

Key Players of Cross-Sectoral Collaboration in DRR

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14.1 Sendai Framework for Disaster Risk Reduction and People-Centered Disaster Reduction

The Sendai Framework for Disaster Risk Reduction, formulated at the 2015 Third United Nations World Conference on Disaster Risk Reduction, called for people-centered catastrophe reduction in its preamble (United Nations Office for Disaster Risk Reduction 2015). Disaster management practices must be multi-hazard and multi-sectoral accommodating in nature, accessible for efficiency and effectiveness, and require collaboration between the public and private sectors, civil society organizations, academic institutions, and scientific research organizations. Specifically, third sector organizations such as civil society organizations, volunteers, organized voluntary work organizations, and communitybased organizations are expected to participate

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A. S. Joshi AMDA, Okayama, Japan in the planning and implementation of disaster response and disaster risk reduction. The framework also recommends that local and national governments should collaborate with the third sector in policy formulation and implementation.

From the perspective of people-centered disaster reduction, recovery faces the difficult task of reconciling the dual goals of rescuing survivors as quickly as possible, and creating communities where people can live more comfortably and with less disaster risk. While the construction of urban infrastructure, housing, industrial units, and other facilities progresses relatively quickly, it takes time to rebuild people's livelihoods and communities. To rebuild local networks such as neighborhood associations and unions, to revitalize cultural resources such as tourist attractions and festivals, to coexist with the natural environment, and to build disaster-resilient education, health, and welfare services, it is necessary to provide long-term support to local residents and the community as a whole, in addition to developing the necessary infrastructure.

The fragmentation of communities due to disasters leads to the dilution of mutual aid and even self-help. This leads to people's isolation. There is an increase in the number of those requiring nursing care, suffering from loneliness, needing help from alcoholism, and domestic violence, which can have serious implications for health and life. Although the use of a lottery sys-

[©] The Author(s), under exclusive license to Springer Nature Switzerland AG 2022 S. Kanbara et al. (eds.), *Disaster Nursing, Primary Health Care and Communication in Uncertainty*, Sustainable Development Goals Series, https://doi.org/10.1007/978-3-030-98297-3_14

tem ensures fairness when moving from shelters to temporary housing, it also separates residents from the neighborhoods they were familiar with before the disaster, severing community ties. Moving to public disaster relief housing makes for a more comfortable living environment, but at the same time, it is not easy to build a new community with strangers when one is missing the presence of long time neighbors.

In the Great Hanshin-Awaji Earthquake of 1995, approximately 48,000 temporary housing units were constructed in Hyogo Prefecture—the hardest hit area. However, by July 1999, when most of the temporary housing had been cleared, the number of lonely deaths had risen to 253. Compared to women, lonely deaths and alcohol dependence were more common to men (Sakurai and Ito 2013). This suggests that they tend to be more isolated from their neighbors than women and that they are at a higher risk of turning to alcohol to distract themselves from the isolation and sense of entrapment they feel in temporary housing, having lost their homes, jobs, and acquaintances.

Various efforts are being made to deal with the community fragmentation that occurs after a disaster and the health risks that arise from this fragmentation. These include the establishment of community centers for residents, door-to-door visits by livelihood supporters, and individual consultations (Sakurai and Ito 2013; Honda 2017). The role of the supporters is not merely to clean up houses immediately after the disaster and support survivors with food, clothing, and housing. The essence of their role is to help the survivors and their communities develop the strength to recover on their own, to accompany them through the recovery process, and to see that the local community regains its strength and creates a more livable community.

14.2 Cooperation Among Local Communities, Government, and the Third Sector

This section provides an overview of the role played by organizations involved in disaster relief in people-centered disaster reduction (Fig. 14.1).

The public sector is responsible for disaster reduction measures not only at the time of the incident but also during normal times. Local governments formulate disaster response plans

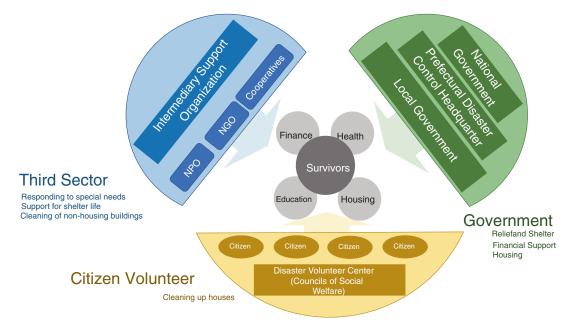


Fig. 14.1 Key players of cross-sectoral collaboration in DRR

for each area, stockpiles supplies in preparation for disasters, prepare hazard maps showing areas with high hazard risks such as cliff collapses and floods, and improve hazardous areas. In the event of a disaster, in accordance with the response plan formulated in advance and depending on the situation, the government will (a) collect and disseminate information, (b) set up and operate response headquarters, and (c) provide support to survivors by opening evacuation shelters. In addition, to promote supporters who are active in sites that cannot be covered by the government, the following measures will be taken: (d) improve the environment for the activities of support groups; and (e) establish a cooperative system with supporters.

The local government acts as a contact point for survivors for various kinds of support enacted by law. They are also responsible for the management of evacuation shelters where survivors who are unable to live in their own homes can take temporary refuge. In addition, they provide emergency temporary housing, manage the bodies of the deceased, assess the emergency risk level of houses, issue disaster victim certificates to residents, dispose of waste caused by the disaster, and perform other tasks related to recovery for the entire region.

Local governments have a wide range of duties to perform when a disaster strikes, but in principle, local governments are not involved in the restoration of the private property of affected residents. As a result of the Great East Japan Earthquake of 2011, 118,636 houses were totally destroyed, 182,193 houses partially destroyed, and 602,773 houses partially damaged. Many residences damaged by the tsunami had to be cleared of mud and cleaned before they were habitable again. It is often difficult for the already overwhelmed local governments to cope with the special needs of children, the elderly, and foreigners in evacuation shelters. Support for residents who have taken refuge in places other than designated evacuation shelters also tends to lag behind. Individual volunteers and disaster relief organizations often take the role of providing support in these areas.

The "third sector" refers to organizations belonging neither to the public sector (i.e., the government) nor to the private sector (profit-making private enterprise), such as charities, voluntary and community organizations, social enterprises, and cooperatives. In the third sector, there are many organizations responsible for disaster relief. In the aftermath of the Great East Japan Earthquake, many including individual volunteers, NPOs, international aid NGOs, and corporations, provided support for the disaster relief efforts because of the enormous scale of the disaster. In particular, NPOs, which are diverse in both size and nature of their activities, used their speed and expertise to respond to the needs and were important players in disaster relief. The number of NPOs and other support organizations that were active in the affected areas is said to have reached more than 1400. In addition, many NPOs were established in the affected areas after the disaster struck, and some moved beyond the urgent need to support disaster survivors to take on the role of long-term community development. Unfortunately, in some cases this had an adverse effect as support activities were concentrated and overlapped in affected areas because each NPO carried out activities at its own discretion. For this reason, an intermediary support organization that collects and disseminates information on the activities of NPOs and takes charge of coordination has become necessary. The intermediary support organization is also engaged in many initiatives that support recovery and reconstruction led by local communities in the affected areas.

Disaster risk reduction in Japan involves many actors, including the government, private sector organizations, third sector organizations, individuals, and local communities. However, it cannot be overemphasized that those in disaster risk reduction, post-disaster livelihood reconstruction, and recovery and reconstruction are residents and local communities. The public and the third sectors take the role of empowering individuals and local communities to become the main players in disaster recovery. Entities that come from outside the disaster area to provide support will withdraw once it is contained. On the other hand, the reconstruction of people's lives and local communities continues for many years. It is the local community that can provide this kind of long-term support. The key issue in disaster recovery is to create a system in which community-based supporters, with the cooperation of local governments and residents, can accompany people through difficult situations. The role of government and the third sector is to foster such local activities.

14.3 Citizen Volunteers and Their Coordination

The momentum of volunteer activities in Japan has grown significantly since the Great Hanshin-Awaji Earthquake in 1995. University students, NGOs from Japan and abroad, professionals such as doctors and architects, and volunteer groups from companies gathered in affected areas and provided support. On the other hand, there was no established contact point for volunteers in affected areas, and about 70% of volunteers were new to disaster response activities. This led to problems such as emotional friction with survivors and disunity of activity policies among volunteers, causing confusion in affected areas (Cabinet Office Japan 2018).

In response, the Disaster Countermeasures Basic Act of the Japanese government was amended in 1995 to clearly state that national and local governments shall strive to improve the disaster prevention environment through volunteers.

In the face of the unprecedented damage caused by the Great East Japan Earthquake, there was a nationwide upsurge in volunteerism to support recovery efforts primarily in Iwate, Miyagi, and Fukushima prefectures in Tohoku region. Around 1.5 million volunteers worked through the Council of Social Welfare. Volunteers played a major role in supporting survivors, by removing mud from the houses of the residents, cleaning up, and distributing supplies at evacuation centers.

In light of the importance of the roles that volunteers played in disaster prevention and response, the Disaster Countermeasures Basic Act was further amended to clearly state that efforts should be made to collaborate with volunteers. Since then, when typhoons, floods, earthquakes, and other disasters of a scale that cannot be handled by just the neighboring residents helping each other occur, disaster volunteer centers are opened to provide support to the survivors and to the community for recovery and reconstruction. In Japan, it is now a well-established practice for local governments to operate disaster volunteer centers as part of their regional disaster response plans.

The Council of Social Welfare (CSW) in Japan is responsible for the establishment and operation of these disaster volunteer centers. CSW is a special organization established by law. In normal times, CSW carries out projects in each municipality, such as welfare services and consultation activities for those who need support, including children, the elderly, and the disabled, support for volunteer and civic activities, and cooperation in community chest campaigns.

Disaster volunteer centers are operated based on the three principles of being "victimcentered," "locally based," and "collaborative." They coordinate with the government and other related organizations, identify the needs of disaster survivors and match them with volunteer activities, procure materials and equipment, disseminate information, and perform many other coordination tasks related to disaster victim support activities.

However when the amount of support needs exceed the human and financial capacities of CSW, it can be difficult to operate the disaster relief volunteer center only by themselves. For this reason, in recent years, CSW's and NPO's have been cooperating to establish a system of staff support. In cases where a disaster relief volunteer center in the affected area require more human resources, whether for pure man-power or technical skills, staff from CSW outside the affected area or NPOs with experience in operation may be requested to collaborate in the operation of a disaster relief volunteer center. In terms of funding, part of the costs of operating a disaster volunteer center will be covered by the national budget.

In Japan, the number of people affected by flooding continues to increase every year, and volunteers are becoming a major force in helping survivors to recover. In 2019, Typhoon Hagibis caused flooding in 39,245 houses nationwide, and the number of volunteer centers operated by the CSW totaled 112, with 196,740 volunteers (Council of Social Welfare n.d.). In one flooded house, generally, a total of 10-20 people were involved in cleaning up and moving furniture. From this, it is estimated that about 10,000-20,000 households (25-50% of the affected households) were being assisted. However, COVID-19 infection also casts a shadow on the disaster volunteers. In 2020, Kumamoto Prefecture was hit by a torrential rainstorm that occurred while COVID-19 was rampant. The number of volunteers who responded to this disaster stood at only about half that of the previous year's Typhoon Hagibis, which caused extensive damage in Nagano Prefecture. Balancing infectious disease control and disaster recovery has become both a major challenge and concern (see Box 14.1).

Box 14.1 Impact of New Coronavirus Infections

The global epidemic of COVID-19 halved the number of volunteer workers in 2020. The damage in Nagano Prefecture caused by Typhoon Hagibis in 2019 and that in Kumamoto Prefecture caused by the torrential rains in July 2020 was at the same level in terms of scale of damage. However, while the disaster volunteer center in Nagano Prefecture was able to finish responding to victims after 104 days of operation, it took 258 days in Kumamoto (see Table 14.1). In Kumamoto Prefecture, the spread of COVID-19 restricted the activities of volunteers and support groups from outside the prefecture. This suggests that the impact of infectious diseases is delaying the rebuilding of the livelihoods of disaster survivors.

Table 14.1 Comparison between Typhoon Hagibis in 2019 and the heavy rains in July 2020 (Prepared by Ueshima of Peace Boat Disaster Relief (Peace Boat Disaster Relief n.d.) based on materials released by the National Council of Social Welfare and the Cabinet Office)

Region	Heavy rain in July 2020 Kumamoto prefecture	Typhoon Hagibis in 2019 Nagano prefecture
Number of houses affected (destroyed, partially destroyed, partially damaged, flooded above floor level)	6860	6909
Number of volunteers	38,256	72,131
Number of days disaster volunteer centers opened	268	104

14.4 Efforts of Disaster Risk Reduction by the Third Sector Organizations

Organizations and groups from the third sector have become one of the major actors of disaster relief in Japan. Activities that utilize the specialties unique to each organization, such as healthcare, education, and foreign language interpretation, have been developed and play an important role in responding to the problems of the survivors, support evacuation life, and the reconstruction of daily life. In addition to third sector organizations, there are many private companies that act as supporters from the perspective of corporate social responsibility (CSR). The exact number of organizations that were active in the aftermath of the Great East Japan Earthquake was never ascertained; however, it is estimated to be between 1500 and 2000 based on actual records and between 5100 and 5200 based on a survey of NPOs. with legal status (JILPT 2015).

According to the report from the Red Feather Community Chest of Japan, the number of disaster volunteers who worked through third sector organizations in the Great East Japan earthquake was 4 million, far more than the 1.5 million individual volunteers who worked through CSW operated disaster volunteer centers. This suggests that a variety of actors from third sector were involved in the relief efforts. Also, in the Kumamoto Earthquake of 2016, it is estimated that as many if not more people worked through the disaster centers operated by third sector organizations than did individual volunteers working under the CSW.

Third sector organizations that provide disaster relief in Japan can be broadly categorized as follows.

14.4.1 Nonprofit Organizations (NPO)

An NPO is a civic organization which aims to achieve a specific public interest and do social contribution activities on a nonprofit basis. They are funded by membership fees, donations, grants, and subsidies from members who agree with the ideals and objectives.

In Japan, the Great Hanshin-Awaji Earthquake of 1995 led to the enactment of the NPO Law, which allows civic organizations that engage in activities in the public interest to have a legal personality. The NPO Law was further revised in 2011, leading to the establishment of the certified NPO system, which allows organizations to receive preferential tax treatment. As a result, NPOs with a high level of public interest can receive preferential tax treatment for donations from individuals and corporations, leading to the strengthening of their financial base.

NPOs that specialize in disaster response have accumulated experience and know-how in disaster relief as their expertize. For this reason, there are cases that they collaborate with the government and other organizations in the affected area that do not necessarily have sufficient know-how in disaster response to ensure that appropriate support is provided according to the phase of the disaster. On the other hand, there are also cases where organizations that do not specialize in disaster response play the role of supporters who respond to special needs arising from disasters in their respective fields of expertise, such as childcare, education, nursing care, and support for the disabled.

14.4.2 Medical and Health Support NPO

NPOs that provide international medical assistance also act as medical and health responders in the event of a disaster in Japan. Some teams may join the medical coordination headquarters of the local government to provide support to local hospitals affected by the disaster, while others may provide first aid to survivors in the vicinity of evacuation centers. In addition, NPOs with nurses, public health nurses, caregivers, and other care workers may provide care and livelihood support to the elderly and other survivors who need medical care in evacuation centers. Many medical and health support teams will withdraw when the acute phase of the disaster is over and the local health care system is recovering. However, healthcare needs remains through-out the various phases of a disaster, and become an obstacle to livelihood reconstruction over the long term. Medium- and long-term health support have not received attention until now, but it is a major issue in medical assistance.

14.4.3 Companies and Economic Organizations

In recent years, companies have increased their presence in disaster relief activities. In the aftermath of the Great East Japan Earthquake, many companies provided various types of support, both direct support to the survivors and indirect support to relief organizations. Companies, as part of their corporate social responsibility, are providing support by leveraging their strengths, providing supplies and services, and encouraging employees to participate in volunteer activities and financial and material support to relief organizations. Keidanren (Japanese Business Federation), a nationwide economic organization in Japan plays a big role in coordinating these support activities.

14.4.4 Cooperatives

A cooperative is an organization of individuals and businesses that come together to help each other for a common purpose. Co-ops, agricultural cooperatives, fishing cooperatives, and others with members in the disaster or neighboring areas provide mutual aid payments, livelihood support, and help for the resumption of business to their members in the event of a disaster. They also use their nationwide organizational network to join in support activities not only for their members but also for the affected people in the community in general.

It is not only organizations from outside the disaster-affected area that play a major role for disaster relief; there are many from within the area as well. NPOs and volunteer groups that have been active in the area before the disaster, and those that were established later, use the local relationships and networks that they have established before as a foothold to understand and support the needs of the affected area and provide support. In contrast, organizations from outside the region have know-how on disaster response, but often do not have the network to reach the survivors. Supporters from outside are also those who will leave the area sooner or later. Those in the affected areas are expected to act not only as a link between internal and outside supporters in the emergency phase but also as entities who accompany people in their long-term recovery efforts. For a smooth transition from the emergency phase, in which external supporters play a central role, to the mid-to long-term phase, when local players are the key, the government, CSW, NPOs, and volunteers, both inside and outside the affected area must share and seek the goal of rebuilding the livelihood of the survivors by collaborating while fulfilling the roles that each entity is responsible for.

The activities of the third sector organizations may vary depending on the scale of the disaster. In the case of large-scale, widespread damage such as the Great East Japan Earthquake, where a tremendous number of houses were swept away by the tsunami, government social services and lifelines were cut off, and people were forced to live in evacuation shelters for onwards of 6 months, third sector organizations provide various kind of direct- and indirect support to the survivors. These include providing and transporting supplies, removing rubble and debris, cleaning up houses, caring for and playing with children, supporting children's and students' learning, serving food, and providing medical, nursing, and public health care and holding public health activities. Indirect support includes facilitating relief activities, such as information gathering and dissemination, donations, logistical support for organizations working in the affected areas, and support for the operation of disaster volunteer centers.

In addition, some of the third sector organizations provide highly specialized support including medical care by health professionals; removal of mud, and driftwood using power tools such as fixtures and chainsaws; emergency housingrepairs of dangerous areas such as rooftops; and professional services such as foreign language interpretation and legal advice. It is difficult for general volunteers to provide this kind of specialized support, so the third sector organizations with expertise and know-how in disaster relief play an important role.

It is essential for NPOs and volunteers to raise funds, materials, and other resources. However, while it is easy to do this in the event of a largescale disaster, it becomes more difficult to secure a budget when responding to or preparing for a small-scale one. To help NPOs and other organizations develop the foundations for their activities, aid bodies (such as the Red Feather Community Chest of Japan and the Nippon Foundation) and the economic organizations need to provide intermediary support in terms of grants to the disaster relief organizations and volunteer groups.

14.5 Coordination by Intermediary Support Organizations

In disaster relief, the relationship between third sector organizations and the government is a midst of change. After the Great East Japan Earthquake, the Disaster Countermeasures Basic Law clearly stated "cooperation with volunteers," and after the torrential rains in the Kanto and Tohoku regions in 2015, the Disaster Prevention Basic Plan included a specific action to "establish a place to share information with NPOs, NGOs and other volunteer groups" (Central Disaster Prevention Council 2020). Since then, "cooperation with volunteers" and "cooperation with NPOs and other volunteer groups" have been repeatedly emphasized (Japan Cabinet Office 2009, 2021). At present, Japan's Basic Disaster Management Plan states that the national government (Cabinet Office; Fire and Disaster Management Agency; Ministry of Education, Culture, Sports, Science and Technology; Ministry of Health, Labour and Welfare; etc.) and municipalities (prefectures) should respect the autonomy of volunteers and promote cooperation with the Japanese Red Cross Society, CSW, NPOs, etc., as well as with intermediary support organizations. Here we outline how intermediary support organizations, which play the role of coordinating support, have come to be the focus of attention in disaster relief and what roles and functions they are expected to play.

Reflections on the inadequate coordination of the third sector organizations and collaboration with the government in the wake of the Great East Japan Earthquake (see Box 14.2) have created the momentum for the establishment of an organization to handle a new coordination role. Japan Voluntary Organizations Active in Disaster (JVOAD n.d.), established in 2016, is a network organization that plays this coordination role. In addition to national social welfare organizations that provide disaster relief, JVOAD includes various organizations from the third sector, such as a network of NGOs that provide international cooperation, a network of NPOs that have been working on disaster prevention in Japan, Japanese Red Cross Society, The Salvation Army and other national disaster relief organizations with a similar awareness of the issues.

When two disasters occurred, a flood in the Kanto and Tohoku region in 2015 and the Kumamoto Earthquake in 2016, although JVOAD had not been established as a formal organization and

Box 14.2 Issues at the Time of the Great East Japan Earthquake

In the aftermath of the Great East Japan Earthquake in 2011, in addition to disaster volunteer centers, which coordinate individual volunteers, many third sector organizations both from Japan and overseas came to affected areas and provided supoort. Some teams arrived on the scene immediately after the disaster, and many activities were carried out, including soup kitchens, material support, and in education, health and welfare. However, although the government was aware of the role of the disaster relief volunteer center, it had little knowledge about the acceptance and coordination of third sector organizations with expertise and experience in disaster relief. From the government's point of view, the third sector organizations were not perceived as "major actors" and were not considered as targets for cooperation. In addition, there was no "coordination" function to grasp the overall picture of the support provided by the government, disaster volunteer centers, and third sector organizations, as well as to adjust for excesses and deficiencies in support. As a result, it took a long time for third sector organizations to build relationships with local governments and to understand the needs of local residents, and it was difficult to say that they were able to exert their full strength from the beginning.

For emergency humanitarian assistance in developing countries, the Code of Conduct for the International Red Cross, the Red Crescent Movement, NGOs in Disaster Relief (IFRC n.d.) and the Sphere Handbook (Sphere Association 2018) reiterate the importance of coordination. While it is common practice in international aid to provide support under coordination, as of 2011, such a concept had not been considered in Japan. This made it difficult, especially during the initial response, to confirm whether there were areas where support had not yet reached and whether there were problems that had not been resolved. During the reconstruction period, coordinated centers were established in Iwate, Miyagi, and Fukushima prefectures, and networks were formed in Ishinomaki, Kesennuma, Rikuzentakata, and other municipalities, and information was shared among support groups, and coordination was attempted.

The issue of coordination, including with NPOs, was also pointed out in a report by Miyagi and Iwate prefectures that examined their response to the 2011 earthquake, as follows:

"The government did not distinguish between self-contained volunteer groups, such as NPOs and NGOs, and general volunteers, and did not establish an appropriate system for accepting each group (Disaster Response Verification Report on the Great East Japan Earthquake and Tsunami, Iwate Prefecture 2012 (Iwate Prefecture 2012))."

"To prepare for future disasters, it is necessary to establish a new system for coordinating the acceptance of NPOs and NGOs that is different from the one for coordinating the acceptance of individual volunteers through the disaster volunteer center (The Great East Japan Earthquake: Miyagi Prefecture's Six-Month Disaster Response and Its Verification, Miyagi Prefecture 2012 (Miyagi Prefecture 2012))."

was still in the preparatory stage as an organization at the time, it took on the role of coordinating support in the field, and the necessity and effectiveness of "tripartite cooperation" among the government, disaster volunteer centers, and the third sector organizations were recognized (see Box 14.3). Although JVOAD is a national-level organization, networking at a more local level is needed when looking at long-term recovery from disasters. The effectiveness of local networking after the Kumamoto earthquake has been recognized by the government. Training on networking through tripartite cooperation is now being conducted at the local level. In addition, the national disaster prevention basic plan clearly states "building a cooperative system including intermediary support organizations is necessary," and there have been movements such as the conclusion of agreements between the government and intermediary support organizations.

Box 14.3 Case Studies of Tripartite Cooperation Supported by an Intermediary Support Organization

1. Case study of the 2015 Kanto-Tohoku torrential rains

In September 2015, when the momentum for the establishment of JVOAD was growing, a flood disaster caused by the Kanto-Tohoku Torrential Rain occurred. While more than 6000 residents were forced to live in evacuation centers, it was also necessary to remove sediment from houses, clean up, and provide livelihood support to evacuees in shelters and at home. There was a need for working with the government to tackle problems that could not be solved by the disaster volunteer centers (CSW) and NPOs on their own. Information sharing meetings were held where these three parties gathered to share and discuss issues. These meetings were the catalyst for the three parties to work together. For example, in previous disasters it was rare for support organizations to improve the environment inside evacuation shelters, but through the information sharing meeting at Joso City, they were able to recognize the issues and coordinate their activities for improvement of the evacuation shelters.

2. Case Study of the 2016 Kumamoto Earthquake

In April 2016, two consecutive earthquakes of magnitude 6.5 and 7 struck Kumamoto Prefecture. 8,667 houses

were completely destroyed and 183,882 people were forced to evacuate. From the experience of the previous year's Kanto-Tohoku torrential rains, people learned that it is effective to set up an "information sharing meeting". On April 19, soon after the disaster, the "Kumamoto Earthquake Support Group Hinokuni meeting" was held, where the local and national government, CSW and NPOs participated and collaboratively discussed support plans. The issues of the evacuation shelters were shared, and with the support of the prefectural government, NPOs conducted a survey to understand the actual conditions of the shelters and became involved in improving the living environment and supporting the management of the evacuation shelters. Since then, they worked together to address issues related to the consolidation and closure of evacuation centers, the distribution of supplies to temporary housing, and the establishment of a system for mutual support in local communities. This collaboration also worked when there was confusion among evacuees over moving into temporary housing and dismantling condemned houses at public expense. The NPO managing the evacuation shelter, quickly caught the situation, and was able to work in between evacuee and local government to deliver the correct information.

In Kumamoto, information sharing and public-private partnerships among supporters led to the establishment of a network in the prefecture, and the Kumamoto Volunteer Active in Disaster (KVOAD) was established with local NPOs through this effort. KVOAD continues to link the support of residents and NPOs and to work in cooperation with the government. Its establishment has led to improvement of local disaster response capabilities. Intermediary support organizations are required to promote cooperation among supportrelated bodies, such as the government, disaster volunteer centers (CSW), and NPOs. They identify gaps between the needs of survivors and available support by understanding the status of activities of each party and facilitate solutions.

In order to achieve this, the following systems are essential.

- 1. A system to identify the diverse needs of disaster survivors.
- A system for collecting information on support from the government, disaster volunteer centers (CSW), NPOs, etc.
- 3. A system to hold "information sharing meetings", where supporters gather to share issues and discuss solutions.
- 4. In addition, even during normal times when no disaster has occurred, the system is expected to play a role to foster local organizations by conducting training and drills based on local issues and considers accepting support from outside the region, thereby improving the region's disaster response capabilities.

In July 2020, a large-scale torrential rain disaster occurred under the COVID-19 pandemic. The traffic of people to and from various areas to provide aid became a challenge. The local government was forced to limit the number of supporters from outside the affected prefectures. It was difficult to find a balance between "delivering the necessary support" and "preventing the spread of COVID-19 in the affected areas" (JVOAD 2020) (JPF 2021). The solution to this problem lies in building a prefecture-wide network to enhance local disaster response capabilities. In addition to the government, CSW, and third sector organizations in the prefecture, it is important for those involved in medical care, welfare, professional services, and business to collaborate in planning and training for support in the event of a disaster.

While the development of intermediary support organizations that are responsible for coordination has been promoted based on the experience of disaster response in recent years, there are still issues that need to be addressed in the future. The current challenges include spreading the coordination system of intermediary support organizations to all regions; improving the quality of coordination so that cross-sectoral support can be provided in situations where multifaceted support is needed, such as health, welfare, and education; and establishing a sustainable system for intermediary support organizations, such as securing a financial base and human resource development. By working through these challenges, coordination ability in disaster relief will be expanded, the local capacity to provide and receive support will be strengthened, and the unevenness of support will be eliminated. Continuous efforts toward a society where there are no "invisible needs" or "survivors left behind" is required.

14.6 Disaster Risk Reduction and Health

Medical and health supporters are expected to act first and foremost to respond to the rapid increase in medical needs immediately after a disaster. At the same time, it is also important to identify unseen needs and listen to the voices of the voiceless in order to prevent the deterioration of health conditions, isolation, and lonely deaths during prolonged evacuation. For this purpose, medical and health supporters are required to collaborate with various supporters in a cross-sectional manner and to create a system for this purpose.

External medical and health supporters who go into affected area as emergency assistance acsertain the health status of the population through evacuation shelter assessment. On the other hand, they do not know where to connect the health needs revealed by the assessment because they do not have information and networks about local medical and health resources.

Furthermore, as time passes after the disaster and the response to acute and chronic illnesses settles down, mental health needs will increase. Since mental health needs are often latent, it is important to find out what these needs are. In some cases, the need for psychological and spiritual support for children and parents became apparent through non-medical support activities (e.g., support for children's play), and supporters who noticed the care needs of the elderly in evacuation centers were able to provide appropriate support by connecting with volunteer nurse groups through information sharing meetings. In disaster-stricken areas, a variety of needs, including health care needs, are inextricably linked. Cross-sectoral cooperation among supporters is essential for discovering and responding to health care needs.

The major medical and health related disaster relief teams and their roles will be discussed in detail in Chap. 15, but this section will briefly introduce some of the teams and programs, including those institutionalized by the government and those in the third sector.

14.6.1 DMAT (Disaster Medical Association Team)

DMAT is a medical team specially trained to provide emergency medical treatment and medical support activities in the hyper-acute stage within 48 h of the occurrence of a disaster. Each DMAT team includes one or more nurses.

14.6.2 First Aid Team

A medical team dispatched by the Japan Medical Association Team (JMAT), university hospitals, the Japanese Red Cross Society, the National Hospital Organization, the Japan Hospital Association, the All Japan Hospital Association, etc. It takes over the duties of the DMAT and provides medical support in the acute phase of a disaster. Each team includes one or more nurses.

14.6.3 DPAT (Disaster Psychiatric Assistance Team)

DPAT is a medical team that operates when the mental health care function in the disaster area is temporarily reduced and the demand for mental health care increases due to new mental problems caused by disaster stress.

14.6.4 DHEAT (Disaster Health Emergency Assistance Team)

DHEAT is a team led by public health nurses that responds to health and hygiene issues during a disaster. It conducts hygiene management of the living environment in evacuation shelters, looks after maternal and child health, mental health, conducts infectious disease surveillance, and visits evacuees at home.

14.6.5 Disaster Relief Nurse

Nurses who are responsible for providing appropriate medical and nursing care in disaster areas so that disaster survivors can maintain their health. They also play a role in relieving and supporting the burden of local nurses who are often overwhelmed by the disaster. They have completed a certain level of training and are registered with the prefectural nursing association.

14.6.6 Community Disaster Mitigation Nurses Program by Japan Society of Disaster Nursing

The purpose of this program is to conduct disaster mitigation activities for residents of residential areas during the calm period in order to mitigate disasters in the fields of health and welfare for people in need of care, in cooperation with voluntary disaster prevention organizations and municipal offices. Currently, the society is providing training for instructors and aims to support the health and lives of disaster-affected residents together with municipal administrative personnel and local residents.

14.6.7 Prefectural Disaster Medical Coordinators (Regional Disaster Medical Coordinators)

These coordinators are appointed by prefectural governors and are responsible for organizing

meetings of disaster medical personnel and coordinating with other organizations in the event of a disaster. Within 48 hours of the occurrence of a disaster, DMATs take on the role of the coordination function, giving disaster medical coordinators time to setup, at which point they will take over the role.

Most of the national-level disaster medical assistance such as DMAT and disaster relief nurses, in addition to other major third sector medical supporters such as medical NGOs, begin their support activities under the coordination of the local government's disaster control headquarters. On the other hand, some co-medical and allied health support groups, such as psychological support teams, rehabilitation teams, and volunteer nurse groups, may not be coordinated by the disaster control headquarters and go into each local community as civil aid. When the scale of the disaster is large and the local medical resources are severely damaged, coordination between the disaster control headquarters and the third sector support coordination organizations will lead to smooth health support. Channels are needed for cooperation between government and private medical supporters. This includes holding information sharing meetings, training support coordinators, and collecting information on the status of support activities. It is important for the long-term care of disaster victims to create an environment that enables cross-sectoral support through the use of information and communication technology and other means to improve efficiency.

14.7 Summary

This chapter provided an overview of what actors are involved in "people-centered" disaster reduction. The role of individual volunteers and third sector organizations, along with local communities and governments, will become increasingly important in disaster response. The role of third sector organizations is significant as an entity that can work with the people in the affected areas to support their recovery and as an entity that can cross-sectionally respond to various health risks that may arise in the process of mid- to longterm livelihood reconstruction. In Japan, with the establishment of intermediary support groups that are responsible for coordination, collaboration among the government, the third sector, and local communities has been progressing, but the efforts are still insufficient. While cross-sectoral collaboration has the potential to meet diverse and potential needs, it also has a large overhead. The challenge for efficient collaboration will be to design a system that allows for the smooth distribution of information and to utilize information communication technologies to achieve this.

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