government's measures to date and continuing to listen carefully to the opinions of medical-organizations and others.

2-9 Disaster Prevention and Mitigation Measures Based on Climate Change Risks

(1) Mitigation and Adaptation Measures Are Inseparable

Climate change and its impacts, such as rising mean temperatures and more frequent heavy rainfall in recent years, are appearing in many parts of the world. Such negative impacts of climate change are called a “climate crisis” that shakes the foundations of human survival and the survival of all other living things. Although it is not easy to determine how each of these weather events is linked to global warming, the risk of such extreme heat and rainfall is projected to increase as global warming progresses further.

As an ambitious goal consistent with net-zero by 2050, Japan aims to achieve a 46% reduction of greenhouse gas emissions in FY2030 from levels seen in FY2013 and will continue strenuous efforts in its challenge to meet the lofty goal of cutting its emission by 50%. However, even if we steadily promote climate change countermeasures to achieve net-zero by 2050 and limit the temperature increase to about 1.5°C, the risk of extreme high temperature events and heavy rainfall is projected to increase. Therefore, adaptation efforts are necessary to avoid or reduce observed or projected damage (Fig. 2-9-1).



Source: Cabinet Office data

(2) Promotion of Climate Change Adaptation Plan

The "Climate Change Adaptation Act" (Act No. 50 of 2018) (hereinafter the "Adaptation Act") was promulgated on June 13, 2018, and came into force on December 1 of the same year to set a legal framework for climate change adaptation and to promote climate change adaptation more extensively. In November 2018, just before the implementation of the Adaptation Act, the "Climate Change Adaptation Plan" (hereinafter-the "Adaptation Plan") was formulated in accordance with the provisions of that law.

In December 2020, the government published an "Assessment Report on Climate Change Impacts in Japan" based on the latest scientific findings from the observation, monitoring, projection, and assessment of climate change and its impacts in various sectors. In October 2021, the government revised the Adaptation Plan on the basis of the report.

The "Climate Change Adaptation Promotion Council," which consists of relevant government ministries and agencies, verified the method for short-term progress monitoring of measures based on the Adaptation Plan. Based on this method, the Council identified the status of efforts for sector-specific and infrastructure-specific measures, grasped the values of Key Performance Indicators (KPIs) (key indicators designed to monitor the short-term progress of measures contributing to the government's adaptation efforts, by quantitatively assess the outputs and outcomes achieved to the extent possible), and published them in November 2022 as a follow-up report of the Adaptation Plan.

(Reference: <http://www.env.go.jp/earth/tekiou.html>)

(3) "Strategy for Enhancing the Synergy between Climate Action and Disaster Risk Reduction" and "Adaptation Recovery" Initiatives

In June 2020, the Ministry of the Environment and the Cabinet Office publicly announced the "Strategy for Enhancing the Synergy between 'Climate Action and Disaster Risk Reduction' in the Era of Climate Crisis," a strategy to effectively coordinate climate change adaptation, and disaster prevention and mitigation measures (Fig. 2-9-2).

The Ministry of the Environment is actively promoting initiatives that effectively link climate change and disaster risk reduction with various sectoral measures. These initiatives aim to incorporate the concept of "climate change x disaster management" (intended to comprehensively take climate countermeasures and disaster management and mitigation measures) into policies in each field as a mainstream policy. These initiatives include integrating the concept into the Adaptation Plan revised in October 2021, as well as developing a manual for local governments to be published by the end of 2023. This manual will assist in advancing "Adaptive Recovery," an approach that encourages adaptation to climate change by controlling land use beyond mere restoration to the original form.

Fig. 2-9-2

Outline of "Strategy for Enhancing the Synergy between Climate Action and Disaster Risk Reduction in the Era of Climate Crisis"

Outline of "Strategy for Enhancing the Synergy between Climate Action and Disaster Risk Reduction in the Era of Climate Crisis"(Joint Message) June 30, 2020

- | | |
|--|--|
| <p>[Natural Factors]
 Meteorological disasters are getting more severe and frequent due to climate change, and the frequency of heavy rain and flooding is expected to increase in the future. We have been up against an era in which meteorological disasters exceeding previous assumptions will occur more frequently in various regions.</p> | <p>[Social Factors]
 "Increasing in the number of those who require assistance evacuating and decreasing in the number of people in the supporting generation due to declining population and aging society with fewer children Increased disaster risk due to population concentration in cities Compound risk of infectious diseases and natural disasters occurring at the same time</p> |
|--|--|

- Drastic disaster prevention and mitigation measures based on climate change risks are needed
- Present strategies for enhancing the synergy between climate action and disaster risk reduction, while also taking into account the achievement of the SDGs

Mainstreaming Strategy for Enhancing the Synergy between Climate Action and Disaster Risk Reduction

- Climate action and disaster risk reduction are cross-cutting issues that should be addressed by all sectors.
- Mitigation measures to reduce greenhouse gas emissions will also be addressed to minimize the risks of climate change as much as possible.
- We will seek to incorporate "climate action x disaster risk reduction" in the policies of all sectors and make it a mainstream policy issue.

Issues	Direction	Examples of Future Initiatives
Promote comprehensive measures to build a decarbonized and disaster resilient society	<ul style="list-style-type: none"> • Comprehensive implementation of climate change and disaster prevention / mitigation measures by all actors in various sectors and through various methods • Building a society that "parries a disaster and quickly recovers" • Adaptation to climate change through flexible measures, including land use control, based on the concept of "adaptive reconstruction" 	<ul style="list-style-type: none"> • Promotion of decentralization of population, industry, etc. that are excessively concentrated in Tokyo, etc. • Development of infrastructure facilities based on standards and plans that take climate change into account • Land use that prevents people from living in disaster risk areas as much as possible and living adapted to disaster risks • Learn from ancient wisdom and utilize various functions of nature to reduce disaster risks • Full-scale implementation of "green infrastructure" and "disaster prevention and mitigation using ecosystems" • Effective use of social change in the digital age (remote work, etc.) • Respond to the risk of infectious diseases and heat stroke in shelters, etc. • Transition to a decarbonized society, including accelerated introduction of renewable energy
Raise awareness and change behavior of individuals, companies and communities, and promote emergency cooperation	<ul style="list-style-type: none"> • Promote awareness of "self-help" and "mutual support", which means "to save one's own life by oneself" and "to survive together" respectively ; Appropriate disaster prevention actions; and Promoting disaster response in which all actors cooperate and work together 	<ul style="list-style-type: none"> • Efforts to raise awareness and change behavior to promote evacuation actions • Promotion of formulating Community Disaster Management Plans, individual plans for those who require assistance evacuating, and business continuity plans for companies, etc., taking into account the possibility of severer weather-related disasters than before • Create an environment where multiple generations can learn about climate change and disaster risk reduction at the local level and prepare for disasters • Cooperation among many stakeholders beyond the public and private sectors in activities to support affected people, including cooperation in flood control, provision of shelters from local businesses to residents, and collection and transportation of disaster waste
Promote international cooperation and overseas adaptation	<ul style="list-style-type: none"> • Simultaneous achievement of the Paris Agreement along with the Sendai Framework for Disaster Risk Reduction and the SDGs as the "Three Pillars of Climate Action x Disaster Risk Reduction" 	<ul style="list-style-type: none"> • Contribution to the improvement of disaster resilience of countries around the world using Japan's technologies and know-how on disaster reduction • Strengthening international adaptation efforts through the Asian Disaster Reduction Center and the Asia-Pacific Climate Change Adaptation Information Platform, and promoting collaboration among platforms

Source: Materials from Cabinet Office and Ministry of the Environment (https://www.bousai.go.jp/pdf/0630_kikohendo.pdf)

Source: Materials from Cabinet Office and Ministry of the Environment (https://www.bousai.go.jp/pdf/0630_kikohendo.pdf)

(4) Heat illness Prevention in Evacuation Life and Cleanup Work during Disasters

When natural disasters occur during the summer, infrastructure failures and shortages of relief supplies immediately after the disaster may increase the risk of heat illness during evacuation life and cleanup operations.

Therefore, in March 2021, the Ministry of the Environment, the Cabinet Office, the Fire and Disaster Management Agency, the Ministry of Health, Labour and Welfare, and the Japan Meteorological Agency collaborated to prepare a leaflet on measures against heat illness during evacuation and cleanup activities after disasters (revised in June 2022). In FY 2022, they also conducted awareness-raising campaigns targeting local governments in June in preparation for the summer season (Fig. 2-9-3).

Fig. 2-9-3

Leaflet for Heat illness Prevention During Disaster

Heat illness Prevention During Disasters

MOE
Cabinet Office
FDMA
MHLW

Precautions during evacuation life and cleanup

Heat illness is a serious illness that can lead to death, but it can be prevented if appropriate prevention and measures are taken. During a disaster, the risk of heat illness is higher in unfamiliar environments and tasks, so take extra precautions by reminding each other.

1. To prevent heat illness

- (1) Avoid the heat**
Wear cool clothing, parasols and hats, and, in case of home evacuation, make active use of air conditioners. If there is a possibility of a prolonged power outage, consider evacuating to a shelter where air-conditioning facilities are in operation, especially for the elderly, children and people with disabilities.
- (2) Drink water frequently even if you are not thirsty**
- (3) Check information on heat**
Check the temperature, humidity and Wet Bulb Globe Temperature (WBGT) (*) around you. Use the "Heat Stroke Alert" (available nationwide since FY 2021).
- (4) Remove your face mask when you are outdoors**
Wearing a mask outdoors raises the risk of heat illness. Please wear a mask when you make conversation with someone close by (within 2 meters).
* Even indoors you do not need to wear a mask if you do not make conversation and keep distance from others.

Precautions for evacuation life

- ◆ The risk of heat illness may increase due to fatigue, poor physical conditions and malnutrition resulting from disaster and evacuation life. During evacuation life, take care of your physical condition more than you would normally.
- ◆ Elderly people, children and people with disabilities should take special precautions.

* If you have no choice but to stay overnight in your car, park the vehicle in the shady and well-ventilated areas. Use insulating sheets for your car. In addition, do not leave infants and young children alone in the car. Avoid leaving the engine on at night when sleeping.

Precautions for cleanup and other works

- ◆ Always check your physical condition before starting work and do not work if you are not feeling well.
- ◆ Whenever possible, two or more people should work together and check each other's physical condition during the work.
- ◆ Take breaks and drink water at regular intervals. When taking breaks, make sure to find a shaded area or other cool place.
- ◆ Avoid working during hours with high temperature.
- ◆ When sweating, also replenish sodium levels.

**Wet Bulb Globe Temperature (WBGT) is an indicator of the risk of heat illness, consisting of temperature, humidity and radiant heat.

2. When heat illness is suspected

First Aid for heat illness

If someone around you suffers from heat illness: Remain calm, assess the situation and take action. The first steps are crucial.

If the patient is sweating profusely, a saline sports drink, oral rehydration solution or saline solution is recommended.

If ice packs are available, use them to cool the neck, armpits and groins.

Someone who knows the situation when the person collapsed should accompany him/her and inform the medical institution of the condition at the time of onset of the illness.

Examples of effective ways to lower body temperature

- Remove the person's outer garment and loosen his/her clothes to allow air circulation.
- Place a wet towel or handkerchief on the skin and cool down with a round fan or an electric fan.
- Pour cool water over the clothing little by little.
- Place ice packs or chilled plastic bottles on the neck, armpits and groins to cool the skin.



For more information on Wet Bulb Globe Temperature (WBGT) in Japan and heat illness prevention: Ministry of the Environment Heat Illness Prevention Information Website: <https://www.wbgt.env.go.jp/>

The "Heat Stroke Alert" can be found through the Ministry of the Environment's official LINE account.
*Information released on days when the risk of heat illness is expected to be extremely high. Nationwide deployment since FY 2021.



【Column】

Consolation Payments for Persons Disabled by Disasters

Human suffering caused by natural disasters can be broadly classified into deaths and injuries, but some injured people may be left with a substantial disability even after their injuries heal (including cases where symptoms stabilize).

After the Great Hanshin-Awaji Earthquake, Hyogo Prefecture and Kobe City conducted a joint survey based on a recommendation in March 2010 by the Reconstruction Follow-up Committee (established by Hyogo Prefecture) that "the actual situation of people who became disabled or orphaned as a result of the earthquake and lessons to be learned should be identified in anticipation of future disasters." The survey included questionnaires and interviews on items such as the distribution of disability grades, the timing of the acquisition of physical disability certificates, the current health status and living conditions, and the situation at the time of the disaster, and its results were published.

(Reference) Hyogo Prefecture website – Report on the Survey of Individuals Who Became Disabled or Orphans as a Result of the Earthquake

https://web.pref.hyogo.lg.jp/kk41/wd34_000000177.html

Yorozu Sodan-shitsu is a counseling office (its representative is Mr. Shuichi Maki) that has been supporting the elderly and other people affected by the Great Hanshin-Awaji Earthquake. In 2007, it began supporting those who were disabled by the earthquake, and it has been reaching out to related organizations to expand support for the elderly and disabled since the Great East Japan Earthquake. (Excerpts of key points from its website)

In general, the administration for the welfare of people with disabilities provides necessary support, such as the issuance of disability certificates and the provision of welfare services regardless of the cause of the disability.

Additionally, based on the "Act on Provision of Disaster Condolence Grant" (Act No. 82 of 1973), municipalities must be able to pay disaster disability compensation money for those who have particularly severe disabilities due to a disaster. In light of the fact that those who have been severely disabled by a disaster and who find it difficult to return to socio-economic activities are placed in a harsh environment that is comparable to death, this is an exceptional case where public funds are used to provide consolation money. Disabilities that are eligible for financial assistance are particularly severe disabilities, such as blindness in both eyes, loss of both upper limbs, and conditions requiring constant care. The provision of disaster disability compensation is considered a matter specific to municipalities (autonomous affairs), with the national government covering half of the cost and the relevant prefecture and municipality each covering a quarter of the cost.

In December 2022, the Cabinet Office announced on its website the number of disaster disability compensation payments.

(Reference: <https://www.bousai.go.jp/taisaku/hisaisyagyousei/pdf/shikyukensu.pdf>)

(Reference) Number of payments

FY	2017	2018	2019	2020	2021
Number of cases	12	6	6	1	2

Note 1: The number of cases in the table is the number of those in which disaster compensation was paid to persons who became disabled by disaster (may not be the same as the number of affected people in the fiscal year)

Note 2: Includes the number of payments of disaster compensation relating to the Great East Japan Earthquake

* Number of payments of disaster compensation paid to persons who became disabled due to the Great East Japan Earthquake: 107 cases from FY2011 to FY2021

Section 3. Measures against Each Anticipated Type of Disaster

3-1 Measures against Earthquakes and Tsunamis

(1) Reviewing Measures against a Nankai Trough Megaquake

Based on the Basic Plan for the Promotion of Nankai Trough Earthquake Disaster Management Countermeasures developed in March 2014 (hereinafter referred to as the "Basic Plan" in this section), the national and local governments, private business operators, and other stakeholders have been collaborating to actively advance measures in the event of a Nankai Trough Megaquake. However, considering that it will soon be 10 years since the plan was created, a review of the process has been initiated.

First, in February 2023, the Cabinet Office established the "Study Group on Nankai Trough Megaquake Model and Damage Estimation Method" consisting of academic experts in seismology and earthquake engineering. Drawing on the latest scientific knowledge, the study group is proceeding with technical studies on tsunami height, seismic intensity distribution, and damage estimation calculation methods.

(Reference: https://www.bousai.go.jp/jishin/nankai/kento_wg/index.htm)

In March 2023, the Cabinet Office established the "Working Group on Nankai Trough Megaquake Disaster Management" under the Disaster Management Implementation Committee of the National Disaster Management Council to check the progress of disaster management measures set forth in the Basic Plan, to organize tasks, and to review damage assumptions reflecting the progress of disaster management measures using new calculation methods studied by the "Study Group on Nankai Trough Megaquake Model and Damage Estimation Method." The Cabinet Office is set to study new measures to be promoted in the future.

(2) Study of Measures against Megathrust Earthquake in the Vicinity of the Japan and the Chishima Trenches

① Background of the Study

The government has focused on disaster risk reduction measures against Subduction Zone Earthquakes along the Japan and Chishima Trenches based on the "Basic Plan for Promotion of Disaster Management for Trench-type Earthquakes in the Vicinity of the Japan and Chishima Trenches (hereinafter referred to as the "Basic Plan" in this section)" and other plans. In February 2015, the government established the "Study Group on a Megaquake Model in the Vicinity of the Japan and Chishima Trenches" in the Cabinet Office to examine the distribution of seismic intensities and tsunami heights caused by the largest class of earthquakes and tsunamis, and it published the results in April 2020.

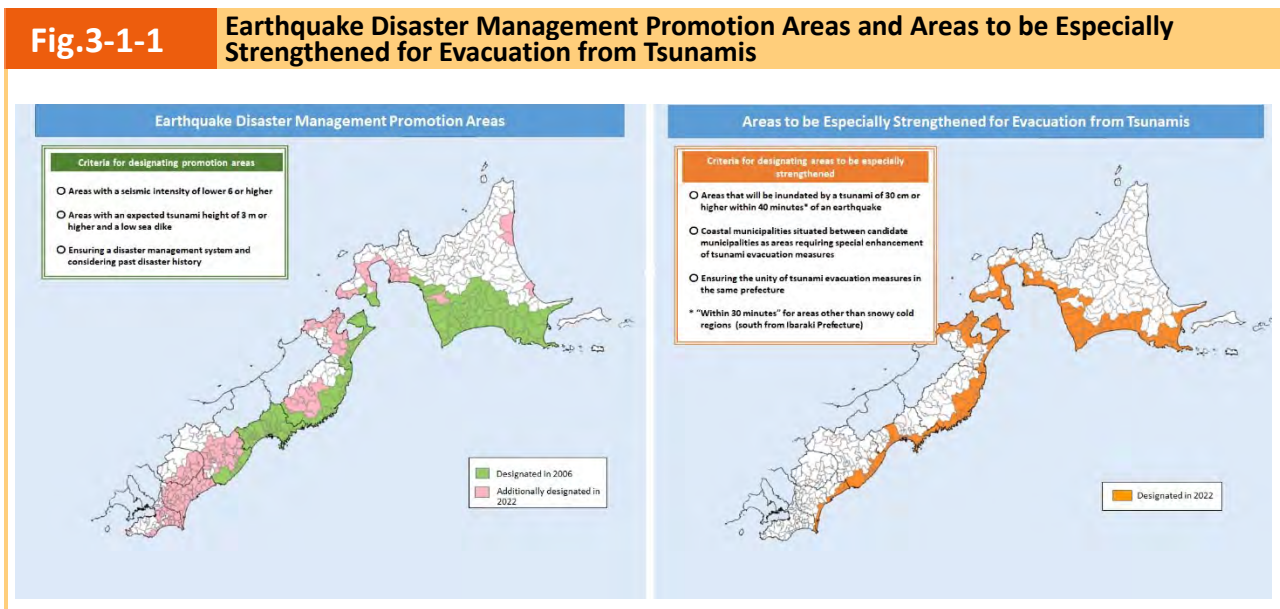
In the same month, the "Working Group for Studying Megaquake Countermeasures in the Vicinity of the Japan and Chishima Trenches (hereinafter in this section referred to as "Japan and Chishima Trenches WG") was established under the Disaster Management Implementation Committee, the Central Disaster Management Council. In December 2021, the Japan Chishima Trenches WG compiled and published the results of the estimated human life, material, and economic damages due to a maximum-class earthquake and tsunami. In March 2022, the Working Group compiled and published disaster risk reduction measures in response to these estimated damages.

② Designation of Areas and Changes in the Basic Plan

Based on the report of the Japan and Chishima Trenches WG, in May 2022, the "Act on Special Measures for Promotion of Countermeasures against Earthquake in the Vicinity of the Japan and Chishima Trenches" (Act No.

27 of 2004) was amended by legislation from lawmakers. (It was enforced on June 17 of the same year.)

The act specifies that the “Areas for the Promotion of Disaster Management for Trench-Type Earthquakes in the Vicinity of the Japan and Chishima Trenches” (hereinafter referred to as “Earthquake Disaster Management Promotion Areas” in this section) and the “Areas to Be Especially Strengthened for Evacuation from Trench-Type Earthquakes and Tsunamis in the Vicinity of the Japan and Chishima Trenches” (hereafter referred to as “Areas to be Especially Strengthened for Evacuation from Tsunamis” in this section) shall be designated by the prime minister. The National Disaster Management Council was consulted about the new designations of these areas. Following consultations with relevant local governments and discussions at the Disaster Management Implementation Committee of the National Disaster Management Council and based on the report of the National Disaster Management Council in September 2022, Hokkaido and seven other prefectures and 272 municipalities were designated as Earthquake Disaster Management Promotion Areas, and Hokkaido and six other prefectures and 108 municipalities were designated as Areas to be Especially Strengthened for Evacuation from Tsunamis (Fig. 3-1-1).



Source: Cabinet Office data (Published in September 2022)

(Reference: https://www.bousai.go.jp/jishin/nihonkaiko_chishima/pdf/chizu.pdf)

At the Disaster Management Implementation Committee, the Basic Plan was revised, and a disaster mitigation goal was set to reduce by 80% the estimated number of deaths in the next 10 years (a maximum of 199,000 in a megaquake along the Japan Trench and 100,000 in a megaquake along the Chishima Trench). Moreover, measures and specific numerical targets for achieving the disaster mitigation goal were set (Fig. 3-1-2).

Fig.3-1-2

Outline of Changes to the Basic Plan for Promotion of Disaster Management for Trench-type Earthquakes in the Vicinity of the Japan and Chishima Trenches

Outline of Changes to the Basic Plan for Promotion of Disaster Management for Trench-type Earthquakes in the Vicinity of the Japan and Chishima Trenches

Points of changes

① Setting of goals, measures and specific targets for disaster mitigation

○ A new disaster mitigation goal to be achieved within 10 years has been set

Projected number of fatalities:
 • A megaquake along the Japan Trench: approximately 199,000 people at maximum
 • A megaquake along the Chishima Trench: approximately 100,000 people at maximum
 The new goal is to achieve a **reduction of about 80%** of each of these over the next 10 years.

○ Expansion of various policies for promoting earthquake disaster countermeasures

< Measures against tsunamis >

- Enhancement of awareness for early evacuation through training and disaster risk reduction education
- Promotion of the development and designation of evacuation routes and facilities

< Measures against earthquakes >

- Seismic reinforcement of buildings such as houses, schools, and medical facilities

< Utilization of digital technologies >

- Development of an environment for linking disaster management information data



Evacuation tower with a cold-weather protection function

< Addressing challenges specific to snowy cold regions >

- Promotion of hypothermia countermeasures during evacuation by stockpiling cold-weather gear and heating equipment.
- Consideration of impacts, such as snow accumulation and freezing, in the development of evacuation routes and facilities

○ New specific targets:

- Local residents willing to evacuate immediately: 70%
- Municipalities conducting an annual tsunami evacuation drill: 100%
- Municipalities having designated tsunami evacuation buildings: 100%
- Houses with inadequate seismic resistance: mostly resolved by 2030

② Dissemination of information on a subsequent earthquake

○ Newly added statements regarding dissemination of information on a subsequent earthquake and the response to such information

- When the possibility of a subsequent earthquake increases, the Japan Meteorological Agency disseminates information to warn of a subsequent earthquake.

→ Society as a whole takes precautionary measures (e.g., preparation for quick evacuation) against subsequent earthquakes for one week

Examples of preparations for prompt evacuation



Preparation of belongings for evacuation

Checking of evacuation routes

③ Policies for drawing up various plans

○ Newly added policies for drawing up the following plans:

- "Specific plans" for the government's emergency response activities
- "Emergency operation plans" for local governments' tsunami evacuation measures

○ Reviewing the items in promotion plans and countermeasure plans on the assumption of maximum class earthquake and tsunami based on the latest scientific knowledge

Source: Cabinet Office data (Published in September 2022)

(Reference: https://www.bousai.go.jp/jishin/nihonkaiko_chishima/pdf/r409_gaiyou.pdf)

The main measures specified include: training and disaster risk reduction education to raise awareness of the need for early evacuation; tsunami countermeasures, such as the development of tsunami hazard maps; and seismic reinforcement of buildings and measures against seismic shaking, such as securing furniture. The measures also include stockpiling cold-weather gear and heating equipment against hypothermia during evacuation and measures to deal with problems unique to snowy and cold regions, such as the development of evacuation routes and facilities that take into account the effects of snow and freezing conditions.

In addition, along the Japan and Chishima Trenches, there have been confirmed cases of an earthquake with a moment magnitude of 7.0 or more followed by a large-scale earthquake (hereafter referred to as a "subsequent earthquake" in this section). Therefore, the Japan and Chishima Trenches WG pointed out in its report (March 2022) that "although the probability of a subsequent earthquake is small, it is necessary to disseminate information that warns the public about it to mitigate the serious damage that could occur in the event of a series of massive earthquakes." Based on this proposal, the Basic Plan was revised to include the dissemination of information warning of a subsequent earthquake, the response to such a warning, and the necessity of one-week preparations for prompt evacuation upon the Japan Meteorological Agency issuing information calling attention to a subsequent earthquake.

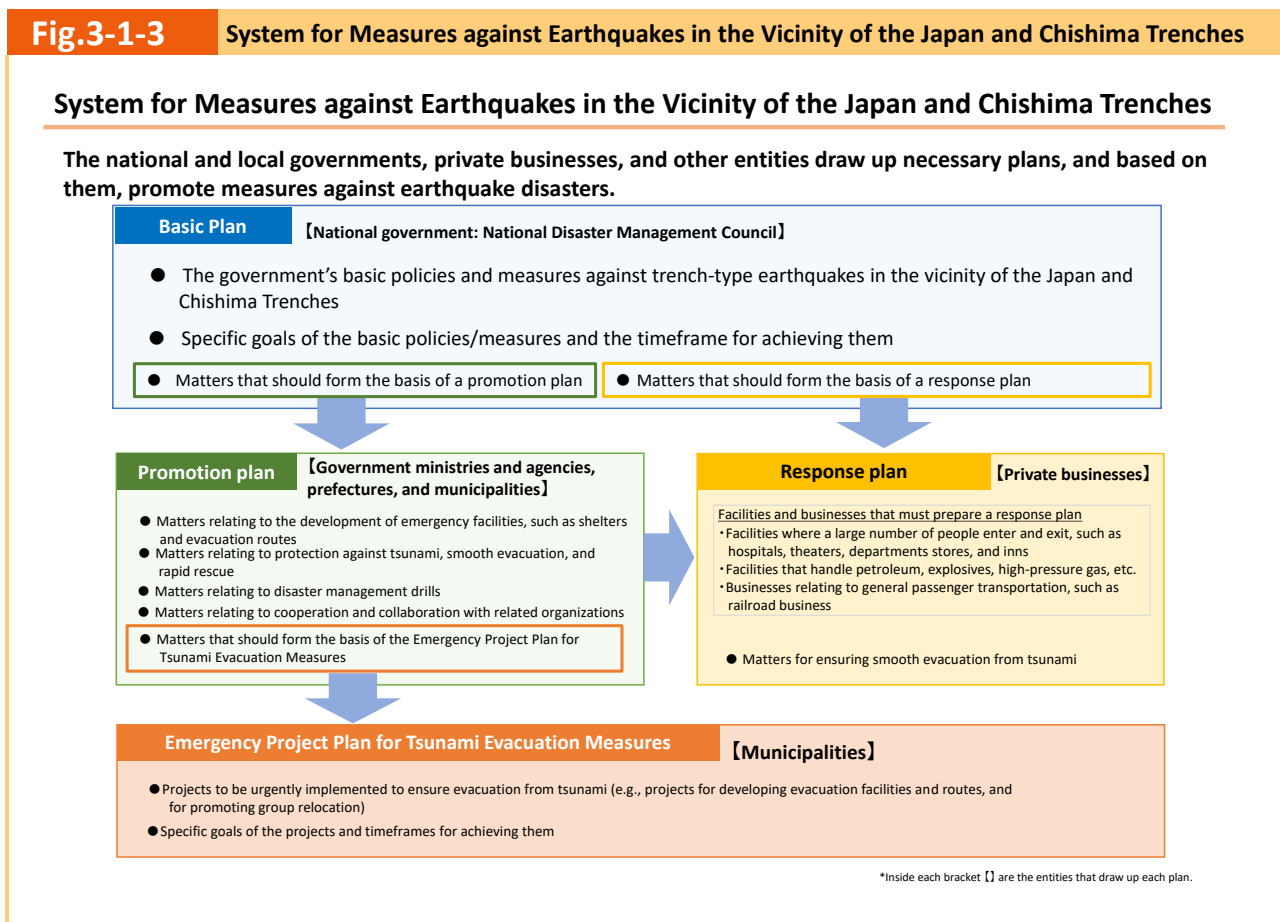
③ Information Calling Attention to a Subsequent Earthquake and Response

The "Study Group on Information Dissemination to Call Attention to a Subsequent Earthquake along the Japan and Chishima Trenches" discussed management, dissemination and awareness-raising of information that called

attention to a subsequent earthquake and the response to it. Taking into account its results, the Cabinet Office and the Japan Meteorological Agency chose to call the name of the information warning of a subsequent earthquake the "Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory." On November 8, 2022, the Cabinet Office released the "Guidelines for the Response to an Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory." The Japan Meteorological Agency commenced the operation of the "Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory" on December 16 of the same year.

④ Future Efforts

Based on the changes in the Basic Plan, the national government is required to create a plan for concrete emergency response activities in preparation for the occurrence of a megaquake along the Japan and Chishima Trenches. Local governments designated as Earthquake Disaster Management Promotion Areas are required to develop a "Disaster Management Promotion Plan for Trench-Type Earthquakes in the Vicinity of the Japan and Chishima Trenches" (hereinafter referred to as the "Promotion Plan" in this section). In addition, the facility managers of hospitals, theaters, department stores, etc., and lifeline and infrastructure operators are required to develop a "Response Plan for Trench-Type Earthquakes in the Vicinity of the Japan and Chishima Trenches" (hereinafter referred to as a "Response Plan" in this section) (Fig. 3-1-3).



Source: Cabinet Office data (Published in September 2022)

(Reference: https://www.bousai.go.jp/jishin/nihonkaiko_chishima/pdf/suishin_gaiyou.pdf)

The Cabinet Office will promote measures against a megaquake along the Japan and Chishima Trenches in

cooperation with the designated local governments in each region with measures to achieve the disaster mitigation goals set in the Basic Plan, as well as public awareness on appropriate disaster management actions that are based on the nature and content of an “Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory”.

(3) Study on Measures for Dealing with Stranded Persons due to a Tokyo Inland Earthquake

If there is a Tokyo Inland Earthquake that causes enormous damage to the metropolitan area and a large number of people that were unable to return home (stranded persons) then start walking home at the same time, there are concerns that such people may overflow onto roadways and interfere with emergency activities, such as lifesaving, rescue, and firefighting, as well as cause secondary damage by falling in groups for example. The Cabinet Office, therefore, formulated guidelines (March 2015) based on the basic principle of having "restrictions on people from returning home at once," discouraging movement for three days after the onset of disaster, and it is working on measures such as encouraging people to stay in the facilities of their companies and securing temporary accommodation facilities.

On the other hand, in response to recent changes in social conditions, such as the seismic reinforcement of railroads and other public transportation systems and the development of digital technology, the “Investigative Committee on Measures for Stranded Persons due to a Tokyo Inland Earthquake,” which was established in November 2021, compiled the "Future Response Policies for Stranded Persons" in August 2022. The policies indicated that the following tasks are to be considered: “the public’s correct understanding and awareness of the need to prevent people from returning home en masse, which is necessary to improve the effectiveness of countermeasures,” "promoting appropriate actions by stranded persons through the use of digital technology," and "supporting people returning home using trains when rail services are resumed in phases.”

Based on these policies, the committee will cooperate with related ministries and agencies, local governments, and private businesses and will strictly maintain the conventional basic principle of "restricting people from returning home all at once for three days,” take flexible measures according to the situation of the disaster, and improve the effectiveness of measures for stranded persons.

(Reference: https://www.bousai.go.jp/jishin/syuto/kitaku/kento_index.html)

(4) A Study on Measures against Earthquakes Directly beneath the Chubu and Kinki Regions

According to examples of past earthquakes, there have been cases in which earthquakes on active faults caused extensive damage in western Japan and cases in which a fault activity increased before and after Nankai Trough earthquakes. If a large-scale earthquake were to occur in the Chubu and Kinki regions, where there are urban areas that are spread across the prefectures, it is anticipated that the damage would be enormous and expansive.

Regarding such earthquakes that may occur directly beneath the Chubu and Kinki regions, the National Disaster Management Council studied and compiled damage estimates and disaster management measures from 2004 to 2008. However, it is necessary to review the results on the basis of the lessons learned from the Great East Japan Earthquake, which occurred in 2011, as well as the latest knowledge.

Therefore, in November 2022, the "Chubu and Kinki Regions’ Inland Earthquake Model Study Group," consisting of academic experts in seismology and earthquake engineering, was established in the Cabinet Office. Based on the latest scientific knowledge, the study group is reviewing the conventional earthquake models for the Chubu and Kinki regions and is proceeding with studies to create new earthquake models that take into account all

possibilities. The study group will estimate the expected seismic intensity distribution in the event of an earthquake directly below the Chubu and Kinki regions and will examine the expected damage and disaster management measures.

(Reference : https://www.bousai.go.jp/jishin/chubu_kinki/kentokai/index.html)

【Column】

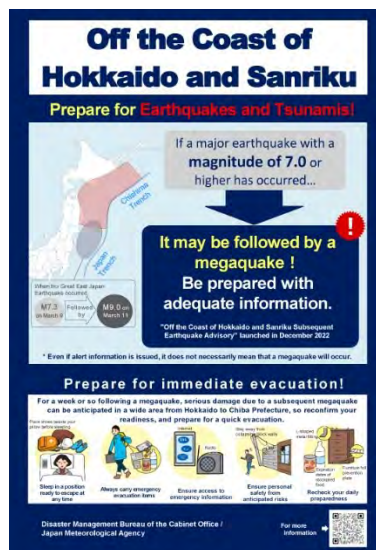
“Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory” and “Nankai Trough Earthquake Extra Information”

Along the Japan and Chishima Trenches, there have been cases in which a large-scale earthquake was followed by another large-scale earthquake (hereinafter referred to as a “subsequent earthquake”). For example, in the 2011 Tohoku Earthquake off the Pacific coast, an earthquake with a moment magnitude of 7.3 occurred on March 9, followed by a megaquake with a moment magnitude of 9.0 two days later on March 11. In light of this, we started to operate the “Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory” on December 16, 2022, to provide information for raising awareness about subsequent earthquakes.

An Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory is issued when an earthquake with a moment magnitude of 7.0 or greater occurs in the hypothetical megaquake epicenter region along the vicinity of the Japan and Chishima Trenches or in an outer area that affects the epicenter region. Upon issuance of an Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory, municipalities that require disaster prevention measures will be urged to thoroughly prepare for a subsequent earthquake, such as being alert to the possibility of a subsequent earthquake for about a week after the first earthquake, being ready to evacuate people immediately if a tremor or a tsunami warning is announced, and rechecking their daily preparedness. The Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory is intended as a warning that the possibility of a large-scale earthquake is relatively high compared with normal times. While it does not indicate that a large-scale earthquake will definitely occur within a specific period, providing information that warns of a subsequent earthquake and taking disaster prevention actions in preparation for it is an effective way to save as many lives as possible.

(Reference: https://www.bousai.go.jp/jishin/nihonkaiko_chishima/hokkaido/index.html)

Overview of the Off the Coast of Hokkaido and Sanriku Subsequent Earthquake Advisory



Source: Cabinet Office document

The announcement of information urging vigilance against a subsequent earthquake has already been provided along the Nankai Trough since November 2017. In May 2019, operation of the “Nankai Trough

Earthquake Extra Information” started.

If an anomalous phenomenon is observed along the Nankai Trough, a "Nankai Trough Earthquake Extra Information (Under Analysis)" will be announced to inform people that an investigation has begun to see if the phenomenon relates to a large-scale earthquake along the Nankai Trough. A "Nankai Trough Earthquake Extra Information (Megathrust Earthquake Alert)," a "Nankai Trough Earthquake Extra Information (Megathrust Earthquake Attention)" or a "Nankai Trough Earthquake Extra Information (Analysis Complete)" will be issued according to the evaluation results of experts in the Nankai Trough Earthquake Assessment Committee. In the case a Nankai Trough Earthquake Extra Information (Megathrust Earthquake Alert) is issued, the national and local governments will urge the residents of predesignated areas to evacuate as a precaution.

(Reference: <https://www.bousai.go.jp/jishin/nankai/rinji/index.html>)

In the event of a megaquake along the Japan and Chishima Trenches or the Nankai Trough, it is important to thoroughly prepare for seismic movements, tsunamis, fires, and post-evacuation secondary disasters. Performing the following preparations during normal times leads to preparations for a subsequent earthquake:

Assume that furniture will inevitably fall over during a major earthquake and apply countermeasures, such as making sure furniture is secure.

Check evacuation sites and routes for a quick evacuation from a tsunami.

Anticipate potential disruptions to lifelines, such as electricity, gas, and water, and ensure you have stockpiles of drinking water, food and other essential supplies in preparation for evacuating.



Source: Cabinet Office document

3-2 Measures against Wind and Flood Damage and Sediment Disasters

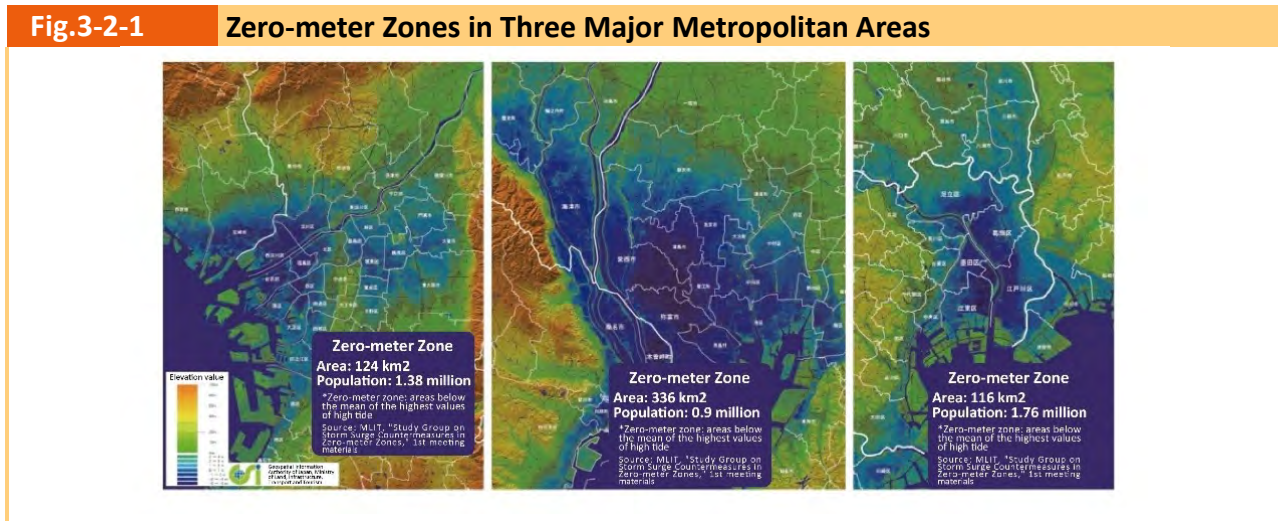
(1) Consideration of Wide-area Evacuation due to Overflow from Floods and Storm Surges in the Tokyo Metropolitan Area and Other Big City Areas

Due to global warming, there are concerns that the proportion of intense tropical cyclones is projected to increase, and it is predicted that there will be large-scale floods in the future that will require large-scale and wide-area evacuation. Each of the 3 major metropolitan areas in Japan have wide "zero-meter (sea-level) zones," and in the event of a large-scale flood due to a levee burst or similar disaster, it is expected that a large number of residents will have to evacuate, resulting in heavy congestion and a large number of isolated people due to delayed escape (Fig. 3-2-1).

For this reason, the "Working Group on Large-Scale and Wide-Area Evacuation from Floods and Storm Surge Flooding," which was established in June 2016 under the Disaster Management Implementation Committee of the National Disaster Management Council, studied how large-scale and wide-area evacuation from floods and storm

surge flooding should be carried out in the 3 major metropolitan areas. In March 2018, the "Fundamental Thought Process on Large-Scale and Wide-Area Evacuation from Floods and Storm Surge Flooding (Report)" was compiled.

(Reference : <https://www.bousai.go.jp/fusuigai/kozuiworking/>)



Source: Compiled by the Cabinet Office from the GSI of Japan website

Based on this report, the Cabinet Office compiled issues on that relevant organizations including government agencies should work together for the implementation of large-scale wide-area evacuation in the event of a large-scale flood. Also, the Cabinet Office established the "Study Group on Extensive Evacuation from Large-Scale Flood Disasters in the Tokyo Metropolitan Area" in June 2018 in cooperation with the Tokyo Metropolitan Government. The study group was held seven times through FY2021 with the aim of the nature of cooperation and role sharing among relevant organizations. The study group made "Guidelines for supporting planning for Wide-area Evacuation (Report)" in March 2022.

(Reference: <https://www.bousai.go.jp/fusuigai/suigaiworking/suigaiworking.html>)

In June 2022, the Cabinet Office and the Tokyo Metropolitan Government established the "Study Group on Specific Measures for Wide-Area Evacuation in the Tokyo Metropolitan Area" so that it would be able to smoothly conduct a wide-area evacuation in the event of a large-scale flood disaster in the metropolitan area. The study group is working to make further concrete efforts, based on the aforementioned guidelines, while deepening the relationships between relevant organizations during normal times.

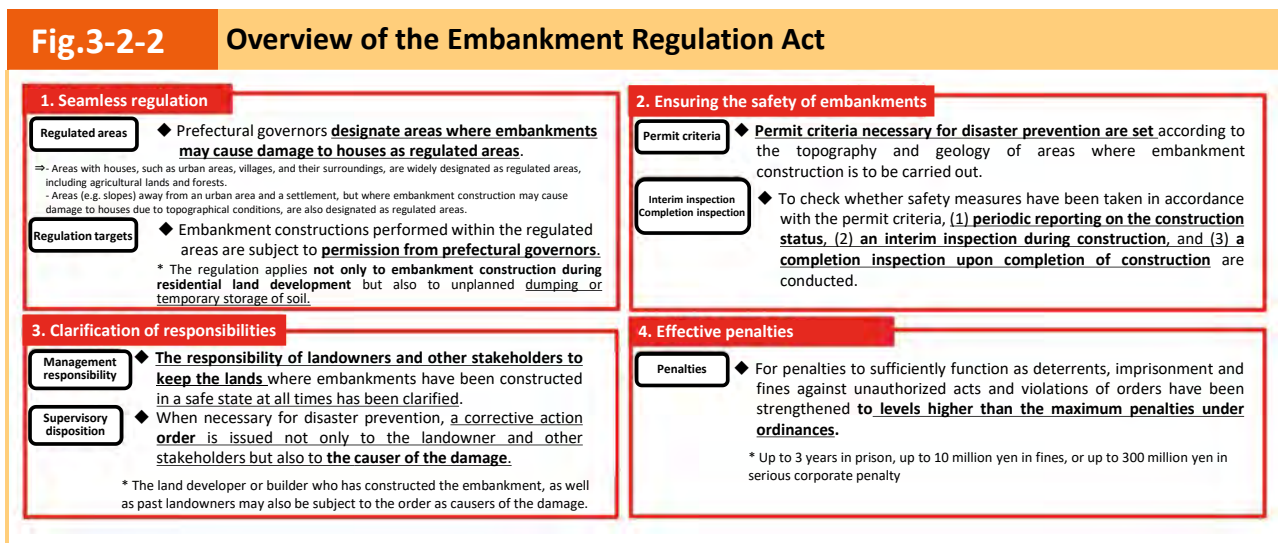
(Reference : <https://www.bousai.go.jp/fusuigai/suigaiworking/kouikihinan.html>)

(2) Consideration of the Prevention of Disasters Caused by Embankments

In light of the massive debris flow disaster that occurred in Atami City, Shizuoka Prefecture, in July 2021, when heavy rainfall collapsed an embankment and the fact that there are areas where regulations under various land use laws are not necessarily adequate, the "Act on Regulation on Residential Land Development" (Act No. 191 of 1961) was fundamentally revised, including the name and purpose of the act. And the "Act on the Regulation of Residential Land Development and Specific Embankments" (hereinafter referred to as the "Embankment Regulation Act") was promulgated on May 27, 2022 (enforced on May 26, 2023), to comprehensively regulate dangerous embankments, regardless of the land use (residential land, agricultural land, forest, etc.), under a

uniform nationwide standard.

The outline of the act is as follows (Fig. 3-2-2).

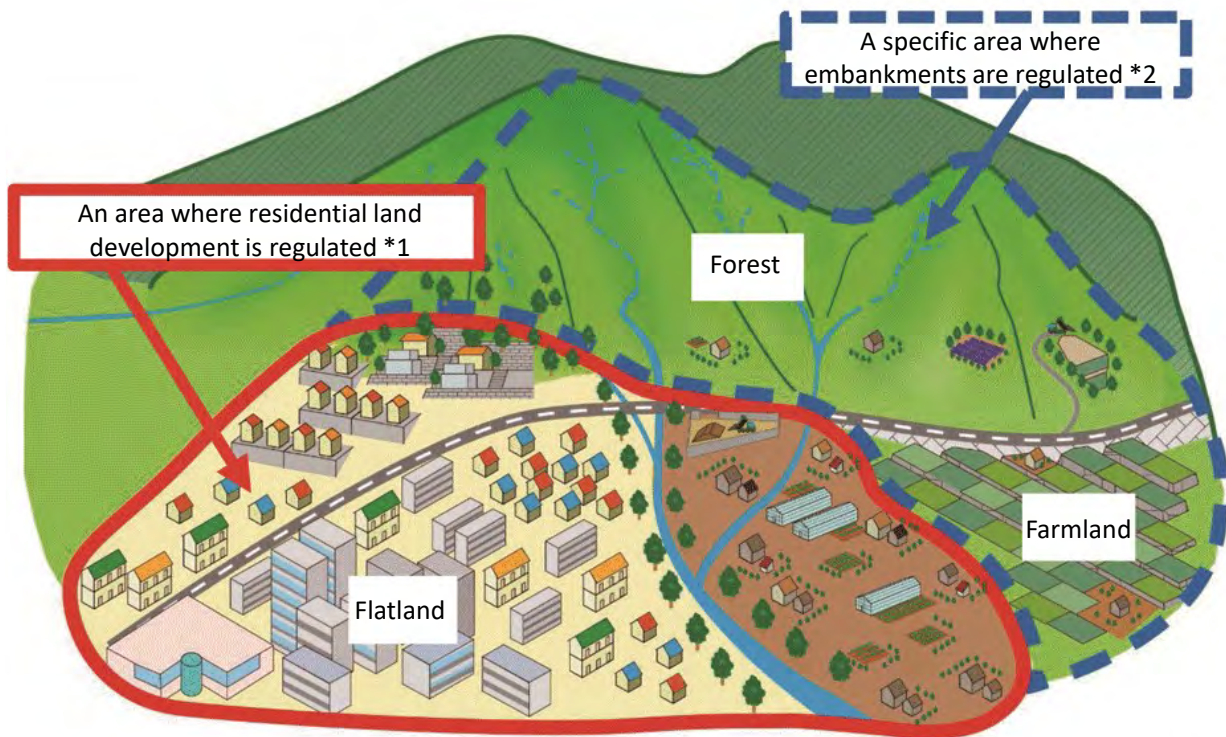


Source: Ministry of Land, Infrastructure, Transport and Tourism

In June 2022, the Ministry of Land, Infrastructure, Transport and Tourism and the Ministry of Agriculture, Forestry and Fisheries established the "Study Group on Embankment Disaster Management" to examine the safety standards for embankments, in preparation for implementation of the measures outlined in the Embankment Regulation Act. By the end of March 2023, the study group held five meetings, which were attended by experts. The study group meetings mainly focused on the following: (1) designating the target areas for the regulations, based on the distribution of houses to be protected from disasters that are caused by the collapse of embankments or the topography to ensure seamless regulations, (2) technical standards that serve as the criteria for ensuring the safety of embankments, (3) surveys that assess the safety of existing embankments, and (4) measures to take administrative action without hesitation against illegal or dangerous embankments. The study group is also working on the development of various guidelines.

The Cabinet Office will continue to promote safety measures for embankments by providing support to prefectures in their basic surveys for designating target areas for the regulations and safety measures against dangerous embankments so that the regulations under the Embankment Regulation Act will be promptly and effectively enforced after they come into effect.

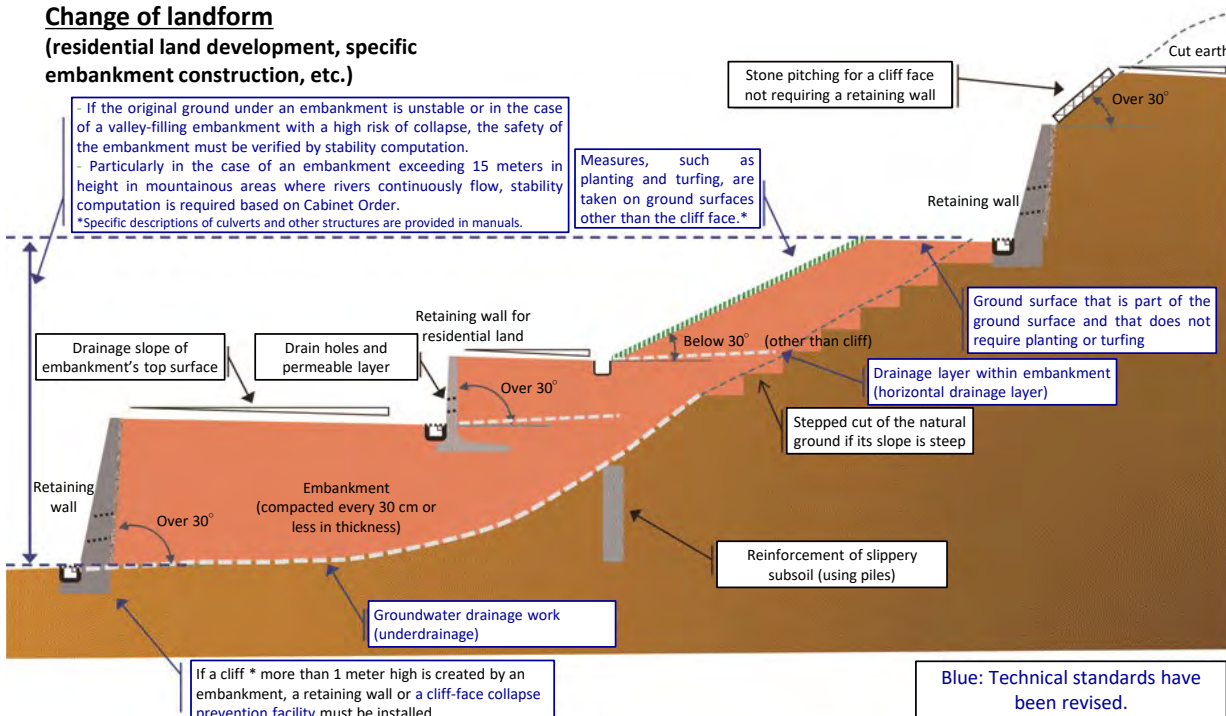
Fig.3-2-3 Image of the regulated area (above) and technical standards (below)



- *1. An area where residential land development is regulated: an area such as an urban area and village where houses are clustered together and embankment construction may cause damage to the houses
- *2. A specific area where embankments are regulated: an area away from an urban area and a settlement, but where embankment construction may cause damage to houses due to topographical conditions

Change of landform

(residential land development, specific embankment construction, etc.)



- * A cliff means land whose surface makes an angle exceeding 30° to the horizontal plane, except rigid bedrock not severely weathered.
- ★ Regarding residential land development and specific embankments, respective conditions are specified that do not require planting or turfing.

3-3 Measures against Volcanic Disasters

The Act on Special Measures for Active Volcanoes (Act No. 61 of 1973), which was revised in 2015 based on the lessons learned from the Mt. Ontake eruption disaster (September 2014), requires local governments (23 prefectures and 179 municipalities) designated as volcanic eruption hazard zones to establish in their local disaster management plans specific and detailed matters concerning the development of alert and evacuation systems on the basis of the "unified evacuation plan for each volcano" discussed by the "Volcanic Disaster Management Council," which consists of stakeholders in volcanic areas. The act also requires the owners of municipality-designated facilities that attract customers and the owners of facilities used by people requiring special care (evacuation promotion facilities) to prepare an ensuring evacuation operation and implement training based on the plan to ensure the smooth evacuation of facility users.

However, since the number of staff members that have actually experienced a volcanic eruption is limited and volcanoes differ in the scale of expected eruptions and regional characteristics, many local governments face challenges in planning evacuation plans. The Cabinet Office is, therefore, endeavoring to promote volcano disaster risk management measures nationwide, such as preparing a guidebook that summarizes the specific procedures and key points in planning, reviewing evacuation plans and ensuring evacuation operations with local governments, revising guides and preparing case books that reflect the knowledge and results obtained through the reviews, and dispatching people with experience of playing leading roles in volcano disaster risk management at local governments to volcano areas as "volcano disaster risk management experts."

In FY2022, the Cabinet Office supported the planning and implementation of drills in model areas to encourage their local governments to conduct volcano disaster management drills, to verify evacuation plans and local disaster management plans developed based thereon, and to raise awareness of volcano disaster management among residents. The Cabinet Office is planning to compile the findings and results obtained through the collaborative study with local governments into the "Casebook on Volcano Disaster Management Drills."

Considering the impact of ash falls and the basic approach to ash fall countermeasures that was compiled in 2020 by the "Working Group on Countermeasures for Wide-Area Ash Falls from Major Volcanic Eruptions," the Cabinet Office is continuing to study specific countermeasures in collaboration with related ministries, agencies, and local governments.

3-4 Measures against Snow Disasters

Japan is an arc-shaped archipelago consisting of steep mountain ranges. In winter, cold monsoons blow from Siberia, and warm ocean currents from the south flow into the Sea of Japan, bringing about large amounts of snowfall and snow accumulation on the Sea of Japan side. As a result, snow disasters, such as people falling from roofs while removing snow, avalanches, and severe snowstorms, as well as paralysis of urban functions and traffic disruptions due to snow accumulation, occur every year. As described in Special Feature 2, the government took all possible precautions in FY2022, such as holding Inter-Agency Disaster Alert Meetings when heavy snow was expected, and when heavy snow actually occurred, the government worked as a whole to implement disaster response measures according to the damage situation.

In addition, based on past snow disasters, the Cabinet Office developed the "Guide on Snowfall for Municipalities" in January 2019 (revised in November 2022) so that even municipalities with little experience of disasters due to snowfall can quickly and appropriately respond to heavy snowfalls. Since then, it has reflected the

latest efforts in the Guide and is distributing it to each local government.

In heavy snowfall areas, comprehensive measures for such areas, including snow damage control, have been implemented in accordance with the Act on Special Measures concerning Countermeasures for Heavy Snowfall Areas (Act No. 73 of 1962) and the basic plan for heavy snow areas developed based thereon. In the December 2022 revision of the basic plan for heavy snow areas, the following were added: "securing personnel for snow removal and developing the snow removal system," "taking disaster management measures that take into consideration the characteristics of heavy snowfall areas during the snow season," and "avoiding traffic congestion caused by large vehicles on trunk roads during short and intensive snowfalls." In FY2022, the Ministry of Land, Infrastructure, Transport and Tourism provided "grants for emergency measures for ensuring safety in heavy snowfall areas" to support those areas in the formulation of safe snow management policies that define a future vision for safe regional development and local rules and measures to achieve that vision, as well as to support local governments that are taking experimental safety measures during snow removal (e.g., developing a system for mutual support for snow removal, holding safety seminars, promoting the use of safety rope anchors, and developing and introducing automated and labor-saving technologies for snow removal).

Section 4. International Cooperation for Disaster Risk Reduction

4-1 Cooperation for Disaster Risk Reduction through the United Nations and Other International Organizations

Japan has accumulated a lot of experience and knowledge regarding disasters and disaster reduction measures. By sharing them, Japan is leading global discussions in the field of disaster risk reduction as well as contributing to strengthening disaster risk reduction measures in countries across the world. Particularly, since the 3rd UN World Conference on Disaster Risk Reduction was held in Sendai, Miyagi Prefecture in March 2015, and the Sendai Framework for Disaster Risk Reduction 2015-2030 (hereinafter referred to as the "Sendai Framework") was adopted at the conference, countries around the world expect Japan to play a leading role in its implementation. For this reason, the Cabinet Office and the Ministry of Foreign Affairs are actively promoting disaster risk reduction cooperation through the United Nations and other international organizations, and the bilateral and multilateral one.

(1) Cooperation through the United Nations Office for Disaster Risk Reduction (UNDRR)

To promote the Sendai Framework, the United Nations Office for Disaster Risk Reduction (UNDRR) is responsible for monitoring, coordinating, and assisting regions and countries in implementing the Framework. In order to support these activities, the Cabinet Office and the Ministry of Foreign Affairs contributed a total of approximately US \$5.87 million (approximately 634 million yen) in FY2022.

The UNDRR, in collaboration with the government of Indonesia, held the seventh meeting of the Global Platform for Disaster Risk Reduction in Bali, Indonesia, from May 23 to 27, 2022. The meeting, which was held for the first time in three years since 2019, was attended by approximately 3,200 local participants and more than 4,000 participants from 185 countries, including online participants.

Japan was represented by the then State Minister of the Cabinet Office, Mr. Ohno, who served as a panelist in the high-level dialogue. He also attended a ministerial roundtable with the theme of strengthening disaster

management to counter the climate crisis, where he presented Japan's initiatives.



7th meeting of the Global Platform for Disaster Risk Reduction

The UNDRR, together with the Australian government, held the 9th Asia-Pacific Ministerial Conference on Disaster Risk Reduction in Brisbane, Australia, from September 19 to 22, 2022. More than 3,000 participants from 40 countries attended the conference, which was held for the first time in four years since 2018.

The Vice-Minister for Policy Coordination, Mr. Inoue, participated in the conference as Japan's representative. He attended the ministerial roundtable, and, as a panelist at the plenary session, made a presentation on disaster investments and other topics while introducing Japan's initiatives.



9th Asia-Pacific Ministerial Conference on Disaster Risk Reduction

(2) International Recovery Platform (IRP)

The International Recovery Platform (IRP) was established in Kobe, Hyogo Prefecture in March 2005. This platform was established in response to the Hyogo Framework for Action adopted at the Second United Nations World Conference on DRR held in Kobe to: (1) enhance the network to support smooth recovery and the implementation of the Hyogo Framework for Action, (2) spread awareness of lessons learned from recovery and develop common methods and mechanisms for recovery, and (3) provide advice and support for the development of recovery plans and initiatives. The Sendai Framework calls for the strengthening of the IRP as one of the international mechanisms to promote "Build Back Better." As co-chair of the Steering Committee, the Japanese government (the Cabinet Office) is contributing to laying the groundwork for its development and support of IRP activities.

On January 27, 2023, the "International Recovery Forum" was held in Kobe under the theme of "Achievements in Build Back Better and Long-term Reconstruction: Goals for a Resilient and Sustainable Future." It had 443 participants from 70 countries, including Mr. Uemura, the Deputy Director-General for the Cabinet Office, Mr. Saito, the governor of Hyogo Prefecture, and Ms. Mizutori, the Special Representative of the United Nations Secretary-

General for Disaster Risk Reduction. The forum featured a keynote speech by the specially appointed Professor Takemura, a leading researcher on the Great Kanto Earthquake from Nagoya University's Disaster Mitigation Research Center. There was also a panel discussion on long-term reconstruction from large-scale disasters around the world.



International Recovery Forum 2023

(3) Cooperation in DRR through Joint Activities with the Asian Disaster Reduction Center (ADRC)

The Asian Disaster Reduction Center (ADRC) was established in Kobe City, Hyogo Prefecture in 1998 to share lessons from disaster with the Asia region. As of March 2023, 31 Asian countries have joined. The ADRC is based on four principles: (1) sharing disaster information, (2) developing human resources in member countries, (3) improving disaster preparedness of communities, and (4) collaborating with member countries, international and regional organizations, and NGOs. Visiting researchers are invited from member countries (126 visiting researchers in total as of January 2023), and through research on DRR policies, human resources are trained to contribute to the planning and formulation of DRR policies in member countries. The ADRC also collects and provides information on disaster management systems and the latest disaster information in each country on its website and provides information on disaster damage through satellite observations when disasters occur.

The Cabinet Office co-hosted the "Asian Conference on Disaster Reduction (ACDR)" with the ADRC. With the participation of member countries, international organizations and others, the conference was a place to share information, exchange opinions, and promote collaboration on issues related to disaster prevention and mitigation in Asia. It was the 18th conference and was held in Sendai City from March 10 to 12, 2023 under the theme "WHAT IS NEXT? – Learn from the Past; Prepare for the Future." 205 officials and experts from 22 of the 31 member countries as well as members of the government of Fiji, UNDRR, ASEAN and other related organizations attended, and Minister of State for Disaster Management, Mr. Tani delivered opening remarks. At the conference, a special session commemorating the 100th anniversary of the Great Kanto Earthquake was held, and information was shared and opinions were exchanged on large-scale disasters and their countermeasures, expansion of data linkage in the efforts of the Sendai Framework for Disaster Risk Reduction, and provision of disaster prevention and crisis management information using satellites.



Asian Conference on Disaster Reduction

4-2 Bilateral and Multilateral Disaster Risk Reduction Coordination

The Cabinet Office is deepening its collaboration with departments in charge of disaster management in governments around the world by not only cooperation through international organizations, but also sharing experiences in disaster risk reduction policy through opportunities for ministerial-level officials in charge of disaster management from abroad to pay a visit.

(1) Cooperation with ASEAN through the ASEAN-Japan Ministerial Meeting on Disaster Management

Based on the chairman's statement in the 22nd ASEAN+3 (Japan, China, and Korea) Summit Meeting, which was attended by the then Prime Minister Abe in November 2019, the “ASEAN-Japan Ministerial Meeting on Disaster Management” was launched by the Japanese government (Cabinet Office) and the departments in charge of disaster management of the 10 ASEAN member countries in October 2021.

On October 20, 2022, the “2nd ASEAN-Japan Ministerial Meeting on Disaster Management” was held online, with State Minister of the Cabinet Office Hoshino attending as co-chair. At the meeting, the “ASEAN-Japan Action Plan for Disaster Management” was formulated, and the two sides agreed to further deepen cooperation in the future.



ASEAN-Japan Ministerial Meeting on Disaster Management

(2) Cooperation between the U.S. Federal Emergency Management Agency (FEMA) and the Cabinet Office

Based on the memorandum of cooperation signed in December 2014 with the U.S. Federal Emergency Management Agency (FEMA), FEMA and the Cabinet Office share information and exchange opinions through international conferences and videoconferences.

(3) Trilateral Cooperation through Japan-China-Korea Ministerial Meetings on Disaster Management

Based on the "Joint Announcement on Trilateral Disaster Management Cooperation" at the 1st Japan-China-Korea Trilateral Summit Meeting in 2008, the three countries have been holding trilateral ministerial meetings on disaster management on a rotating basis since 2009.

On July 14, 2022, the "7th Japan-China-Korea Ministerial Meeting on Disaster Management" was held online, with the attendance of the then Minister of State for Disaster Management, Mr. Ninoyu. During the meeting, each country's representative presented updates on recent disasters and the progress of their disaster risk management policies. Considering that the Sendai Framework for Disaster Risk Reduction reaches its halfway point in 2023, the three nations formulated a joint statement to ensure the steady implementation of the framework and the sharing of information and experiences among them.



Japan-China-Korea Ministerial Meeting on Disaster Management

(4) Activities of the Japan International Public-Private Association for Disaster Risk Reduction (JIPAD) for Overseas Deployment of Technologies for Disaster Risk Management

The Japan International Public-Private Association for Disaster Risk Reduction (JIPAD) was established in 2019 to promote the active overseas deployment of technologies for disaster risk management and expertise, which is one of Japan's strengths, through the cooperation of the public and private sectors. As of March 2023, 207 companies and organizations are members of JIPAD.

On December 2, 2022, the 3rd JIPAD General Assembly was held. A total of 41 embassy officials from 38 countries and regions, including 10 ambassadors and extraordinary ambassadors, as well as representatives from more than 30 Japanese companies and organizations participated. The State Minister of the Cabinet Office, Mr. Hoshino, delivered opening remarks, followed by a keynote speech by Ms. Mizutori, the Special Representative of the United Nations Secretary-General for Disaster Risk Reduction, and reports from relevant ministries and agencies.



JIPAD General Assembly

JIPAD has been holding "Public-Private Disaster Management Seminars" to comprehensively present Japan's

disaster management policies, technologies, and expertise, as well as to build a public-private network and strengthen cooperative relations in disaster management.

In September 2022, during the period of the aforementioned Asia-Pacific Ministerial Conference on Disaster Risk Reduction, a public-private disaster management seminar for Asia-Pacific island countries was held in Brisbane, Australia, in collaboration with JICA. At the seminar, JIPAD companies and organizations gave presentations and offered opportunities for individual meetings with the participants.

In February 2023, capitalizing on the opportunity of Vietnamese disaster management administration officials and officers visiting Japan as part of a JICA training program, the Cabinet Office collaborated with JICA to organize a public-private disaster management seminar.

In March 2023, in collaboration with the aforementioned Asia-Pacific Ministerial Conference on Disaster Risk Reduction, a public-private disaster management seminar was held in Sendai City as a side event that was organized by the Cabinet Office and the Asian Disaster Reduction Center (ADRC). Ministers of the government of Fiji, and officials from the ASEAN Secretariat and the AHA Center were invited to the city. Many disaster management officials from Asian countries who had participated in the Asia-Pacific Ministerial Conference on Disaster Risk Reduction also attended the seminar.

【Column】

Municipality-Level Monitoring Initiatives Based on the Sendai Framework for Disaster Risk Reduction

The "Sendai Framework for Disaster Risk Reduction 2015–2030" was adopted at the “3rd United Nations World Conference on Disaster Reduction” held in Sendai City in March 2015. The year 2023 marks the midpoint of the framework's promotion period, which ends in 2030. Therefore, each country conducted interim assessments to gauge progress toward their respective goals. In a pioneering effort at the local government level and for the first time in the world, Sendai City, in collaboration with the International Research Institute of Disaster Science at Tohoku University, undertook an interim assessment.

As part of the assessment work, data on disaster damage was analyzed. The results showed that the disaster management and mitigation measures that Sendai City has been promoting with its stakeholders, including citizens and related organizations, have attained a certain degree of success and that the city is on track to achieve the seven “global targets” of the Sendai Framework for Disaster Risk Reduction, namely reduction of deaths, affected people, economic losses, and damage to crucial infrastructure. Conversely, analysis by disaster type clearly showed that damage caused by windstorms and floods is increasing. Thus, Sendai City intends to promote effective disaster management and mitigation measures while referring to the statistics.

Through the assessment work, valuable data items useful for disaster statistics analyses in municipalities were identified. Based on this, Sendai City aims to contribute to the advancement of the Sendai Framework for Disaster Risk Reduction both domestically and internationally. To this end, the city intends to collaborate with the United Nations and national institutions in sharing assessment methods and actively disseminating results, including sharing insights for similar analyses in other municipalities.

<Progress in achieving the seven global targets of the Sendai Framework for Disaster Risk Reduction>

		Targets	Assessment
Reduction targets	A	Number of deaths due to disasters per 100,000 people	○
	B	Number of those affected by disasters per 100,000 people	○
	C	Direct economic losses due to disasters	○
	D	Damage to critical infrastructure including medical and educational facilities and disruption of basic services	○
Incremental targets	E	To increase the number of countries having national and local disaster risk reduction strategies	○
	F	To provide appropriate and sustainable support to complement the measures of developing countries for the implementation of this framework, and significantly strengthen international cooperation with developing countries.	○
	G	To significantly improve the availability and accessibility of multi-hazard early warning systems and disaster risk information and assessment	○

- Based on the scale of the framework, the figures for "2005 to 2014" and "2015 to 2021" are used to compare increases and decreases.
- Since E, F, and G are national-level provisions, they were evaluated by comparing them to changes over time in Sendai City's measures.

<Special lectures (workshops) were also held for citizens to discuss the progress of the Sendai Framework for Disaster Risk Reduction.>



Source: Sendai City data

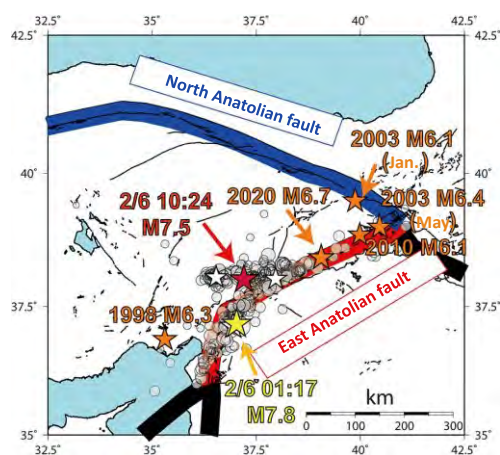
【Column】

Damage from an Earthquake in Southeastern Turkey and Japan's Support

At around 4:17 a.m. (local time) on February 6, 2023, a magnitude 7.8 earthquake occurred, with its epicenter in southeastern Turkey. It was followed by a magnitude 7.5 earthquake approximately nine hours later. Several aftershocks also occurred, causing significant damage in Turkey and Syria. In Turkey alone, there have been over 50,000 fatalities, 115,000 injuries, and approximately 50,000 buildings collapsed as of March 21, 2023. In particular, urban areas have suffered extensive damage, with buildings collapsing or being partially destroyed, roads severed in multiple places, and many citizens forced to evacuate. According to a report by the World Bank released on February 27, the direct damage from this earthquake is estimated at \$34.2 billion (equivalent to 4% of Turkey's GDP in 2021). Although obtaining precise figures is difficult, more than 5,900 deaths in Syria have been reported as of March 21, 2023.

In response to this, the Japanese government, based on requests from the Turkish government, dispatched Japan Disaster Relief Rescue Teams to Turkey after February 6, and it sent Medical Teams from February 10 onwards. On March 6, Japan dispatched an Expert Team to assess the condition of damaged buildings and infrastructure, and it provided technical advice for reconstruction and recovery.

Furthermore, in response to requests from the governments of Turkey and Syria, Japan provided emergency humanitarian relief supplies, and it announced on February 24 its plan of providing approximately \$27 million in emergency humanitarian aid to both countries. Moreover, during a donor conference co-hosted by the EU and Sweden on March 20, a video message from the Foreign Minister, Mr. Hayashi, was delivered, introducing Japan's support and expressing the intention to contribute to the reconstruction of the affected areas through continued financial and technical assistance.



Locations of epicenters

Japan Agency for Marine-Earth Science and Technology's website
<https://www.jamstec.go.jp/j/pr/topics/column-20230208/>



The JDR Rescue Team
Source: Ministry of Foreign Affairs

Section 5. Measures to Promote National Resilience


5-1 Formulation of the Annual Plans for National Resilience

The government finalized the "Annual Plan for National Resilience 2022" (hereafter referred to as the "Annual Plans 2022") on June 21st, 2022 (decided by the National Resilience Promotion Headquarters). In the Annual Plan 2022, a summary was compiled of the progress of measures, including the "Five-Year Acceleration Plan for Disaster Prevention, Disaster Mitigation, and Building National Resilience," developed in December 2020 (hereinafter referred to as "Five-Year Acceleration Plan" in this section). In light of lessons learned from the responses to heavy rains from July 1 and in August of 2021, as well as issues that have arisen during recent disasters, new measures were added to the Annual Plan to enhance and strengthen it.

Furthermore, the government has taken intensive measures against climate change and aging through preventive maintenance throughout its departments, etc. Regarding new technologies and innovations, the government has decided to proceed with planned and strategic research and development by grasping the needs and sources of disaster management research and developing methods for analyzing their effects (Fig. 5-1-1).

Fig.5-1-1 Summary of the Annual Plan for National Resilience 2022 (June, 2022)

Summary of the Annual Plan for National Resilience 2022-1



Based on the "Fundamental Plan for National Resilience," the annual plan outlines the main measures to be undertaken for each of the 45 programs during the fiscal year, manages progress using quantitative indicators and steadily promotes measures through the PDCA cycle.

1. Key Points of National Resilience Efforts in FY2022

(1) Enhancement and reinforcement of measures to promote the programs

① **Promotion of the Five-Year Acceleration Plan (2021 to 2025)**

- Progress has been individually managed for 123 measures to achieve their respective medium- and long-term targets. Approximately 7.2 trillion yen was secured by FY2022, the second year of the plan.
- To facilitate the implementation of large-scale, multi-year projects, the flexible use of national treasury liabilities is being promoted.

② **Promotion of regional resilience**

- Regional plans have been developed in all prefectures and 1,688 municipalities (approximately 97% of the total) (as of May 2022).
- In future, we will improve and enhance the regional plans to make them more effective. This will be done, for example, by presenting "regional future visions" that should be common goals for all entities and by clarifying "what" measures will be taken by "whom," "by when" and "where" to achieve the visions.

③ **Promoting public-private partnerships and energizing "private" sector-led initiatives**

- To maintain economic activities and accelerate recovery and reconstruction following a large-scale natural disaster, the government is promoting and supporting local disaster management and mitigation and national resilience efforts led by private-sector organizations, including promoting business continuity initiatives by private companies and strengthening cooperation with local governments and businesses.

④ **Promotion of public awareness**

- Relevant government ministries and agencies have been collaborating in public relations and awareness-raising activities, based on the "Strategy for Public Relations and Public Awareness for National Resilience" and advocating the following basic policies:
(1) Show clear, specific information on the philosophy of national resilience, its effects, etc.
(2) Offer information from the receivers' perspective, and use suitable media
(3) Encourage related agencies to take the initiative and have a positive manner in conducting measures

⑤ **Individual priorities**

- Measures such as addressing climate change and undertaking preventive maintenance to counteract aging have been prioritized, as part of comprehensive government efforts.
- Regarding new technologies and innovations, we will identify the needs and seeds of disaster management research, develop methods to analyze their effects and promote planned and strategic research and development.
- Drawing on experiences from disasters such as the heavy rainfall in July 2021, we are spearheading the necessary measures, including disaster prevention caused by embankments. Furthermore, in response to the Fukushima 2022 earthquake, we are analyzing the causes of the damage, organizing tasks and exploring potential responses.

(2) Toward changing the Fundamental Plan for National Resilience

- Given the fact that three years have elapsed since the present fundamental plan was formulated, we have started reviewing the next fundamental plan. This review will take into account the importance of ongoing stable efforts for enhancing national resilience under a clear medium- to long-term outlook, also after the "Five-Year Acceleration Plan" is completed.
- This review refers to past efforts to enhance national resilience, the principles of national resilience, changes in social conditions and insights gained from recent disasters and discusses a general future approach to national resilience, including regional and private-sector initiatives and the desirable structure of a national resilience plan.

2. Major policies of the Annual Plan for National Resilience 2022 (main examples)

- Promotion of **river basin management** measures, **earthquake and tsunami resistance-enhancing measures** for infrastructure facilities, and **aging countermeasures** in cooperation with all stakeholders
- **Elimination of missing links on high-standard highways** to ensure a disaster-resistant national highway network function
- **Enhancement of the forecasting, collection, accumulation, and dissemination of disaster-related information**, including strengthening observation systems and improving forecasting accuracy for concentrated heavy rainfall, establishing a disaster management digital platform and IoT, utilizing robot and drone technologies, providing evacuation-related information through smartphones, and accelerating the societal implementation of disaster management chatbots for collecting data on the extent of damage
- **Prevention of disasters caused by embankments** through detailed surveys to assess their safety and support for countermeasure construction
- **Establishment of an "Ecosystem for Human Resource Cultivation for Evacuation Life Support and Disaster Management"** to prevent disaster-related deaths, improve evacuation living conditions, and cultivate local specialists

3. Progress in management of Five-Year Acceleration Plan

- We had targeted an overall project size of approximately 15 trillion yen (including the use of fiscal investment and loans and projects by the private sector) and by FY2022, the second year of the project, we secured **approximately 7.2 trillion yen**.
- The progress of the 123 measures as of the completion of the first fiscal year (end of FY2021) is summarized as a list of progress status as follows:

Category	Estimated scale of projects (at the time of Cabinet decision)	Scale of projects (As of FY 2022)	Of which, government funds (As of FY 2022)
Five-Year Acceleration Plan for Disaster Prevention, Disaster Mitigation and Building National Resilience	Approx. 15 trillion yen	Approx. 7.2 trillion yen	Approx. 3.5 trillion yen
1 Measures to cope with increasingly severe wind and flood damage and imminent large-scale earthquakes	Approx. 12.3 trillion yen	Approx. 5.9 trillion yen	Approx. 2.7 trillion yen
2 Aging countermeasures for a shift to preventive maintenance	Approx. 2.7 trillion yen	Approx. 1.2 trillion yen	Approx. 0.7 trillion yen
3 Promotion of digitization, etc. for efficient implementation of measures related to national resilience	Approx. 0.2 trillion yen	Approx. 0.1 trillion yen	Approx. 0.1 trillion yen

* Of the total project size of the five-year acceleration plans, which is approximately 15 trillion yen, the government expenditures are generally in the mid-7 trillion yen range.
 * Some of the totals do not add up due to rounding.

(Reference) Initiatives Based on Disasters in FY2021

A disaster caused by heavy rainfall from July 1, 2021

- A stagnant rain front caused heavy rainfall over a wide area from western Japan to the Tohoku region. Multiple locations in Shizuoka Prefecture recorded the highest 72-hour precipitation in history. Consequently, a massive debris flow in Atami City, Shizuoka Prefecture, resulted in extensive casualties and damage to houses.

Disasters due to heavy rainfall in August 2021

- Heavy rainfall spread over a wide area from western to eastern Japan due to an intensified rain front. A heavy rain emergency warning was announced for Nagasaki, Saga, Fukuoka, and Hiroshima prefectures.

March 2022 earthquake off the coast of Fukushima Prefecture

- A magnitude 7.4 (provisional) earthquake occurred off the coast of Fukushima Prefecture, with a seismic intensity peaking at 6 upper in Miyagi and Fukushima prefectures.
- The earthquake caused power outages to a maximum of approximately 2.2 million households and the suspension of operations at several thermal power plants. As the power supply and demand situation was expected to become severe, a supply-demand crunch warning was issued on March 21 for the Tokyo area (on the 22nd for the Tohoku area).
- A Tohoku Shinkansen train derailed between Fukushima and Shiroishi Zao stations. Other damage included broken poles, track displacement and damage to an elevated bridge and station equipment.
- Up to about 70,000 households suffered water outages due to damage to water pipes.

Efforts in response to the heavy rain disaster from July 1, 2021

- In response to the heavy rain disaster, a general inspection was conducted for embankments that may affect people's homes and other buildings.
- While corrective measures should be taken by embankment constructors in principle, we supported the efforts of local governments to conduct detailed surveys, emergency responses and drastic measures against dangerous embankments that may impact residential homes and public facilities.
- A law for comprehensively regulating dangerous embankments under uniform standards nationwide, regardless of the use or purpose of the land for which an embankment is to be constructed, the Embankment Regulation Act, was promulgated.
- The announcement of the names of persons whose safety was unknown led to the targets for rescue and search being narrowed down. Based on this disaster case, points to be considered when publishing names were communicated to local governments.

Efforts found effective in the aftermath of the heavy rainfall disaster in August 2021

- In the town of Kaita, Hiroshima Prefecture, cameras were installed at danger spots in the town to give residents a sense of urgency and bring home the impacts of disaster via smartphone. As a result, about 10,000 people accessed the related site per month. This is an example of using digital technology to encourage evacuation actions, such as communicating information about imminent disasters to residents.
- In addition, in erosion and sediment control projects in Hiroshima, Saga, and Shizuoka prefectures implemented through the Three-Year Emergency Response Plan for Disaster Prevention, Disaster Mitigation, and Building National Resilience, there were cases where dams trapped mudslides and prevented damage.

Efforts in response to the March 2022 earthquake off the coast of Fukushima Prefecture

- With regard to electric power, electric power companies have systematically implemented measures such as installing scaffolding in boilers and securing spare parts to enable rapid power recovery. Power supply and demand-related measures have been also taken, including putting idle thermal power plants back into service, raising fuel inventory levels, and the multi-step implementation and concretization of the government's power-saving requests.
- Regarding bullet trains, an "investigative committee on earthquake countermeasures for Shinkansen" has been set up. This committee has verified the earthquake countermeasures that had been taken and clarify the direction that should be taken going forward.
- As for water supply, anti-seismic measures for water pipes and power outage countermeasures for water purification plants, as well as the promotion of power outage countermeasures for distribution reservoirs are planned.

Source: National Resilience Promotion Office, Cabinet Secretariat Website
 (Reference: https://www.cas.go.jp/jp/seisaku/kokudo_kyoujinka/pdf/kakuteigaiyou.pdf)

5-2 The National Resilience Related Budgets and Revision of Tax Systems Contributing to National Resilience

In the second supplemental budget of FY 2022, approximately 1.5 trillion yen in national expenditure was allocated to accelerate and enhance the Five-Year Acceleration Plan, aiming for a project scale of around 15 trillion yen over a five-year period, and approximately 9.6 trillion yen in project scale has been secured as of November 2022. Additionally, based on the Fundamental Plan for National Resilience, approximately 0.4 trillion yen in national expenditures was allocated to steadily advance national resilience initiatives. Furthermore, in the initial budget for fiscal year 2023, approximately 4.7 trillion yen in national expenditure was allocated to national resilience -related budgets.

Furthermore, to encourage private business operators to work on national resilience by way of the tax system, the related ministries and agencies have been collaborating to further improve the tax system contribution to national resilience. 13 items, including 1 expansions and improvements and 1 revision, were completed in the FY 2023 tax system revisions and made public.

5-3 Improving the Effectiveness of a Fundamental Plan for Regional Resilience

To effectively promote national resilience, it is highly important for local governments to play a central role and for various regional stakeholders to collaborate and cooperate in a planned manner. "The Fundamental Plan for Regional Resilience" (hereinafter referred to as the "Regional Plan" in this section), which serves as the basic plan for promoting regional resilience, has been developed in the 47 prefectures and almost all the municipalities. However, to further enhance the efforts to strengthen national resilience, it is necessary to review each plan to make it more effective by actively involving local residents and companies from the planning stage and by specifying when, where, who, and what will be addressed in the plans. Based on this, the government developed in July 2022 "The Guidelines for Developing and Revising a Fundamental Plan for Regional Resilience," which describe important points in reviewing regional plans, and it provided the guidelines to local governments nationwide. Furthermore, the government held briefing sessions attended by its officials and provided subsidies and grants under the jurisdiction of relevant ministries and agencies to projects for which project sites and implementation periods have been concretely specified in regional plans, thus supporting regional efforts to enhance resilience.

5-4 Encouragement of Measures for National Resilience by Private Sectors, Promotion of Public Relations, and Raising Public Awareness

(1) Promotion of private sector activities related to national resilience

To encourage private sectors to work on measures contributing to national resilience, the government has been operating an initiative where the third party organization approves organizations that proactively continue their projects to enhance resilience as "Organizations Contributing to National Resilience" since FY 2016. During large-scale disasters, maximizing both the self-help of each organization and the mutual support of the entire society is critical. Therefore, the government started another system to approve organizations that take the initiative in social actions as "Organizations Contributing to National Resilience (+Mutual Support)" among "Organizations Contributing to National Resilience" in FY 2018. By the end of March FY 2023, 293 organizations, including 188 "+Mutual Support" organizations, were approved in total. Advanced measures for national resilience by private sectors are spread via publishing the "Collection of Private Sector Efforts to Contribute to National Resilience"

every year and introducing them on the website and social media (Fig. 5-4-1).

Furthermore, to spread individual and local activities for national resilience, the "National Resilience Workshops" are held for the general public, and they have been held four times in total in FY 2022. In addition, model projects targeting small and medium-sized industrial parks were implemented to promote collaboration between the government and private sectors for national resilience, and a manual on this public-private collaboration was prepared and published. In January 2023, a symposium was held in Kumamoto City, Kumamoto Prefecture, to promote and raise awareness of national resilience.

Fig.5-4-1 Promotion of private sector activities related to national resilience

<p>Certification system for "Organizations Contributing to National Resilience"</p> <p>A third-party certification structure for companies, etc. that positively take measures for business continuity as "organizations contributing to national resilience" was established in FY 2016.</p> <p>In addition, a system was added to certify companies, etc. that are engaged in social contribution among these organizations as (+ mutual support).</p> <p>☆ Certified organizations: 293 (including 188 + mutual support organizations)</p> 	<p>A collection of case studies of private sector activities related to national resilience</p> <p>As a reference for those who are going to take measures related to national resilience, leading activities have been collected and published in a booklet and on a website every fiscal year since FY 2014 (A total of 756 cases).</p> 
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Source: Website of National Resilience Promotion Office, Cabinet Secretariat
 (Reference: https://www.cas.go.jp/jp/seisaku/kokudo_kyoujinka/torikumi_minkan.html)

(2) Promotion of Public Relations and Raising of Public Awareness for National Resilience

To promote public relations and raise public awareness of national resilience, a study group on public relations and public awareness-raising activities was established. In June 2022, the Strategy for Public Relations and Public Awareness for National Resilience was developed (reference: https://www.cas.go.jp/jp/seisaku/kokudo_kyoujinka/kouhou.html). In this strategy, based on the review and the analysis of problems in the past measures, the directionality for improvement and following basic policies for public relations and public awareness were mentioned:

- a) Show clear, specific information on the philosophy of national resilience, its effects, etc.
- b) Offer information from the receivers' perspective, and use suitable media.
- c) Encourage related agencies to take the initiative and have a positive manner in conducting measures, and promote the future efforts of the Cabinet Secretariat and related ministries and agencies.

Based on this strategy, the Cabinet Secretariat and related ministries and agencies will work harder on public relations and public awareness measures for national resilience.

As part of these efforts, they compiled and disseminated information on cases in which national resilience initiatives were effective in times of disaster (Fig. 5-4-2).

Fig.5-4-2 Examples of Effective Disaster Management and Mitigation, and National Resilience

Emergency measures for National Route 7 drainage facilities (Aomori City, Aomori Pref.)

Three-Year Plan for Disaster Risk Reduction and Resilience
Examples of effectiveness during disasters

国土強靱化
NATIONAL RESILIENCE

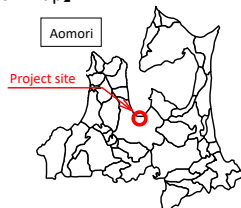
Summary of effects: In Typhoon Man-yi in 2013, heavy rainfall of approximately 136 mm per 24 hours flooded the roads, causing road closures for about 2 hours. As a result of repairing the drainage facilities based on the 3-year Plan for Disaster Risk Reduction and Resilience, the heavy rainfall registering 145 mm per 24 hours in August 2022, which exceeded that of Typhoon Man-yi in 2013, did not cause flooding of roads, with traffic functions secured.

Ministry name: Ministry of Land, Infrastructure, Transport and Tourism (MLIT)

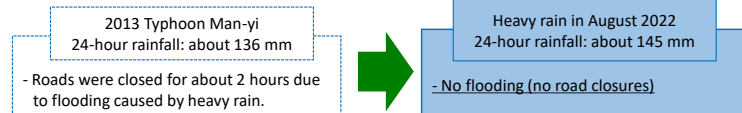
Route	Countermeasures	Project cost	Countermeasure period
National Route 7	Drainage structure work	About 300 million yen	2018-2019

*Total cost of the 3-Year Plan for Disaster Risk Reduction and Resilience (flooding) for Aomori Prefecture National Route 7 maintenance and management

【Location map】



【Effects in 2013 Typhoon Man-yi】



【Countermeasures】



Government-administered river improvement project for Gokase River (Nobeoka City, Miyazaki Pref.)

5-Year Acceleration Plan

Three-Year Plan for Disaster Risk Reduction and Resilience

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NATIONAL RESILIENCE

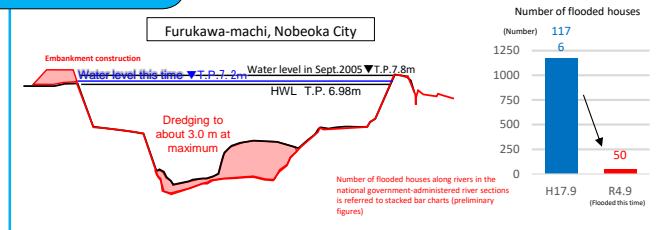
Examples of effectiveness during disasters

Embankment construction and river channel dredging through the 5-Year Acceleration Plan and the 3-Year Plan for Disaster Risk Reduction and Resilience, as well as prior discharge of water from three dams upstream of Hoshiyama Dam, prevented overflow from the Gokase and Ose Rivers and flooding damage from Typhoon Nanmadol in September 2022.

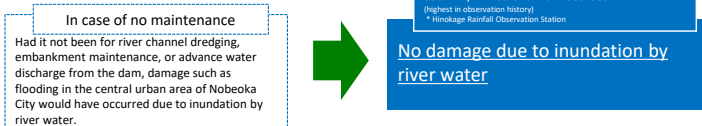
- Implementing Body: Kyushu Regional Development Bureau, MLIT
- Outline of countermeasures and project cost

Major projects	Countermeasures	Project cost	Countermeasure period
River improvement projects	Embankment construction and river channel dredging	About 35.2 billion yen	2005-2022
3-Year Plan for Disaster Risk Reduction and Resilience	River channel dredging	About 600 million yen	2018-2020
5-Year Acceleration Plan	Embankment construction and river channel dredging	About 1.2 billion yen	2020-2021

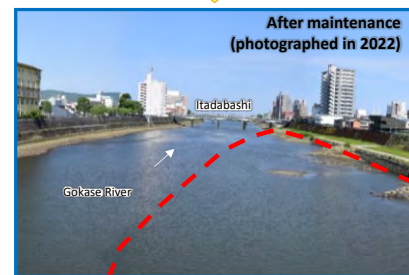
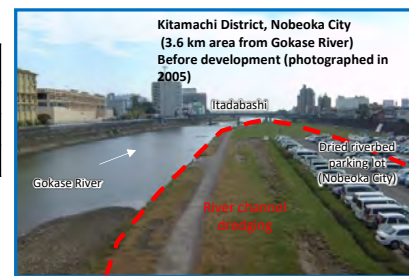
Water level reduction effect



【Effectiveness against Typhoon Nanmadol in September 2022】



*The figures in this document are preliminary figures as of December 2022 and may change depending on future scrutiny.



5-5 Reconsideration of the Fundamental Plan for National Resilience

Under the philosophy that "we have to proceed with measures for national resilience as a part of the 100-year-national development based on 'the Grand National Plan' looking far ahead to 1,000 years" (the Fundamental Plan Chapter 1), the current Fundamental Plan for National Resilience (hereafter referred to as the "Fundamental Plan" in this section) establishes the basic guidelines regarding the formulation of measures for national resilience as the basic plans to aim to promote them comprehensively and systematically. It also determines to "review contents of the plans approximately every five years considering future changes of the socio-economic status surrounding national resilience and the future situation of promoting national resilience measures" (the Fundamental Plan Chapter 4). At the 15th National Resilience Promotion Headquarters established in October 2022, Prime Minister Mr. Kishida, the head of the Headquarters, instructed the Advisory Committee on National Resilience (hereafter referred to as the "Advisory Committee" in this section) to "initiate efforts to revise by the summer of 2023 the Fundamental Plan, which had been revised in December 2018, in conjunction with the next National Spatial Planning that was being undertaken. In response, the Advisory Committee initiated preparations for the revision of the Fundamental Plan.

In light of past initiatives for national resilience, its philosophy, knowledge from changes in the recent social circumstances and disasters, and May 2021 proposals by the "Working Group on Reducing Disaster Risk in Advance and Complex Disasters" established under the Advisory Committee, the Committee is discussing general issues on national resilience for the future, such as the system for national resilience planning including Regional Plans, Annual Plans, activation of the private sector's initiatives, to promote national resilience even further. Additionally, the Committee is conducting vulnerability assessments (intended to identify essential matters for promoting national resilience by assessing the process of the "worst-case scenarios that must not occur" and the progress of measures) based on the latest scientific knowledge. The Advisory Committee will proceed with a revision of the Fundamental Plan based on these discussions.