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# KNOWLEDGE NOTE 2-2

CLUSTER 2: Nonstructural Measures

## Disaster Management Plans





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# Disaster Management Plans

**Following its devastating experience with recent disasters, Japan has been strengthening or drawing up new disaster management plans at the national and local levels. The Great East Japan Earthquake (GEJE) revealed a number of weaknesses in planning for complex and extraordinary disasters. Central and local governments have been revising their plans to reflect what they learned from the GEJE.**

Japan's disaster management system addresses all phases of disaster prevention, mitigation and preparedness, and emergency response, as well as recovery and rehabilitation. It specifies the roles and responsibilities of national and local governments, and enlists the cooperation of relevant stakeholders in both the public and private sectors. Following the Great East Japan Earthquake (GEJE), assessments have been made of the capacity of existing disaster risk management (DRM) planning systems to prepare for and react to large-scale disasters. Revisions have been proposed, based on the lessons learned on March 11.

## FINDINGS

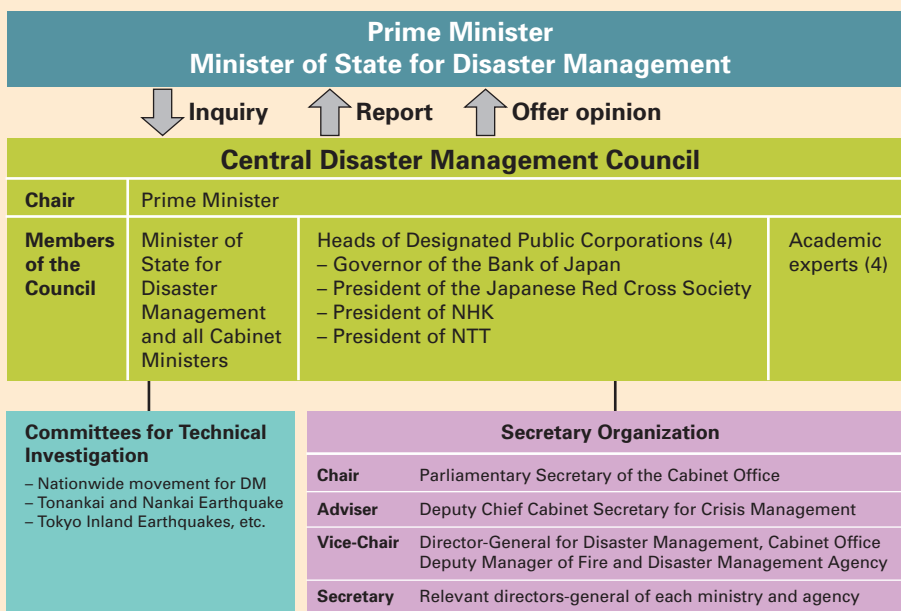
### DISASTER MANAGEMENT SYSTEMS IN JAPAN

**Disaster Countermeasures Basic Act.** In the 1940s and 1950s Japan was repeatedly ravaged by typhoons and earthquakes. In particular, the 1959 Isewan Typhoon in 1959 caused tremendous damage; in 1961 the Disaster Countermeasures Basic Act was passed.

The act established the following:

- The Central Disaster Management Council was to formulate the overall policy for DRM and to function as the national coordinating body for disaster management. The council was chaired by the prime minister, and its members came from line ministries, semipublic organizations (such as Public Broadcasting, the Bank of

FIGURE 1: Structure of the Central Disaster Management Council



Japan, the Japanese Red Cross, and a telecommunications company) and representatives from academia (figure 1).

- Roles and responsibilities regarding disaster reduction were clearly defined at the national, prefectural, and municipal government levels, as well as for community organizations and citizens; and the three levels of governments were required to draw up master plans for DRM. Also, all the ministries and semipublic organizations were asked to prepare disaster management plans for their sectors.
- The cabinet submitted an annual report to the National Diet covering the status of DRM, and specifying the budgetary allocations for DRM programs. The National Diet formed special committees for disaster management in both its lower and the upper houses, which have continued to monitor governmental DRM initiatives.

In 1995 the occurrence of the Hanshin Awaji Earthquake forced a revision of the 1961 Act to focus more on countermeasures and prevention, resulting in a new Disaster Countermeasures Basic Act in 1995.

**The Central Disaster Management Council** retained its leading role in conducting the following activities:

- Formulating and coordinating the implementation of the Basic Disaster Management Plan.
- Formulating and coordinating the implementation of contingency plans for emergencies.
- Advising the prime minister or the minister of state for disaster management on important issues relevant to disaster management.
- Fostering consultations on important issues surrounding disaster management, in response to inquiries from the prime minister or the minister of state for disaster management.

The cabinet office is the secretariat for this council. The minister of state for disaster management, who is assisted by the staff of the cabinet office, has a mandate to oversee the planning and central coordination of basic DRM policy and large-scale disaster countermeasures. The minister is also responsible for integrated information gathering and other disaster emergency measures.

**The Basic Disaster Management Plan** is the master plan and the basis for DRM activities in Japan. It is prepared by the Central Disaster Management Council in accordance with the Disaster Countermeasures Basic Act. The plan clarifies the duties of the central government, public corporations, and local governments in implementing measures. The plan also describes the sequence of disaster countermeasures such as preparation, emergency response, recovery, and reconstruction for various types of disasters.

Based on the Basic Disaster Management Plan, every designated government organization and public corporation draws up a Disaster Management Operation Plan; and every prefectural and municipal disaster management council prepares a Local Disaster Management Plan.

The council has the right to establish technical committees to study technical matters. After the GEJE, the council recommended specific evaluations to identify whether any revisions or additions to the 1995 Basic Act were required.

The Expert Committee on Earthquake and Tsunami Disaster Management prepared a report to document facts and findings from the GEJE experience. In response to this report, the Japanese government amended the Basic Disaster Management Plan on December 27, 2011, aiming to enhance countermeasures against multihazard, high- impact events.

Major revisions to the plan included:

- Addition of a new section on tsunami disaster management.
- Fundamental improvements in disaster management for tsunamis and earthquakes in the light of the GEJE:
  - Requirements to prepare for low-probability and large-scale earthquakes and tsunamis.
  - More careful consideration of multihazard and multilocation disasters.
  - Mandatory inclusion of DRM in urban land use.
  - Raising of public awareness about evacuation, DRM measures, and hazard maps.
  - Additional investments nationwide for capacity building of each countermeasure.
  - More resources to be invested in understanding disaster risk, and developing innovative systems for monitoring earthquakes and tsunamis.
  - Communication tools such as tsunami early warning systems to be strengthened.
  - Additional reinforcement and retrofitting of homes and buildings to reduce earthquake damage.
- Revision of countermeasures, such as taking gender into consideration at evacuation shelters, and improvement of warning messages.

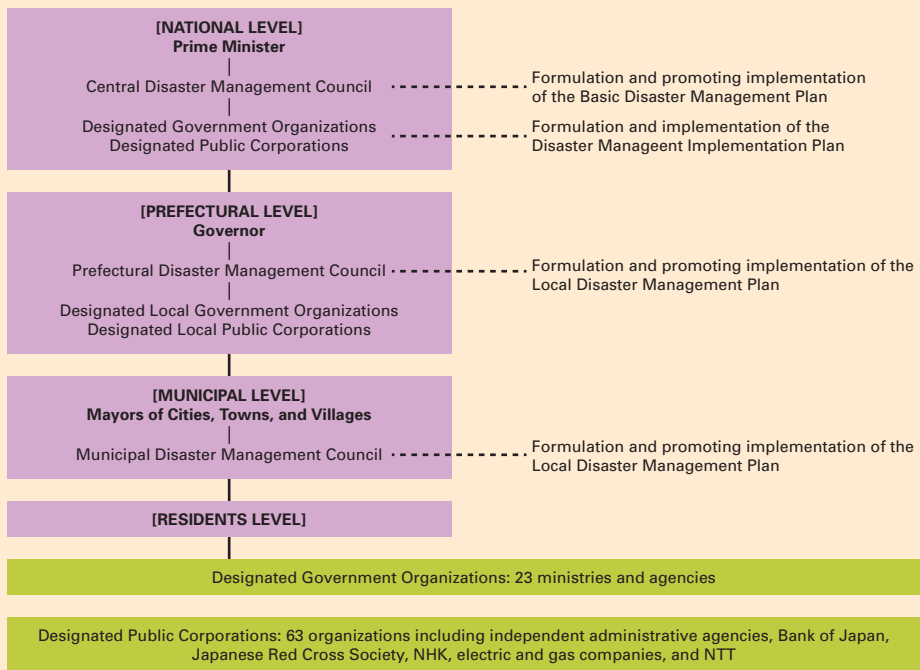
## **REVISING LOCAL DISASTER MANAGEMENT PLANS**

The municipal government plays a fundamental role in disaster management: according to the Disaster Countermeasure Basic Act, it is responsible for establishing a local disaster management plan, emergency operations such as warning systems, issuing evacuation recommendations and orders, and flood fighting and relief activities (figure 2). In cases where a municipality is so widely and heavily devastated that it cannot carry out many of its primary roles, the prefectural government shall issue evacuation recommendations and orders instead of the municipality.

A local disaster management plan shall provide for the following:

- Specification of the roles of government organizations, designated public corporations (such as public utilities and the Red Cross), and other relevant public organizations.

FIGURE 2: **Outline of Japan’s disaster management system**



Source: CAO.

- Plans by category of activity, including: development or improvement of DRM facilities, investigation and research, education, drills and other preventive measures, collection and dissemination of information, issuing and disseminating of forecasts and warnings, evacuation, fire fighting, flood fighting, rescue, hygiene, and other emergency measures and rehabilitation efforts.
- Plans for coordination, stockpiling of food and supplies, procurement, distribution, shipping, communication, facilities, equipment, materials, funding, and so on.

When a prefectural disaster management council wishes to formulate or revise a local disaster management plan for the prefecture, the council is required to consult the prime minister in advance, who in turn shall consult the Central Disaster Management Council. When the prefectural disaster management council has formulated or revised its local prefectural disaster management plan, the council is required to release and disseminate a summary of the plan or revision.

Following the GEJE, local governments across Japan have started reviewing their disaster management and risk reduction systems to strengthen countermeasures for multihazard, high-impact events.

The Fire and Disaster Management Agency set up a Review Committee on Improvement of Earthquake and Tsunami Countermeasures in Local Disaster Management Plans. This committee aimed to (i) assess counter measures taken by local governments in the GEJE, and (ii) support local governments in revising their local disaster management plans, which are the foundation for local disaster management and reduction measures. In particular, emergency measures, including evacuation measures, and emergency training have been emphasized.

The committee made the following key recommendations for revising local disaster management plans:

- Develop action plans with concise descriptions and measurable results by setting quantitative targets.
- Plan the timing of initial actions to be taken in the event of a disaster (manuals and so forth).
- Be sure to specify emergency measures for evacuating local residents (issuing of evacuation orders and other communications with residents).
- Establish procedures in case local disaster management capabilities are lost, for example, prefectures must quickly provide appropriate alternative measures or assistance to municipal governments.
- Clarify the basic principles, including policies and standards, for developing disaster management systems.
- Make full use of emergency disaster management and reduction programs (implemented by individual communities) to further strengthen evacuation measures.

## **SPECIFIC ACTIONS TO REVIEW LOCAL DISASTER MANAGEMENT PLANS**

Local governments in the affected areas have started enhancing their disaster management systems. For example, at an informal meeting of municipal mayors in January 2012, the government of Iwate Prefecture proposed amendments to its disaster management plan based on its experience in the GEJE. These amendments aim to improve disaster countermeasures by taking into account scenarios involving the largest possible earthquakes and tsunamis.

The amended plan includes procedures that allow the prefecture to provide support to municipal governments during large-scale disasters before they request it. It also provides for a communications security program for setting up multiple telecommunications systems, including satellite mobile phones, in prefectural and municipal government offices. These amendments were prompted by the experience of damaged or suspended administrative



functions after March 11 because of power failures and destruction of offices. According to the amended plan, when contact with the affected municipalities cannot be made, the prefecture will automatically dispatch a survey team. The plan also authorizes the governor to provide support to municipalities in the event of a large-scale disaster.

After the GEJE, many local government organizations across Japan, in addition to the Iwate, Miyagi, and Fukushima prefectures, started reviewing their local disaster management plans. For example, Kawasaki City is in the process of adding tsunami countermeasures, which are hardly mentioned in the current plan; and Saitama Prefecture has decided to review measures for dealing with commuters who can't get home, emergency supply policies, and wide-area radiation contamination.

## LESSONS

National and local governments in Japan have distinct and complementary roles in DRM planning. The national level is in charge of defining the overall DRM strategy, coordination and legislation, allocation of funds, and deployment of the government budget. In local-level disaster management plans, governments are focusing on coordination of administrative and operational functions; preventive measures, such as education, safety drills, and issuing and transmitting of information and warnings; evacuation and rescue activities and primary goods supply and distribution in emergency situations; and overall coordination of reconstruction and restoring livelihoods during the recovery phase. The central government provides substantial funding for emergency response and reconstruction.

The lessons learned from the Great Hanshin-Awaji Earthquake in 1995 had already prompted improvements to Japan's DRM legislation and government policies. In recent years, high priority has been given to developing countermeasures for large-scale earthquake disasters. Legislation has been passed on countering large-scale ocean-trench-type earthquakes, plans for large cities where damage is likely to be wide-ranging have been established, and the overall legislative framework on DRM and disaster countermeasures has been improved. After the GEJE, these kinds of countermeasures have been emphasized even more, and a full revision of the Disaster Countermeasure Basic Act was proposed in December 2011.

The main drivers of the latest revision are: the need to account for low-probability, high-impact multilocation hazards, and to strengthen the local government's role in providing training and planning emergency measures and evacuations.

## RECOMMENDATIONS FOR DEVELOPING COUNTRIES

- Plans at the national and local levels should be revised frequently, based on lessons learned from other disasters in and outside the region. It could be helpful to set up a committee at the national level to coordinate the timing and content of revisions at the national and local levels. Consultations between national and local government representatives could assure complementarities and synergies across roles and activities.

- A local disaster management plan is useful in specifying countermeasures against future natural disasters, as long as clear roles and responsibilities are assigned to each tier of government regarding preventive measures, emergency response and rescue, and recovery and reconstruction activities. It is also useful to identify capacities that may need to be strengthened.
- Agreements could be designed and signed at the local level with key sectors, specifying responsibilities for emergency response measures, rescue operations, and evacuation plans. Private companies, as well as community-based organizations entering into those agreements, could develop services (in coordination with local governments) that can be delivered as soon as a disaster strikes, even without a formal request or authorization from the local government (KN 4-1).

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