

Lecture 1

Disaster Management in Japan*¹

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Developing Role-specific Disaster Management Plans by a Three-tiered Administration Consisting of the National, Prefectural, and Municipal Governments

In the Japanese Disaster Management System, a Minister of State for Disaster Management is appointed to the Cabinet, and the Disaster Management Bureau plans the basic policy on disaster management and plans and makes overall coordination on response to large-scale disasters. In normal times, Ministers of State, representatives of relevant organizations and experts form the Central Disaster Management Council in the Cabinet Office to discuss important matters such as the development of national disaster management plans and basic policies and to take charge of promoting comprehensive disaster countermeasures by indicating a major policy.

Japan is governed by a three-tiered administration: the national government, prefectures, and municipalities. The head of each level takes full responsibility for that jurisdiction in a structure similar to that of a nation. Comprehensive disaster prevention plans are developed in accordance with the roles to be performed at each stage.

In the event of a disaster, or where there is a risk of a disaster, the Cabinet Office, with the cooperation of relevant ministries and agencies, takes the lead in countermeasures, corresponding to each level of disaster with level 1 at normal times up to level 5 when a devastating disaster occurs (Fig. 1).

When a large-scale disaster occurs, an Emergency Response Team made up of director-general class members of related ministries and agencies is summoned to the Prime Minister's Office to begin talks within 30 minutes of the occurrence of the disaster. Then an extraordinary cabinet meeting is held and the Extreme Disaster Management Headquarters is established. The Headquarters, headed by the Prime Minister as the Chief, makes the policies and provides overall coordination regarding disaster emergency measures. Accurate and prompt actions are expected to be taken in response to the instructions from the Chief.

The Emergency Measures Activity Plan Goes into Action Immediately without Waiting for Assistance Request

Prompt and accurate emergency response is demanded in the event of a disaster, and to ensure its reliability, the government may establish the Onsite Headquarters for Disaster Management. For example, during the Hiroshima landslides in August 2014, the Onsite Disaster Management Headquarters was set up and headed by a State Minister of Cabinet Office. Likewise, Prefectural Disaster Management Headquarters and Municipal Disaster Management Headquarters are set up in affected areas and these administrative units coordinate operations.

Next I would like to introduce an overview of the specific plan. Fig. 2 shows an outline of current measures considered by the Central Disaster Management Council in response to

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Response by the Cabinet Office according to the level of a disaster			
Level	Severity	JMA Seismic Intensity	Response by the Government
Level 5 (Emergency)	Devastating	Central Tokyo: 6 Lower Other area: 6 Upper	<ul style="list-style-type: none"> Start procedure of establishment of Extreme/Major Disaster Management Headquarters Dispatch of Government Investigation Team
Level 4 (Prepare for Emergency)	Severe	Central Tokyo: 5 Upper Other area: 6 Lower	<ul style="list-style-type: none"> Holding a conference on disaster management with relevant Ministries and Agencies Dispatch of Government Investigation Team
Level 3 (Warning)	Considerable disaster occurs or expected to occur	Central Tokyo: 5 Lower Other area: 5 Upper	<ul style="list-style-type: none"> Holding a conference on disaster management with relevant Ministries and Agencies (if needed) Dispatch of Government Investigation Team (if needed)
Level 2 (Alert)	Beware of occurrence of a disaster	Other area: 5 Lower	
Level 1 (Normal)	Need to keep watching		

Fig. 1

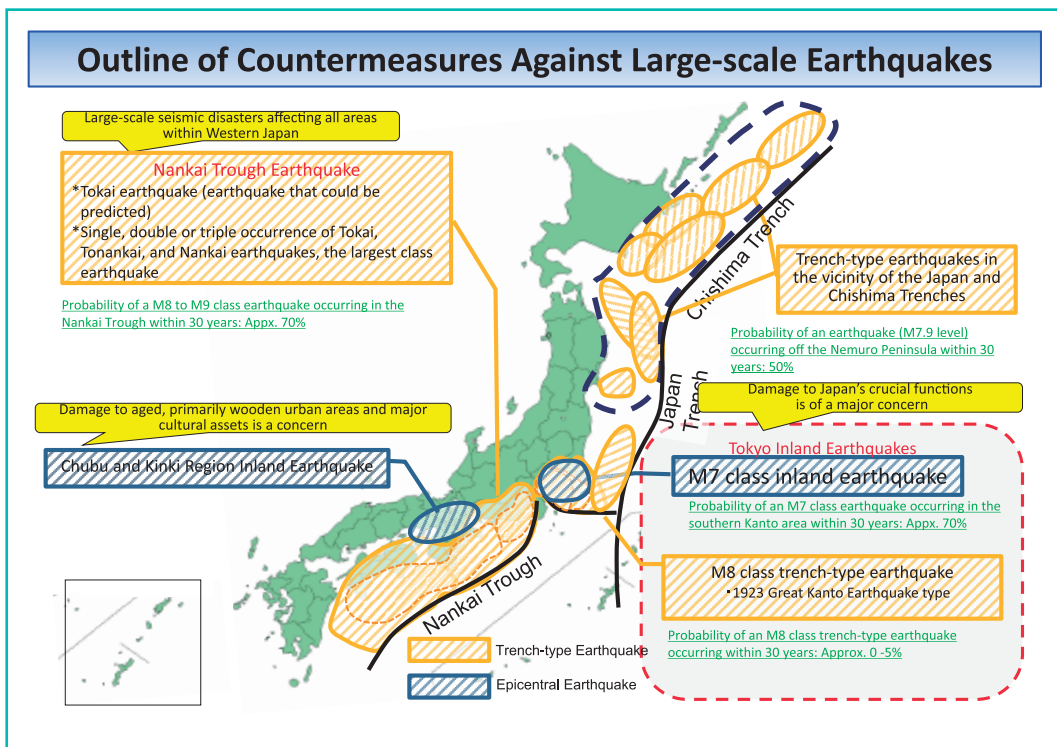


Fig. 2

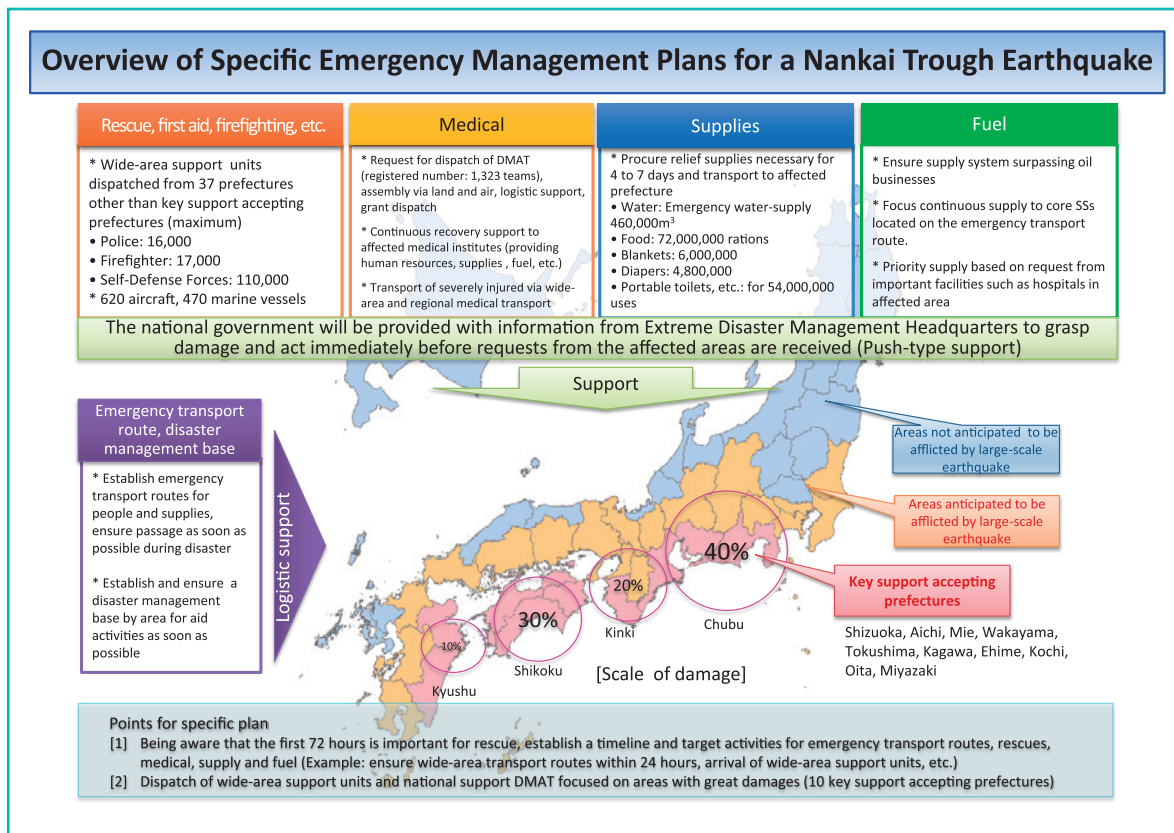


Fig. 3

large-scale earthquakes. It specifically suggests that the possibility of a Nankai Trough Earthquake (with a magnitude of 8 or 9) and a Tokyo Inland Earthquake within the next 30 years is greater than 70%. The council is presently reviewing the estimation of damage based on the Great East Japan Earthquake while promoting countermeasures.

After reviewing the damage estimation, it was assumed that a tsunami generated by the Nankai Trough Earthquake and fires that broke out in the Tokyo Inland Earthquake would cause a high proportion of deaths. In particular, a tsunami from the Nankai Trough Earthquake is expected to affect massive areas, causing enormous damage.

In March 2015, based on the estimation of these damages, the specific Emergency Management Plan for a Nankai Trough Earthquake was newly established (Fig. 3). This plan is made up of five categories in response to large-scale disasters: emergency transportation routes; rescue,

first aid, fire fighting, etc.; medical; supplies; and fuel.

By incorporating lessons learned in the Great East Japan Earthquake, its main feature is that the Extreme Disaster Management Headquarters will grasp a whole picture of the damage and action can be taken immediately without waiting for receiving requests for assistance from the affected areas. Wide-area support units such as the police, firefighter and Self-Defense Forces are planned to be dispatched with a concentration on key support accepting prefectures where great damages are expected.

For life saving, a timeline with target activities is set up for the five afore-mentioned categories while keeping in mind the initial 72-hour maximum period for rescue, coordinating each activity according to the elapsed time from when the disaster struck.

Regarding medical care, JMATS (Japan Medical Association Teams) and DMATs (Disaster Medical Assistance Teams) are dispatched over

a broad area during the initial 72 hours and requested to provide assistance to the disaster base hospitals in the affected areas. In addition,

the plan is to quickly build a backup system for treatment by transporting critical patients out of the disaster areas from air transport centers.

Designated Remarks



Haruhiko HAKUNO²

The Ministry of Health, Labour and Welfare (MHLW) has been advancing its policy of disaster management in three pillars, focusing on how effectively and efficiently medical care can be provided in the event of a disaster. These are: 1) setting up disaster base hospitals, 2) operating and training DMATs (Disaster Medical Assistance Teams), and 3) establishing an EMIS (Emergency Medical Information System).

As a rule, one or more disaster base hospitals is set up in every secondary medical zone. These hospitals must withstand various disasters with reinforced earthquake resistance and the like. Currently there are 695 designated hospitals across Japan that can act as bases to take in large numbers of injured victims in addition to providing medical care.

A DMAT is a medical team basically made up of four members—a doctor, two nurses, and one coordinator—with an emphasis on mobility. To date, 9,328 members of 1,426 teams have been trained. Their biggest feature is the speed at which they can start activities in affected areas. Similarly to the criteria of the government's Emergency Response Team for gathering in case of natural disasters, the DMATs across Japan automatically go into standby in the event of an earthquake with a seismic intensity of upper 5 or higher in Metropolitan Tokyo or lower 6 or higher in other areas, a tsunami warning, or a Tokai

Earthquake is announced. DMAT secretariat offices are placed in the National Hospital Organization Disaster Medical Center (Tachikawa, Tokyo) and the National Hospital Organization Osaka National Hospital (Osaka), so that they can respond to disasters across the country.

During the Great East Japan Earthquake of March 2011, 383 teams were dispatched to the affected areas. Eighty eight teams were also active at the time of the Hiroshima landslides in August 2014 and heavy rain disasters of September 2015.

The EMIS is an online system for the MHLW, governments and medical institutions in affected areas, and dispatched DMATs to share information. In order to provide swift and efficient medical care during a disaster, it is necessary to collect and share accurate information. The EMIS is the central information system in the acute phase of a disaster.

While I have outlined the three pillars related to healthcare provision, the DMAT alone cannot take on all the necessary medical care in the affected areas. The JMAT, the medical team run by the Japan Medical Association provided support at the time of the Great East Japan Earthquake for a very long time from the acute to recovery phases. I would like to take this opportunity to express my sincere gratitude to all the people involved.

To provide appropriate medical care in the event of a disaster, we need “all Japan” response system that includes collaboration with various sectors all over Japan. At the MHLW, we aim to improve disaster preparedness functions at medical institutions and listen carefully to the voices of everyone, so that people are able to receive proper medical care during a disaster.

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