

# The Challenges of Local Governments and Assistance from Onsite Organizations of the National Government in Responding to the 2011 Tohoku Earthquake Disaster

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## I. Introduction

### 1. Background

In the Japanese disaster management system affected municipalities are foremost responsible for assisting affected residents as first responders against disasters, and the affected prefectures should assist the municipalities if they do not have the capability to adequately handle the disaster. In practice, affected local governments often fail to properly handle the disaster's aftermath. This is likely because major disasters rarely occur and most local governments have not experienced major disasters or have insufficient knowledge and resources. Japanese local governments need to develop their abilities to cope with disasters.

This article focuses on two major issues that will improve local governments' disaster response abilities. The first is the business continuity management of local governments; the second is assistance from the national government's onsite organizations.

The former, business continuity management, refers to establishing a management system and plan to properly address and prioritize actions during disasters in chaotic and under-resourced situations. Although Japan's Cabinet Office published guidelines (Japan Cabinet Office, 2010) for the establishment of local governments' business continuity plans (LGBCPs or otherwise known as continuity of operations plans (COOPs)) in 2010, many local governments had not established the plans before the Great East Japan Earthquake (i.e., Tohoku earthquake) of March 2011 (Japan Cabinet Office and Fire and Disaster Management Agency, 2010).

The latter, assistance from the national government's onsite organizations, was legally promulgated after the 1995 Hanshin Awaji Earthquake Disaster by the

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amended Disaster Countermeasures Basic Act (Kohata, Saruwatari, and Maeba, 1999). If required, the national government should support local governments. An onsite national government disaster management headquarter (onsite HQ) seems an effective tool for this purpose. However, a detailed system relating to the onsite HQ had not been discussed or established until the 2011 Tohoku earthquake.

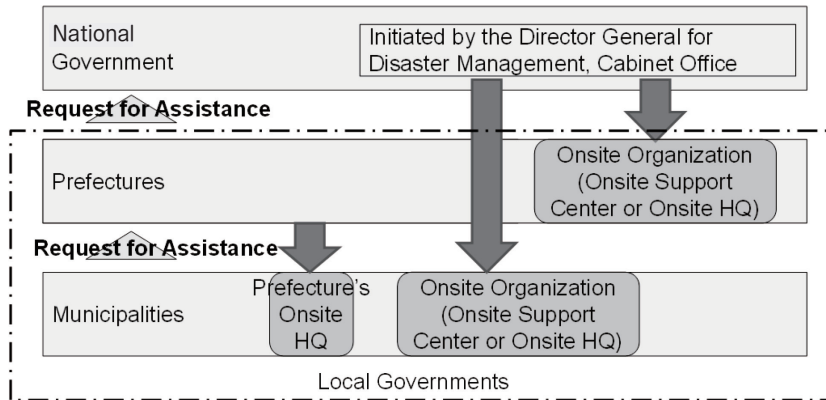


Figure 1. National government assistance system for local governments during the response phase

## 2. Purposes

Firstly, this paper provides the background of LGBCPs just prior to the Tohoku earthquake (EQ) and examines the initial effects and challenges resulting from the Tohoku EQ in 2011 regarding local governments' continuity of operations. Local government operations faced serious consequences due to the lack of LGBCPs at the time of the unforeseen great tsunami. However, there have been very few studies focused on the effects of LGBCPs.

Secondly, this paper discusses the process and transition of the national government's onsite organizations during disasters from the period ranging from the Hanshin Awaji EQ to the Tohoku EQ, examines the onsite organization system during the Tohoku EQ, and validates the effectiveness of the onsite organization. Assistance from the national government and unaffected local governments played significant roles in responding to the affected local governments during the Tohoku EQ. Some previous studies such as those by Sakamoto et al. or Sato et al. refer to assistance

from other local governments. However, no study other than a few governmental reports has discussed assistance from the national government's onsite organizations.

## **II. Methods**

Firstly, this study reviews Japan's disaster management system that existed prior to the Tohoku EQ. In Section III, the disaster management planning system and countermeasures to improve LGBCPs are discussed based on literature reviews. In Section IV, the disaster-related Japanese onsite organization system and its transition process from the Hanshin Awaji EQ to the Tohoku EQ is discussed based on literature reviews and interview surveys conducted in 2008 of officials in the Cabinet Office, Shizuoka Prefecture, and Osaka Prefecture.

Next, in Section V, this study examines the circumstances and challenges faced by local governments during the Tohoku earthquake, especially from the viewpoint of business continuity. It is based on a validation survey report in 2012 of the Miyagi prefectural government conducted by the Disaster Reduction and Human Renovation Institute (DRI). This author was a member of the validation survey team that interviewed over 300 people in approximately 100 departments and agencies in 2011 and 2012. In order to analyze the challenges and lessons learned by the local governments' COOPs during the Tohoku earthquake, this study uses ten "elements of a viable continuity capability for non-federal entities" as set forth in the Continuity Guidance Circular 1 (CGC1) (Federal Emergency Management Agency, 2009) from the United States. The CGC1 is a set of continuity guidelines for non-federal entities (including local governments in the U.S.), which was published in 2009 by the Federal Emergency Management Agency (FEMA).

Thirdly, in Section VI, this study explains the national government's onsite organization system during the Tohoku EQ that was used to assist affected local governments. This author was a member of the DRI support team for Miyagi Prefecture and the onsite HQ of the national government and was intermittently dispatched to the Miyagi Prefectural Offices from March to June 2011. Section VI is based on this author's observations at that time, literature reviews, and interview surveys of two officials from the Cabinet Office and Miyagi Prefecture in 2011.

Fourthly, in Section VII, this study evaluates the onsite organization system that

was in place during the Tohoku EQ from the viewpoint of local governments. This section is based on interview surveys of two officials from the Cabinet Office and one from Miyagi Prefecture in 2011, as well as literature reviews and questionnaire surveys of heavily damaged municipalities in the Miyagi and Iwate Prefectures in 2011. The questionnaire survey was sent via post to 15 coastal municipalities in Miyagi Prefecture and 12 coastal municipalities in Iwate Prefecture, and a total of six municipalities in Miyagi and five municipalities in Iwate responded by post.

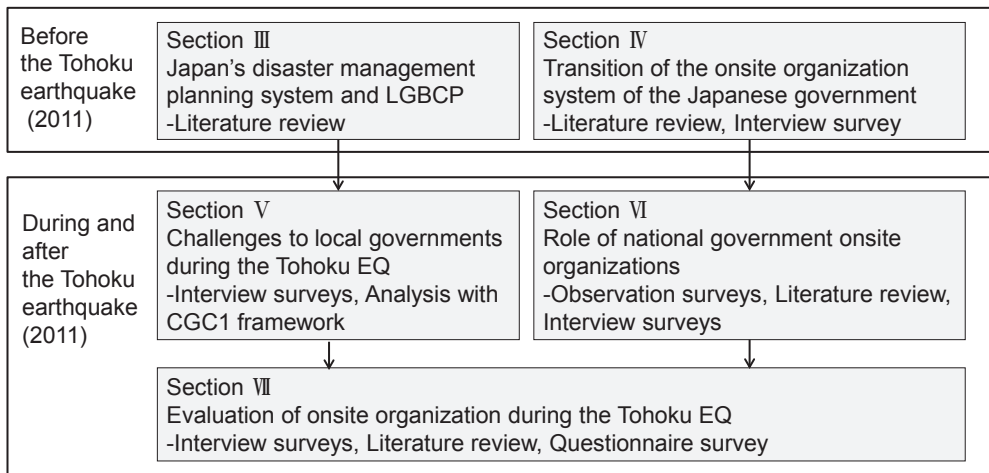


Figure 2. Content and research methods

### III. Japan's Disaster Management Planning System and the LGBCP

A disaster management planning system is an important countermeasure for responding to catastrophes. A local disaster management plan (LDMP) is the only mandatory plan for local governments in Japan under the Disaster Countermeasures Basic Act of 1961. All prefectures and municipalities are required to create an LDMP and revise it every year. The most important part of an LDMP is the response plan, which outlines the local government's roles and responsibilities and explains what each division should do to assist individuals and affected businesses. Despite these obligatory plans, local governments often fail to properly handle disasters. One of the reasons is a lack of an LGBCP that prepares local governments for building an appropriate working environment and managing resources. Local governments' LDMP dictate what should be done after a disaster occurs, but the question of how

those response efforts should unfold has not been considered in depth.

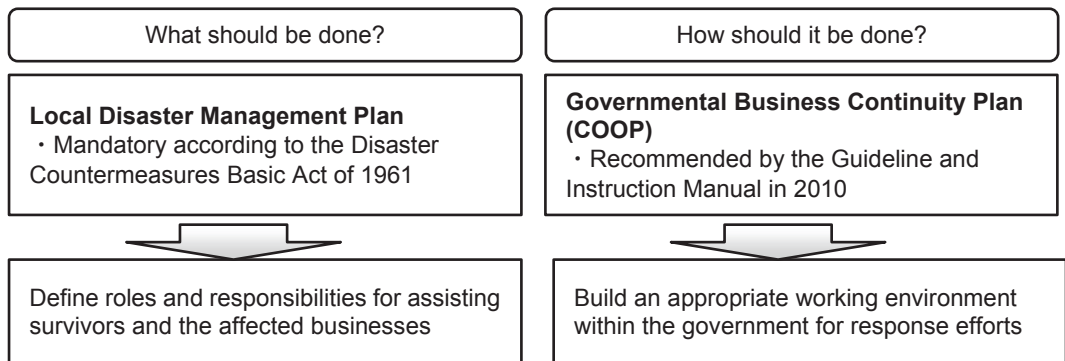


Figure 3. Differences between a Local Disaster Management Plan and an LGBCP

Private Japanese companies began paying attention to Business Continuity Plans (BCPs) after the 9/11 terrorist attacks in 2001 because they were found to be effective in helping companies continue to operate during chaotic situations. The Japan’s Cabinet Office drafted a set of business continuity guidelines for private institutions in 2005. Business continuity was a critical issue not only for the private sector, but also for the government sector. Japan’s main government headquarters are located in Tokyo’s central district, which faces serious future risks for another great earthquake. Japan’s Central Disaster Prevention Council drafted the Outline Plan for Countermeasures to address the aftermath of the Tokyo Earthquake (Central Disaster Prevention Council, 2005) in 2005 and the Response Plan for the Tokyo Earthquake (Central Disaster Prevention Council, 2006) in 2006. This required forming a BCP for departments and agencies in the national government. During the Tokyo earthquake, BCPs were essential to managing resources and continuing the operations of the national government’s high priority businesses. Japan’s Cabinet Office drafted the guidelines for the national government’s BCP in 2007, and every designated government department and agency drafted its own BCP by 2008.

Reflecting the national government policy, some local governments started to form BCPs. For example, Tokushima Prefecture and the Tokyo Metropolitan Government drafted their BCP in 2008, and Osaka Prefecture and Aichi Prefecture followed suit in 2009. However, most local governments, especially municipalities,

had not drafted BCPs by that time. A national survey (Japan Cabinet Office and Fire and Disaster Management Agency, 2010) reported that only one municipality had a BCP to address earthquake disasters, and 169 municipalities were in the process of creating BCPs in November 2009. In order to provide recommendations on forming an LGBCP, the Cabinet Office published LGBCP Guidelines (Japan Cabinet Office, 2010) to respond to Earthquake Disasters in April 2010, approximately one year before the Tohoku earthquake.

#### **IV. Transitions in the Onsite Organization System for Natural Disaster Management by the Japanese Government**

##### **1. The Hanshin Awaji EQ**

Onsite organizations including onsite HQs and onsite support centers are comprehensive contact centers of the national government for affected local governments during disasters that they are unable to cope with situations alone. In general, onsite organizations gather damage and demand information from affected local governments, convey this information to the HQ in Tokyo, and coordinate assistance countermeasures with the HQ. During the Great Hanshin Awaji EQ in 1995, the Japanese national government set up a Major Disaster Management Headquarters in Tokyo based on the Disaster Countermeasures Basic Act, and also established an Onsite Major Disaster Management Headquarters (onsite HQ) from January 21 to April 4, 1995. This onsite HQ was established in the Hyogo Prefectural Guest House following cabinet approval, not by a formal law. This was because there were no formal rules regarding onsite organizations in the Disaster Countermeasures Basic Act at that time.

The onsite HQ supported Hyogo Prefecture's responses for a period of one month. The roles of the onsite HQ were to maintain contact and coordination with affected local governments, collect information and determine the needs of those in affected areas, provide information regarding countermeasures from the national government, and assist in the implementation of the affected local governments' policies and programs (Kohata, Saruwatari, and Maeba, 1999). After the Hanshin Awaji EQ, the Disaster Countermeasures Basic Act was amended in 1995. It instituted onsite HQ systems in affected areas during major or extreme disasters. However,

the details regarding onsite HQs were not decided. After the amendment, the onsite organization system had been discussed from two viewpoints. One was practice during mid-scale disasters, and the other was preparedness against large-scale disasters in the future.

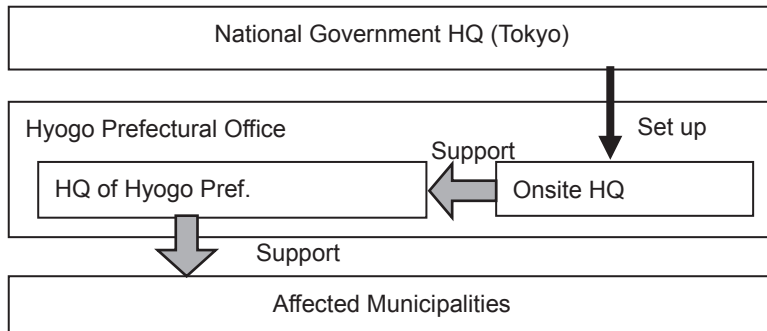


Figure 4. Onsite HQ system during the Hanshin Awaji EQ

## 2. Responses to Medium-scale Disasters

The onsite HQ at major disasters was instituted by amending the Disaster Countermeasures Basic Act in 1995; however, the onsite organization system for medium-scale disasters was not clearly established. In the case of the Mt. Usu volcanic eruption in 2000, the national government established an onsite HQ in Date’s city hall and held joint conferences to share information and discuss critical issues in handling the disaster with affected local governments (Japan Cabinet Office, 2006). On the other hand, in the case of the Nigata ken Chuetsu EQ in 2004, the national government set up an “onsite contact and coordination center”<sup>1</sup> in the Nigata Prefectural Office. The name of the center was changed to “onsite support center”<sup>2</sup> two days after its establishment (Japan Cabinet Office, 2006). A policy for the onsite organization system for medium-scale disasters was not instituted at that time, and the national government started to discuss the onsite organization system. As per a national report in 2006 (Japan Cabinet Office, 2006), if necessary, the national government can establish onsite support centers and support affected municipalities directly, but not through prefectural governments.

In practice, the national government set up onsite support centers at the offices of affected municipalities during the Noto Hanto EQ and the Nigata ken

Chuetsu-Oki EQ in 2007, as well as the Iwate Miyagi inland EQ in 2008. In the case of the Noto Hanto EQ, the national government and Ishikawa prefectural government set up their onsite HQs at same place and assisted affected municipalities. Direct communication between the national government and municipalities was effective in communicating the needs of those affected and in the smooth implementation of special assistance programs.

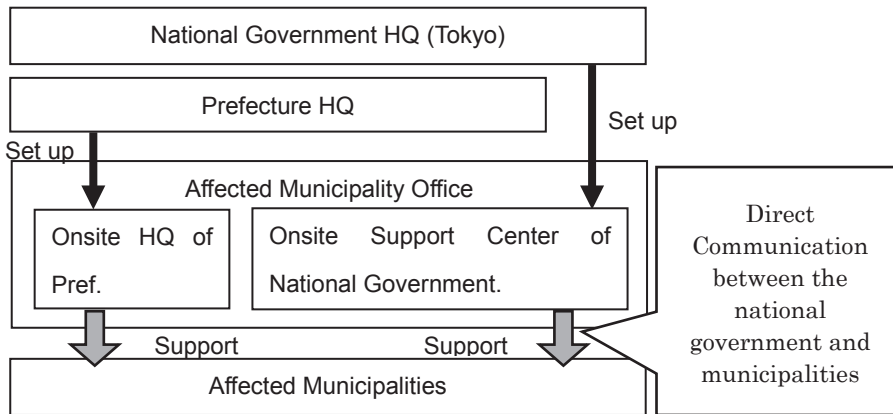


Figure 5. Onsite HQ system during the Noto Hanto EQ and the Nigata ken Chuetsu-Oki EQ in 2007

### 3. Preparations for Future Wide Area Major Disasters

The other approach to onsite organizations is preparing for future wide area major disasters such as a Metropolitan EQ, a Tokai EQ, or a Tonankai-Nankai EQ. The Japanese National Government has response plans for these three potential great earthquakes (Central Disaster Prevention Council, 2006a, 2006b, 2006c). The plans state that the national government will set up an onsite HQ in Shizuoka for a Tokai EQ, an onsite HQ in Tokyo for a Tokyo Metropolitan EQ, and three onsite HQs in Aichi, Osaka, and Kagawa for a Tonankai Nankai EQ. The national government decided upon locations for the onsite HQs for a Tokai EQ and a Tokyo Metropolitan EQ. However, the locations of the three onsite HQs for the Tonankai Nankai EQ were not determined in detail as of 2010.



**Table 1. Proposed onsite HQs for potential future wide area EQs**

Tokai EQ	A meeting room at least 500 m <sup>2</sup> in the Shizuoka Prefectural Office with 120–130 staff members.
Tokyo Metropolitan EQ	An operation hall at least 1,000 m <sup>2</sup> for 180 staff members, in the Main Wide Area Disaster Management Base, Ariake area, Tokyo.
Tonankai Nanaki EQ	Onsite HQs will be set up in three prefectures, Aichi, Osaka, and Kagawa, which are the backland prefectures to coastal areas. Details were not decided as of 2010.

**V. Challenges of Local Governments during the Tohoku Earthquake**

On March 11, 2011, a great earthquake with a magnitude (Mw) of 9.0 occurred, and a giant tsunami impacted an extensive stretch of coastline ranging from the Tohoku region to the Kanto region. The disaster caused the death of approximately 20,000 people and destroyed 400,000 homes. Consequences of the Tohoku earthquake included catastrophic damage to coastal societies, simultaneous damage covering multiple prefectures in a wide-ranging area in eastern Japan, and the inability of the national government to assist local governments.

The Miyagi Prefectural Government had problems managing resources and responding to the disaster (Table 2). Working environments in local governments were not well-organized. Food and water for teams and materials and fuel for response efforts were in short supply for over a week. Local governments had agreements with private companies such as supermarkets or gas stations, but these agreements were not viable directly after the earthquake because they only covered “reasonable” efforts and there were no penalties if the agreements were breached.

Table 3 shows the challenges and lessons relevant to an LGBCP during the Tohoku earthquake, organized according to “elements of a viable continuity capability for non-federal entities” as set forth in the Continuity Guidance Circular 1 (FEMA, 2009) of the United States.

**Table 2. Major Problems in Miyagi Prefecture**

Resource Management	<ul style="list-style-type: none"> <li>• Lack of preparedness for relocation to alternative operation centers</li> <li>• Inadequate working environment with lack of food and water and damaged facilities</li> <li>• Insufficient human resources, especially professionals and experts</li> <li>• Lack of workable assistance agreements with private companies</li> <li>• Lack of preparedness for accepting assistance teams</li> </ul>
Information Management	<ul style="list-style-type: none"> <li>• Lack of information without communication systems</li> <li>• Difficulties in organizing and sharing collected information among departments in local governments</li> <li>• Insufficient public relations through the media</li> </ul>
Management System	<ul style="list-style-type: none"> <li>• Lack of a total management system in local governments based on common objectives and operational perspectives</li> <li>• Confusion within chains of command and in communication</li> <li>• Lack of a coordination system between departments in government</li> <li>• Lack of logistical preparedness</li> </ul>

**Table 3. Challenges faced by the Miyagi Prefectural Government in continuity of operations during the Tohoku earthquake**

Essential Functions	<ul style="list-style-type: none"> <li>• Miyagi Pref. did not decide upon priority businesses before the disaster.</li> <li>• Miyagi Pref. made ad hoc decisions regarding its priorities at an executive meeting during the disaster.</li> </ul>
Orders of Succession	<ul style="list-style-type: none"> <li>• Miyagi Pref. decided upon the orders of succession of leadership.<sup>3</sup></li> </ul>
Delegation of Authority	<ul style="list-style-type: none"> <li>• Authority was informally delegated to subordinates during the disaster.</li> </ul>
Continuity Facilities	<ul style="list-style-type: none"> <li>• Office buildings, instruments, and communication systems were heavily damaged, not only by the tsunami but also those inland due to large quakes.</li> <li>• One branch office of Miyagi Prefectural Government had a plan to establish an alternative operations center with a mobile communication system at the time of the disaster so that staff could respond smoothly to the consequences of the earthquake. However, the other branch did not have an alternative plan.</li> <li>• The emergency power generator did not work in some buildings due to a lack of fuel and mechanical failures.</li> </ul>
Continuity Communications	<ul style="list-style-type: none"> <li>• Just after the earthquake, some municipalities could not collect information without their communication systems malfunctioning. Satellite cell phones were effective in these municipalities.</li> </ul>
Essential Records Management	<ul style="list-style-type: none"> <li>• Towns heavily damaged by the tsunami lost important records and documents.</li> </ul>
Human Resources	<ul style="list-style-type: none"> <li>• Many public officers in some of the local government devastated by the unforeseen great tsunami died while responding to the disaster. This interrupted response and recovery efforts.</li> <li>• Given their limited manpower, public officers in local governments had too many tasks after the catastrophe.</li> <li>• Affected governments had not sufficiently prepared beforehand for receiving and managing support teams.</li> <li>• The support staff did not work effectively right after the earthquake.</li> </ul>
Tests, Training, and Exercise	<ul style="list-style-type: none"> <li>• Miyagi Prefecture conducted tests, then trainings and exercises. However, the scale of the assumed damage in the trainings and exercises was smaller.</li> </ul>
Devolution of Control and Direction	<ul style="list-style-type: none"> <li>• There was no devolution system between municipalities and prefectures or between the national government and prefectures before the earthquake.</li> </ul>
Reconstitution Operations	<ul style="list-style-type: none"> <li>• Miyagi Prefecture should change its response-focused system to a recovery-focused system.</li> </ul>

(Source: Beniya, 2014)

## VI. The Role of National Government Onsite Organizations during the Tohoku Earthquake

Just after the Tohoku EQ, the Extreme Disaster Management Headquarter was established in Tokyo by the Japanese government, based on the Disaster Countermeasures Basic Act. The Japanese government started to gather damage information and to assist affected local governments. They sent an emergency assessment survey team to Miyagi Prefecture on the day of the EQ, and sent teams to Fukushima and Iwate Prefectures on the second day. The emergency assessment survey teams set up onsite organizations. As a result, the national government set up one onsite HQ in Miyagi Prefecture with 45 persons, and two onsite support centers in Iwate Prefecture with 20 persons and Fukushima Prefecture with 30 persons (Kotaki, 2013). Two onsite support centers were systematically under the control of the onsite HQ in Miyagi (Figure 6), and they were expected to collaborate, but in reality, independent responses to the situation were noted. The Tokyo HQ controlled and coordinated three onsite organizations (Kotaki, 2013).

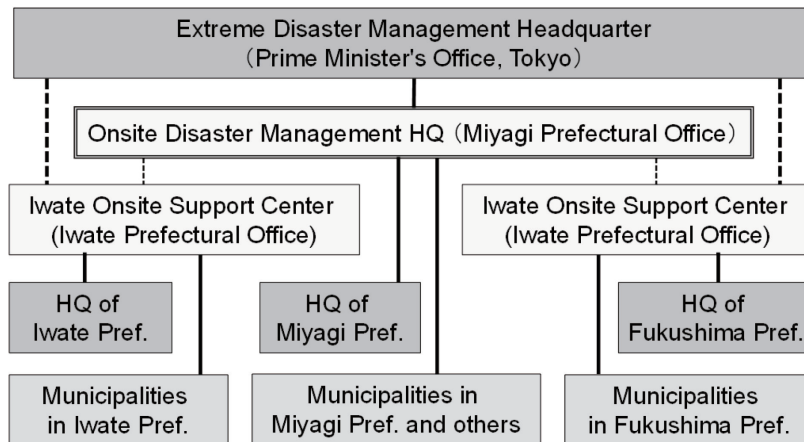


Figure 6. Organizational relations of the Extreme Disaster Management Headquarter, onsite organizations and local governments during the Tohoku Earthquake

The maximum number of staff at the onsite HQ in Miyagi was approximately 60 persons. It was approximately half the recommended number for the proposed onsite HQ for a future Tokai EQ or Tokyo Metropolitan EQ. The national government

put forth a rough response plan for the Tonankai nankai EQ with three onsite HQs with over 100 staff members at each location. However, the national government was not well-prepared for setting up three onsite organizations. Staff members at the onsite HQ were from the head office in Tokyo and the Tohoku Regional Offices of the national government. Most members were the general staff of various ministries and agencies, not experts in disaster management. The organizational structure of the onsite HQ is shown in figure 7.



**Figure 7. Organizational structure of the Onsite Disaster Management HQ at Miyagi Prefectural Office**

As a basic procedure during extreme disasters, prefectures should set up prefectural onsite HQs in heavily damaged municipalities. However, due to extensive damage and lack of resources, prefectural governments could not establish their onsite HQs in affected municipalities. The onsite HQ and support centers of the national government should collect information and support not only affected prefectural governments but also affected municipalities in coastal areas.

The onsite organizations’ major roles were as follows: information gathering, reporting to the HQ in Tokyo, coordinating between the national government and affected local governments, operation and coordination of the provision of human resources and materials, shelter management of national facilities, and coordination of field investigations by national government officials (Japan Cabinet Office, 2011).

## VII. Evaluation of Onsite Organizations during the Tohoku Earthquake

### 1. Assessments by municipalities based on questionnaire surveys

A questionnaire survey of affected coastal municipalities in Miyagi and Iwate Prefectures was conducted in October 2011. Six municipalities out of fifteen in Miyagi Prefecture and five municipalities out of twelve in Iwate Prefecture replied. Because onsite HQ in Miyagi Pref. was with more human resources compared to onsite support center of Iwate Prefecture, the replies were counted according to prefectures. The results are follows.

Regarding communication between affected municipalities and onsite organizations, seven affected municipalities including all Iwate municipalities communicated with onsite organizations directly through site visits by an official from the onsite organization. On the other hand, three municipalities in Miyagi Prefecture had communication with onsite organizations at a working-level.

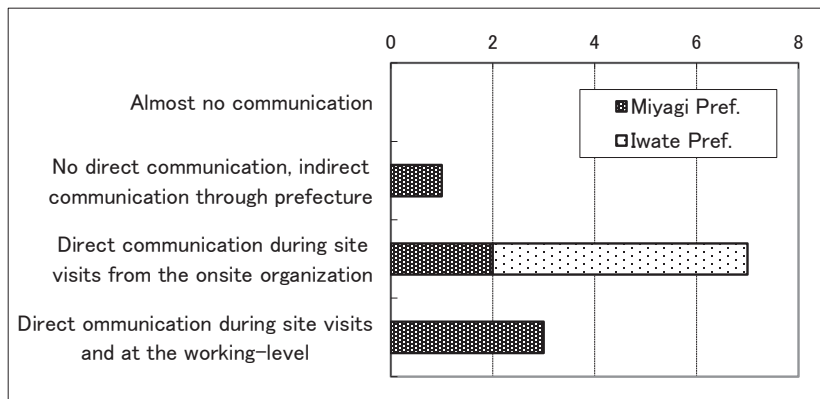


Figure 8. Communication status with national government onsite organizations

Regarding issues with types of demands and coordination from municipalities to onsite organizations, many responses included “Provision of materials, food, medical supplies, oil, etc.,” “Coordination of site visits and field investigations,” and “Improvement of shelter environment.” In general, municipalities in Miyagi Pref. had more issues to discuss with onsite organizations.

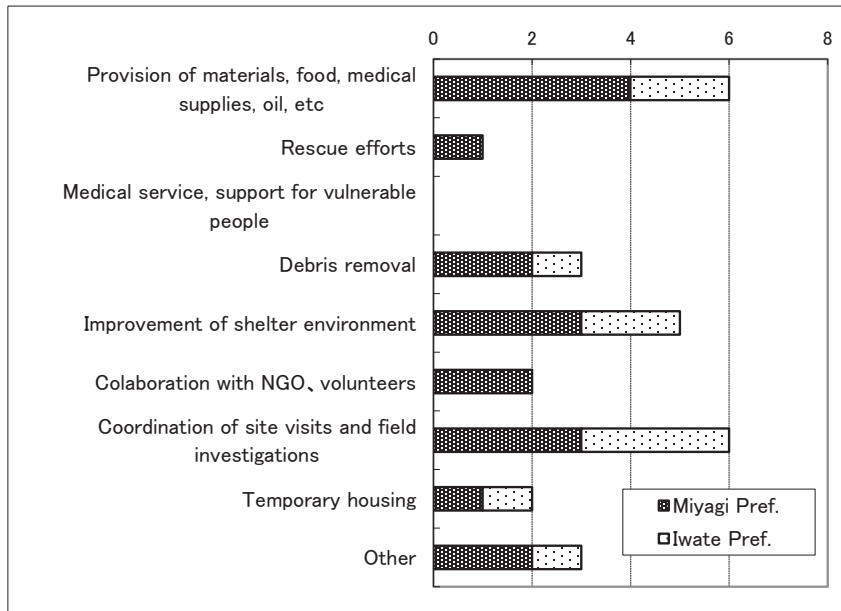


Figure 9. Issues to coordinate or discuss with the national government onsite organizations

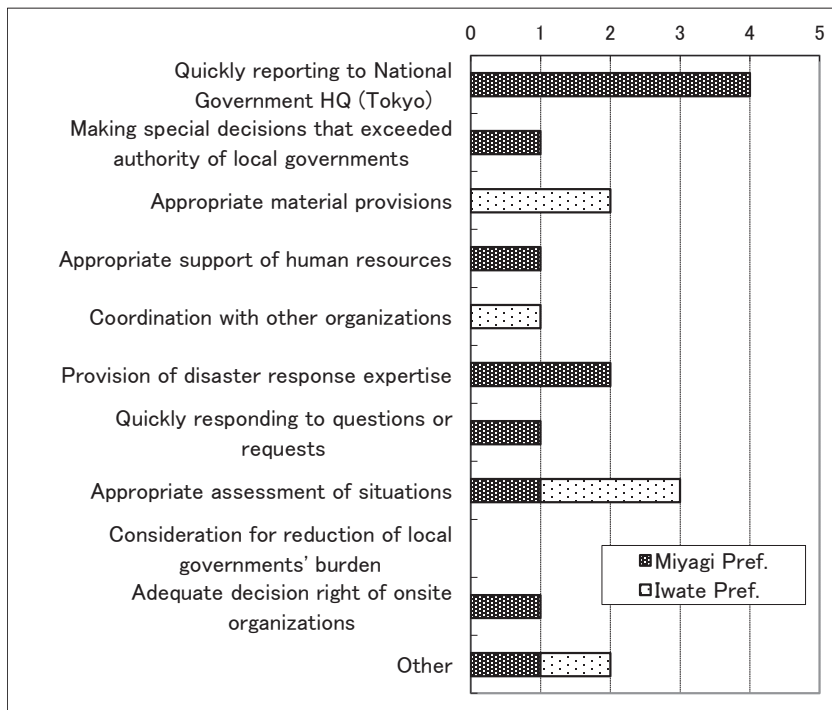


Figure 10. Positive evaluations of onsite organizations from municipalities

Municipalities positively assessed the role of onsite organizations, linking damaged municipalities and the national government HQ by responding with answers such as “Quickly reporting needs and requests to the national government HQ” and “Appropriate assessment of the situation.” The onsite organizations conducted field surveys of the affected municipalities to understand their needs and circumstances, and reported their findings to Tokyo.

On the other hand, affected municipalities pointed out problems with onsite organizations such as “Delays in making special decisions that exceeded the authority of local governments,” and “Increase of local government burdens.”

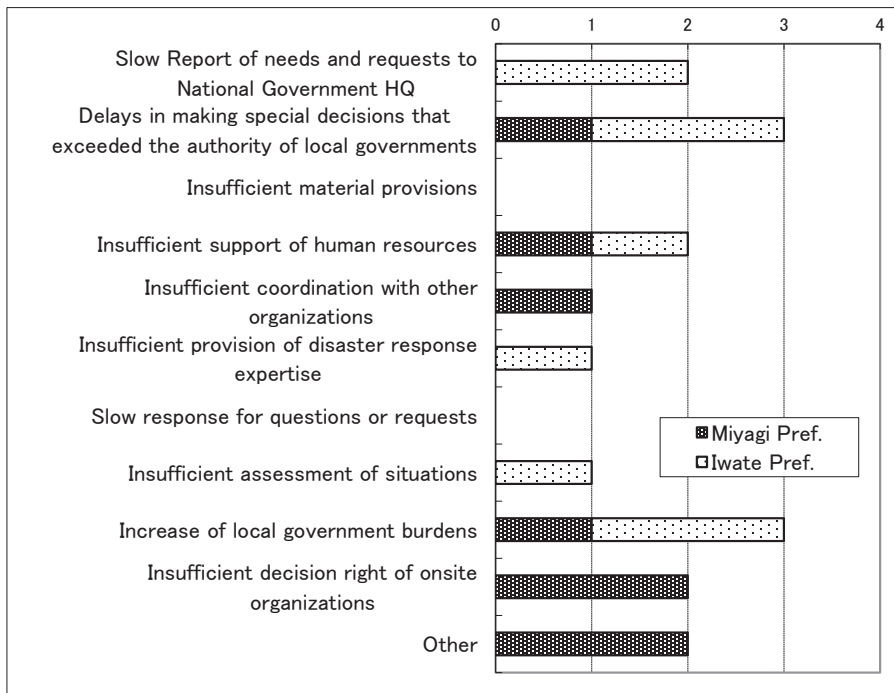


Figure 11. Negative evaluations of onsite organizations from municipalities

## 2. Assessment by Miyagi Prefecture based on interview surveys and observational research

Table 4 evaluates onsite HQ based on interview surveys to officials of the Japanese Cabinet Office and Miyagi Prefecture and on observational research from 2011 and 2012. Linking function of onsite HQ between prefectural governments,



affected municipalities, NPO/NGOs, the national government HQ in Tokyo, and the Japan Self-Defense Forces (JSDF) was highly evaluated. This was especially true regarding the direct high-level coordination system between the governor, the chief of the onsite HQ, and the HQ in Tokyo, which was effective in making special decisions and smoothly implementing those decisions (Figure 12). In addition, the executive staff of the onsite HQ stayed in Miyagi prefectural office through the end. This helped to build a relationship of trust between the prefectural government and the national government.

**Table 4. Evaluation of the onsite HQ by Miyagi Prefecture**

Positive Factors	<ul style="list-style-type: none"> <li>• Smooth and direct communication between affected local governments and the national government in Tokyo, including informal and unconfirmed information.</li> <li>• Consultation for countermeasures from the viewpoint of the affected local governments.</li> <li>• Fast and direct high-level coordination of interagency issues through the onsite HQ and between prefectures and the national government.</li> <li>• Building trust with local governments due to long-term presence of national executives.</li> <li>• Coordination between various organizations including NPOs/NGOs and local governments.</li> </ul>
Issues to be improved	<ul style="list-style-type: none"> <li>• Information lags and miscommunication between the national and local governments.</li> <li>• Insufficient human resources and frequent changes of ministry officials in charge.</li> <li>• Insufficient preparation of local governments for receiving an onsite HQ from the national government and coordination with NPOs/NGOs.</li> <li>• Poor relations between the onsite HQ and support centers. One onsite HQ per prefecture is preferable.</li> </ul>

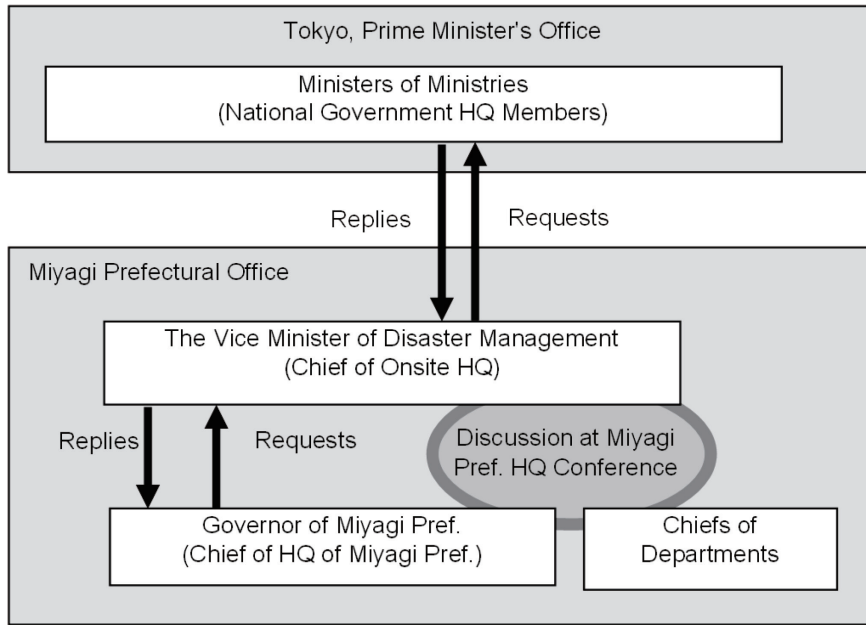


Figure 12. Direct High-level Coordination System through Onsite HQ of National Government

## VIII. Conclusion

### 1. Conclusion

After the Hanshin Awaji EQ, in order to support affected local governments during disasters, the national government improved the disaster management system by encouraging LGBCPs and establishing a national government onsite organization system. The Tohoku EQ occurred before such efforts were made.

At the Tohoku earthquake, all heavily damaged local governments lacked LGBCPs, which posed significant challenges to affected local governments. They lost staff members and facilities for response efforts, did not communicate with each other, did not collect sufficient resources, and had to work in a difficult environment without food and water.

Affected prefectures needed assistance from the national government. During the Tohoku EQ, the national government established one onsite HQ in Miyagi Pref. and two onsite support centers in Iwate Pref. and Fukushima Pref. In the case of

Miyagi Prefecture, the onsite HQ played an important role in linking the national government in Tokyo to the local governments in affected areas. The onsite HQ determined the needs of affected people and local governments and coordinated the provision of food and daily necessities and the application of special support countermeasures. High level communication between the governor of Miyagi Prefecture as a chief of the prefectural HQ, vice ministers as deputy chiefs of national government onsite HQ, and ministers as members of government HQ in Tokyo were especially effective in smoothly implementing inter-ministerial special measures.

Onsite HQ of the national government often conducted site visits to affected municipalities to collect information on the needs of residents and to encourage coordination between the municipality, JSDF, and NGOs instead of relying on the heavily damaged prefectural governments.

However, the national government was not adequately prepared to run three onsite organizations in three prefectures. Human resources at the onsite organizations were insufficient, which represented half or less than the proposed scale of onsite HQs for future earthquake disasters such as a Tokyo earthquake or a Tokai earthquake. Municipalities in Miyagi Prefecture evaluated onsite organizations more highly than Iwate Prefecture. One reason may be that the scale of onsite organizations in Miyagi was approximately twice that of Iwate prefecture.

## **2. Remaining Problems**

Since the Tohoku earthquake, the national government has been reforming the Disaster Countermeasures Basic Act and the Basic Disaster Prevention Plan based on the lessons learned from the disaster. The reformed plan dictated that local governments and other relevant organizations should create BCPs. In addition, some prefectures have begun assisting municipalities to form LGBCPs. However, since the law and the plan were reformed, many local governments, especially small municipalities, still have not drafted BCPs due to limited budgets, staff, and expertise regarding the drafting of an appropriate LGBCP. Japan's Cabinet Office reformed the LGBCP guidelines in 2015, and also published a simple LGBCP leaflet for small municipalities.<sup>4</sup>

The second amendment of the Disaster Countermeasures Basic Act in 2013

allowed for the national government to directly assist heavily damaged municipalities in a variety of different fields. The number of officers for disaster management departments in cabinet offices increased from 58 to 76 after the Tohoku EQ (Kotaki, 2013). However, they are not experts in emergency management, having only general knowledge and a few years of experience. Local governments are also, as yet, unprepared for receiving national government onsite organizations. Japan will create a workable local government response system and onsite national government assistance system to respond to future disasters.

### Notes

- 1 Original Japanese name is “Genchi renraku chosei shitsu” in Japanese.
- 2 Original Japanese name is “Genchi shien taisaku shitsu” in Japanese.
- 3 In the case of the town Otsuchi, in Iwate Pref., the tsunami killed the mayor; the vice mayor then took the mayor’s place and responded to the catastrophe as the chief of headquarters.
- 4 The author was a committee member for making LGBCP guidelines and simple LGBCP leaflet in 2015.

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