How to promote the roles of community and social economy in disaster management: Reflections from the Great Hanshin-Awaji Earthquake

Kazuhiko Tabata
Associate Professor of Hyogo University
tabata@hyogo-dai.ac.jp

Masatomi Funaba
Professor Emeritus of Hiroshima University and Kobe University of Commerce
m_funaba@yahoo.co.jp

Abstract

The Great Hanshin-Awaji Earthquake on January 17, 1995, killed 6,434 people and caused 10 trillion yen in damage. The Japanese government's relief and recovery were not oriented toward reestablishing the community and the victims' lives. As a result, the economic revival of the downtown area was delayed, and it was not possible to prevent a solitary death of a victim in public emergency temporary housing. Volunteers compensated for the gap between the centralized disaster management systems and the needs of the victims. This developed into the NPO, now an important player in the social economy. The local government supported the development of the social economy. For example, the Hyogo prefectural government supported "community businesses" that aimed to improve the community and society through the market mechanism. The lessons taken from the earthquake are that we should think of the community as important; we should improve the social economy in the community; and the government should acknowledge the roles of supporting community and social economy.

Résumé

Le séisme de Hanshin-Awaji du 17 janvier 1995 a couté la vie à 6,434 personnes et a provoqué 10 mille milliards de dommages. Les mesures d'assistance et de rétablissement apportées par le gouvernement japonais ne correspondaient pas aux besoins de la vie quotidienne des individus et de la communauté locale. Par conséquent, la reconstruction économique de la ville s'est retardée et les morts solitaires de sinistrés dans les logements publics provisoires n'ont pas été empechés. Ce sont les bénévoles qui ont comblé le décalage qui existait entre les besoins réels des sinistrés et le systeme d'administration en cas de désastre trop centralizé. Ces bénévoles se sont développés par la suite en NPO (organization à but non lucratif) et jouent un rôle important dans la sociéte économique actuelle. De même, l'administration locale a aidé le développement socio-économique. Par example, la préfecture de Hyogo a soutenu des projets commerciaux ayant pour objectif l'amélioration de la communauté locale. Les leçons tirées du tremblement de terre sont: il faut accorder de l'importance à la communauté locale; il faut mettre en valeur les fonctions socio-économiques de la communauté; le gouvernement doit appliquer une politique consciente de la communauté et de la socio-économie.

Resumen

El Gran Terremoto de Hanshin-Awaji, que ocurrió el día 17 de enero de 1995, causó 6.434 víctimas mortales y daños materiales por valor de diez billones de yenes. El plan de socorro y de reconstrucción no contemplaba recuperar la comunidad ni la vida de cada uno de los ciudadanos afectados. Por consiguiente, se tardó mucho en recuperar la economía del área metropolitana y no se pudo evitar que muriesen víctimas en su vivienda pública urgente sin que nadie se diera cuenta. Los voluntarios salvaron la distancia entre el sistema gubernamental altamente centralizado de la gestión contra desastres y las necesidades concretas de los afectados. Los voluntarios se reunieron para crear ONG (Organizaciones No Gubernamentales sin ánimo de lúcro), y llegaron a desempeñar un papel

muy importante en la economía de bienestar. El gobierno local también ayudó a desarrollar la economía de la comunidad. El gobierno autonómico de la provincia de Hyogo, por ejemplo, dio apoyo a los "negocios de la comunidad" cuyo objeto principal era mejorar la comunidad y la sociedad por medio del mercado. Las lecciones que hemos aprendido de dicho seísmo son la importancia de la comunidad, el aumento de las posibilidades de la economía de bienestar en la comunidad y la política del gobierno en que deban tenerse en consideración la comunidad y la economía de bienestar.

1. Introduction

In recent years, natural disasters that seriously harm people and society have occurred continuously. In this regard, developing countries and developed countries are in the same situation. For instance, in 2004 The Great Sumatra-Andaman Earthquake killed more than 280,000 people in 10 countries on the Indian Ocean with its large tsunami. Many tourists from European countries were also among the victims. In 2005, New Orleans was struck by a flood during Hurricane Katrina because the maintenance of the levee system had been inadequate. Such serious damage is due not only to the huge size of the earthquake or hurricane, but also to social changes such as the increase of population, urbanization, and the expansion of interchange caused by globalization.

A natural disaster has a major impact, not only in terms of direct damage but also on the national economy. It destroys the facilities of industries and infrastructure, meaning that many establishments cannot remain in business, resulting in the loss of jobs and a population decrease in the area. Because it is difficult to obtain the necessary economic inputs in the disaster area in this situation, economic and social recovery must be given great efforts. As public infrastructure and private property become larger and more complex, the economic burden of recovery becomes greater. The total economic loss from Hurricane Katrina was estimated at 100 billion dollars by the Financial Times, for example.

Japan is well known as a country suffering numerous disasters. For example, 10% of the earthquakes occurring worldwide each year occur in Japan, and typhoons and heavy rains come annually. The Japanese government has taken preventive measure

against disasters.

The Great Hanshin Awaji Earthquake that occurred on January 17, 1995, was very significant for Japanese disaster management system. We learned the limits of a highly centralized system of relief and recovery. We have also noticed a new player simultaneously sharing the roles of relief and recovery. Volunteers complemented the government's insufficient role. The Hyogo prefectural government estimated the total number of volunteers to be 620,000 people during the month between the earthquake and February 20. Volunteers contributed to a care of refugees in the shelters and transported and distributed goods to displaced persons. 1995 is now referred to as the "first year of volunteers." Volunteers offered several services that were difficult to supply through the market system or the government. We see the importance of the "third sector" or social economy. Of course, this is set against a background of changes, like those in advanced countries, involving marketization of the public sector and a reduction in the role of the government due to decreasing tax revenues. Moreover, it also had the importance of a community. Five hundred and sixty persons suffered tragic, solitary deaths due to suicide and illness. They lost their family members and were separated from the communities they had lived in before the disaster.

Expectations for the social economy and reliance on the community are high in Kobe City and Hyogo Prefecture even now. A lesson has been learned from the Great Hanshin-Awaji Earthquake regarding the continuing seismic hazard in Japan. Both developed and developing countries should learn this lesson.[1] This paper discusses the limits of the recovery from the disaster, based on the centralized system and the role of the social economy.

2. Damage from the great Hanshin-Awaji earthquake.

The magnitude 7.3 earthquake occurred at 5:46 A.M. on January 17, 1995, with its epicenter on the

[1] See for example, the persons of New Orleans, U.S., who visited Kobe City in October 2006 to investigate how the city had accomplished its revival from the earthquake.

northern part of Awaji Island. Damage caused by this earthquake reached not only Awaji Island but also large cities on the opposite shore such as Kobe, Nishinomiya, and Amagasaki. Figure 1 depicts the geographical relation, and Table 1 lists the human and property losses.[2] We will discuss two features of the damage.

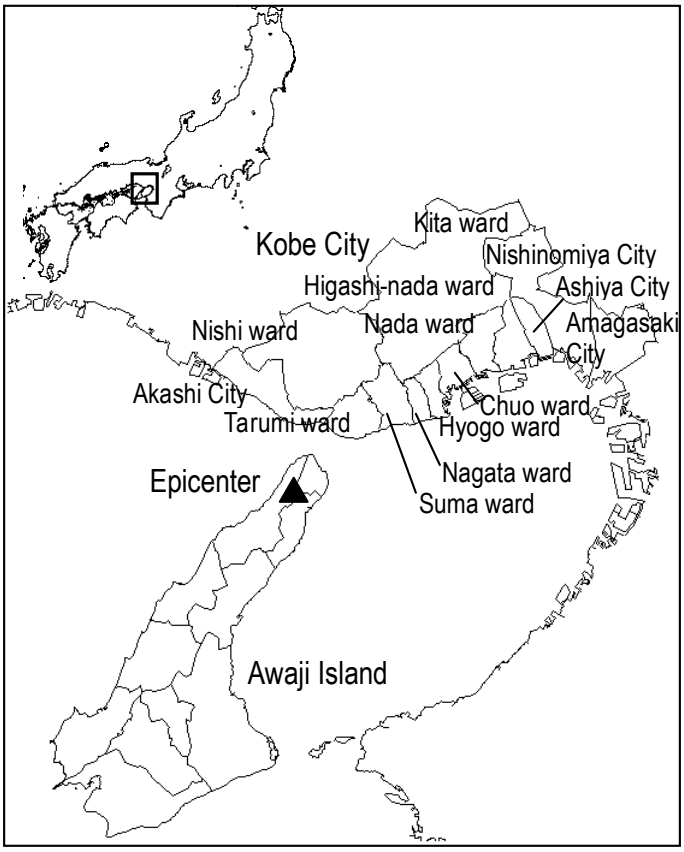

Figure 1 Epicenter of the Great Hanshin-Awaji Earthquake

[2] This figure was re-calculated in 2006 by the Hyogo prefectural Office.

Table 1 Damage caused by the earthquake

Facts of the Great Hanshin –Awaji Earthquake	
Date and time	5:46 Jan.17, 1995
Epicenter	Northern part of Awaji Island. (Hokudan Town, Hyogo Pref.)
Depth	16km
Magnitude (M)	7.3 on the Richter scale
Greatest seismic scale of intensity	7
Human damage from the earthquake	
Dead	6,434 (6,402 in Hyogo Pref.)
Injured	43,792 (40,092 in Hyogo Pref.)
Population in the damaged area	Estimated 1,376,508 (1,342,115)
Number of houses destroyed in the earthquake	
Houses	639,686 (538,767 in Hyogo Pref.)
Completely	104,906 (104,004 in Hyogo Pref.)
Partially	144,274 (136,952 in Hyogo Pref.)
Household	456,301 (444,900 in Hyogo Pref.)
Completely	186,175 (182,751 in Hyogo Pref.)
Partially	274,181 (256,857 in Hyogo Pref.)
Number of evacuees	316,678 at peak (on January 23, 1995)

First, regarding building damage, areas where the density of old wooden residences was high before the earthquake suffered serious damage. According to an investigation by the Urban Housing Society,[3] among 74,243 private residences destroyed, 64,331 were wooden residences, the 86.6% of the total. Of the houses destroyed, 20,196 (27.2%) were built before

[3] Immediately after the earthquake, volunteers from the Architectural Institute of Japan, the City Planning Institute of Japan, and the Urban Housing Society investigated the damage situation for each building by observation. Data containing the results of the investigation has been shared by the members of participating societies, becoming the basis for many academic papers.

1945 and 29,592 (39.9%) were built from 1946 to 1965.

Secondly, we turn to the human damage. The proportion of elderly people was high among those killed by the earthquake. In the investigation into the 3651 deaths in Kobe city, the proportion of those in their sixties was 19.3%, those in their seventies were 19.0%, and those eighty or older were 14.6%. Hence, the majority of fatalities were people sixty or more years old. Elderly people lived in older houses because the rent is low. The earthquake thus had the most impact on weaker groups, such as elderly persons.

The economic losses are listed in Table 2. The total loss was 10 trillion yen, equivalent to 2% of the GDP of Japan. About 60% of the 5,800 billion yen listed represents building loss, including residences. The figure for businesses is 630 billion yen. Furthermore, in private enterprises, it is estimated that there is an indirect loss of 7,230 billion yen per year caused by the opportunities lost due to operation being impossible, loss of customers, etc.

Table 2 Economic damage (billion Yen)

Buildings	5,800.0
Railroad	343.9
Highways	550.0
Public facilities (except highways)	296.1
Ports	1,000.0
Reclaimed land	6.4
Schools etc.	335.2
Agriculture, forestry, and fishery	118.0
Health & Welfare	173.3
Disposal	4.4
Water supply	54.1
Gas, electricity	420.0
Communication and broadcasting	120.0
Business	630.0
Other public facilities	75.1
Total	9,926.8

3. Problems with the recovery from the earthquake disaster

(1) Public financing for recovery favored infrastructure

After the earthquake, the Japanese government evacuated the victims and supplied meals to them. The government also provided public emergency temporary housing to victims who had lost their houses. These measures were taken based on the

Disaster Relief Act.

The government generated a supplementary budget for fiscal year 1994 and 1995 specifying funds required for revival and recovery they were paid to reconstruct the infrastructure and lifeline for supporting lives of the people and key industries. The total amount allocated was 2599.1 billion yen. Early infrastructure development accounted for 33% of the total, and the early recovery of the port consumed 19%, demonstrating that reconstruction of the infrastructure has become a top priority. Reconstruction of the infrastructure was completed for a short period of time[4]. Government investment favored the infrastructure, because reconstruction of the property of individuals, such as houses, factories, and stores was regarded as a matter of self-accountability, and therefore government financing could not be used for individual property. The exception of measures was reimbursement of the rubble clearance expense for individual destroyed residences. However, this caused an owner to collapse own half or partly destroyed residence completely, and thus reduce the number of usable dwellings.

Furthermore, national economic policy provided a suitable background, having expanded investment in the infrastructure. In the 1990s, the Japanese economy was sluggish, and Japanese government implemented business stimulation measures through the public utilities, led by public finance.

(2) Lost community in the process of recovery: Problems of public temporary housing

The local government built temporary housing in a short period of time, using the central budget. 48,300 housing units were built, equivalent to 25% of the collapsed houses; 46,617 households lived in temporary housing at the peak. Huge complexes were built in city suburbs and on reclaimed land. The construction of temporary housing eased the housing

[4] For example, electricity was restored on January 23, 1995, gas was restored on April 11, and water service was restored on April 17. As for public transportation, the Shinkansen was reconstructed on April 8, while the Hanshin Expressway had collapsed completely but was restored and opened for traffic on September 1, 1996.

concerns of socially vulnerable groups. However, since the temporary housing was built using a plan created by the central government, it did not suit the victims' needs. Some complexes in the suburbs ended up empty, with officers of the local government desperately trying to recruit tenants.[5] In another case, since a temporary housing was supposed that a nuclear family lives in, a large family had to live separately just when they most needed to band together.[6]

It was not only families; the community was broken apart as well. An area crowded with old wooden houses made a strong consciousness of community among the residents. This consciousness was a tie that supported the socially weak, such as the elderly people and the day laborers living in that area. However, the earthquake destroyed the community. The socially weak unable to obtain a residence through their own capacities, moved to public temporary housing.

Table 3 presents the household composition classified by age and family income of the residents of the temporary public housing. The elderly 65 years old and older accounted for 37.6%, and the majority had an income of less than 2 million yen. There are many elderly people and low-income earners in a public temporary housing.

Table 3 Age and income structure in the public temporary housing

Age structure of the householder	
less than 29	3.6
30-39	5.4
40-49	12.3
50-59	17.8
60-64	13.3
65-69	13.6
70 and more	24.0
unknown	10.1
Total household income	
Less than 1 million yen	29.3
Less than 2 million yen	23.1
Less than 3 million yen	17.2
Less than 4 million yen	9.6
Less than 5 million yen	5.5
Less than 6 million yen	3.1
Less than 10 million yen	3.2
10 million yen and more	0.6
unknown	8.3

It is difficult to form a new community that would support the socially weak in a huge temporary

[5] Difficulties and suffering of the prefecture officer moving a victim into shelter at a temporary house from Mr. Hata's testimony. For details, see The Great Hanshin-Awaji Earthquake Memorial Research Institute *Tobe Phoenix* (in Japanese), 2005, 268-296.
[6] Private letter addressed to M. Funaba from a victim.

housing complex like those in the suburbs. Residents could utilize certain local resources, for example there would be a lunchroom that could be used cheaply, public facilities, in downtown. It was more difficult in the suburbs.

In the recovery process, there was once again a gap between the needs of the victims and the policy of the central government. Because the government could not support private property through the budget, there was public housing construction specified in the housing support policy for socially weak groups. In fact, 38,600 public (recovery) housing units were provided in Hyogo Prefecture in a short period. However, the problems of establishing a community remained in the new residences.[7]

(3) Delay of economic recovery in the disaster area

As residents moved to the public temporary housing built in the suburbs, the downtown population density decreased. Table 4 indicates the population before and after the earthquake in Kobe City. In Nagata Ward, where the damage was very serious, the population was 130,466 in October 1994 but had decreased to 98,856 by October 1995, a drop of 25.8%. The reduction in population brought about a drop in commercial activity in the disaster area. The commercial sales total of Kobe City fell 18.1% from 1994 to 1997.

Table 4 Population of Kobe City

	1994 Oct.	1995 Oct.
Kobe city	1,518,982	1,423,792
Higashi-nada Ward	191,540	157,599
Nada Ward	124,891	97,473
Chuo Ward	111,536	103,711
Hyogo Ward	117,918	98,856
Nagata Ward	130,466	96,807
Suma Ward	188,863	176,507
Tarumi Ward	237,781	240,203
Nishi Ward (Suburb)	199,951	222,163
Kita Ward (Suburb)	216,036	230,473

Moreover, it is notable that many small factories were concentrated in the disaster area. For example, there were a number of factories for “Chemical Shoes”[8] in

[7] For details, see The Urban housing Society (Kansai branch), *Community of a recovery housing complex* (in Japanese), 2001.

[8] 'Chemical Shoes' is a commonly used name. From the beginning of the 20th century, Kobe City had a significant industry making footwear from rubber, such as boots, rubber coating tabi, etc. In the 1950s, shoes made from chemical materials such as plastics were born rather than rubber. Therefore, these were called 'Chemical Shoes'. The 1970s was the golden age, with 40% of them exported.

Nagata Ward and Suma Ward, so these formed a Chemical Shoes cluster. Factory workers resided along the circumference of a factory, and many other persons were engaged in side jobs in and around the house. These people lost their jobs because the factories were compelled to cease operating for a long period. The number of employee of the Chemical Shoes cluster may be calculated using the grid method. It is estimated that the number of employees in 1990 was 15,933 and in 1995 it was 8,952.[9]

Employment and economic activity decreased greatly in the disaster area, but the reconstruction plan created by the government did not compensate for this situation.

The Kobe City office released six downtown recovery plans on February 23, and the Hyogo Prefecture office provided revival city plans for cities and towns that suffered a great deal of damage on March 16.[10] It is esteemed that early city planning is indispensable to restoration (S. Ito, 2000). However, since new buildings or new houses were not permitted to be constructed in these areas, except for temporary construction, a storekeeper or a manager of a factory was delayed in getting their facility back in operation. The delay in the recovery of population and the delay in the resumption of economic activity in the damage area hindered the recovery of people's lives.

(4) Problems with the disaster recovery management system in Japan

Problems with recovery from the disaster were discussed in the preceding paragraph. The cause of these problems is the centralized Japanese disaster recovery management system. The plan for relief and recovery was determined by the central government and was implemented by the local governments. There was no means to adapt to the residents' real

Now, there are many shoes made from leather besides those of a rubber or a chemical material.

[9] This figure is based on Tabata's presentation at the 8th Conference on Asian Urbanization (2005). The presentation title is, *"The process of recovery since the Great Hanshin Awaji-Earthquake: Analysis by the grid method"*.

[10] Since the residents did not know about the process of planning, some serious protest movements occurred when the city plan was announced too early. See for example H. Sotooka (1998).

needs. There are three reasons why the centralized disaster recovery management system was existed.

First, the Disaster Relief Act, the basis for relief, clearly indicates that the central government is responsible for relief, and that the prefectural government is charged with the practice of that relief. In addition, it is assumed that part of the authority for the practical activity is delegated to municipalities. In short, determinations made by the central government are requisite on a legal basis.

Second, in an emergency like a disaster there is no time to build a new system that can respond to the victims' needs. Maximum practical use of the existing law and operating manual is the only means of providing relief to victims and restoring the damaged area.[11]

Third, the central government has ascendancy over local governments in the intergovernmental relationship, and the public sector predominates over the private sector. Japanese people think that the recovery policy of the central government is naturally performed through local governments.

In sum, although early and efficient relief and restoration measures were useful in recovering from the disaster by this system, various problems were observed.

4. Role of the social economy

(1) From Volunteers to NPOs (Not-for profit Organizations)

The problems with relief and recovery management are due to a gap between the central government and the disaster area. The function of the social economy is to fill this gap.

While efforts moved from a phase of victim relief to the early stages of the revival and restoration of the victims' lives, the number of volunteers gradually

[11] The Kobe city office did not have a manual covering large earthquakes (more than 5-scale seismic intensity), so a fireman and rescue team in Kobe City confronted the disaster using a countermeasure manual for flood damage in the early stages.

decreased. Victims and residents of the disaster area then formed volunteer groups, playing an important role in the public temporary housing and the permanent housing of victims. Some volunteer groups established NPOs or became NPOs, as members recognized the limits of their capacity. This was a result of accepting ideas about NPO/NGOs and social economics introduced from the United States and the United Kingdom. In 1998, the Law to Promote Specified Nonprofit Activities came into force, giving legal qualification to NPOs. The law promotes the establishment of NPOs. As a result, the number of NPOs has been increasing.

Ms. Junko Nakamura established a volunteer group for relief. While she was supporting victims as a volunteer, she noticed that victims came to be overly dependent on the support. She believed that job creation was required for them to become independent, so she founded Community Support Kobe (CS Kobe), an organization of intermediaries.

Ms. Ayako Mori worked to coordinate volunteers as a staff member at the Headquarters for Disaster Volunteers, established within the Council of Social Welfare, which was part of the local authority. She recognized that volunteer groups would become dependent upon the support and influence of the local government when she dissolved the Headquarters. Members of the organization agreed to dissolve but the local authority and the Council of Social Welfare did not agree to dissolve. She came across the concept of an NPO, a not-for-profit organization that aims to improve a community and society in general, and later founded the Takarazuka NPO Center.

Mr. Songil Kim, a Korean living in Japan, was experienced in the area of social welfare. He visited Nagata Ward, location of the principal communities of the Korean minority and of Korean elderly people, supported by the community's resources. He realized the necessity of supporting these elderly people. He coordinated Korean-Japanese interpreters for the elderly Korean people, and he supported them with both temporary public housing and permanent housing. Furthermore, in order to support several

minorities residing in Kobe, he founded the Kobe Foreigners Friendship Center. Finally, he established a day-care service center for elderly Korean people.

These social enterprises and NPOs, players in the social economy, are still working powerfully today.

(2) Support of the social economy by the public sector

Support from the government promoted the emergence of a social economy in Japan. There were two schemes for support of the social economy that the Hyogo prefectural government realized after the disaster.

The first scheme was the establishment of the Hanshin-Awaji Earthquake Recovery Fund in 1995. A disaster recovery fund already existed for the Unzen-Fugen volcanic eruption disaster (1991). Hyogo Prefecture borrowed two-thirds and Kobe City borrowed one-third of 880 billion yen (about 7.3 billion US$) from 14 financial institutions as operating funds by floating public loans. About 360 billion yen was obtained from the Recovery Fund, and was paid for various works in the recovery from the disaster. The amount of funding is equal to the amount of interest on a public loan. The Japanese government would raise 95% of the interest with a grant tax. That is, the central government would distribute an amount of money equivalent to an operating profit to the local governments.[12] Professor Toshihiko Hayashi has said that this scheme is similar to "money laundering," but it made it easy for local governments to use funds from the central government (T. Hayashi, 2007).

The Recovery Fund was intended to pay for work that complemented the support offered by central and local governments, as well as to support the victims' independence through community or volunteer groups. The Recovery Fund also had the objective of supporting public interest activities that the government could not perform.

The fund paid for not only disaster victims' recovery

[12] In fact, the amount of the subsidy is 265,100 million yen for a change of grant rate etc. This corresponds to 75%.

but also for work contributing to the development of community activities and the social economy. The fund also supported policies for community business. This will be examined in the following chapter from the viewpoint of the development of social economy and the community. The policy for community business subsidized many organizations established to address the necessity of social support, as well as those that expanded their activities to the social range after the earthquake.

The second scheme was the establishment of Hyogo Volunteer Plaza (2002). This is an organization formed in Hyogo by the prefectural government. Its management was entrusted to the Hyogo Council of Social Welfare in order to support the activities of NPOs and volunteer groups within the prefecture. In 1998 an Ordinance on the Promotion of Voluntary Activities by Prefectural Residents came into force, stipulating that Hyogo Prefecture should establish a base for supporting the voluntary activities of citizens. The work of Hyogo Volunteer Plaza is closely connected with this policy of Hyogo Prefecture.

Volunteer Plaza is an organization that connects the Hyogo prefectural government (administration) and the third sector. Presently, Volunteer Plaza supports not only volunteer activities but also the establishment of an incubator for social enterprise, training of human resources, and support of the collaboration between government and NPOs.

5. Evaluation of the social economy after recovery

(1) Development of community business

The idea of community business is originated in the United Kingdom. In the 1980s, the unemployment rate of urban areas in Scotland and northern England was high due to changes in the industrial structure. They could not depend on the central or local governments with their fiscal austerity, so people in the community pooled a modest amount of money and established some small businesses in the area using this fund. This was the start of community

business. Recently, community business has been extended to include social enterprises as well, such as the Charity Trading Arm, the Credit Union, etc. (Social Enterprise London, 2001). A social enterprise aims to improve society through business activities, such as job training provided to young unemployed persons and child care for single mothers who want to work. It is an institution that plays a major role in the social economy.

Although the community business is one of player of the social economy, in Japan community business means not only "business for the community" but also "business in the community."[13] However, there is a common understanding that a community business should return its profit to the community, including the creation of jobs for community members; should use the resources of the community; and should meet the community's needs.

Since many people lost their jobs after the earthquake, it was urgent to create new jobs by promoting community business. Support for community business startups was initiated in 1999, using the Recovering Fund. The Recovering Fund pays a maximum of 3 million yen as a grant to NPOs intending to establish community businesses, to cover the cost of installation. After 2001, this expanded to other areas using the budget of Hyogo Prefecture. After the Recovery Fund was expended in 2005, the support of community business continued, funded by the budget of Hyogo Prefecture.[14] The number of community businesses supported with the Recovery Fund through 2004 was 42, and the Hyogo prefectural government subsidized 101 community businesses through its own budget as of 2006.

Table 5 lists the types of business for 143 community businesses broken down by year. In total, 21.0% of the businesses were for Care and Medical treatment and 20.3% for Education and Childcare, showing that community business primarily benefits the socially weak. The former ratio is decreasing, and the latter is increasing every year. Moreover, Manufacturing and

[13] This is pointed out by Mr. Alan Kay, director of the CBS Network in Scotland, at a lecture given in Kobe City in 2002.

[14] The Hyogo prefectural government reduced the subsidy to 1 million yen and increased the number of objects of the subsidy after 2005.

Commerce accounted for 50% of the businesses in 2001, but is decreasing every year. This indicates that the role of the 'business in the community' is falling. It turns out that community business has diversified, as a result.

Table 5 Number of community businesses supported

Year	Care and Medical	Education and Childcare	Planning, Research, and Information service	Personal Service, etc.	Manufacturing and Commerce	Office Services, etc.	Total
1999	2	0	0	1	3	0	6
2000	2	1	2	0	1	0	6
2001	6	2	3	1	6	1	19
2002	6	4	4	3	4	1	22
2003	4	8	2	2	4	3	23
2004	2	5	3	4	8	1	23
2005	5	4	1	1	9	3	23
2006	3	5	2	5	6	0	21
Total	30	29	17	17	41	9	143

We circulated a questionnaire about community businesses that received support from the Recovery Fund in 2003, to which we received 26 replies. Table 6 presents evaluations of the government support system provided by entrepreneurs in affected community businesses. 92% of the respondents reported that the support was helpful.

Table 6 Evaluation of support from the Hanshin-Awaji Recovery Fund

Answer	Cases	Percentage
It was not helpful	0	0.0
It was seldom helpful	0	0.0
Neither helpful nor not helpful	2	8.0
It was helpful	13	52.0
It was very helpful	10	40.0
Total	25	100.0

Furthermore, 62.5% of those supported plan to "develop a new business" and 59.1% will "create a new business in a related field" (Table 7). This suggests that as community businesses grow, they gradually assume the role of a social enterprise.

Table 7 Future plans of community businesses (M.A)

Develop a new business	65.2%
Expand business area	45.8%
Perform quantitative expansion	73.9%
Improve own service	95.7%
Create a new business in a related field	59.1%
Create a new business in a new field	27.3%
Keep own business	28.6%
Reduce own business	4.5%

For example, Ms. Bono Matsumoto thought that it was important to increase the number of female photographers in order to solve the problem of gender balance in photography circles, so she started a photography school for women as a community business.

In addition, Ms. Kazumi Moriki, who trades in handmade women's articles in the developing countries of Asia (fair trade), worries about conflicts between business interests and NGO activities involving the support of females.

(2) Partnerships between the government and NPOs

The partnership between the government and NPOs is a key to developing the social economy because they have common goals for their society, such as social inclusion, improvements in the quality of life.

Hyogo Volunteer Plaza coordinates this partnership as an intermediary. In practical terms, an NPO first proposes the idea of work in partnership with the local government; second, the Volunteer Plaza subsidizes the NPO for research and modification of its plan; and third, the Volunteer Plaza gives the NPO an opportunity to present its plan to the local government. If the local government adopts its proposal, the collaborative work will be performed.

In 2005, we sent a questionnaire to 70 NPOs that had proposed collaborative work. A total of 20 replies were received. Among these, half had already undertaken a partnership with a local government. The NPOs' evaluation of the partnership is given in Table 8.

Table 8 Evaluation of the performance of partnership work

Answer	Cases	Percentage
Quite high performance.	9	47.4
Rather high performance	7	36.8
Same performance with partnership work as with independent work	0	0.0
Performance of independent work is higher	3	15.8
Total	19	100.0

To questions about the outcome obtained through partnership, the reply "quite high performance" was given in nine cases and the reply "rather high

performance" in seven cases. This indicates that almost all NPOs approve of the partnership.

Furthermore, they believe that such partnerships will comprise an important part of the public sector. 70% gave an affirmative reply about whether a partnership with government would lead to the making of a "new public."[15] The reason for this is that working in a partnership draws out the respective advantages of NPO and government. There are also comments such as "it can respond to a beneficiary's needs or a change in the society immediately" and "mutual features are complemented and it becomes possible to perform several tasks with a wide range."

6. Conclusion

This paper has described problems with relief and recovery after the Great Hanshin-Awaji earthquake. These same problems must be solved for relief and recovery from disasters occurring in urban areas. Japan has suffered several seismic hazards and damaging floods since 1995. How were the lessons of the earthquake utilized in crafting policies for relief and recovery? The three major issues in this regard will be summarized as the conclusion of this paper.

First, the community becomes important during relief and recovery. The earthquake broke up a community, but the government could not maintain that community. People were obliged to live separately in temporary suburban housing. Even if residents formed a community in a temporary housing complex, they became isolated again once they moved to permanent housing.

At the site of the 2004 Niigata Chuetsu Earthquake, where 3,460 temporary housing units were built on 63 sites, the Niigata prefectural government chose sites near the community where victims lived before the earthquake, and they decided not to build only elderly peoples' housing complexes. This shows that the government had learned from the lesson of the Great Hanshin-Awaji Earthquake.

[15] The concept of a 'new public' appeared in a report presented by the Prime Minister's Commission on Japan's Goals in the 21st Century (leader, Mr. Hayao Kawai) in 2000.

Not only is the community a vehicle for 'surviving', but the community becomes a new center for activities in support of the citizens. This paper has discussed the manner in which community businesses and NPOs are born as new entities, part of the social economy that emerges from the community during recovery from an earthquake. It may be added that the community also serves as a key element in disaster prevention. As a future policy, it is vital to establish a disaster prevention agreement for each community covering relief and restoration at the time of disaster (M. Funaba, 2000).

Second, it is necessary to embed the framework of a social economy into the area, since an earthquake destroys the regional economic system. In the case of major companies with large reserves, reconstruction is performed based on the market. However, the downtown area has many smaller businesses based in the community that support the economic life of area residents. Mr. Kazushi Yamaguchi calls this the "circulation of small economy" (K. Yamaguchi, et al., 2007). He introduces the concept of a recovery community business based on a case study of community businesses in Hyogo and Niigata Prefectures. Even after the circulation of this small economy is destroyed by a disaster, it will still be possible to create new jobs and to re-establish this circulation by starting recovery community businesses in the disaster area. Taking the Great Hanshin-Awaji Earthquake as an example, some recovery community businesses were founded 20 to 30 months after the disaster. However, in Niigata, recovery community business was established one or two months after the earthquake (K. Yamaguchi, et al., 2007). If a disaster were to occur, the businesses will also contribute to relief and recovery.

Third, there are limits on measures for relief and recovery by central and local governments, imposed by the principles of the law, restraints on public finance, political considerations, and the need for consistency with other policies. The limits on compensation provided to each individual from the governmental budget and the rigidity of the

redevelopment projects that are crucial for city recovery hindered a rapid revival. However, lessons from the Great Hanshin-Awaji Earthquake were also employed efficiently.

In Tottori Prefecture, numerous houses suffered damage from The Western Tottori Earthquake, which occurred in 2000.[16] The Tottori prefectural government constructed only a few public temporary housing units. Instead, in order to rebuild houses that suffered damage as a result of the earthquake, the government decided to pay the maximum 3 million yen subsidy to each household, using its own budget. According to Mr. Yoshihiro Katayama, the former Tottori governor, the reason for this decision, in which he chose individual compensation at the expense of the prefectural budget rather than the construction of emergency housing supported by grants from the central government, was the existence of the community.

The central government has reconsidered its scheme for relief and recovery as well. Since support for restoring the independence of disaster victims was inadequate, the Act Concerning Support for Reconstructing Livelihoods of Disaster Victims became law in 1998. This approach supports reconstruction of the victims' lives, using a fund to which all prefectures contribute, and paying grants to the households suffering from the disaster (H. Fukusaki, 2005). However, the fund cannot provide assistance to a residence. The life recovery system for the fund also has a limit.[17]

We need to study the systems used for relief and recovery by central and local governments, beginning from the premise that the development of a social economy and the existence of the community are important. To this end, it is necessary to subsidize the community with block grants as a package of recovery policies (M. Funaba, 2000).

We should not allow the lessons from the tragedy of

[16] The Western Tottori Earthquake occurred in 2000, leaving 417 houses destroyed completely, 2932 houses half destroyed, and 16,521 houses damaged.

[17] In order to support private housing reconstruction by mutual aid rather than by public aid, the Hyogo prefectural government launched the Hyogo Mutual Aid Fund for Housing Reconstruction in 2005.

the Great Hanshin-Awaji Earthquake to fade. Therefore we will have to classify these subjects and to utilize them for future policy decisions. The measure of relief and recovery from a disaster is based on the lessons of the Great Hanshin-Awaji Earthquake. We must perform further research, and we must create a disaster management system adapted to recent situations.

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