

Section 4 Efforts of “Disaster Prevention × Technology”

4-1 Background of Consideration and Establishment of Task Force of “Disaster Prevention Measures × Technology”

To more effectively and efficiently respond to disasters, which have become more frequent and severe in recent years, it is important to proactively utilize ICT and new technologies.

In light of these circumstances, on February 13, 2020, the Cabinet Office has established the "Disaster Prevention x Technology" Task Force (hereinafter referred to as the “Task Force”). The Task Force will study strategies to promote the use of new technologies in disaster management, under the leadership of the State Minister of the Cabinet Office, the Cabinet Office and the Cabinet Secretariat's departments in charge of disaster management, science, technology and innovation policy, IT strategy, and space policy all working together.

The Task Force held a total of four meetings, including a web conference, from February to May 2020, where local governments engaged in the use of technology, private organizations promoting research and development, and academics presented their initiatives and held discussions. The specific themes for each session are as follows.

Part 1: Initiatives for the Use of AI Chatbots, etc.

Part 2: Disaster Response Using Social Media and AI Technology

Part 3: Using Satellites to Assess Damage

Part 4: Using the Sharing Economy in Times of Disaster, Securing Communications, and Using Technology in Disaster Relief Procedures for the Affected People

Based on these discussions, the Task Force compiled a summary of the future vision of technology utilization and future promotion measures, and published it on June 5, 2020.

About the "Disaster Prevention x Technology" Task Force

Overview

- In order to respond more effectively and efficiently to disasters, which have become more frequent and severe in recent years, it is important to proactively utilize ICT and new technologies.
 - Under the supervision of the State-Minister of Cabinet Office, Japan, a task force was established on February 13, 2020 to study measures to promote the use of new technologies in disaster prevention measures in collaboration with the Cabinet Office and the Cabinet Secretariat departments in charge of disaster prevention measures, science, technology and innovation policy, IT strategy, and space policy.
- A total of four meetings were held, each with a different topic, in which local governments, private organizations, and academics who are engaged in research and development and measures at disaster sites were present to discuss their efforts.
- Based on the discussions to date, the future vision of technology utilization and future promotion measures were compiled and

Members

- Mr. TAIRA Masaaki, State-Minister of Cabinet Office, Japan
- Deputy Director General and others in the following departments
 - Director-General for Disaster Management, Cabinet Office Asst.
 - Secretariat of the Promotion of Space Development Strategies, Cabinet Office
 - Secretariat for the Promotion of Regional Development, Cabinet Office
 - Planning Division, Minister's Secretariat, Ministry of Internal Affairs and Communications (observer)
 - Director-General for Science, Technology and Innovation, Cabinet Office Asst.
 - Secretariat of the Information and Communication Technologies (IT) Strategy Office, Cabinet Office

Meeting Details

[1st Meeting] Tuesday, February 18, 2020

(Topic)

- Measures related to the use of AI chatbots

[2nd Meeting] Tuesday, March 17, 2020

(Topic)

- Disaster response using social media and AI technologies

[3rd Meeting] Wednesday, April 22, 2020

(Topic)

- Use of satellites for damage assessment

[4th Meeting] Friday, May 29, 2020

(Topic)

- Use of a "sharing economy" and securing communications, etc. in times of disaster
- Use of technology in disaster relief

Source: Cabinet Office data

(See: www.bousai.go.jp/pdf/0605taskforce.pdf)

4-2 Organizing Task Force of "Disaster Prevention Measures x Technology"

In the event of large-scale disasters, an enormous amount of disaster response work is required, but the human resources of local governments are limited. To respond swiftly and accurately, it is important to improve the efficiency of work, save labor, and standardize operations.

At present, various organizations are working on research and development of advanced technologies such as AI, SNS, and satellites that may contribute to increasing efficiency and saving labor in disaster response operations, as well as digitization of procedures for various systems.

In light of this situation, the task force decided to promote the following initiatives in collaboration with the relevant departments of the task force in order to encourage the use of technology at the local government level.

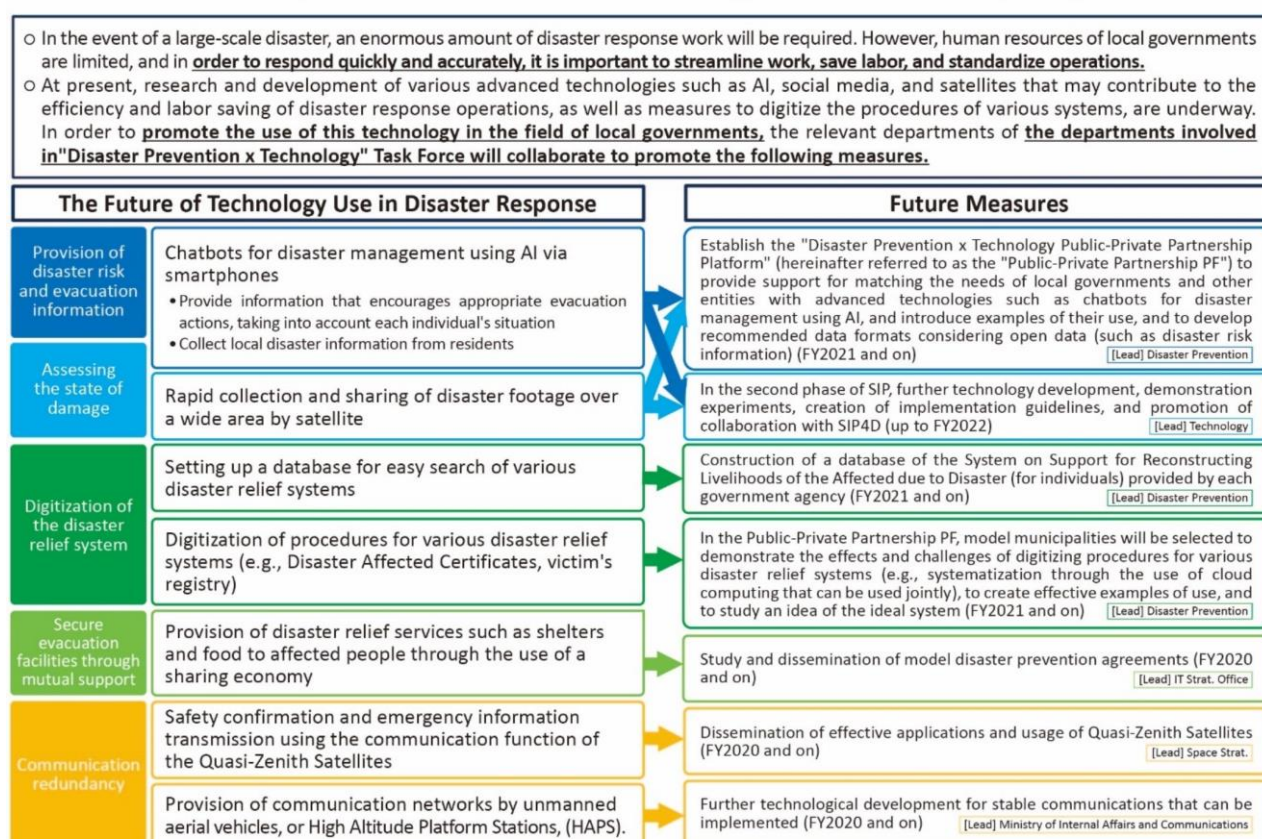
- With regard to the provision of disaster risk and evacuation information, further technological development and field tests will be carried out to enable AI-based chatbots for disaster management to "provide information that encourages appropriate evacuation behavior based on each individual's situation" and "collect local disaster information from residents" via smartphones.
- For damage assessment, further technological development and field tests will be carried out to enable rapid collection and sharing of images of the damage over a wide area via satellite.
- With regard to the digitization of disaster relief, a database will be developed to allow easy searches of various disaster relief. The effectiveness and challenges of digitizing procedures for various disaster relief

(e.g., Disaster Affected Certificates, and victim's registry.) will be verified to create examples of effective use and to consider ideal systems.

- With regard to securing evacuation facilities through "mutual support," a model disaster management agreement will be considered and disseminated to promote the use of the sharing economy in the provision of evacuation sites, food, and other disaster support services to the affected people.
- As for redundant communications, in order to "confirm safety and send emergency information using the communication functions of the quasi-zenith satellite (QZS)," information on effective applications of the QZS and how to use it will be publicized. In addition, to enable the "provision of communication networks by unmanned aerial vehicles flying at high altitudes with onboard base stations (HAPS: High Altitude Platform Station)," further technological development for stable communication will be carried out to make this a reality.

At present, in order to promote the use of technology at the local government level, the relevant departments are promoting further research, development and commercialization of the initiatives described in the task force's summary.

Summary of "Disaster Prevention x Technology" Task Force (June 5, 2020)



Source: Cabinet Office data
(See: www.bousai.go.jp/pdf/0605taskforce.pdf)