

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.

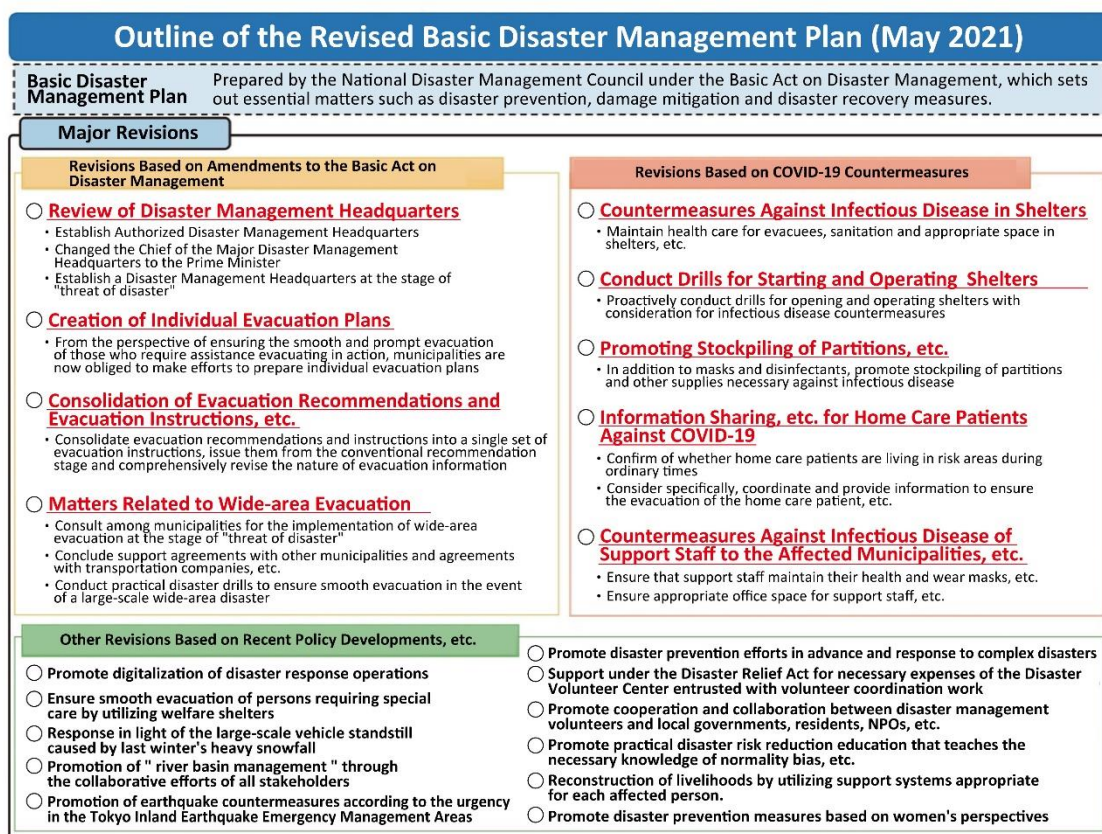
(Reference: <https://www.bousai.go.jp/taisaku/keikaku/kihon.html#syusei>)

In May 2021, the Basic Disaster Management Plan was revised based on the amendment of the "Basic Act on Disaster Management" (FIG. 2-1-1).

Concretely, it reflects (1) a review of the Major Disaster Management Headquarters such as the rule to designate the Prime Minister as its Chief, (2) integration of evacuation recommendation and evacuation instruction into a single evacuation instruction, (3) a duty of effort to prepare individual evacuation plans and so on.

It also reflects the progress of the recent measures concerning disaster management. According to the know-how gained through disaster response based on the recent measures against COVID-19, measures against infectious disease at shelters and the facilitation of stocking partitions are included, and the promotion of disaster response from the perspective of women is also covered in the revised plan.

FIG. 2-1-1 Outline of the Revised Basic Disaster Management Plan (May 2021)



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."

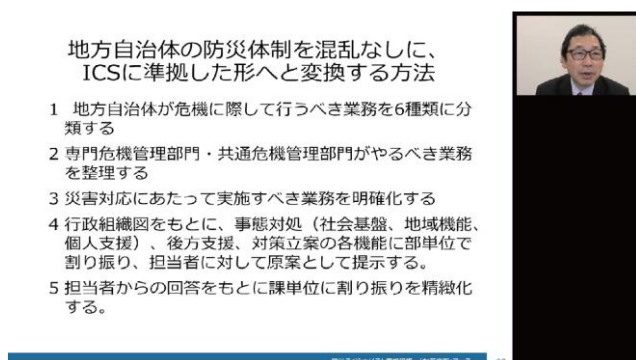
In FY2021, the "Training Program at Ariake Hill" was put into operation from September to October in 2021 and from January to March in 2022. This training program covers knowledge and skills in overall disaster management operations from the basics of disaster management related with laws and regulations to disaster management governance. In addition, the "Training Program for Local Governments" was delivered in 7 locations around Japan for the purpose of facilitating independent human resource development in local governments. 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, the "e-Learning for Disaster Management Specialists" was launched on an exclusive website for support staff, who implement disaster management operations on-site for disaster response, to learn basic skills related to their position in a short time period. In planning and operating these training programs, a study group on planning consisted of experts in disaster management was established, and the programs were reviewed and

improved through advice based on social conditions 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 take sufficient initiatives and 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 towns and villages nationwide (the seminars for mayors of cities and wards were cancelled in FY2021 due to the spread of COVID-19) to support the improvement of accurate decision-making to take initiative at disaster sites. 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.

In planning and operating these overall training programs, both online and onsite methods were taken, taking into account the situation of the spread of COVID-19 since it is advantageous to expand the number of participants with online resources, while it is easier for participants to communicate on site. Training programs were delivered reasonably and effectively through such hybrid style.



"Online Training Program for Training of Disaster Management Specialists (Training Program at Ariake Hill)" in FY2021



"National Seminar on Disaster and Crisis Management for Heads of Local Government" in FY2021

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, 2021, 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 | 70,323 | 66,253 | 21,701 | 85,035 | 38,365 | 39,286 | 37,993 | 10,329 |
| Estimated accommodation capacity (10,000 people) | 11,808 | 13,236 | 5,874 | 22,970 | 8,569 | 16,753 | 7,208 | 2,279 |

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" (FIG. 2-3-2).

FIG. 2-3-2 Example Map Showing Indications of Designated Emergency Evacuation Sites



Source: Geospatial Information Authority of Japan HP
 (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 designated 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 called to begin work on a project to organize information boards with the “Hazard Specific Evacuation Guidance Sign System (JISZ 9098) (March, 2016)” as soon as possible (FIG. 2-3-3, FIG. 2-3-4).

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

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



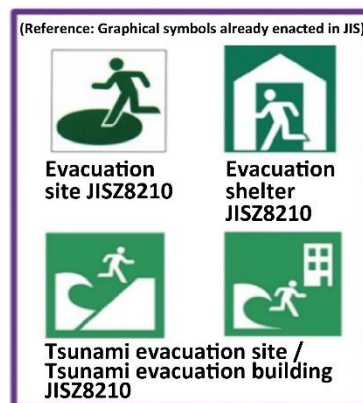
- Graphical symbol indicating evacuation site (required)
- General graphic symbols for disaster types (required)
- A mark indicating whether evacuation is suitable or not (A "○" mark indicates a site is suitable for that type of disaster, and a "×" mark indicates it is not.)
- Indication of evacuation site (example of how to show its name)
- It is desirable to indicate in both Japanese and foreign language(s) (example in English).

Source: Cabinet Office data

FIG. 2-3-4 Example of Information Board Using the Hazard Specific Evacuation Guidance Sign System

| Disaster Types in the Basic Act on Disaster Management | JIS-established graphical symbols by disaster type |
|--|---|
| Tsunami | Tsunami and storm surge (conventional symbols are also used and general symbols are created) |
| Storm surge | |
| Floods | Floods/Inundation by Heavy Rain |
| Inundation by Heavy Rain | |
| Slope failure | Slope failure/Landslide |
| Debris flow | |
| Landslide | Debris flow |
| Large-scale fire | Large-scale fire |
| Earthquakes | Covered by disasters that occur (tsunamis, large-scale fire, etc.) |
| Volcano | Disclose shelters and other places to the public for evacuation. |

- Set up the **evacuation sites according to the type of disasters.**
- In order to standardize graphic symbols for evacuation sites, etc., relevant government ministries and agencies established a liaison meeting and decided to promote standardization. The JIS Drafting Committee prepared a draft and reported it to the Minister of Economy, Trade and Industry.
The graphical symbols and other symbols were enacted in JIS on March 22, 2016.



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 81,978 as of December 1, 2021. This is partly because municipalities that had not completed their designations since April 2014, when the designation system had been established, were encouraged to promptly complete their designations.

In response to the situation in recent disasters, various problems related to securing the living environment in shelters and issues related to improving the toilets in shelters were pointed out. 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 held the "Study Group on Securing Shelters and Improving their Quality" since July 2015 in order to broadly examine 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 April 2016,

the "Guidelines for Ensuring Satisfactory Living Conditions at Shelters" (formulated and published by the Cabinet Office in August 2013) was partially revised. In addition, based on this guideline, three guidelines were published: (1) "Shelter Management Guidelines," (2) "Guidelines for Securing and Managing Toilets at Shelters," and (3) "Guidelines for Securing and Managing Welfare Shelters."

Moreover, the "Sub-Working Group Concerning Evacuation of the Elderly and people with special needs Based on Typhoon Hagibis in 2019" 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.

In April 2022, the "Guidelines for Ensuring Satisfactory Living Conditions at Shelters," the "Shelter Management Guidelines" and the "Guidelines for Securing and Managing Toilets at Shelters" based on the said guidelines were revised and published (FIG. 2-3-5). This is because there have been needs at shelters in recent years 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.

FIG. 2-3-5 Guidelines and other Information on Shelters

"Shelter Management Guidelines" (April 2016) (Revised April 2022)

In each stage of disaster response (preparation, initial response, emergency response and recovery), the report emphasizes the importance of establishing a cooperative system of coordination in and out of the government in ordinal times and maintaining evacuees' health. The report also identifies detailed tasks that are often forgotten, such as toilets, sleeping quarters, bathing and pets, with a specific checklist of 19 tasks to perform.

"Guidelines for Securing and Managing Toilets at Shelters" (April 2016) (revised April 2022)

More of affected people feel uncomfortable since restrooms at shelters are insanitary in times of disaster. As they hold back on relieving themselves and refrain from consuming water and foods with hesitation to use restrooms, this can lead them to worsen their health or, in the worst case, life-threatening consequences. Therefore, the guideline emphasizes the importance of securing restroom provision and management.

"Guidelines for Securing and Managing Welfare Shelters" (April 2016) (revised May 2021)

Considering the lessons from the Great East Japan Earthquake, the "Guidelines for Welfare Shelters' Establishment and Management" (June 2008) were revised and amended substantively. Furthermore, based on the recognition that it is impossible to provide emergency response in times of disaster without efforts in ordinary times, the Guidelines emphasize that municipalities should also take the lead in promoting welfare shelters from ordinary times.

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

2-4 Use of Digital Technology in Disaster Management

In the Initial Response Verification Report for the 2016 Kumamoto Earthquakes (Cabinet Secretariat and the Cabinet Office, 2016) and the Working Group for IAEA and Livelihood Support Measures (the Cabinet Office, 2016), it was pointed out that the situation in the affected municipalities was difficult to wholly understand, including the movements of evacuees and the status of relief supplies during the disaster response. Therefore, it was pointed out that it is necessary to establish a system for a disaster information hub among relevant organizations in advance,

such as setting rules for handling, sharing, and utilizing various types of information.

To this end, the Cabinet Office has established a disaster information hub (hereinafter referred to as the "hub" (see FIG. 2-4-1)) to facilitate the use of digital technologies. To promote the act of exchanging information through rules of the method and period of information sharing among relevant organizations, a study has been conducted through the National and Local Governments and the Private Sector Disaster Information Hub Promotion Team. This team has worked since 2019 under the Working Group for the Promotion of Standardization of Disaster Measures in the Disaster Management Implementation Committee of the National Disaster Management Council.

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

Based on these studies, in FY2018, the ISUT (Information Support Team) was set up on a trial basis 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, and it began full-scale operation in FY2019. 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. In order for disaster response organizations to make accurate decisions, it is very important to superimpose this information on a map and systematically understand the situation. 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. During the Heavy Rain of July 2020, ISUT was dispatched to Kumamoto and Kagoshima Prefectures to assist in the collection and organization of information, and the maps prepared by ISUT (FIG. 2-4-2) were used to explain the situation at the Disaster Management Headquarters of the affected prefectures and municipalities (FIG. 2-4-3). They were also used to explain the situation to the actual organizations and supporting staff from other local governments, thus contributing to effective disaster response by local governments. For example, in Kumamoto Prefecture, in order to support the resolution of isolated villages, a map was created to monitor the recovery status of lifelines such as roads, electricity, and communications for each village, which was used to manage the progress of daily disaster response. In addition, the ISUT was dispatched to Shizuoka Prefecture in the wake of the debris flow disaster in Atami caused by heavy rain from July 1, 2021. Drone footage taken by various organizations is compiled and posted on the ISUT website (FIG. 2-4-4). This allowed it to be checked by the other agencies involved.

In response to these disasters, the ISUT continued to strengthen its systems by outsourcing some of its operations, such as mapping, to private business operators, which enabled it to provide smoother support activities.

Furthermore, in order for the ISUT to conduct its activities more quickly and effectively, tools were developed to collect and share information on disaster damage more quickly, such as photos of field activities. In addition, a training program on the use of the ISUT website was developed and implemented.

FIG. 2-4-3 Utilization of ISUT website and maps for the Heavy Rain Event of July 2020 (Kumamoto Prefecture Government Office)



Utilization at Meeting of the Headquarters for Disaster Management in Kumamoto Prefecture



Utilization at a meeting of officials in charge of eliminating isolated communities (hosted by the prefecture)



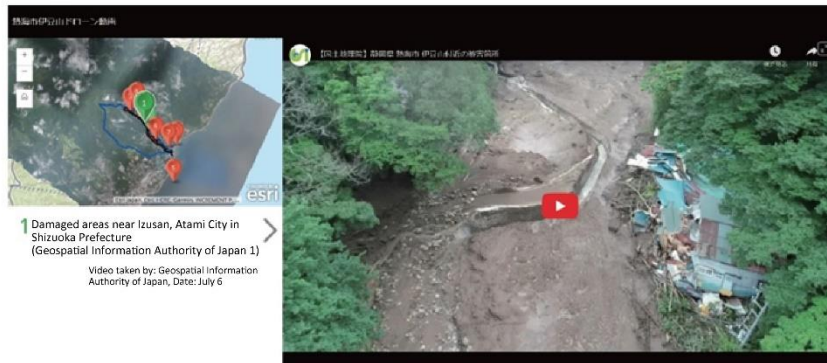
Utilization by the aviation coordination team



Utilization at the coordination meeting of working organizations (hosted by the prefecture)

Source: Cabinet Office documents

FIG. 2-4-4 Drone video showing debris flow disaster in Atami caused by the Heavy Rain from July 1 of 2021



Source: Cabinet Office document

2-5 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 since 2020 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 basically

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 staffs 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 for the lives and livelihood of the affected people, and the establishment of such a team has been made a rule.

In the aftermath of the heavy rains of July 1, 2021, a "team to support the lives and livelihood restoration of the affected for the Heavy Rain in July 1 of 2021" was set up on July 6th, and on July 30th, the team compiled a "Set of Support Measures Concerning the Heavy Rains of July 1st, 2021" as an urgent response to rebuild the lives and livelihood of the affected areas.

2-6 Revision of the Guide to Preparing Volcanic Evacuation Operation/ Implementation Plans for Facilities for Attracting Visitors

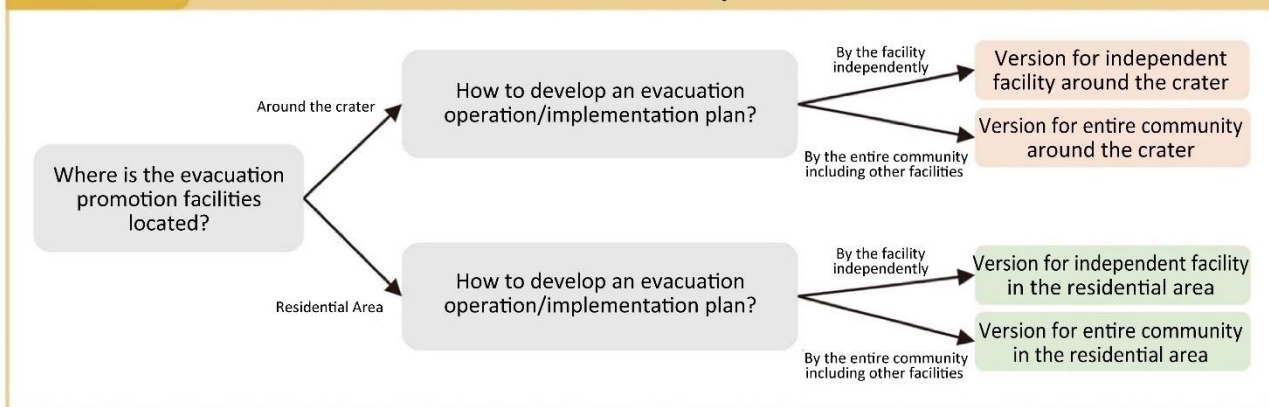
The Act on Special Measures for Active Volcanoes (Act No. 61 of 1973) was amended in the wake of the Mt. Ontake eruption disaster that occurred in September 2014. Owners of facilities for attracting visitors and facilities for persons requiring special care designated by municipalities in local disaster management plans are required to prepare evacuation operation/implementation plans and conduct drills based on the plan.

In order to support the preparation of evacuation operation/implementation plans to ensure the smooth and prompt evacuation of facility users in the event of volcanic phenomena, the Cabinet Office published the "Guide to Preparing Evacuation Operation/ Implementation Plans for Facilities for Attracting Visitors" in 2016, which has since been revised in 2021.

(Reference: <https://www.bousai.go.jp/kazan/tebikisakusei/index.html>)

In the 2021 revision, the Guide was revised to include measures to be taken "in the event of an eruption affecting residential areas where volcanic alert levels had not been raised." In addition, the creation guides and templates were reorganized to enable facility personnel to appropriately prepare an evacuation operation/implementation plan for the areas around the crater and residential areas where the assumed volcanic phenomena and evacuation methods differ (FIG. 2-6-1).

FIG. 2-6-1 How to Choose Creation Guide or Template



Source: Cabinet Office data

2-7 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 FY2020, the Cabinet Office, the Ministry of Health, Labour and Welfare, the Ministry of Defense, and the Ministry of Land, Infrastructure, Transport and Tourism jointly researched and considered the use of hospital ships as a way to secure a place to provide medical care in the wake of the COVID-19 epidemic, and in March of 2021, issued a report summarizing the government's reasoning on it. The government's approach is that hospital ships are expected to complement land-based medical institutions in the event of a major disaster, especially in areas where land routes are disrupted or on remote islands. In light of the current situation where issues such as (1) securing medical personnel, (2) securing ships operating personnel, and (3) the use of these ships during normal times continue to be addressed, and considering the fact that they have not yet been resolved, it was decided that for the time being, efforts would be made to develop disaster medical activities using existing ships instead of starting to construct new hospital ships.

In response to this, in FY2021, we prepared for a full-scale training exercise using a Self-Defense Force vessel, in which approximately 150 medical personnel participated to demonstrate activities from initial response (gathering of personnel) to completion (removal of patients), based on the opinions of medical organizations. Due to the spread of COVID-19 in January 2022, the actual training was cancelled, but the findings from the preparatory stage of the training and from the tabletop exercises will be utilized in future studies.

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 or the outbreak or spread of infection or the threat of such outbreaks. 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. 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 began to prepare for the enforcement of the Act in a unified government-wide effort. While taking advantage of the government's measures to date, we will continue to work to enhance the medical care provision system in the event of a disaster, while continuing to listen carefully to the opinions of medical- organizations.