



Place-Based Activities of SENDAI BOSAI Leaders (SBLs) for Disaster Risk Reduction

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Abstract

The authors, aware of problems with traditional human resource development of voluntary place-based persons for disaster risk reduction (DRR), were involved in the development of a training program designed to resolve those problems. The basic concept is to develop personnel who can make use of the knowledge and skills they acquire in training not only during disasters but also in ordinary place-based activities for DRR. The social need for such personnel was indicated even prior to the 2011 Great East Japan Earthquake (GEJE), but the results of a questionnaire conducted by voluntary community-based disaster management organizations (CBOs) in Sendai City after the massive disaster further confirmed the need.

The Sendai Bosai Leaders (SBLs) Program was launched in 2012 as a capacity development initiative in Sendai City, Miyagi Prefecture, in response to the 2011 GEJE. The Program emphasizes strengthening each community's disaster resilience by fostering place-based leaders to promote sustainable DRR activities within existing *chonikai* (neighborhood association) networks. BOSAI is a traditional Japanese term, indicating a holistic approach to reduce human and economic losses from disasters, which represents activities in all disaster phases, including prevention, recovery, response and mitigation.

Over its eight years of implementation, approximately 700 SBLs have been certified. The Sendai City experience indicates that developing the capacity of voluntary place-based leaders for DRR in a post-disaster period can contribute to enhancing that community's disaster resilience for better community rebuilding. Place-based activity is the strong point of SBL. The understanding of the local environment in both nature and society is required to the SBLs. In this paper, usual place-based activities from 2012 to 2018 by SBLs are reported. Finally, the social significance of SBLs as model of voluntary place-based persons for DRR is described.

The community centering on the Katahira district neighborhood associations alliance in Sendai City is one of the role models where the activities for DRR are regarded as an integral factor in community development to promote participation of the various human resources and training of younger generations. The place-based activities are developed by SBLs in Katahira district. An informative case of place-based DRR activities by SBLs is introduced.

Keywords: Sendai city, Human resource development, Voluntary place-based leader for disaster risk reduction, Voluntary community-based disaster management organization, SBL



1. Introduction

In Japan, social awareness of the importance of voluntary community-based disaster management organizations (CBOs) called “*Jishu-bousai-soshiki*”, operating under the auspices of neighborhood associations and councils and as the basis for action during emergencies, increased after the experiences and lessons learned in the Great Hanshin-Awaji Earthquake of 1995. Consequently, the formation of such groups increased nationwide as a part of national and local government disaster prevention policy initiatives. As of 2009 in Sendai City (just before the GEJE) the percentage of CBOs formed (as proportion of total neighborhood associations called “*chonaikai*”) stood at 95.3%, with a total of 1,318 groups formed.

Furthermore, the promotion of place-based activities through the training of so-called “BOSAI leader” as voluntary place-based leader for disaster risk reduction (DRR) has been improving nationwide. Training courses are organized by local governments [1] as well as by universities [3]– [6] and NPOs such as the Japan Bousaisi Organization [2], creating many opportunities for diversity and gender equality in training. BOSAI is a traditional Japanese term, indicating a holistic approach to reduce human and economic losses from disasters, which represents activities in all disaster phases, including prevention, recovery, response and mitigation [7].

In addition, regarding the timing and content of training, a diversity of programs with differing training goals and aims exist, with each organization acknowledging completion of training in its own way. In addition to the “BOSAI leader,” other titles include “BOSAI coordinator,” “BOSAI-meister,” “BOSAI fellow,” and many others.

However, in cases where the formation of the CBO does not continue past a merely formal level, the activation of the organization often becomes a challenge [8]– [10]. Additionally, in cases where training participants have few chances to make use of their knowledge and skills in community-based activities for DRR or have undertaken training for personal reasons as a hobby or lifelong learning, it is not always the case that they — having pursued the training primarily to satisfy their curiosity — are capable of making much of a contribution to their community's ability to manage disasters.

With that in mind, in this paper we introduce a training program developed to resolve problems with both the activation of CBOs and the traditional training of BOSAI leaders. In addition to addressing the fundamental characteristics of training participants and their post-training activities, we also describe the social significance of SBLs as model of voluntary place-based persons for DRR.

2. Survey of CBOs Activities during the Great East Japan Earthquake

2.1 Survey Summary

In this section, we summarize a survey implemented in Sendai City with the aim of stimulating voluntary community-based activities and improving CBOs' ability to cope with disasters. The survey was based on an examination of CBOs activities during the GEJE and a reconsideration of their training and leadership in light of the results of that examination [11]. The survey was conducted by the Sendai City Fire Department in collaboration with the Tohoku University Disaster Control Research Center (now reorganized as the International Research Institute of Disaster Science).

The survey encompassed all of Sendai City's neighborhood associations and councils (1,358 in total). The survey was administered both via mail and in person by fire station staff, who interviewed neighborhood association presidents. Table 1 shows the outline of the survey. The survey was conducted in autumn 2011, by which time 86.2% of Sendai City had recovered. Further, regarding the number of CBOs in regions impacted by the tsunami, Miyagino Ward had 18 and Wakabayashi Ward had 16, amounting to a reduction of 10% in both areas.



Table 1. Outline of Survey Results

| District/Branch office | Survey subjects (No. of <i>chonaikai</i> organizations) | Survey Itemization | | | Incomplete (refusal, etc.) | Completion % |
|------------------------|---|--------------------|--------|-------|----------------------------|--------------|
| | | Interview | Postal | Total | | |
| Aoba | 439 | 41 | 300 | 341 | 98 | 77.7 |
| Miyagino | 203 | 11 | 159 | 170 | 33 | 83.7 |
| Wakabayashi | 176 | 162 | 3 | 165 | 11 | 93.8 |
| Taihaku | 266 | 90 | 154 | 244 | 22 | 91.7 |
| Izumi | 205 | 162 | 23 | 185 | 20 | 90.2 |
| Miyagi | 69 | 52 | 14 | 66 | 3 | 95.7 |
| Total | 1358 | 518 | 653 | 1171 | 187 | 86.2 |

2.2 Excerpted Survey Results and Discussion

Of the survey items, here we present and discuss only those related to the form and specific content of activities undertaken by CBOs in the immediate aftermath of the earthquake, and the steps taken by those organizations to revise their system of action in the wake of the disaster.

First, response results from throughout Sendai City to the question (one option), "What kinds of activity did your CBO engage in immediately after the earthquake occurred?" are shown in Table 2. The percentage of CBOs' commanding officers (neighborhood association presidents) working single-handedly was low. Because the answers "Officers took the lead and everyone worked together" and "Mostly officers did the work" when taken together account for roughly 70% of responses, though the specific content and level of activity may have varied significantly, it is safe to say that on the whole, the immediate response was systematic.

Next, responses from throughout Sendai City to the question (multiple options), "What kind of activities did you engage in?" are shown in Table 3. The activities most widely implemented were "confirmation of survivor safety," "information gathering," and "managing shelters," in that order. CBOs focused on "managing shelters" accounted for approximately half of all such organizations, while the other half was composed of groups in regions where shelters have either not been established or are not systematically managed. In any case, the implementation ratio of strategies such as "rescue operations," "first-aid treatment," and "hospitalization" was low. This indicates that, overall, the number of cases where CBOs responded to damage caused by the tsunami were low in Sendai City. This may have been caused either by the fact that the number of CBOs stationed along the seacoast accounted for a small percentage of the total number in Sendai, or that the earthquake caused fewer casualties inland.

Finally, the results from throughout Sendai in response to the question, "What do you think is a structure for facilitating reflection on ways CBOs can become more effective at reducing the effects of natural disasters?" (multiple choice) are shown in Table 4. "Establishment of a system for the development of human capital capable of responding to an emergency," was the most common answer, with as much as three-quarters of the organizations showing a strong preference for it. This could have been caused by the high expectations for the level of quality in response, for although programs for the training of "BOSAI leader" who respond to social needs like this had been developed nationwide prior to the GEJE, in Sendai, the immediate aftermath of the earthquake revealed that an insufficient number of people were capable of actually performing the duties expected of them in their role as BOSAI leaders.



Table 2. CBOs' Activities in the Earthquake Aftermath

| Options | Answers | % |
|---|---------|------|
| Officers took the lead and everyone worked together | 401 | 34.2 |
| Mostly officers did the work | 452 | 38.6 |
| Commanding officer (association president) did most of the work alone | 105 | 9.0 |
| Nothing remarkable was undertaken | 208 | 17.8 |
| No response | 5 | 0.4 |
| Totals | 1,171 | 100 |

Table 3. Specific Content of Activity (Multiple Choice)

| Options | Answers | % |
|---|---------|------|
| Confirmation of survivor safety | 865 | 90.0 |
| Information gathering | 690 | 71.8 |
| Emergency evacuation | 275 | 28.6 |
| Fire fighting | 3 | 0.3 |
| Rescue operations | 53 | 5.5 |
| First-aid treatment | 21 | 2.2 |
| Hospitalization | 38 | 4.0 |
| Emergency rice distribution | 395 | 41.1 |
| Shelter management | 469 | 48.8 |
| Activities using equipment kept by CBOs (neighborhood associations) | 238 | 24.8 |
| Activities using equipment kept by citizens' centers | 121 | 12.6 |
| Other | 150 | 15.6 |
| No response | 5 | 0.5 |
| Total | 961 | -- |

Table 4. Reflecting on CBOs' System of Activities (Multiple Choice)

| Options | Answers | % |
|--|---------|------|
| Building a framework of two shifts, divided into daytime and nighttime | 371 | 34.7 |
| Building a framework to collaborate with local organizations or other CBOs | 511 | 47.8 |
| Creating a system to train personnel capable of acting during an emergency | 811 | 75.8 |
| Other | 135 | 12.6 |
| No response | 3 | 0.3 |
| Total | 1,070 | -- |

2.3 Summary of Survey Results

During the GEJE, the tsunami evacuation problem and the problem of interrupted travel and the difficulty of returning home, as well as others, were all handled differently in each region. This survey did not consider the actions of individual CBOs, but rather attempted to consider the activities of Sendai's CBOs in the



aftermath of the GEJE as a whole. The results of this survey strongly supported the need for personnel with practical skills to promote community-based activities rooted in the community by assisting CBOs' captains (neighborhood association presidents) under ordinary conditions as well as during disasters.

3. On the Creation of SENDAI BOSAI Leaders

3.1 Examining the Basic Concepts

In 2010, the BOSAI Leaders Training Program Investigative Commission was established in Sendai City; it conducted a detailed examination of specific training contents and the human resources vision for the participants. The committee members included university experts; neighborhood association presidents, several of whom were female; fire departments; the housewives fire prevention club; representatives of NPOs focused on disaster prevention activity projects; and the Japanese Red Cross, and the executive office was housed in the Sendai City Fire Department. They were called "*Sendaishi-chiiki Bousai leaders (SBLs)*."

Most points on which the investigative commission could establish consensus are listed below.

- To stimulate CBOs' activity under normal conditions as well as during disasters, it is important that "BOSAI leaders" and others promoting such efforts have roots in the area.
- Traditionally, it is common for neighborhood association and council presidents to undergo training, however, if human resources with roots in the area are required, then training participants need not always be neighborhood association and council presidents.
- Base recruitment methods and course contents on knowledge and skills acquired in the course that can be utilized in CBOs' activities centering on the area where training participants live.
- Instead of merely seeking to acquire general knowledge for DRR, develop plans for CBOs' training that take into account the natural conditions and social characteristics of each region and training content that nurtures the independence that makes the implementation of activities possible.
- Instead of lecture-based classes, adopt group discussions and a focus on practical skills as much as possible, encourage an active, participatory attitude in the students, and promote information exchange between them.
- Based on the concepts above, produce about two days' worth of lecture content and an accompanying text for the training.
- Because "*Sendaishi-chiiki Bousai leaders (SBLs)*" must be recognized by the neighborhood association, CBOs, and each local resident, it is necessary to formally position them within the city's regional disaster prevention plan.
- To stimulate and improve activities among graduates of the training course, it is necessary to establish regular opportunities for information exchange and follow-up courses.

3.2 Summary of the Development of Training Programs and Workshops

The specifics of the training program based on the discussion of the investigative commission are shown in Table 5. In the table, the ○ mark indicates the type of training. In addition to the universal content of lectures and seminars as shown in Chapter 3, the main point of the basic concept described above is "place-based activities". Chapter 2, "Understanding the Unique Qualities of Your Hometown," is reflective of programs to develop such activities, for example.

With this as a measure, seminars appropriate to one's own CBO will include methods for understanding the natural and social environments of one's own community as well as the use of original



topographical and hazard maps and other methods for diagnosing regional capacity for DRR. Furthermore, Chapter 1 introduces various projects supporting Sendai City's place-based activities for DRR and includes information directly useful in the implementation and development of CBOs' activities in Sendai; in all, it presents a training program focused on locality.

In this way, since the participants' local area under ordinary conditions is the focus of the training program, as seen in Table 5 of Chapter 7, and declaring one's resolution to address challenges in one's area through future activity is positioned centrally within the program, there is no doubt as to where the knowledge and skills acquired in the program will be used. This differs significantly from training programs based on training texts from the Japan Bousaisi Organization, which focus mainly on acquiring the skills for voluntary disaster prevention activity in a universal, context-free setting.

The SBLs' training project began in 2012 with a 50-person capacity (50 participants), based on the format recommended by *chonaikai* as neighborhood associations. The Sendai City Fire Department was used as a venue for the training, which was in an intensive lecture format. However, in consideration of the participants' employment circumstances, trainings were held on weekends and holidays.

Additionally, although the training capacity in 2013 increased to 150 (147 participants), due to the high volume of inquiries, requests, and so on, the training sessions were framed such that about 20% of the capacity was offered to the self-application. That applications to attend exceeded capacity confirmed social interest in and high expectations for SBLs' training. In 2013, the first day of the training program was conducted as individual training at six fire departments in Sendai City, and for the second day it was as an intensive training at the Sendai City Fire Department. The training course is free of charge.

3.3 Basic Attributes of the Participants

The gender of each of the 584 participants from 2012 to 2016 is shown in Table 6 and their average age is shown in Table 6 for each application class (i.e., whether they were applicants from the self-application or were recommended by a neighborhood association) [12]. The number of self-applied participants accounted for about 25% of the total, with the greater majority being people recommended by neighborhood associations. This recruitment distribution corresponded to the fact that most of the community-based activities for DRR in Sendai City are based on neighborhood associations.

Among the participants, 75% were male and 25% were female. The average age of participants was over 60 years old; female participants were on average several years younger than males. Further, looking only at female participants, self-applied participants were again about a few years younger than recommended participants.

Meanwhile, adding self-application for 2013 resulted in an increase in participants with diverse experience and expertise, such as the OB and OG officers from the Parent – Teacher Association (PTA) Headquarters, the OB of the Father's Association, Women's community leaders for DRR, qualified *Bousaisi*, and so on. This is expected to invigorate community-based activities for DRR and help them expand in the future.

In Sendai City, there are 114 district neighborhood associations alliance (as of June 1, 2018) consisting of unitary *chonaikai* in a single primary school district. In addition, there are 120 elementary schools in Sendai. 732 SBLs who completed the course from 2012 to 2019 are active in each local community, this means that there was at about 6 SBLs in each neighborhood association or primary school district. Meanwhile, there were 1,386 unitary neighborhood associations in Sendai City (as of June 1st, 2018), meaning that as of 2019 the ratio of SBLs who had completed training to neighborhood associations stood at one SBL to every two associations.



Table 5. Training program of SBL

(a) Day 1

| Course contents | Training types* | | | (min.) | Lecturer |
|---|-----------------|---|---|--------|--------------|
| | 1 | 2 | 3 | | |
| Opening ceremony | | | | 10 | |
| Introductions | | | | 15 | |
| Chapter 1: Roles of self-help, mutual-help, and public-help | | | | | |
| 1-1 Helping Self/Mutual and Activity Support (Public-help) | ○ | | | 10 | Fire Dept. |
| 1-2 Role of the BOSAI Leader | ○ | | | 15 | |
| 1-3 Supporting the CBOs of Sendai City | ○ | | | 10 | |
| 1-4 Necessity of working with regional community organizations | ○ | | | 10 | |
| Chapter 3: Skills to always have prepared | | | | | |
| 3-2 Putting out your first fire | | ○ | | 45 | Fire Dept. |
| 3-3 How to seek help | | ○ | | 50 | |
| Chapter 2: Understanding the unique qualities of your hometown | | | | | |
| 2-1 Unique Qualities of the Region in which you live | ○ | | | 30 | Tohoku univ. |
| 2-2 Making a disaster prevention map | ○ | | | 15 | |
| 2-3 Regional disaster prevention diagnosis | ○ | ○ | ○ | 15 | |
| Chapter 3: Skills to always have prepared | | | | | |
| 3-1 Collecting and sharing information | ○ | | | 10 | Fire Dept. |
| 3-4 Leading evacuation activities | ○ | | | 15 | |
| 3-5 How to escape from a tsunami | ○ | | | 15 | |
| Chapter 4: Activities to improve the skills of CBOs | | | | | |
| 4-1 Community-based planning for DRR | ○ | | | 15 | Fire Dept. |
| 4-2 Creating an action card for community-based activities | ○ | | | 15 | |
| 4-4 DIG (Disaster Imagination Game) | ○ | | ○ | 30 | |
| 4-5 Crossroad Game | ○ | | ○ | 40 | |
| 4-6 Introduction of other games for DRR | ○ | | | 20 | |

* Each of the training type denotes 1: Lecture style, 2: Practical skill training and 3: group discussion.

Break times are not displayed in the table.



Table 5. Training program of SBL

(b) Day 2

| Course contents | Training types* | | | (min.) | Lecturer |
|---|-----------------------|-----------------------|---|--------|--------------|
| | 1 | 2 | 3 | | |
| Chapter 3: Skills to always have prepared | | | | | |
| 3-6 How to rescue | <input type="radio"/> | | | 50 | Tohoku Univ. |
| | | <input type="radio"/> | | 40 | Fire Dept. |
| Chapter 4: Activities to improve the skills of CBOs | | | | | |
| 4-3 Evacuation assistance for those who need support during disasters | <input type="radio"/> | | | 30 | H&W |
| Chapter 5: Lessons from the Great East Japan Earthquake | | | | | |
| 5-1 Tsunami video | | | | 20 | Fire Dept. |
| 5-2 Discussion of experience of living in a shelter | <input type="radio"/> | | | 20 | CBOs |
| 5-3 Learning from the experience | | | | 20 | Fire Dept. |
| Chapter 6: On managing a shelter | | | | | |
| 6-1 Shelter management | <input type="radio"/> | | | 60 | NPO |
| Chapter 7: Summary | | | | | |
| 7-1 Challenges for DRR in your own area | <input type="radio"/> | | | 20 | Fire Dept. |
| 7-2 Ideas for encouraging residents' participation | <input type="radio"/> | | | 20 | |
| 7-3 Place-based activities for DRR to implement in your own area | | | | 25 | |
| 7-4 Checking understanding | | | | 20 | |
| 7-5 Resolution statement on facing the future (including a declaration) | <input type="radio"/> | | | 40 | |

* Each of the training type denotes 1: Lecture style, 2: Practical skill training and 3: group discussion.

** H&W denotes General Affairs Section of Health and Welfare Bureau of Sendai City

Break times are not displayed in the table.

Table 6. Profiles of certified SBL members (2012–1016) [12]

| Participants | Male | Female |
|--|----------------|----------------|
| Total participants (n = 584) | | |
| Number (%) | 440 (75%) | 144 (25%) |
| Average age | 66.8 years old | 60.4 years old |
| Participants recommended by <i>chonaikai</i> (n = 439) | | |
| Number (%) | 351 (80%) | 88 (20%) |
| Average age | 67.7 years old | 61.3 years old |
| Self-applied participants (n = 145) | | |
| Number (%) | 89 (61%) | 56 (39%) |
| Average age | 63.0 years old | 59.0 years old |



3.4 Overview of Participants' Post-training Activities

The activities of SBLs from 2012 to 2018, recorded until March 31, 2019, are detailed in Table 7, while the places of their activities are displayed in Table 8. The numbers shown in Table 7 are based on SBLs' activity reports to the Sendai Fire Department and therefore may contain errors; for example, single individuals may be counted more than once under different activities or multiple times under the same activity, and many SBLs did not even send activity reports. For this reason, we believe that measures to support the activities of SBLs after training, such as setting up remedial courses for SBLs and providing opportunities for information exchange between them, are also necessary.

In Sendai, DRR events with the aim of raising awareness and facilitating information exchange, such as the "Sendai Bosai Forum" and "Citizen Forum on Disaster-Resistant Communities," are convened regularly. We believe it is important to promote the dissemination of information by and mutual information sharing between SBLs in order to improve both the sophistication of the activities of SBLs and their social recognition.

Additionally, as the results in Table 8 show, primary and middle schools were the most common venue for SBLs' activities. As a bit of background to this trend, the implementation of joint school-community disaster prevention drills and the promotion of the "Regional Shelter Management Manual" by Sendai City also both contributed to the increase in the amount of activities focused on schools.

Furthermore, the Sendai City Board of Education established the "New School Disaster Education Promotion Council" in 2012, with a charge to promoting practical research by the disaster education model school along the two major research themes of "Cooperation and common understanding between school, family, region, related organizations, and the local community" and "Joint bosai drills with family and community." Due to the strengthening of the relationship between school- and community-based activities for DRR, expectations for SBLs are becoming heightened.

Table 7. Activities of SBLs (March 31, 2019)

| Type of activity | Count |
|---|-------|
| Creating disaster prevention maps | 38 |
| Creating voluntary community-based organization plans for DRR | 79 |
| Planning community-based drills for DRR | 238 |
| Discussion and training of shelter management | 306 |
| Measures and training for activities on behalf of people who need assistance during disasters | 92 |
| Handling community center equipment and materials | 69 |
| Roundtable meeting/workshop | 163 |
| Firefighting training | 174 |
| Rescue training | 96 |
| Relief training | 199 |
| DIG/crossroad game for DRR | 75 |
| Tsunami evacuation drills | 1 |
| Participation in symposia and forums | 7 |
| Survivor confirmation drills | 11 |
| Others | 176 |
| Totals | 1,724 |



Table 8. Activity places (March 31, 2019)

| | Count |
|--|-------|
| Primary/Middle Schools | 337 |
| Civic centers | 102 |
| Parks | 44 |
| Community centers | 55 |
| Neighborhood association meeting place | 96 |
| Others | 190 |

4. An informative case of place-based activities by SBLs

The Katahira community development association (KCA) has also tackled the problem of fostering human resources of the next generations. From the situation where community development in the Katahira district including DRR has been tackled based on the whole community beyond multiple generations, the sustainability of the independent activities of community development can be recognized.

The KCA has held a “disaster risk reduction × treasure hunting game” as part of the measures to foster the human resources of the next generations since the fiscal year 2016. In this activity, the place-based persons including many SBLs in the Katahira district guide the children across the district to explain the abundant nature, history, culture, and resources for DRR by walking around in the manner of a treasure hunting game. Photo. 1 shows the annual activities of the “disaster risk reduction × treasure hunting game.” The “crescent corps” certificate is awarded to the children who participate in this activity and pass the evaluation test, and they are expected to become the place-based persons for DRR of the next generations who will support the SBLs in the future. The “crescent corps” is named after the crescent that was decorated on the front side of the warrior’s helmet of Masamune Date, a founder of Sendai Han (feudal domain). The wish of the SBLs of the KCA that the children will inherit the history and culture of the district can be well understood from this designation.

The “disaster risk reduction × treasure hunting game” in the fiscal year 2016 was implemented as an original program of the model project of the fiscal year 2016 of the District Disaster Management Plan of the Cabinet Office [13]. To continue to hold the “disaster risk reduction × treasure hunting game” continuously even without any special support after the completion of the model project, the KCA has revised the program for itself. It is desirable that other local communities will refer to these points for their activities. These points say, for example, that place-based persons like SBLs must first love the home district to teach children to love it, and that SBLs must be actively engaged with the activities of the home district and school. It is thought that the children who see such behaviors of the SBLs before their eyes will become excellent place-based leaders in the future [14].



Photo.1 Annual activities of the “disaster risk reduction × treasure hunting game.”



5. Conclusion

In this paper, we have shared our experiences participating in the development of SBLs' training program, detailed specifics of the program, analyzed the qualities of the participants, and considered the activities of the graduates. Although the second year has passed since it was launched, applications for the program are exceeding the project's capacity, offering firm evidence of the great social need and expectation for SBLs. Furthermore, drawing on SBLs' activity reports, we also discussed the necessity for remedial courses and the establishment of a forum for information exchange between graduates.

In the activity model of the Katahira district with SBLs, the association concerned fosters place-based persons for the future while being engaged in various concrete activities for community development. This is a role model from which other districts also should learn. A social group with common ties to the home district such as the Katahira district neighborhood associations alliance is characteristic of Japan. However, if there existed such a group with common ties to the home district and its leader, disaster resilient community development like Katahira in Sendai could be applied even to communities abroad.

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