

# KNOWLEDGE NOTE 3-5

CLUSTER 3: Emergency Response

## Evacuation Center Management





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**A megadisaster will result in an enormous number of evacuees staying in evacuation center for a significantly long time. This note describes how Japan managed its evacuation centers after the Great East Japan Earthquake. It highlights important management issues, including: shortages of essential supplies and services, successful self-management practices initiated by the affected people themselves, good management practices by local governments, and the sensitivity required to accommodate diverse groups of evacuees with special needs.**

## FINDINGS

After the Great East Japan Earthquake (GEJE), nearly 2,500 evacuation centers were established in the disaster-affected Tohoku region; additional centers were also located outside of Tohoku. At peak occupancy, more than 470,000 people were staying at these centers. Most facilities, such as schools and community centers, were publicly owned and had been designated as evacuation centers even before the GEJE. Right after the GEJE, however, a number of private facilities such as hotels and temples were also enlisted as the need for centers far exceeded expectations; and a number of evacuees stayed with their relatives or friends. Evacuees gradually moved out of the centers as the construction of transition shelter progressed. Within four months after the disaster, about 75 percent of evacuation centers were closed, although some centers in Tohoku stayed open as long as nine months.

The evacuation pattern in Fukushima, where the nuclear accident occurred after the GEJE, was very different from other disaster-affected areas in Tohoku. In Fukushima, many people had to relocate from one center to another, moving farther from the crippled nuclear power plant as information became available on the risk of radiation exposure. More than 10,000 people had to change evacuation centers three or more times, with some people moving as many as ten times.

This knowledge note will focus mainly on management of publicly owned centers, since collecting information on the private centers has been difficult.

FIGURE 1: **Number of evacuees after the GEJE**

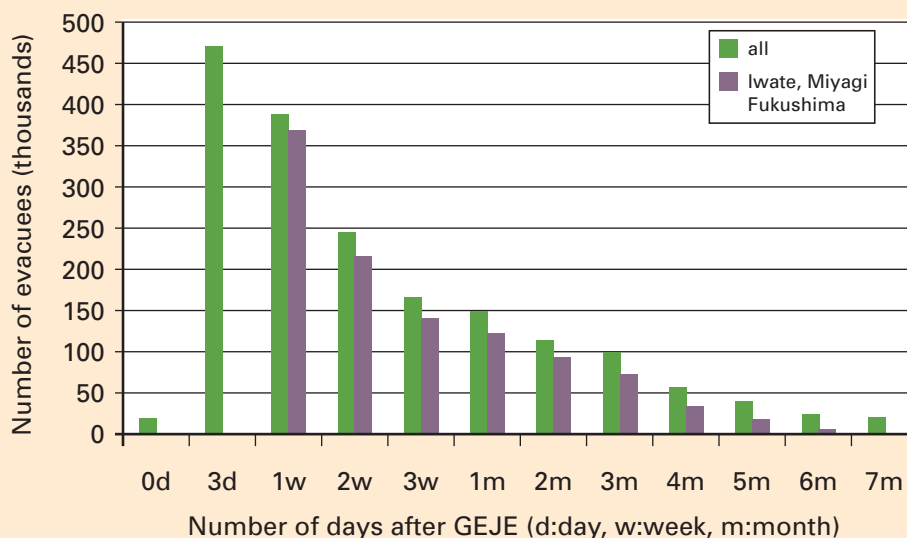
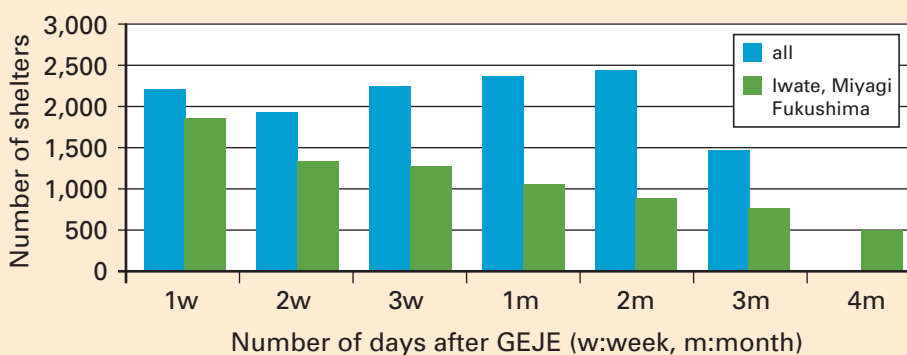


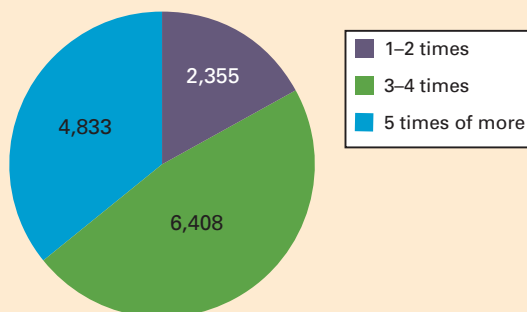
FIGURE 2: **Number of evacuation centers**



### NOT ENOUGH SUPPLIES

Given the magnitude of the disaster and the number of evacuees, most evacuation facilities lacked sufficient supplies of food, water, clothes, and blankets. In the first days and weeks following the disaster, transporting these essentials to the centers was hampered by damaged roads and the shortage of vehicles and fuel. This problem was exacerbated by the fact that the many temporary facilities were not formally designated centers and therefore had not been stocked with essentials.

FIGURE 3: Number of times people in Fukushima had to evacuate



Note: Eight towns in Futaba region, Fukushima prefecture.

### LACK OF WATER AND POWER

Furthermore, water and power supply systems were damaged in most of the disaster-affected areas, and in some places had not been restored even after one month. These problems made life miserable for the evacuees. For example, they had difficulty using the toilets without water for flushing. It has also been reported that the cold weather in north-eastern Japan, and no electric heating in the facilities, made many evacuees sick, especially the elderly. As the evacuation period became prolonged, the inability to bathe was also a serious issue.

People could not stay in their high-rise apartments because of water and power failures. Since they could not continue to carry water and food upstairs to the higher stories, they moved to evacuation centers until public services were restored.

### SELF-MANAGING BY EVACUEES

Although managing evacuation centers is a municipal responsibility, most municipalities in the disaster-affected areas suffered badly from the loss of staff, seriously weakening their capacity to cope with the emergency. At the beginning, most facilities were supported by local teachers, volunteers, and other civil society groups. As the evacuation period became extended, evacuees themselves started taking a number of initiatives. At many shelters, a self-governing body emerged, with leaders and members of various committees selected by the evacuees themselves.

For example, evacuees at the Ofunato Junior High School in the Iwate prefecture organized themselves into eight groups: for nursing, sanitation, food, facilities, supplies, and heating. At one school in Minami-Sanriku in the Miyagi prefecture, evacuees divided themselves into 20 groups, based on the communities they came from before the disaster, and assigned themselves roles and responsibilities for day-to-day activities.

FIGURE 4: **Evacuation center at the Ofunato Junior High School**



Source: Inabe City, Mie Prefecture.

An event hall called the Big Palette in Koriyama, Fukushima prefecture, admitted more than 2,000 evacuees mainly from Tomioka town and Kawauchi village, both affected by the nuclear disaster. These evacuees established a volunteer center at the hall, where volunteers and the evacuees themselves helped organize activities such as opening three cafes, starting an FM radio station, organizing a gardening event, and undertaking a summer festival. The volunteer center provided opportunities for the evacuees to help themselves and to engage in productive activities in an otherwise depressing life at the evacuation center.

## **GENDER SENSITIVITY**

One of the problems cited at many of the centers was the lack of gender sensitivity (KN 3-6). There simply wasn't enough privacy for anyone, but particularly not for female evacuees, many of whom did not have private spaces where they could change their clothes or breast-feed their babies. Many centers eventually installed partitions, but it was often too late. It has also been reported that relief goods delivered to these centers were biased in

### **BOX 1: Information is both critical and comforting**

Keeping evacuees informed is not only critical to their well-being but also comforting. In Rikuzentakata, in the Iwate prefecture, one of the city government's public relations officers continued to publish a special edition of the city's newsletter on a daily basis between March 18 and May 7, 2011 except for one day when a power cut prevented him from printing it. He continued publishing it five times a week for a few more months after May 8. About 2,400 copies were printed every day and distributed to evacuees in more than 70 evacuation centers in the city.

The newsletter initially contained information that evacuees really needed, such as procedures to get a disaster victim certificate or to be able to receive donations, the locations of temporary public offices and medical facilities, schedules of school events, new public transportation routes and timetables, and so forth. The type of information in the newsletter changed over time to meet the evacuees' changing needs. Reading the newsletter became a routine at evacuation centers in Rikuzentakata, and evacuees looked forward to it every day.

favor of male evacuees. The main reason for the lack of gender sensitivity was that mostly men were responsible for managing the centers, both in centers managed by municipalities and in those managed by the evacuees themselves.

### **WELFARE SHELTERS FOR THOSE WITH SPECIAL NEEDS**

Many experts have pointed out that evacuees tended to suffer from tremendous stress, and would therefore need special mental healthcare and counseling services as the evacuation period grew longer. This was especially true for children. However, the availability of such services varied from center to center.

Taking care of the elderly and those who needed special attention was another big challenge. At many centers, all the special needs groups had to share the facilities with the other evacuees. However, Sendai City in Miyagi prefecture had about 30 special centers called "welfare shelters" that provided nursing and other care for the elderly, the disabled, and other groups. About 250 people and their families were transferred to these from other centers.

### **MANAGING WITH A HUMAN FACE**

A close relationship should be established early on between evacuees and the local officials who are responsible for managing the centers. A good practice in this regard came from Hachinohe city in the Aomori prefecture. Right after the GEJE, there were about 120 families at eight evacuation centers in Hachinohe. The city government assigned two officials to every seven or eight evacuated families with whom they could consult on any issue. For example, they had questions about subsidies for future housing and livelihood recovery.

The relationship established with the officials at the evacuation centers continued even after the evacuees had resettled in private or public rental houses. [Although this arrangement was possible because of the relatively small number of evacuees in a relatively big city with more than 2,000 officials, the city should nevertheless be commended for its initiative.

## **DISASTER RELIEF AGREEMENT**

In 2006, two cities in the Fukushima prefecture entered into a Disaster Relief Agreement: Naraha city, which was affected by the nuclear disaster, and Aizu-Misato city, located relatively far from the crippled plant, which was not. When the nuclear disaster happened, most evacuees from Naraha city went to evacuation centers in Aizu-Misato city that were managed by local officials. This was a rare example of successful cooperation between two municipalities because of their long-standing friendly relationship. In Fukushima, most evacuees had to go beyond the prefecture's jurisdictional boundaries because of radiation risks. In most cases, however, the evacuation centers were managed by the evacuees' municipalities rather than by the host's.

## **LESSONS**

- While it may not be possible to be perfectly prepared for a megadisaster like the GEJE, it is nonetheless essential to designate evacuation centers in safe locations and equip them with as many emergency supplies as possible. Many prefectures and municipalities all over Japan are conducting ex-post evaluations to assess the locations and number of evacuation centers and the adequacy of supplies at these centers.
- Since a megadisaster is likely to interrupt essential services such as water and power, it is critical to install alternatives such as portable toilets and power generators. Sendai City is planning to equip its designated facilities with renewable energies, such as solar panels, as a back-up power source.
- Evacuees should take part in managing activities and services at evacuation centers. They are not guests who are simply receiving foods and materials, but enough capable in managing evacuation centers.
- Evacuees consist of diverse groups of people who have different needs and wants: women and children, the elderly, the disabled, and sometimes even foreigners. Those in charge of managing evacuation centers should be sensitive to this diversity; and it is critical to include women in management and leadership positions at these facilities.
- Some local governments have come up with innovative arrangements for managing evacuation centers and supporting evacuees. These governments should share their experiences and learn from each other so that good practices may be replicated in the future.



- Providing the information that disaster victims need is not only critical to their well-being but also comforting. It is important to listen to evacuees to understand what kinds of information they need and want, and to continue listening since their needs may change over time.

## RECOMMENDATIONS FOR DEVELOPING COUNTRIES

Most of the lessons described above are applicable to developing countries. Evacuation centers are needed after most natural and industrial disasters, including not only earthquakes and tsunamis but also floods, landslides, and volcano eruptions, and so forth.

In disaster-prone developing countries, evacuation centers should be safely located. Schools and community centers should be designed and built to also serve as evacuation centers; and they should also be stocked with essential supplies such as food and drinking water, and equipped with emergency power generators. In developing countries, rainwater harvesting systems in schools and other public facilities, and renewable energies such as solar panels may also serve well in emergency situations. Political and financial support for pre-disaster investment in evacuation centers and supplies should be mobilized.

One of the biggest challenges in managing evacuation centers in developing countries is weak local government capacity. Evacuees should, therefore, get organized to help themselves as illustrated by the Japanese experiences. In many developing countries this effort could perhaps be supported by NGOs.

Gender sensitivity and serving diverse groups of evacuees are required in any country. Communication among these groups and governments should be established at the evacuation centers. Developing countries should plan to manage this issue better than it was dealt with in Japan, especially with respect to gender.

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