

Lessons Learned & Know-How Gained from the Great East Japan Earthquake Case Studies

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1-1 Support for Disaster Victims (Identifying information about persons requiring special care and healthcare service provision systems)

Case study	Door-to-door visits to persons with disabilities in their homes
Location	Minamisoma City, Fukushima Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Minamisoma City, Japan Disability Forum (JDF) Disaster Area Support Center for People with Disabilities Fukushima, NPO Support Center Pia, other

Activity overview:

The local authority and an organization providing assistance to persons with disabilities in Minamisoma City, Fukushima Prefecture shared information registered in disability certificates and made door-to-door visits to confirm the safety of and offer support to persons with disabilities who had been forced to take shelter in their own homes.

Administrative agencies and private organizations are able to share personal information on persons requiring special care during a disaster due to the flexibility provided in ordinances on the protection of personal information in response to emergencies. Administrative agencies and private support organizations collaborated to complete door-to-door visits and implement emergency responses for all senior citizens and persons with disabilities who took shelter in their own homes.

Activity details:

■ Situation prior to the disaster

Lists of persons requiring assistance during a disaster were compiled on residents who were elderly and had disabilities (persons requiring nursing care Level 3 or above, in possession of a physical disability certificate of Class 1 or 2, or identification booklet for persons with intellectual disabilities A, and the elderly aged 65 and older living alone or in households with elderly members) and had provided their consent. Personalized support plans for persons requiring assistance were then distributed to social welfare workers, ward heads, fire departments and other groups.

There was no collaboration with organizations providing support to persons with disabilities. While disaster drills were held in Minamisoma City each year, no calls were made to these groups requesting their participation when evacuation plans were formulated or drills were conducted.

■ Checking on the safety of persons with disabilities and provision of support in disasters

In the aftermath of the accident at the Fukushima Daiichi Nuclear Power Station, all residents located in areas designated as “emergency evacuation preparation zones (where residents were recommended to evacuate voluntarily, and persons who were hospitalized and persons requiring nursing care, pregnant women and children in particular, were required to evacuate)” were subject to evacuation. However, the elderly and persons with disabilities who have difficulty in evacuating and living in evacuation centers were forced to take shelter in their own home.

In cooperation with the Self-Defense Forces, Minamisoma City started the process of confirming the safety of residents who remained behind in early April 2011, using the lists of persons requiring assistance during a disaster, compiled before the disaster. However, since this list had been created on a voluntary basis, most persons with disabilities who actually remained in Minamisoma City did not appear on the list. The only evidence of the location of the people in this demographic could be found in information listed in disability certificates in the city's welfare department.

Although the NPO Support Center Pia and JDF Disaster Area Support Center for People with Disabilities Fukushima submitted a request to the city to disclose personal information listed in disability certificates, the provision of such personal information to external organizations was considered to be in violation of Minamisoma City's ordinance on the protection of personal information. However, the city provided personal information to these support groups with the application of a provision in this ordinance that permits information to be shared "when deemed urgent and unavoidable to protect an individual's life, physical condition, or property".

The safety of disability welfare service users was ultimately confirmed by those respective offices, while the safety of 590 persons with physical and intellectual disabilities who were not the recipients of such services was confirmed through the disclosure of information to support groups. Minamisoma City is the sole local authority in the area to share personal information on persons requiring assistance during a disaster to private organizations in order to confirm safety.

Sources (Listed in other case studies, etc.):

- ・ 内閣府「障害者への災害時支援と個人情報」平成 24 年版障害者白書（2012 年 6 月）p47-50
<https://www8.cao.go.jp/shougai/whitepaper/h24hakusho/zenbun/index.html>
- ・ 日本障害フォーラム「東日本大震災を経験して、国に対する提案・要望」（2012 年 2 月）
<https://www.normanet.ne.jp/~jdf/yobo/20120207.html>
- ・ 岡本正「個人情報の共有で地域をつなぐー改正災害対策基本法の全面施行と活用術」
SYNODOS（2014 年 4 月） <https://synodos.jp/fukkou/7719>

Systems and mechanisms applied:

Project cost:

1-2 Support for Disaster Victims (Identifying information about persons requiring special care and healthcare service provision systems)

Case study	Iwate Disaster Medical Support Network
Location	Iwate Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Iwate Medical University, Iwate Medical Association, Japanese Red Cross Society, National Hospital Organization, Iwate Prefectural Medical Bureau, Iwate Prefecture

Activity overview:

Iwate Prefecture launched the Iwate Disaster Medical Support Network, consisting of representatives from healthcare and other related organizations, in order to respond to medical care and other support needs over the extensive areas affected by the disaster. This network was established to take in support teams from around the country, arrange the deployment of these teams to disaster-affected areas, and coordinate the support activities of various medical assistance organizations in disaster areas, including medical care at evacuation centers and emergency temporary housing.

Activity details:

■Launch of the Iwate Disaster Medical Support Network

Iwate Prefecture launched the Iwate Disaster Medical Support Network on March 20, 2011, consisting of representatives from Iwate Medical University, Iwate Medical Association, Japanese Red Cross Society, National Hospital Organization, and Iwate Prefecture, in order to develop a medium- to long-term medical relief system once DMAT activities were completed. This network took in medical teams from around Japan, arranged their deployment to affected areas, and provided support to medical institutions in disaster areas.

Dentists, pharmacists, nurses, physiotherapists, public health nurses, registered dieticians and other medical professionals joined the network meetings as they were held more often, in addition to disaster management organizations, such as the Self-Defense Forces and police, creating a foundation of comprehensive support able to meet the wide range of changing needs across the disaster-affected areas.

■Coordinating the acceptance of support teams

The activities of support teams arriving in disaster-affected areas were, as a general rule, to be self-contained, including carrying in food and medical supplies and making transportation arrangements. Support teams that offered assistance completed registration forms before arrival, and the acceptance of these teams was discussed at meetings of the Iwate Disaster Medical Support Network. After meeting at the prefecture's disaster response headquarters for orientation on relief activities in disaster areas, teams that were accepted were issued with permits identifying them as members of the network, emergency vehicle licenses, road information and area maps. The network also created a system to

secure and deploy physicians to coordinate and supervise team activities in the field and handovers between teams in line with needs on the ground.

■Support activities in evacuation centers and emergency temporary housing

Medical teams rolled out a variety of health and medical treatment activities in evacuation centers and emergency temporary housing. These teams provided multidisciplinary, long-term support, ranging from health consultations by public health and medical nurses for evacuees with chronic diseases, nutritional and dietary management and coordination by dietitians, oral health care by dental care aid teams, make the rounds to tenants in evacuation centers and emergency temporary housing by rehabilitation support teams, and mental health support for victims by mental health and emotional care teams.

■Conclusion of activities by the Iwate Disaster Medical Support Network

The network gradually reduced the scale of its activities with the establishment of temporary clinics and evacuation center closures, eventually concluding activities in October 2011. Through the network, 1,471 teams provided mobile healthcare services at evacuation centers and medical support at medical facilities in disaster areas. This structure, with support activities led by local physicians, government staff and others familiar with the disaster-affected areas, enabled activities to continue even after the support teams pulled back and returned to their locations outside of the disaster areas.

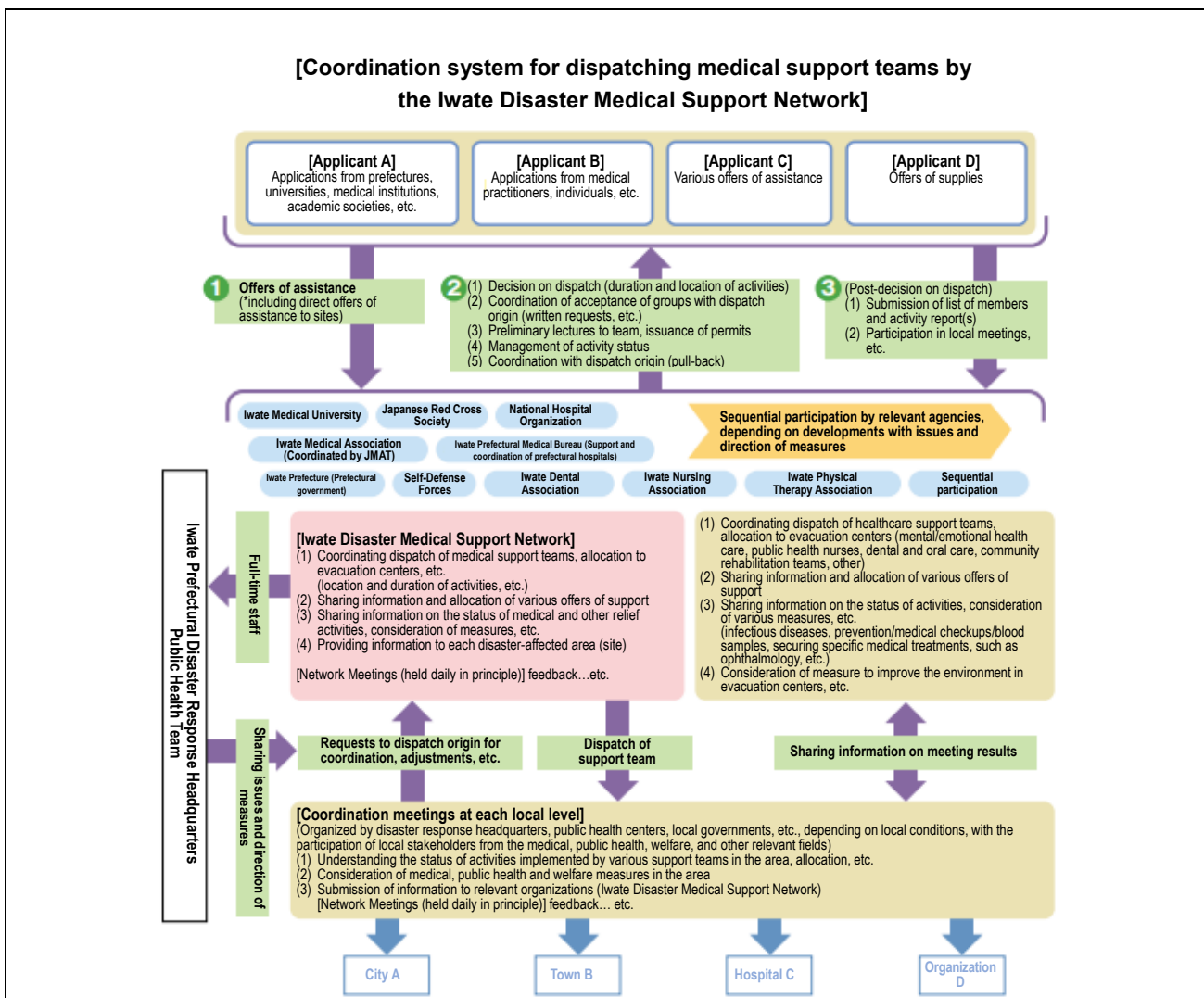


Fig.: Iwate Prefecture “Recommendations from Iwate on disaster prevention and reconstruction based on lessons from the Great East Japan Earthquake and tsunami”, p19

■ Establishment of medical relief systems after the earthquake disaster

Since the earthquake, Iwate Prefecture has been working on developing a system of disaster medical care coordinators who are located in prefectural disaster response headquarters, public health centers, municipal disaster response headquarters and other locations to supervise medical first-aid activities during a disaster. As of December 2019, 45 coordinators have been appointed to prefectural and regional disaster response headquarters. In addition to the establishment of the Iwate Disaster Medical Support Network in the prefectural government following Typhoon Lionrock (No.10) in 2016, the Iwaizumi Health, Welfare, Medical and Nursing Care Coordination Council was set up in the Miyako area. Liaison and coordination activities were led at the regional level by disaster medical coordinators.

Sources (Listed in other case studies, etc.)

- ・ 岩手県「東日本大震災津波からの復興 岩手からの提言」(2020年3月) p74- 77
<https://www.pref.iwate.jp/shinsaifukkou/densho/1027741/index.html>
- ・ 岩手県「東日本大震災津波を教訓とした防災・復興に関する岩手県からの提言」
(2015年1月) p18-19
<https://www.pref.iwate.jp/kensei/seisaku/bousaikaigi/1012174.html>

Systems and mechanisms applied:

Project cost:

2-1 Support for Disaster Victims (Understanding information on wide-area evacuees and livelihood/lifestyle support (Initiatives by local authorities to where they evacuated))

Case study	Support for wide-area evacuees in Yamagata Prefecture
Location	Yamagata Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Yamagata Prefecture, Yamagata City, Yonezawa City, Yamagata Social Welfare Council, others

Activity overview:

Local authorities and private organizations in Yamagata Prefecture collaborated in providing support to wide-area evacuees immediately after the disaster and continued to offer a sustained level of support through to the late reconstruction phase. The groups involved in this project provided support to evacuees for an extended period of time, proactively engaging in the formation of collaborative networks between support organizations and the implementation of training programs for supporters, in addition to direct counseling and support services for evacuees.

Activity details:

■Opening of support offices for evacuees in cities in Yamagata Prefecture

The Oide Evacuee Support Center opened in Yonezawa City in June 2011 to provide counseling support services and information to wide-area evacuees. The center holds livelihood support coordination meetings for evacuees once or more times a month, while relevant organizations collaborate to find solutions to issues for evacuees who require follow-up on an individual basis.

The Yamagata City Evacuee Exchange and Support Center, established in Yamagata City in July 2011, provides information on support and relief supplies to evacuees, offers counseling services on lifestyles and livelihoods, and organizes exchange programs with other evacuees. (*A center was also opened in Tendo City by August 2014.)

■Yamagata Prefecture “Connections and Support through the Yamagata Reconstruction Support Project”

In recognition of the importance of sustained support as a local authority located near the disaster area, Yamagata Prefecture launched the Connections and Support through the Yamagata Reconstruction Support Project, an organization comprised of the prefecture and NPOs, and established the Yamagata Reconstruction Volunteer Support Center in August 2011 to function as a base for support activities. The centers provided assistance to support groups through the development of guidebooks for novice volunteers and the organization of supporter meetings where support groups were able to exchange information and ideas. Long-term support on lifestyles and livelihoods is being provided for wide-area evacuees with the continuation of the publication of a free newsletter, “*Youkoso (Welcome)*”, which provides information on life and support in Yamagata

Prefecture and news on places from where people evacuated, and the operation of “*Tsunagaro* (Connect) NET,” a website compatible with cell phones, to prevent isolation and promote opportunities for exchange between wide-area evacuees in the prefecture.

■ Assignment of lifestyle and employment counselors to Yamagata Social Welfare Councils

Since January 2012, the Yamagata Social Welfare Council has assigned lifestyle and employment counselors to municipal social welfare councils that conduct monitoring activities and mobile counseling services, in order to prevent wide-area evacuees in the prefecture from becoming isolated. In addition to supporting evacuees with door-to-door counseling services and the organization of social events, the council is engaged in developing and strengthening support networks, such as training programs for counselors and liaison meetings with relevant organizations.

■ “Mental Health Care” cooperation project across three prefectures

Mental health care systems are in place for evacuees, with primary responses provided by counselors who listen to the everyday concerns of evacuees and connect them with physicians, clinical psychologists and other experts if they determine that a more specialized response is needed. As consultations from evacuees become more multifaceted the longer evacuations are drawn out, counselors are finding an increasing number of cases that they are at a loss in how to respond, requiring action to be taken to improve their skills in mental health care. With some evacuees also returning to Fukushima Prefecture with concerns, it was important to develop systems in which continuous support could be provided by taking advantage of the counseling services offered at places to where people evacuated. In this regard, Yamagata, Niigata and Fukushima prefectures have organized workshops on mental health care for lifestyle and employment support counselors under a collaborative project involving all three prefectures in order to improve their skills and promote opportunities for exchange between counselors in each prefecture. This project has helped improve the support skills of counselors involved in responding to difficult cases and promoted information sharing and collaboration between supporters at places from and to where people evacuated, both which have played a role in enhancing support systems for evacuees on mental health care.

■ Yamagata Evacuee Support Cooperative Network

The Yamagata Evacuee Support Cooperative Network was established in August 2013 with the involvement of administrative agencies, NPOs, volunteer groups and other support organizations, as a way to offer detailed responses to the needs of wide-area evacuees in the prefecture over the medium- to long-term. As of April 2020, the network includes the participation of 37 government agencies, including Yamagata Prefecture and local municipalities, Iwate, Miyagi and Fukushima prefectures, 26 NPOs and other organizations supporting evacuees, and 15 related organizations, such as social welfare councils. Efforts are being made to promote collaboration and enhance support, with the organization of training programs for supporters to help them handle individual issues, such as evacuee case

management training workshops, and “Future Livelihood Support Get-Togethers,” where wide-area evacuees can individually consult on issues, such as returning home, relocating and mental and physical health.

Sources (Listed in other case studies, etc.)

- ・ 山形県「2011年3月11日に発生した東日本大震災の記録～その時、山形県はいかに対応したか～」(2015年9月)
https://www.pref.yamagata.jp/ou/bosai/020072/h23_3_11_daishinsai_kiroku.html
- ・ 復興庁「被災者の孤立防止と心のケアに関する取組事例」被災者の孤立防止と心のケアに関する関係省庁連絡会議(第4回)参考資料(2013年2月)
https://www.reconstruction.go.jp/topics/2521_4.html
- ・ 山形市「避難者交流支援センター」
<https://www.city.yamagata-yamagata.lg.jp/shimin/sub9/saigaitaiou/2f8a4hinanshashiencenter.html>
- ・ 米沢市「避難者支援センターおいで」
<http://yonezawanet.jp/oide/>
- ・ 山形県「やまがた避難者支援協働ネットワークについて」
<https://www.pref.yamagata.jp/020072/bosai/kochibou/bousaijouhou/shienjosei/network/about.html>

Systems and mechanisms applied:

- ・ Local Community Reconstruction Support Project
- ・ General subsidy for support for affected people

Project cost:

3-1 Support for Disaster Victims (Maintaining connections between wide-area evacuees and disaster-affected areas (initiatives by local authorities from where they evacuated))

Case study	“ <i>Namie-no-Kokoro Tsushin</i> (The Heart of Namie)” sharing the thoughts of evacuees and living conditions
Location	Namie Town, Fukushima Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase (from July 2011)
Members	Namie Town, Tohoku Community Consortium, other

Activity overview:

Namie Town, Fukushima Prefecture continuously published “*Namie-no-Kokoro Tsushin* (The Heart of Namie)” together with private groups. The publication was based on interviews with town residents living as evacuees in different locations across the country and provided a means to share information about the evacuees’ living situations and thoughts on recovery with other people affected by the disaster, local authorities and support organizations, in order to help them rebuild their lives.

Activity details:

■ Publication of “*Namie-no-Kokoro Tsushin* (The Heart of Namie)”

The *Namie-no-Kokoro* Project was launched as a way to share the thoughts of the residents of Namie Town, who have evacuated and moved to far-flung locations both in and outside Fukushima Prefecture, on rebuilding their lives and reconstruction efforts, as well as their current living conditions. “*Namie-no-Kokoro Tsushin*” started to be published in July 2011. The *Namie-no-Kokoro* Project concluded an agreement with Namie Town, and the “*Namie-no-Kokoro Tsushin*” newsletter was bound in the town’s PR magazine, “PR Namie.”

“*Namie-no-Kokoro Tsushin*” is published by the Tohoku Community Consortium in cooperation with NPOs and universities around Japan. It is based on interviews and edited reports on the living conditions and thoughts of residents who have evacuated to various locations. In this newsletter, residents can share information on who has evacuated, where they are living, how they spend their lives, and their thoughts on reconstruction efforts in the town.

The newsletter continues to be published today, functioning as an important medium for maintaining connections between people in the town, as well as between the residents and the town itself, even with prolonged evacuation periods. It has also been used by the people of the town to gain a clear view of how they can rebuild their lives and for the town in creating support and reconstruction projects. The newsletter also serves as a valuable record of shifts in the individual lives and perceptions of the town’s residents over the years, including how they have set themselves up in evacuation destination points, concerns about rebuilding their lives, and uncertainty over returning home.



“*Namie-no-Kokoro Tsushin*: Record of three years since the earthquake and tsunami disaster”

* Three years of newsletters about the disaster published in one volume

Sources (Listed in other case studies, etc.)

- ・ 浪江町「広報なみえ 浪江のこころ通信」
<https://www.town.namie.fukushima.jp/site/kouhou/kokoro-tsushin.html>
- ・ 一般社団法人東北圏地域づくりコンソーシアム「近年の業務実績」(2012-2018年)
<http://tohokuconso.org/product.html>

Systems and mechanisms applied:

- ・ Reconstruction Agency, Community Hope Revival Support Project (Project on Return & Accelerated Rehabilitation of Nuclear Disaster Evacuation Zones in Fukushima)
- ・ FY 2018 Subsidy program to support earthquake disaster reconstruction projects taking advantage of the cohesive ties of NPOs and other organizations in Miyagi Prefecture

Project cost:

3-2 Support for Disaster Victims (Maintaining connections between wide-area evacuees and disaster-affected areas (initiatives by local authorities from where they evacuated))

Case study	Establishment of 26 livelihood reconstruction support centers around Japan for wide-area evacuees
Location	Japan (nationwide)
Phases	Emergency response phase Recovery phase Early reconstruction phase <u>Late reconstruction phase</u> (from 2016)
Members	Fukushima Prefecture, Fukushima Cooperative Reconstruction Center, all NPOs in Japan, other

Activity overview:

Fukushima Prefecture has set up 26 livelihood reconstruction support centers around Japan to provide a familiar space for people who have evacuated to other prefectures to consult with specialists on returning to their hometowns and rebuilding their lives, as well as to provide information about support measures. Consultation services have also been set up in Fukushima City in cooperation with local authorities and related organizations to provide support to evacuees both within and outside the prefecture and assist them in resolving the challenges they face.

Activity details:

■ Establishment of 26 livelihood reconstruction support centers around Japan (Fukushima Prefecture)

Twenty-six livelihood reconstruction support centers have been established by Fukushima Prefecture around the country, which allow evacuees to make use of consultation services and obtain information necessary to make decisions on returning to their hometowns and rebuilding their lives. The operation of these centers is funded through the Reconstruction Agency's general subsidy for support for affected people. NPOs and other organizations in different areas are responsible for the operation of these centers.

26 locations nationwide: Hokkaido, Akita (Aomori, Iwate), Yamagata, Miyagi, Niigata, Ibaraki, Chiba, Tokyo, Kanagawa, Tochigi, Saitama, Gunma, Yamanashi (Nagano), Shizuoka, Ishikawa (Toyama, Fukui), Gifu (Mie), Aichi, Kyoto (Shiga), Osaka (Hyogo, Nara, Wakayama), Okayama, Tottori, Hiroshima (Shimane, Yamaguchi), Ehime (Kagawa, Tokushima, Kochi), Fukuoka (Saga, Nagasaki, Kumamoto), Miyazaki (Oita, Kagoshima), Okinawa

* Prefectures in parentheses are under the responsibility of the prefecture where the base is located.

○ Examples of support activities for evacuees at livelihood reconstruction support centers

(1) Association to Connect Great East Japan Evacuees in Yamanashi Prefecture and Supporters ("Musubukai")

Established by private organizations and Yamanashi Prefecture, the Association to Connect Great East Japan Evacuees in Yamanashi Prefecture and Supporters ("Musubukai") trains personal supporters who offer individualized and ongoing assistance to evacuees in the

prefecture, as well as livelihood consultation services and employment support to evacuees, in collaboration with several support groups and local authorities.

(2) NPO Medical Network Support Center

The Medical Network Support Center in Tokyo provides support as a neutral intermediary between evacuees, the national government and local authorities. Individual consultation services are offered by local authority staff and specialists in places from and to where people evacuated at social events for wide-area evacuees, which also serve as a way to build connections between people. The center also supports club activities by evacuees, such as flower arranging, gardening and painting classes, in a move to support wide-area evacuees in their search for a purpose and things worth doing in life through programs by the national and prefectural governments.

■ “toiro” Consultation Center Connected to Fukushima Today (Fukushima Cooperative Reconstruction Center)

The “toiro” Consultation Center Connected to Fukushima Today” (in the Fukushima Cooperative Reconstruction Center) for evacuees in and outside Fukushima Prefecture has been set up in Fukushima City to provide support to evacuees in resolving the various issues they face.

The content of consultations ranges from procedures to handle homes in places from where people evacuated, introductions to people who can inform them about the current situation in Fukushima Prefecture, support services at places to where people evacuated, conversations with people who have returned to Fukushima after evacuating outside of the prefecture, and concerns about housing and work upon returning.

○Dispatch of staff capable of speaking about current Fukushima

The “toiro” consultation center implements a program to dispatch staff to meetings with wide-area evacuees to provide them with information on the current situation in Fukushima. Staff are generally dispatched to provide advice on housing, employment, community building, schools, health, support for returning to hometowns, and other areas. Staff is selected by toiro in line with a client’s requests. toiro covers transport, accommodation and other costs involved in dispatching staff.

For example, educational organizations in Fukushima Prefecture took part in and talked about the situation on entrance exams and higher education in the prefecture at social events outside of the prefecture. This event was for the parents and guardians of junior and senior high school students who are considering returning to the prefecture when their children move up to a different level in school. People who have already returned to Fukushima Prefecture also took part in social events at places to where people evacuated and provided information to evacuees that may be of reference to them for their return, such as information about living conditions.

Sources (Listed in other case studies, etc.)

- 一般社団法人ふくしま連携復興センター「ふくしまの今とつながる相談室 toiro」
<https://f-renpuku.org/toiro/>
- 復興庁「全国 26 カ所の生活再建支援拠点」
<https://www.reconstruction.go.jp/topics/main-cat4/sub-cat4-2/2017/20170614175512.html>
- 復興庁「福島県からの避難者への支援に向けた生活再建支援拠点との連携について」
(2017年7月)
https://www.reconstruction.go.jp/topics/main-cat2/jishu/material/20180713_siryu12.pdf
- 東日本大震災・山梨県内避難者と支援者を結ぶ会
<http://www.ycca.jp/musubukai/>
- 特定非営利活動法人/厚生労働省認定 認定個人情報保護団体 医療ネットワーク支援センター
「東日本大震災 復興支援プロジェクト healthaid (ヘルセイド) プロジェクト」
http://www.medical-bank.org/healthaid_index.php

Systems and mechanisms applied:

- General subsidy for support for affected people

Project cost:

4-1 Support for Disaster Victims (Rebuilding the livelihoods of disaster victims)

Case study	Program for Reconstructing the Livelihoods of Disaster Victims: Support for rebuilding people's livelihoods through disaster case management
Location	Sendai City, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase (April 2014 onward)
Members	Core member: Sendai City (Office for Promotion of Livelihood Reconstruction, Post-Disaster Reconstruction Bureau) Organizations: Personal Support Center, Sendai City Social Welfare Council, other

Activity overview:

Sendai City formulated the Program for Reconstructing the Livelihoods of Disaster Victims to provide tailored support that would completely coordinate support systems for reconstructing the livelihoods of disaster victims in the event of a disaster and social security systems in periods of peace, depending on the support required by affected households to rebuild their livelihoods. Government agencies and private organizations regularly engaged in providing livelihood support shared roles and responsibilities and collaborated together to create effective and flexible accompanied support schemes.

Activity details:

■ Support for rebuilding the lives of disaster victims (tenants in temporary housing) in Sendai City

Sendai City formulated the Program for Reconstructing the Livelihoods of Disaster Victims in March 2014, three years after the earthquake. With this program, Sendai City decided to systematically arrange livelihood reconstruction support programs that had been implemented separately in the past and combine different services in order to respond to the needs of households in emergency temporary housing that required support.

Based on data acquired in surveys conducted through individual visits to disaster victims on livelihood reconstruction and progress of support, households affected by the disaster are placed into different categories: "households able to rebuild their livelihoods," "households requiring assistance in daily life," "households requiring assistance to rebuild their homes," and "households requiring assistance in daily life and to rebuild their homes." A menu of support is provided for each category. Individualized support plans are formulated for "households requiring assistance to rebuild their homes" and those "requiring assistance in daily life and to rebuild their homes," both priority targets for support, with each organization involved in programs sharing roles and responsibilities to comprehensively provide these households with assistance based on support targets.

Sendai City's fundamental view of providing "detailed and personalized support for individual situations" and "support that emphasizes connections between people" has resulted in a menu of highly effective and flexible support created by combining the knowledge and know-how of the Sendai City Social Welfare Council, Personal Support Center, and other organizations and government agencies engaged in providing livelihood assistance in daily life.

Revised in March 2015, the Accelerated Program for Reconstructing the Livelihoods of Disaster Victims includes the addition of legal counseling support and assistance for tenants in private rental housing, as well as earlier programs offering consultation services on rebuilding housing, support for moving into public housing and employment, and assistance through community healthcare and welfare services. Issues facing “households residing in temporary housing within the city that cannot be contacted” and “households in the city affected by the disaster and living in temporary housing outside the city” were also added to the program so that support services could be expanded and strengthened.

■Expansion of the disaster case management system to other regions and application to other types of disasters

“Disaster case management” is attracting attention as an extremely effective support scheme linking social security systems in periods of peace with livelihood reconstruction support systems for victims in a disaster.

Other cities have also adopted this system, including Natori City in Miyagi Prefecture, and Ofunato City and Kitakami City in Iwate Prefecture, in addition to Sendai City. Since the Great East Japan Earthquake, disaster case management has been used by local authorities affected by disasters in different areas to provide assistance for livelihood reconstruction, such as in the Kumamoto Earthquake and the Heavy Rain Event of July 2018.

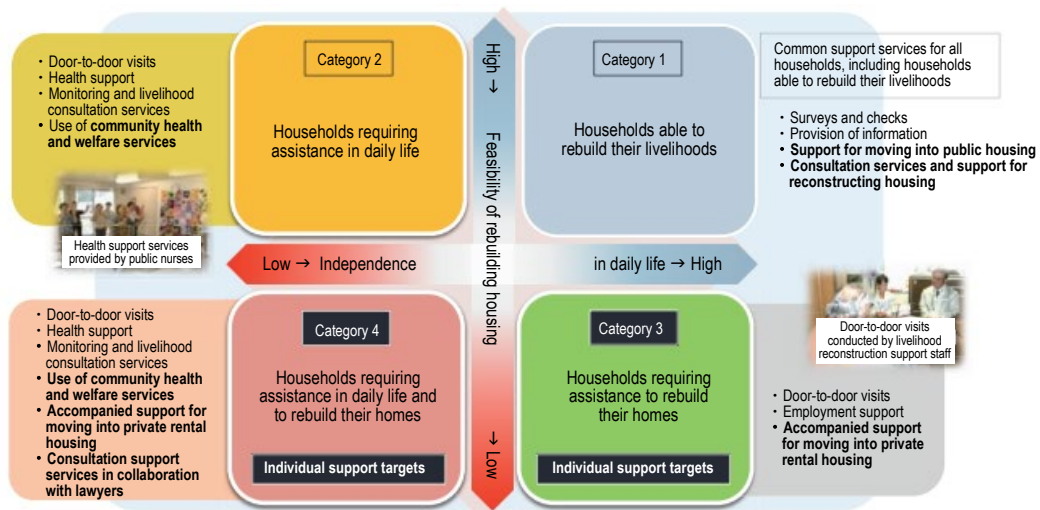


Figure: Support by Accelerated Program for Reconstructing the Livelihoods (Support for households in temporary housing by categorization)
 (Source: Sendai City Accelerated Program for Reconstructing the Livelihoods of Disaster Victims)

Sources (Listed in other case studies, etc.)

- 公益財団法人ひょうご震災記念 21 世紀研究機構 「事例に学ぶ生活復興」 (2018 年 3 月) p41-42
<https://www.reconstruction.go.jp/topics/m18/04/20180409160607.html>
- 仙台市 「東日本大震災 仙台市復興五年記録誌」 (2017 年 3 月) p131-142

<https://www.city.sendai.jp/shinsaifukko/shise/daishinsai/fukko/5nenkiroku.html>

- ・ 仙台市「仙台市被災者生活再建加速プログラム」（2015年3月）

<http://www.city.sendai.jp/kenko-jigyosuishin/shise/daishinsai/fukko/sekatsu/index.html>

- ・ 復興庁「復興推進委員会 資料3 一般社団法人パーソナルサポートセンター理事 菅野拓「被災者の生活再建支援-平時の社会保障と連動させる-」（2019年1月）

<https://www.reconstruction.go.jp/topics/main-cat7/sub-cat7-2/20190121105401.html>

- ・ 菅野拓「借上げ仮設を主体とした仮設住宅供与および災害ケースマネジメントの意義と論点—東日本大震災の研究成果を応用した熊本市におけるアクションリサーチを中心に—」地域安全学会論文集 No.31, (2017年) p178-186

https://www.jstage.jst.go.jp/article/jisss/31/0/31_177/_article/-char/ja/

Systems and mechanisms applied:

- ・ Livelihood reconstruction support system for disaster victims
- ・ Public assistance system for households in financial need
- ・ Nursing care insurance system
- ・ Measures related to community healthcare, other

Project cost:

5-1 Support for Disaster Victims (Emergency shelter management and community building)

Case study	“Kirarin Kids” Gathering Space for Mammies & Kids: Childcare support at evacuation centers	
Location	Rikuzentakata City, Iwate Prefecture	
Phases	<u>Emergency response phase</u>	<u>Recovery phase</u>
	Early reconstruction phase Late reconstruction phase (From April 14, 2011)	
Members	“Kirarin Kids” Gathering Space for Mammies & Kids (current “Kirarin Kids,” specified non-profit corporation)	

Activity overview:

“Kirarin Kids” Gathering Space for Mammies & Kids, a childcare support facility, opened in July 2010 in a section of the shopping arcade on the street in front of the station in Rikuzentakata City, but its facilities were swept away by the tsunami during the Great East Japan Earthquake, and the staff themselves were also affected by the disaster. Activities resumed a month after the earthquake at an evacuation center located in a junior high school, creating a space for parents and their children, so that parents raising their kids would not feel isolated while living with so many other people in the shelters.

Since then, the facility has continued activities to support parents/guardians raising children in the local community, in addition to also providing support through a diversified structure that also includes courses to improve knowledge on raising children, support for fathers, and seasonal events. The facility was certified by Rikuzentakata City as a community childcare support center.

Activity details:

■ Reopening of Kirarin Kids at evacuation center

Opening on July 26, 2010, “Kirarin Kids” lost its facilities and all of its staff were affected by the Great East Japan Earthquake about eight months later. Living each day with a great sense of loss and anxiety, the woman who is the representative of the group felt a strong need of parents with infants and young children, and reopened the space by borrowing an aisle in the library of the Rikuzentakata Daiichi Junior High School, which housed approximately 1,200 evacuees. Parents exchanged information in this space where children could play safely, and relief supplies were distributed, such as baby formula and diapers.

■ Certification as a community childcare support center and passing on experiences

The space was moved to a temporary location in a rented shop in Takata Town in Rikuzentakata City in August 2011. In June 2012, “Kirarin Kids” was relocated to continue activities when construction was completed on the temporary shops at the Takataosumi Tsudoi-no-Oka Shotengai shopping arcade. “Kirarin Kids” was certified as a specified non-profit corporation and community childcare support center in December 2013, responsible for providing childcare support services to families raising children in the community. The facility offers a space for parents and children to meet and promotes exchange activities, in addition to counseling, support services and courses related to childcare.

After relocating to Takinosato, Takekoma Town in Rikuzentakata City in 2019, “Kirarin Kids” has

continued to implement activities at the Rikuzentakata Amway House – Machi no Engawa, a community complex of four offices, since January 2020, nine years after the earthquake.

The facility organized a disaster management and prevention course in April 2019 in order to pass on their experiences from the Great East Japan Earthquake and help the public become more familiar with disaster prevention. Following this, the center published the “Kirarin Disaster Management and Prevention Handbook,” a compilation of useful knowledge about evacuation lifestyles, in May 2020. As disasters become more frequent in different areas, the facility is continuing to communicate the lessons learned from the earthquake and educate families raising children to be prepared every day.

Sources (Listed in other case studies, etc.)

- ・ 内閣府「平成 27 年版 少子化社会対策白書 第 2 部 少子化社会対策の具体的実施状況」(2015 年)
https://www8.cao.go.jp/shoushi/shoushika/whitepaper/measures/w-2015/27webhonpen/html/b2_s2-2-2.html
- ・ NPO 法人子育てひろば全国連絡協議会「平成 24 年度子育てひろば全国連絡協議会公開セミナー」
 (2012 年)
<https://kosodatehiroba.com/48-12seminar.html>
- ・ 岩手県「NPO 法人 団体概要 岩手県子育て支援拠点事業：きらりんきつず」
<http://www2.pref.iwate.jp/~hp0301/npo-info/ninsho/dantaigaiyou/520.html>
- ・ 特定非営利活動法人きらりんきつず「令和元年度事業報告書」
<http://kirarinkids.jp/images/h31gh.pdf>

Systems and mechanisms applied:

Project cost:

7-1 Support for Disaster Victims (Building communities in emergency temporary housing)

Case study	Fukkou Minasan-kai (All-Reconstruction Association): Community-led revitalization initiative
Location	Minamisanriku Town, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Fukkou Minasan-kai (All-Reconstruction Association), Tohoku Community Consortium
<p>Activity overview:</p> <p>Fukkou Minasan-kai was established in Minamisanriku Town, Miyagi Prefecture in October 2011 by local volunteers. The association is engaged in activities to rebuild communities in emergency temporary housing and disaster public housing under the belief that rebuilding communities that have supported local lifestyles forms the cornerstone to the town's reconstruction.</p>	
<p>Activity details:</p> <p>■Establishment of Fukkou Minasan-kai (All-Reconstruction Association)</p> <p>A number of residents in Minamisanriku Town, Miyagi Prefecture found themselves forced to evacuate numerous times and take up residence in emergency temporary housing for prolonged periods, severely damaging the personal connections supporting the livelihood of the local community.</p> <p>Fukkou Minasan-kai was established in light of this situation in October 2011 by local volunteers on the belief that rebuilding ties between residents and reviving the community would become the cornerstone for the town's recovery from the disaster. The association was certified as a general incorporated association in May 2014 and is continuing to work on revitalizing the local community.</p> <p>The Tohoku Community Consortium provides logistical support for Fukkou Minasan-kai's activities through the organization of training programs and interactive events in the community, on-the-job training, disseminating information and coordinating a variety of activities.</p> <p>■Building communities in emergency temporary housing and other locations</p> <p>Establishing residents' associations in emergency temporary housing proved to be difficult because no one knew who lived where. Members of Fukkou Minasan-kai went door-to-door visiting tenants, creating and distributing "housing maps" listing households that had given their permission to providing information on the name of the head of household and their former village or district of residence. As residents' associations started to emerge in emergency temporary housing, Fukkou Minasan-kai also worked together with these associations to organize tea parties, planting activities and "Reconstruction Terakoya" events to find out about the latest information on reconstruction efforts and other activities, which encouraged interaction and community building between residents.</p> <p>The Camellia Blooming City Development Tea Party Group started in fiscal 2012 as a place for women and senior citizens, who felt it was difficult to take part in discussions on reconstruction, to gather and talk freely. On occasion, the group provided information on reconstruction city development in a</p>	

workshop format designed to listen to feedback and ideas from residents. This group offered an opportunity for residents from a wide range of positions and generations to be involved in reconstruction city development.

A Camilla Evacuation Route Creation Program was also initiated in the same year, where camellias were planted along tsunami evacuation routes, serving as markers for evacuation. Planting and caring for the camellia seedlings led to a variety of activities, including social events where participants enjoy cooking with camellia oil extracted from the seeds, as well as a Camellia Cherry Blossom Viewing Bus Tour, an event that offers town residents who have evacuated to distant locations an opportunity to see the town's reconstruction.



March 1, 2012 “Reconstruction Terakoya” on lessons from Kobe’s reconstruction
(Photo by Fukkou Minasan-kai)

■ Building communities in disaster public housing

Decisions on tenants planning on moving into disaster public housing started to be made at the beginning of 2014. The local authority, Social Welfare Council and consultants involved in the reconstruction process worked together to organize lifestyle meetings for residents planning to move so they could meet one another in advance (18 months before, one year before, and six months before moving in), and provided support for establishing residents’ associations and building local communities in disaster public housing.

For example, few of the residents in the Iriya reconstruction housing complex (disaster public housing) were from the area and were unfamiliar with their surroundings, so a “Useful Map to Iriya” was created that included a compilation of information on the local area around the complex, such as shops, facilities and other areas of interest. Residents who lived in the area around the reconstruction housing complex also helped in creating these maps, offering opportunities not only for residents to interact with each other, but for tenants to also interact with residents in the surrounding neighborhood.

In response to residents with no prior experience in relocating voicing their concerns about moving into disaster public housing, Fukkou Minasan-kai also organized a wide variety of activities, such as planning exchange meetings to listen to the experiences of people who had already moved into disaster

public housing and learn the ropes of relocating, in addition to exchange meetings and outreach activities (mobile social gatherings) to help residents keep in touch after moving into disaster public housing.

■Management and operation of the Minamisanriku Town Earthquake Disaster Memorial Park with the participation of people from the town

In 2019, workshops were held together with other residents' groups, such as the City Development Council, to share information on what town residents could do and put into practice using the memorial park as a field, in order to consider ways to manage and operate the Minamisanriku Town Earthquake Disaster Memorial Park together with residents.

After the park fully opened in October 2020, an event was organized as part of the Camellia Evacuation Route Creation Program with town residents to plant camellia trees in a section of the park, creating opportunities for a wide range of local residents to become involved.

Sources (Listed in other case studies, etc.)

- ・ 一般社団法人復興みなさん会「復興みなさん会 コミュニティ支援のあゆみ」(2018年3月)
<http://tohokuconso.org/common/minasan/about.html>
- ・ 2020.06 復興みなさん会 活動レポート
- ・ 一般社団法人復興みなさん会「これまでの活動実績」
<http://tohokuconso.org/common/minasan/flow.html>

Systems and mechanisms applied:

- ・ Assistance program by Miyagi Prefecture to support projects by NPOs and other organizations leading earthquake disaster reconstruction efforts (Miyagi Prefecture)
- ・ Miyagi Regional Reconstruction Grant (Miyagi Prefecture)
- ・ Orahono City Development Project Grants (Minamisanriku Town)
- ・ Toyota Foundation Domestic Grant Program (Special Subject Program: Great East Japan Earthquake)
- ・ The Osaka Community Foundation Grant
- ・ Japan Platform "Living Together" Fund Grant, other

Project cost:

7-2 Support for Disaster Victims (Building communities in emergency temporary housing)

Case study	Building communities for evacuees in locations outside town (residents in emergency temporary housing)
Location	Tomioka Town, Fukushima Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Tomioka Town
<p>Activity overview:</p> <p>Tomioka Town, Fukushima Prefecture enacted Guidelines for Registering Community Development Promotion Groups in Tomioka Town to support the formation of communities and continuation of activities by town residents who are leading lives as evacuees outside the town.</p>	
<p>Activity details:</p> <p>■Promoting community building by Tomioka Town</p> <p>With the designation of the town as a restricted area as a result of the accident at the Fukushima Daiichi Nuclear Power Station, the entire town of Tomioka in Fukushima Prefecture was forced to evacuate, leaving countless residents in emergency housing and presenting them with a major challenge in rebuilding their communities.</p> <p>On March 1, 2013, the town decided to establish Guidelines for Registering Community Development Promotion Groups in Tomioka Town to register groups organized by town residents with 30 or more households as Tomioka Town Community Development Organizations and provide information and financial support so that they can continue to carry out activities such as community building between disaster victims, networking, event planning and organization, liaising and coordinating with residents and government organizations.</p> <p>■Activities by Tomioka Town Community Development Organizations</p> <p>Tomioka Town Community Development Organizations include the Tomioka Town Residents' Association in Fukushima City and Northern Areas of Fukushima Prefecture, Sakura-kai Tomioka in Kashiwazaki (Niigata Prefecture), Koriyama Residents' Association, Iwaki District Wide-Area Residents' Association "Sakura-no-kai," Tomioka Town Residents' Association in Iwaki City "Sumire-kai," Shinonome Tomioka Association (Shinonome housing complex, Koto-ku, Tokyo) and others (as of March 2014). Social events were held in different locations where residents from Tomioka Town could gather to exchange information and enjoy recreational activities, which was instrumental in maintaining connections between residents and reviving community activities (seven organizations within the prefecture and two from outside the prefecture are registered as of October 2020).</p> <p>The Tomioka Town Residents' Association in Fukushima City and Northern Areas of Fukushima Prefecture was formed by volunteers in response to displaced town residents in Fukushima City and northern parts of Fukushima Prefecture, who expressed concern for the lack of construction-type</p>	

emergency housing and that they had fewer friends and acquaintances than in other parts of the prefecture. The residents' association included 72 households living in evacuation in this region. The residents' association is engaged in activities to prevent evacuees from being isolated and to revitalize communities, by requesting the town to set up an interactive salon in Fukushima City as a space for evacuees to exchange information and opening the Tomioka Town Sakura Salon.

Sources (Listed in other case studies, etc.)

- ・ 福島県富岡町「富岡町 東日本大震災・原子力災害の記憶と記録 2011.3.11－2014」(2015年3月)
https://www.tomioka-town.jp/chosei/koho_kocho/2115.html
- ・ 福島県富岡町「富岡町 東日本大震災・原子力災害の記憶と記録Ⅱ 2014.4.1－2018.3.31」(2019年3月)
<https://www.tomioka-town.jp/soshiki/kikaku/kochokoho/koho/2540.html>

Systems and mechanisms applied:

Project cost:

8-1 Support for Disaster Victims (Safeguarding tenants in emergency temporary housing)

Case study	Healthcare support for evacuees and assistance for disaster-affected municipalities in the Iwaki branch office of the Fukushima Soso Public Health and Welfare Office
Location	Iwaki City, Fukushima Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Iwaki branch office of the Fukushima Soso Public Health and Welfare Office

Activity overview:

A branch office of the prefectural Health and Welfare Office has been established by Fukushima Prefecture in Iwaki City to provide healthcare support to evacuees from municipalities affected by the disaster and support for healthcare services in affected municipalities. The branch office also coordinates activities between the prefecture, municipalities from and to where people have evacuated, and relevant support agencies that are engaged in providing assistance to evacuees.

Activity details:**■ Establishment of the Iwaki branch office of the Fukushima Soso Public Health and Welfare Office**

A large number of residents from the Soso region and other areas along Fukushima Prefecture's coastline evacuated to Iwaki City. As emergency temporary housing started to be constructed in towns and villages in the Futaba district and evacuees began the process of moving in to rental-type emergency housing, the number of evacuees increased rapidly from approximately 14,000 in July 2011 to 18,000 in November and then to 22,000 in December. The Fukushima Soso Public Health and Welfare Office opened the Iwaki branch office in Iwaki City in June 2016 in response to the distribution and relocation of government office functions within their jurisdiction in Minamisoma City, Hirono Town, Naraha Town, Tomioka Town, Kawauchi Village, Okuma Town, Futaba Town, Namie Town, Katsurao Village and other municipalities, and the evacuation of residents in the area to Iwaki City. Nursing staff, registered dietitians and other professionals hired temporarily are posted at the branch office to provide healthcare support to evacuees and operational support to municipalities in the disaster affected areas, in addition to public health nurses and clerical staff from the prefecture.

■ Structure for health and welfare administrative affairs in Iwaki City

Health and welfare administrative affairs for evacuees are divided into five categories: (1) services provided by municipalities from where people evacuated, (2) services provided by Iwaki City under the Act on Special Measures for Evacuees from the Nuclear Accident, (3) work performed by the Iwaki branch office to support municipalities, (4) work performed by prefectural departments and the Soso Public Health and Welfare Office to support municipalities, and (5) other work performed by public health and welfare offices as part of their original duties. This structure has been set up to perform health check-ups for infants, vaccinations, and provide long-term care insurance services, with each organization sharing and collaborating, depending on the actual conditions in affected municipalities.

■Examples of activities performed by the Iwaki branch office

1) Door-to-door visits to emergency temporary housing and other facilities

Health surveys and ongoing support for evacuees through door-to-door visits to construction-type emergency housing, rental-type emergency housing, post-disaster public housing and individual homes at the request of municipalities from where they evacuated.

2) Support at exchange salons and health classes organized by municipalities, other

Dispatch of specialists to exchange salons and health classes for evacuees to provide health counseling services, physical exercises, and lectures.

3) Implementation of and cooperation with maternal and child healthcare services

- Dispatch of public health nurses to healthcare check-ups for infants and toddlers at places to where people evacuated in order to provide an appropriate level of support for infants and toddlers.
- Organization of play classes and health counseling services for infants and toddlers with developmental delays or suspected developmental delays as follow-up to infant and toddler health check-ups in cooperation with municipalities from where they evacuated.

4) Cooperation with healthcare services in municipalities from where people evacuated

- Dispatch of public health nurses and registered dietitians to general health check-ups and explanations on the results of check-ups organized by municipalities from where people evacuated.
- Provision of detailed health guidance at the request of municipalities from where people evacuated.

5) Assistance for livelihood support counselors and other supporters

Provision of counseling services on problems and concerns through group meetings, advice on monitoring and consultation services, and training courses on self-care and suicide prevention for livelihood support counselors and social workers involved in providing support to disaster victims themselves in cooperation with the Kokoro-no-Care Center.

6) Collaboration and coordination with municipalities

Organization of meetings related to collaboration and coordination with municipalities from and to where people evacuated, support-related organizations such as Kokoro-no-Care Center, and prefectural government offices, in order to provide effective healthcare support activities for evacuees.

Sources (Listed in other case studies, etc.)

- 福島県保健福祉部健康増進課「東日本大震災後の保健活動と被災市町村への支援について 厚生労働省平成 30 年度保健師中央会議資料」(2018 年 7 月)
https://www.mhlw.go.jp/stf/shingi2/0000174319_00002.html

- ・ 福島県相双保健福祉事務所「東日本大震災における活動の記録誌」（2014年3月）
<https://www.pref.fukushima.lg.jp/sec/21160a/2603kirokushi.html>

Systems and mechanisms applied:

Project cost:

9-1 Support for Disaster Victims (Creating purpose in life and reviving local culture)

Case study	Hamarassen Farm Project: Creating a sense of purpose in life and preventing disuse syndrome
Location	Rikuzentakata City, Iwate Prefecture
Phases	Emergency response phase <u>Recovery phase</u> <u>Early reconstruction phase</u> <u>Late reconstruction phase</u> (From end of May 2012)
Members	Iwate Prefectural Takata Hospital, Public Health Section and Community Welfare Section, Citizens Affairs Department, Rikuzentakata City

Activity overview:

The Hamarassen Farm Project was launched in May 2012 in Rikuzentakata City, Iwate Prefecture at the initiative of a physician at the prefectural hospital, with residents sharing responsibilities for familiar farming activities on farms set up on fallow land near emergency temporary housing.

Opportunities to interact with residents at other emergency temporary housing complexes were formed through activities on caring for flowers and vegetables, harvesting and selling crops, which created healthy lifestyles and a sense of purpose in life for senior citizens. This initiative was included in the city's project to create a sense of purpose in life for older people in October 2014, with activities also extended to disaster public housing.

Activity details:

■Mental and physical care of tenants in emergency temporary housing through agricultural work

Concerned about the deteriorating physical and mental health of older people and others resulting from extended periods of time living in evacuation in emergency temporary housing, Dr. Sho Takahashi from Iwate Prefectural Takata Hospital came up with an idea for a project that could utilize farming, a familiar area for the community (Hamarassen Farm Project), submitting his plan to the hospital, which signaled a start to this initiative.

■Opening of Hamarassen Farms

Following negotiations between Iwate Prefectural Takata Hospital and a landowner in May 2012 to lease plots of fallow land for free near emergency temporary housing sites, farms were established by residents who participated through residents' association chairs at emergency temporary housing sites. Hamarassen Farms ("Hamarassen" means "come in") opened in 2013 at 11 emergency temporary housing sites. One leader was in charge of each farm, chosen from among the residents, and decisions were made on the flowers and vegetables that the residents would grow themselves, with responsibilities for caring and harvesting shared among the members.

Farming has created opportunities for interaction between different generations, and exchange between residents in emergency temporary housing have been generated through participation in events in Tokyo where harvested crops are sold, which has increased motivation and a sense of satisfaction in residents participating in this project. With a grant from Rikuzentakata City in fiscal 2013, tablets were loaned out to each of the emergency temporary housing sites, allowing residents to send information on

farming harvesting conditions and activities in emergency temporary housing complexes, which has promoted even more opportunities for interaction with residents in other areas.

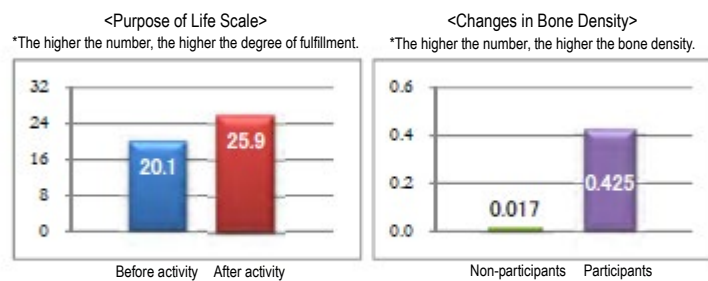
The hospital provided neither seedlings nor farming equipment to residents. A total of 100 residents took part in growing vegetables and flowers (average age: 70 years old, male to female ratio: 1:8). At the start of the project, women made up the majority of participants, but men were encouraged to join at the invitation of their spouses or asked to do heavy lifting.

■Continue to motivate residents to join: “Offer support, but don’t interfere. Watch over them.”

Dr. Takahashi, who came up with the original idea, raised the participants’ motivation by continuing to talk with and watch over them, and by creating chances for them to be interviewed in newspapers and on television to speak about their activities and sell the crops they grew on their own.

■Contributions to creating a sense of purpose in life

Studies by Dr. Takahashi showed that the values on a scale measuring the sense of a life worth living increased through this initiative and improved people’s sense of fulfilment and motivation, which has contributed to creating a sense of purpose. Participants’ bone density also improved in less than six months, which has helped them maintain health. Those who took part in this initiative commented on how they are now “able to walk through the fields without having to take breaks” and that they found ways to “expand interaction with others through field work.”



Significant changes in participants seen in data
 *Study by Dr. Hiroshi Takahashi, presented at the 9th Congress of European Union Geriatric Medicine Society

■Transition from “farms for disaster victims” to “community farms”

The Hamarassen Farm Project was included in Rikuzentakata City’s project to create a sense of purpose in life for older people in October 2014 as the “Hamarassen Club.” This project is also expanding activities in collaboration with the city’s integrated community care system. Participation by men has also increased slightly, with a male to female ratio of 2:8 as of June 2018. Activities by the Hamarassen Club are also being carried out at disaster public housings and are instrumental in creating healthy lifestyles and a sense of purpose in disaster-affected areas. With a view to resolving issues in the aging society in Iwate Prefecture, the project’s long-term vision for the future is to transition from “farms for disaster victims” to “community farms.”

Sources (Listed in other case studies, etc.)

- ・ 復興庁男女共同参画班「男女共同参画の視点からの復興～参考事例集 第5版、第15版」(2014年2月、2018年7月)
<https://www.reconstruction.go.jp/topics/main-cat1/sub-cat1-16/20130626164021.html>

Systems and mechanisms applied:

Project cost:

9-2 Support for Disaster Victims (Creating purpose in life and reviving local culture)

Case study	Nijiuro (Rainbow) Palette and Mental Recovery Project
Location	Fukushima Prefecture, Iwate Prefecture, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	NPO Supporting Organization for Artists of Tohoku (SOAT), other
<p>Activity overview:</p> <p>The NPO Supporting Organization for Artists of Tohoku (SOAT) organizes art workshops in cooperation with children's support groups in each of the three Tohoku prefectures where children affected by the disaster and disaster victims can have fun and create. SOAT is engaged in activities to raise people's aspirations, create a sense of purpose, and offer emotional support.</p>	
<p>Activity details:</p> <p>■Building a sense of purpose and mental health care through creative activities for children</p> <p>With donations from companies, organizations and individuals, SOAT is engaged in activities to raise the aspirations of children from disaster-affected areas and help them create better works of art through creative activities, which is instrumental in building a sense of purpose and as a form of emotional support.</p> <p>In April 2011 after the disaster, the Nijiuro (Rainbow) Palette support activity was launched to deliver donated art supplies from all over the country to painters, painting classes and junior high schools in affected areas. Workshops were also held at six evacuation centers and meeting spots, primarily in Ishinomaki City, where children affected by the disaster could have fun while engaged in creative activities to help them find a sense of purpose and as a form of emotional support.</p> <p>This activity was adopted by the Reconstruction Agency's Mental Recovery Project in 2017. With general subsidy for support for affected people, art workshops were organized in six locations in the Tohoku region together with childcare support centers run by local authorities and NPOs. Artwork exhibitions and presentations were also held in Sendai (Sendai Mediatheque) and Tokyo (Tokyo Gakugei University).</p> <p>Themes focused on pieces of art created using parts from "sakiori" weaving (cloth woven partly from strips of old cloth), a traditional skill from the Tohoku region. A single work of art can be formed with some pieces of "sakiori" parts, and connecting more than one part can create a new, large and beautiful work of art. This project aimed to generate the effects of art therapy by encouraging children in the Tohoku region to put their hearts and souls into creating and presenting their work together.</p> <p>■Nijiuro (Rainbow) Palette in Ishinomaki, Kitakami Project (Kitakami Town)</p> <p>Kitakami Town in Ishinomaki City, Miyagi Prefecture suffered a major blow from the tsunami in the great East Japan Earthquake. Two years after the disaster, three primary schools were consolidated into one. Many of the children were bused to school and there was a significant drop in the number of safe</p>	

playing environments. Therefore, SOAT organized art workshops where elementary school students from Kitakami Town could engage in creative activities and have fun decorating with masking tape and clay.



Decorating with masking tape



Creating with clay



■Organization of workshops for disaster victims

In recent years, SOAT has organized workshops for making gifts in three locations in the three prefectures in the Tohoku region. In these workshops, senior citizens who tend to be homebound create gifts of artwork that are then used at local kindergartens and childcare support centers. Creating gifts helps people connect with others, builds a sense of purpose and offers emotional support.

■Support for the development of instructors

Since 2018, Instructor Training Courses have been organized to teach people how to conduct and create content for workshops, allowing NPO staff, social welfare council employees and other supporters and residents to perform activities as community leaders. These courses are offered in three steps: in step 1, participants learn how to organize workshops; in step 2, participants who have attended the course in step 1 become instructors and organize workshops for local residents; in step 3, supporters and residents who have become community leaders work with disaster victims in neighboring areas, training them to become leaders. This has resulted in the organization of independent and spontaneous workshops by supporters and residents.

■Creating opportunities for residents to take part in local industries

Since 2019, this project has aimed to help elderly victims of the nuclear accident in Fukushima Prefecture recovery mentally by creating things in the hope that they will be able to have fun and enjoy the experience, at least for a moment.

In recent years, wines made from Fukushima-grown grapes have garnered a great deal of attention, with companies offering guidance on the production of wine carriers and sales support. Companies provide a significant amount of support for materials.

Sources (Listed in other case studies, etc.)

- ・ 特定非営利活動法人法人東北の造形作家を支援する会ホームページ
<https://www.soat.jp/about/>

- ・ 特定非営利活動法人法人東北の造形作家を支援する会「平成 23 年度の事業報告書」(2012 年)
https://www.soat.jp/project/pdf/business_report_h23.pdf
- ・ 特定非営利活動法人法人東北の造形作家を支援する会「平成 29 年度の事業報告書」(2018 年)
https://www.soat.jp/project/pdf/business_report_h29.pdf
- ・ 特定非営利活動法人法人東北の造形作家を支援する会「平成 30 年度の決算報告書」(2019 年)
https://www.soat.jp/project/pdf/iaea_h30.pdf
- ・ 特定非営利活動法人法人東北の造形作家を支援する会「令和元年度の決算報告書」(2020 年)
https://www.soat.jp/project/pdf/iaea_r01.pdf
- ・ 特定非営利活動法人法人東北の造形作家を支援する会「平成 30 年度心の復興にじいろぱれっと」
<http://www.soat.jp/niji-ro-palette-kokoro-h30#about>
- ・ 特定非営利活動法人法人東北の造形作家を支援する会「にじいろぱれっと・いしのまき・きたかみ」
<https://www.soat.jp/niji-ro-palette>

Systems and mechanisms applied:

- ・ General subsidy for support for affected people: Mental Recovery project, Comprehensive project for supporting affected people (Reconstruction Agency)

Project cost:

- ・ FY 2017: JPY 9,291,720 (JPY 9,291,720 funded by the national government) *Ongoing

9-3 Support for Disaster Victims (Creating purpose in life and reviving local culture)

Case study	Project on Salvaging Cultural Properties and Other Materials from the Great East Japan Earthquake (Cultural Property Rescue Project) (1) Program to Revitalize Disaster-Affected Museums (2)
Location	Miyagi Prefecture, Iwate Prefecture, Ibaraki Prefecture, Fukushima Prefecture
Phases	<u>Emergency response phase</u> Recovery phase Early reconstruction phase Late reconstruction phase ((1) April 2011 to March 2013, (2) FY 2012 to present)
Members	Agency for Cultural Affairs (Fine Arts Division, Cultural Properties Department), Committee for Salvaging Cultural Properties Affected by the 2011 Earthquake off the Pacific Coast of Tohoku and Related Disasters (Secretariat: Tokyo National Research Institute for Cultural Properties, National Institutes for Cultural Heritage; National Institutes for Cultural Heritage; cultural property- and arts-related organizations in Japan; other), Foundation for Cultural Heritage and Art Research, other

Activity overview:

The Project on Salvaging Cultural Properties and Other Materials from the Great East Japan Earthquake (Cultural Property Rescue Project) is being conducted by the Agency for Cultural Affairs as a way to urgently preserve cultural properties and materials, primarily traditional artwork, artifacts and antiques damaged in disasters, to prevent them from being abandoned, scattered and ultimately lost or stolen, depending on the scale and nature of the disaster.

After the Great East Japan Earthquake, the Agency for Cultural Affairs requested the help of the National Institutes for Cultural Heritage and 13 other cultural property- and arts-related organizations in implementing the Cultural Property Rescue Project, in order to salvage the large quantities of cultural properties and other materials damaged by the earthquake and tsunami. A wide range of materials and other properties that spoke of the stories of local history and culture in Miyagi, Iwate, Ibaraki and Fukushima prefectures, such as works of art, natural history specimens, official documents and books, were salvaged and preserved through this project.

The Agency for Cultural Affairs aims to revive art and history museums with the establishment of the Program to Revitalize Disaster-Affected Museums in fiscal 2012, to assist in repairing museum materials damaged in disasters and their reorganization after repair.

Activity details:

■ Salvage and emergency measures for cultural property damaged in disasters (Cultural Property Rescue Project)

In this project, cultural properties requiring urgent conservation measures due to the earthquake and tsunami were salvaged. Once emergency measures had been implemented, these properties were temporarily stored in museums and other facilities equipped with conservation functions in the relevant or neighboring prefectures.

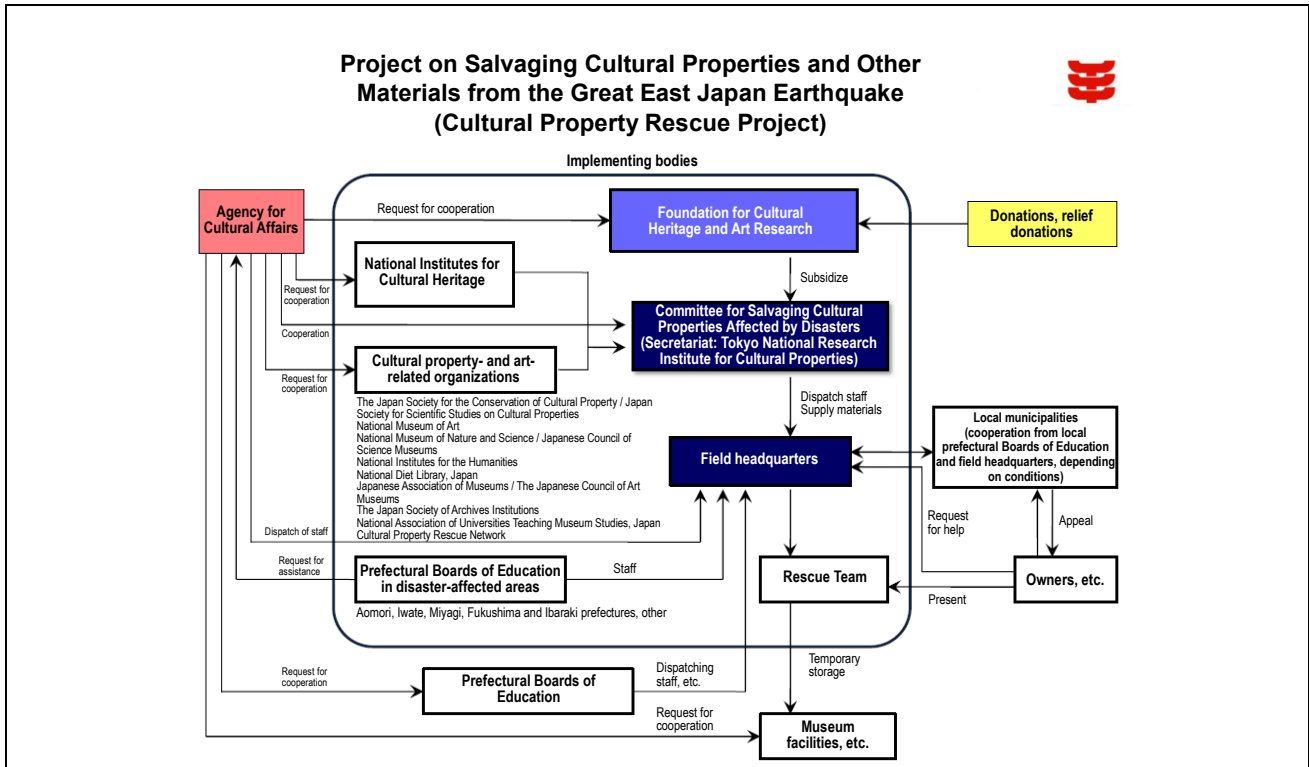
Cultural properties targeted under this project covered a wide range, including paintings, sculptures, crafts, calligraphic works, classical books, ancient documents, archeological artifacts, historical resources, tangible folk cultural properties and other movable cultural properties and fine arts, irrespective of designation by national or regional authorities, as well as natural history materials and other cultural properties that recount the stories of the local history and culture.

■Cooperation with cultural property- and arts-related organizations in Japan (Cultural Property Rescue Project)

The Agency for Cultural Affairs discussed the basic policy of the Cultural Property Rescue Project with prefectures affected by the disaster. The agency then submitted a request to the National Institutes for Cultural Heritage and cultural property- and arts-related organizations to establish a Committee for Salvaging Cultural Properties Affected by the 2011 Earthquake off the Pacific Coast of Tohoku and Related Disasters and implement this project (Secretariat: Tokyo National Research Institute for Cultural Properties, National Institutes for Cultural Heritage).

* The Secretariat for the Committee for Salvaging Cultural Properties Affected by Disasters was established at the Tokyo National Research Institute for Cultural Properties at the time of the Great Hanshin-Awaji Earthquake in 1995, which was then part of the Agency for Cultural Affairs. The Secretariat was also located in the same place after the Great East Japan Earthquake in 2011.

Rescue, emergency measures, and temporary storage of cultural properties damaged in the disaster were conducted from April 2011. After the implementation period was extended for one year due to the need to continue the work, the Cultural Property Rescue Project concluded at the end of fiscal 2012. Approximately JPY 300 million in donations were collected over two years, and the project was implemented in over 90 locations in Iwate, Miyagi, Fukushima and Ibaraki prefectures.



Schematic diagram of the Cultural Property Rescue Project

* Materials from Agency for Cultural Affairs

(https://www.bunka.go.jp/earthquake/rescue/pdf/bunkazai_rescue_jigyo_ver04.pdf)

■ Implementation of the Program to Revitalize Disaster-Affected Museums

Since fiscal 2012, the Agency for Cultural Affairs has provided assistance for the repair, organization and development of databases by local authorities in disaster-affected areas for damaged materials in the possession of museums and other facilities, as well as securing storage space through the Program to Revitalize Disaster-Affected Museums.

(Example of support)

- Tomioka Town Museum of History and Folklore (Fukushima Prefecture)

Conservation work was carried out on cultural properties for a period of 21 days between August and November 2012 and 24 days from May 2013 to January in the restricted areas of Futaba, Okuma and Tomioka. Teams comprising several to dozens of people carried out conservation work, including staff from the Committee for Salvaging Cultural Properties, town boards of education, prefectural cultural heritage sections, and prefectural museums, as well as officials from all over the country who responded to requests from the committee. The process ranged from confirming the location and selection of materials, measuring radiation levels, photography, data entry, filling in material cards and packaging. Mold was found in some of the materials due to leaks and exposure to outside air. These were fumigated and other measures were taken to stabilize them after removal.

Sources (Listed in other case studies, etc.)

- 文化財防災ネットワーク「文化財レスキューについて」
<https://ch-drm.nich.go.jp/link/rescue/>
- 文化庁「東北地方太平洋沖地震被災文化財等救援事業（文化財レスキュー事業）について」（2011年3月）
https://www.bunka.go.jp/earthquake/rescue/pdf/bunkazai_rescue_jigyo_ver04.pdf
- 東京文化財研究所「平成24年度活動報告書 I. 事業報告編 6、会計報告」（2015年6月）
https://www.tobunken.go.jp/japanese/rescue/report/report_h24/pdf/h24_1-1-6.pdf
- 内山大介「震災・原発被災と日常/非日常の博物館活動-福島県の被災文化財と『震災遺産』をめぐって」国立歴史民族博物館研究報告第214集（2019年3月）
<https://www.rekihaku.ac.jp/outline/publication/ronbun/ronbun9/pdf/214004.pdf>
- 文化庁「被災ミュージアム再興事業」
https://www.bunka.go.jp/seisaku/bijutsukan_hakubutsukan/shien/museum/

Systems and mechanisms applied:

- Cultural Property Rescue Project (FY 2011 to FY 2012)
- Program to Revitalize Disaster-Affected Museums (FY 2012 to present)

Project cost:

- Cultural Property Rescue Project: FY 2012, JPY 29 million (JPY 29 million funded by the national government)
- Program to Revitalize Disaster-Affected Museums: FY 2012, JPY 333 million~ (JPY 333 million~ funded by the national government)

10-1 Support for Disaster Victims (Support for tenants in disaster public housing)

Case study	Iwaki City Selection Criteria for Tenants in Disaster Public Housing
Location	Iwaki City, Fukushima Prefecture
Phases	Emergency response phase Recovery phase <u>Early reconstruction phase</u> <u>Late reconstruction phase</u>
Members	Iwaki City
<p>Activity overview:</p> <p>A review committee of academic experts and representatives from disaster public housing construction districts was set up in Iwaki City to examine selection criteria for tenants in disaster public housing.</p> <p>A system for allocating points was devised as part of the selection criteria so that detailed responses could be formulated to address the future revitalization of the area and individual circumstances of households, such as the formation of local communities and consideration of young households and those raising children.</p>	
<p>Activity details:</p> <p>■Availability of disaster public housing in Iwaki City</p> <p>Disaster public housing complexes were built in 16 locations in seven districts in Iwaki City, Fukushima, which offered a total of 1,513 housing units to disaster victims. According to the results of a questionnaire survey conducted earlier, officials expected that the number of applications would exceed the number of available units, when taking into account the number of applications from households that had not responded to the survey. In light of this, Iwaki City formulated selection criteria for tenants and accepted applications from applicants indicating their first through sixth choice. As the number of applications received was ultimately less than the number of available units, the application process for vacant units was reopened at a later date.</p> <p>■Establishment of the Iwaki City Review Committee on Selection Criteria for Tenants in Disaster Public Housing</p> <p>Iwaki City established the Iwaki City Review Committee on Selection Criteria for Tenants in Disaster Public Housing to formulate selection criteria for tenants and examine requests and issues from prospective tenants. The committee consisted of academic experts and representatives of disaster public housing construction areas.</p> <p>Recommendations developed after a total of four committee meetings between May and September 2013 were submitted to the city on September 18 of the same year. These recommendations on ideas for selection criteria for tenants in disaster public housing also took into consideration the formation of local communities, households wishing to return to local areas, young households and those raising children. The city developed the Iwaki City Selection Criteria for Tenants in Disaster Public Housing on September 20, 2013, on the basis of these recommendations.</p>	

■Iwaki City Selection Criteria for Tenants in Disaster Public Housing

The highest score (15 points) in the Iwaki City Selection Criteria for Tenants in Disaster Public Housing was allocated in “cases where affected households residing in the same area at the time of the earthquake expressed a desire to move into disaster public housing as a group” and in “cases where affected households residing in the same area since the earthquake expressed a desire to move into disaster public housing as a group”, on the basis of the idea that focus should be on the reconstruction of local areas and communities as the key to the formation of local communities. Similarly, highest scores were also allocated to “households returning to areas where they resided at the time of the earthquake” as a way to help people return to local areas. With emphasis put on generations responsible for the future of the local community, “households with children under 18” and “households where the combined age of the couple (including engaged couples) is 70 years or less” were also allocated higher scores (10 points). Points were also allocated according to the type of household, such as “elderly households”, “households with members who are disabled or require nursing care”, “number of household members”, and “households with more than one child”, so that each household’s situation could be considered in detail.

Households applying for space in disaster public housing could specify up to six choices for each housing complex, and tenants were selected in order of the highest score, based on selection criteria.

Sources (Listed in other case studies, etc.)

- ・ いわき市「災害公営住宅」

<http://www.city.iwaki.lg.jp/www/genre/1445400148888/index.html>

Systems and mechanisms applied:

Project cost:

11-1 Support for Disaster Victims (Community building in the transition to permanent housing)

Case study	City development through civic engagement in ordinary times				
Location	Aoi District, Higashimatsushima City, Miyagi Prefecture				
Phases	<table border="1"> <tr> <td>Emergency response phase</td> <td>Recovery phase</td> </tr> <tr> <td>Early reconstruction phase</td> <td>Late reconstruction phase</td> </tr> </table>	Emergency response phase	Recovery phase	Early reconstruction phase	Late reconstruction phase
Emergency response phase	Recovery phase				
Early reconstruction phase	Late reconstruction phase				
Members	Higashimatsushima City, Aoi District City Development Council, residents, other				
<p>Activity overview:</p> <p>Developed even before the earthquake, a collaborative style of city development with civil society in Higashimatsushima City, Miyagi Prefecture helped smooth the transition to post-disaster city planning, while continuing to place value on previous communities as much as possible.</p> <p>City development that focused on encouraging autonomy in residents in times of peace also proved to be instrumental in the development of collaborative city between local authorities and residents after disasters.</p>					
<p>Activity details:</p> <p>■Promotion of civic engagement in Higashimatsushima City, Miyagi Prefecture before the earthquake</p> <p>With the merger of two towns in 2005, Higashimatsushima City expanded in size. Facing difficulties in maintaining services for residents on its own, the city administration enacted the Higashimatsushima Basic City Development Ordinance in December 2008, launching a collaborative style of city development.</p> <p>Specifically, this includes the following focus areas: (1) encouraging local autonomous organizations to think and take action at the community level, (2) developing mechanisms to secure financial resources for activities by local autonomous organizations (Higashimatsushima City Development Grant Scheme), and (3) securing base facilities for activities by local autonomous organizations (setting up community centers). In fiscal 2009, the Civil Society Collaboration Section was established within city hall to be responsible for civic engagement. Staff in this section in charge of supporting communities promoted city development together with local neighborhood councils.</p> <p>■City development in the Aoi District in the aftermath of the Great East Japan Earthquake</p> <p>The development of foundations for residential autonomy in these times of peace proved to be a powerful tool in post-disaster city development. The area north of Higashi-Yamato Station (currently the Aoi District) was developed through the project on promoting group relocation for disaster prevention. In November 2012, residents who chose to relocate established the Higashi-Yamato Station North Area Development Council (renamed the Aoi District City Development Council” in May 2014), holding 90 to 120 meetings a year with residents and government officials on lifestyles in the new area where they would be relocating, with the aim of creating the “most livable city in Japan.” Eight subcommittees were set up under the council, including those focused on rules for allocating lots, streetscape studies and disaster public housing. These subcommittees discussed land use planning, methods for</p>					

decisions on allocating housing, streetscape rules, and disaster public housing layouts.

[Examples of council activities]

1) Decisions on household subdivisions

In order to fulfill the requests from neighborhood associations, parents, children, and relatives in the Aoi District to live close together as in the days before the disaster, the process generally started by blocking out city blocks so that people who wanted to live in the same block area could decide on divisions through discussions, with lotteries used only as a last resort. While this method was more time-consuming, mutual give and take helped build communities. In November 2013, decisions had been made on plots for 245 households to build individual homes.

2) Reflections of residents' views in disaster public housing

Based on discussions by the disaster public housing subcommittee on the city's disaster public housing construction plans, the Aoi District requested an increase in the number of single-story homes, addition of verandas, changes to the location of Buddhist alters, installation of elevator halls (in apartment buildings), and revisions to floor plans, in order to build disaster public housing that would be more comfortable for residents.

3) Development of streetscape rules

Streetscape rules for the Aoi District were formulated to create a livable area. For example, although some rules were strict, such as the requirement that fences be latticed/offer an open view and no higher than 1.2 meters and for some roads to have a (safe and spacious) semi-public zone set back 1 meter from the road, the rules were designed to create and protect a comfortable living environment, resulting in a uniform and well-landscaped streetscape.

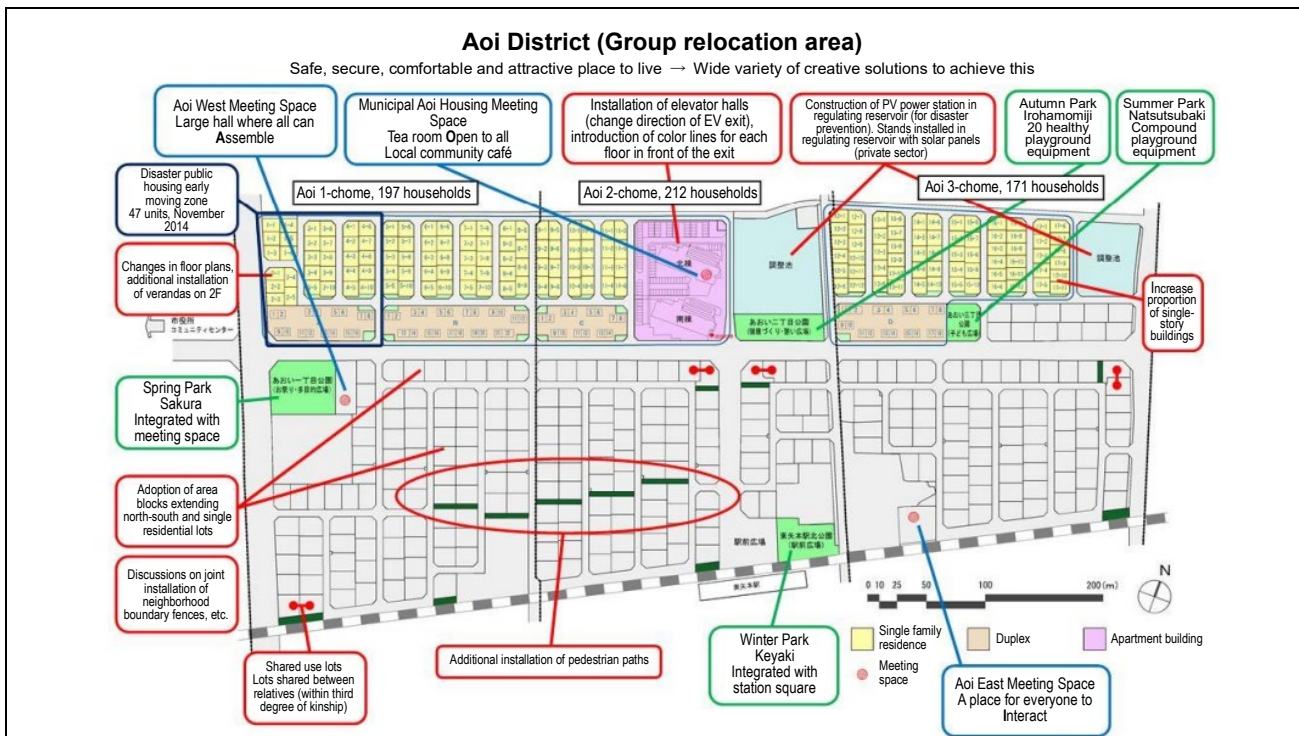


Fig. 1. City development in the Aoi District
 (Source: Public Welfare Section, Health Welfare Department, Higashimatsushima City
 "City development in the Aoi District, a disaster prevention group relocation area," p.30)

The Aoi District Association was established in April 2016 as a bridge across residents' associations formed in each district. The Aoi District Association is efficiently working on cross-cutting issues shared by three residents' associations (Fig. 2), and includes subcommittees that look after the elderly and other groups requiring care, manage public facilities, organize training events, and another interested in pets in the Aoi District, which carry out monitoring activities, friendship events, and maintain public facilities, such as meeting halls.

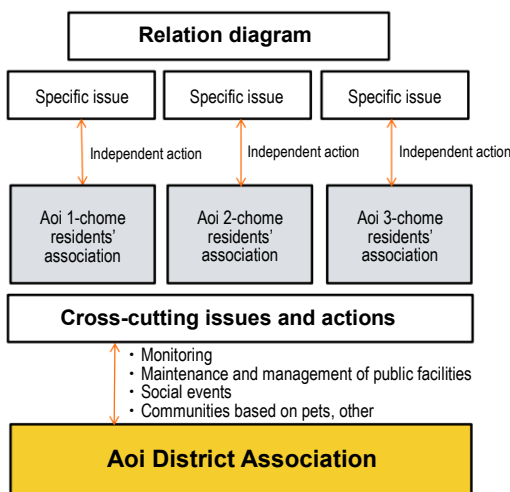


Fig. 2. Positioning of the Aoi District Association
 (Source: Public Welfare Section, Health Welfare Department, Higashimatsushima City, "City development in the Aoi District, a disaster prevention group relocation area," p.33)

Sources (Listed in other case studies, etc.)

- 公益財団法人ひょうご震災記念 21 世紀研究機構「東日本大震災から 7 年 事例に学ぶ生活復興－ 災後・災前にすぐに役立つ生活復興＞読本～東日本大震災被災者の生活復興プロジェクト報告書～ 第 4 章：住まい・コミュニティ」（2018 年 3 月） p74
http://www.reconstruction.go.jp/topics/m18/04/20180410_seikatsufukko.pdf
- 東松島市「防災集団移転促進事業」
<http://www.city.higashimatsushima.miyagi.jp/index.cfm/22,722,c,html/722/bousaisyudaniten.pdf>
- 公益財団法人ひょうご震災記念 21 世紀研究機構「災害時の生活復興に関する研究－生活復興のための 12 講－ 第 1 講 未来につながる復興まちづくり」（2015 年 3 月） p12.
https://www.hemri21.jp/contents/images/2019/06/seikatsufukkou_rev_5081.pdf
- 東松島市福祉課「防災集団移転地あおい地区のまちづくり」（2017 年 4 月）
<http://www.city.higashimatsushima.miyagi.jp/index.cfm/25,781,c,html/11204/1-2aoimachidukuri.pdf>

Systems and mechanisms applied:

- Higashimatsushima Basic City Development Ordinance
- Land readjustment projects concerning reconstruction of urban districts damaged by disasters
- Project on promoting group relocation for disaster prevention

Project cost:

- Higashimatsushima City Development Project: approximately JPY 3.7 billion

11-2 Support for Disaster Victims (Community building in the transition to permanent housing)

Case study	Support for Building Communities in Disaster Public Housing: Prefectural Tochigasawa Apartment
Location	Rikuzentakata City, Iwate Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Iwate Prefecture, Iwate University Organization of Revitalization for the Sanriku Region and Regional Development, Rikuzentakata Social Welfare Council, NPO Rikuzentakata Machizukuri Collaboration Center, NPO IWATE Fukko Collaboration Center, other

Activity overview:

Universities and local authorities worked together to provide support for the establishment of neighborhood associations led by residents, in order to help build communities in disaster public housing. A shift in the approach from helping key people with leadership qualities, to supporting residents in taking the initiative to set up an association, was instrumental in realizing the operation of a participatory-based residents' association.

Activity details:

■Community support from the Iwate University Organization of Revitalization for the Sanriku Region and Regional Development

Initially, when the Iwate University Organization of Revitalization for the Sanriku Region and Regional Development first began to offer support for the establishment of residents' associations in disaster public housing, they focused on finding and supporting key people among the residents who had experience and were motivated to implement activities. However, this approach, placing the full burden of responsibility on these key people, was exhausting, so the organization shifted its direction to focus on a policy that involved the participation of all residents in the establishment and activities of the residents' association.

The aim of community support is to "foster a sense of independence in residents and build self-reliant communities." As residents' associations were positioned as organizations that would play an important role in this process, support was actively provided for the establishment and operation of these associations. After gathering information on the area and working in collaboration with various organizations to develop support systems, the next steps included the organization of face-to-face meetings and preparatory committee meetings, sharing challenges and presenting organizational plans, and the practical implementation of activities following the establishment of the residents' organization (Fig). In addition to sharing information and encouraging independence, such as with explanations on the structure of public housing and residents' associations in order to build self-reliant communities, focus was placed on strengthening practical skills, such as providing assistance to residents for the creation of meeting minutes and reports in order to build up their experience and expertise.

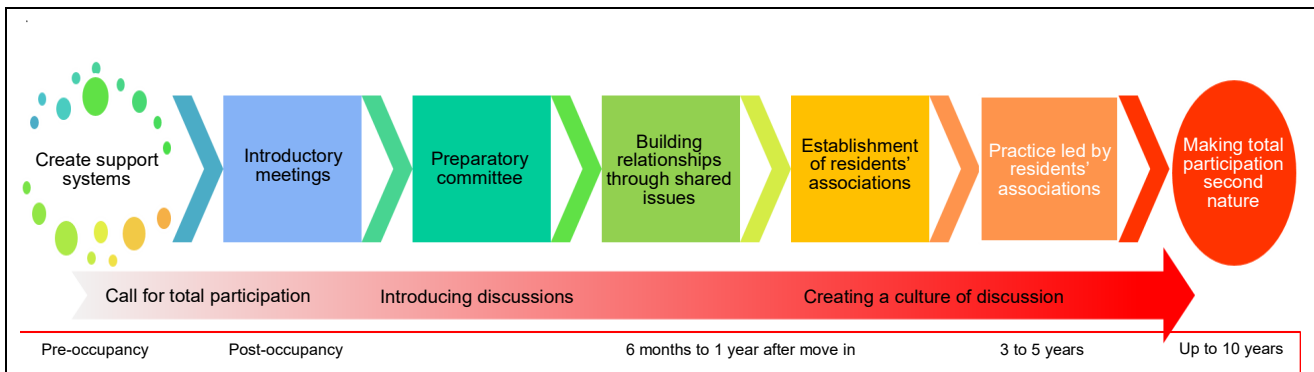


Fig. Flowchart of support for community development (Funato, 2019)

■ Support for the establishment of residents' associations in Prefectural Tochigasawa Apartment

The Prefectural Tochigasawa Apartment Meeting (hereinafter, "Meeting") support system was created in April 2016 for Prefectural Tochigasawa Apartment (hereinafter, "Tochigasawa"). Iwate Prefecture acted as the secretariat, with related organizations, including Rikuzentakata City, working together to discuss and coordinate the support needed to create comfortable living conditions for tenants.

The Meeting organized social events and informational sessions for prospective tenants in July 2016. Previously, a government agency would appoint a manager to be responsible for handling the collection and payment of shared expenses before residents moved in. However, since this made it more difficult to elicit the proactive involvement of the residents, Iwate University presented the relevant groups with a Draft organizational chart of residents' association officers and managers and a Draft of manager-related issues and measures to address these and methods to select managers, so that measures could be discussed. As a result of these actions, the relevant parties decided that the residents' association officers would also serve as managers at Tochigasawa and would be selected through discussions with all residents after they moved into the complex.

The Meeting also organized face-to-face sessions at the end of September, after residents took up occupancy in the apartment complex on August 1. These sessions were attended by 174 out of 200 households (87%). At these gatherings, residents were encouraged to communicate with one another through "four-panel self-introductions," and government staff (or managers) explained about shared expenses and the need for a residents' association.

A preparatory committee for the establishment of the residents' association was also set up at that time. Over a period of five months, the committee met eight times and provided a wide variety of support, ranging from presenting draft plans on posts and organizational structures, draft terms and conditions for the residents' association, discussions on methods to select candidate officers, and discussions on business plans and budgets, which formed the basis for the establishment of the residents' association (Photo).

Even after the establishment of the residents' association, supporters have continued to provide logistical support to ensure the sustainable management of the association, attending monthly meetings of the board of directors and providing advice, organizing sessions for residents to share information,

and meetings to exchange ideas about issues related to the management of the association and about daily life.



Photo: Preparatory Committee for the Establishment of the Residents' Association (Funato, 2019)

Sources (Listed in other case studies, etc.)

- 船戸義和「被災地の地域コミュニティ支援～岩手県の災害公営住宅における自治会設立支援の進め方」特定非営利法人いわて連携復興センター・岩手大学三陸復興・地域創生推進機構（2019年8月）
<http://www.ifc.jp/news/notice/entry-2585.html>
- 公益財団法人ひょうご震災記念21世紀研究機構「東日本大震災から7年 事例に学ぶ生活復興-災後・最前にすぐに役立つ生活復興>読本」（2018年3月）p78-81
http://www.reconstruction.go.jp/topics/m18/04/20180410_seikatsufukko.pdf

Systems and mechanisms applied:

- Mental Recovery project (Iwate University Organization of Revitalization for the Sanriku Region and Regional Development)

Project cost:

12-1 Support for Disaster Victims (Support after the transition to permanent housing)

Case study	Restoring Healthcare Services and Building an Integrated Community Care System
Location	Ishinomaki City, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Ishinomaki City, Ishinomaki City Medical Association, other

Activity overview:

Ishinomaki City, Miyagi Prefecture is engaged in the process of fostering a sense of self-help and mutual aid in the local area by rebuilding the home medical care system in areas affected by the disaster, and establishing an integrated community care system under a cross-cutting coordination system between the public and private sectors that places emphasis on the participation of residents and encourages them to take part as leaders in care systems and not simply as recipients of support.

Activity details:

■ Opening of the Ishinomaki Municipal Hospital Kaisei Interim Clinic

As the basic reconstruction plan for Ishinomaki Municipal Hospital, with medical functions debilitated by the disaster, was under consideration, the Ishinomaki Municipal Hospital Kaisei Interim Clinic was opened in May 2012 in the Kaisei/Minamizakai emergency temporary housing complex, primarily with the aim of providing medical care to residents in the largest emergency temporary housing complex in the city.

The Ministry of Health, Labour and Welfare designated the clinic as a model home medical care coordination base from the outset. Taking advantage of its position as a municipal hospital, the clinic provided support with emphasis on multi-disciplinary collaboration, visiting patients at home and providing nursing care and rehabilitation services at home, 24 hours a day, 365 days a year.

With the number of residents in emergency temporary housing decreasing, the Kaisei Interim Clinic closed its doors on May 31, 2019, moving follow-up care for disaster victims in need of mental health and emotional care and home visits to Ishinomaki Municipal Hospital, which was rebuilt in front of Ishinomaki Station in September 2016.



Rebuilt Ishinomaki Municipal Hospital

■ Establishment of the Ishinomaki City Council for the Promotion of Integrated Community Care

In view of changes in the community as a result of the disaster, declining birthrates and the aging population, promoting integrated community care was positioned as a key policy in Ishinomaki City. The first Integrated Community Care Center in the prefecture was opened next to the Kaisei Interim Clinic in August 2013 with specialists and technical staff from multiple disciplines (the director of the center is also the head of the clinic), and the Office for the Promotion of Integrated Community Care was established in the city's health department.

The Ishinomaki City Council for the Promotion of Integrated Community Care was established in October of the same year, with the Office for the Promotion of Integrated Community Care functioning as secretariat, and including representatives from Ishinomaki City Medical Association, Social Welfare Council, residents' organizations, and government agencies. To uplift the perspectives of persons affected by the disaster, the Council for the Promotion of Integrated Community Care counted among its members the Ishinomaki Promotional Council of the Federation of Residents' Associations in Temporary Housing (comprised of the heads of residents' associations in emergency temporary housing) from the outset, which took on the role of subcommittee chairs to consider how to support the livelihoods of disaster victims and build communities. The Basic Plan to Promote the Ishinomaki City Integrated Community Care System was formulated by the council in March 2014 and sets out basic policies for the next 10 years, including the use of activities being carried out by the existing 12 integrated community care centers in the city, developing care systems that consider persons moving from emergency temporary housing to other facilities, and the establishment of a next-generation care system for not only seniors, but also persons with disabilities and those raising children.

■ Initiatives by the Ishinomaki City Health Department's Office for the Promotion of Integrated Community Care and Integrated Community Care Center

The Ishinomaki City Health Department's Office for the Promotion of Integrated Community Care and Integrated Community Care Center has taken over and is continuing to implement a home-based medical care coordination center project, developed from the model home medical care coordination base project that was commissioned by the Ministry of Health, Labour and Welfare to the Kaisei Interim Clinic. The organization is working to provide comprehensive and integrated support by improving the level of home-based medical care throughout the city, while also taking advantage of its multi-disciplinary strengths to take on consultations about complicated cases from residents and other professionals.

The Integrated Community Care Center provides basic information on coordinating medical and nursing care on its website, which includes basic information to ensure that cooperation between medical professionals and nursing care facilities is smooth. The basic information includes items on the opening status of each medical institution (medical, dental, pharmaceutical, home-based nursing stations), ways to coordinate with nursing care facilities, and the functions of home-based medical

care, in order to support coordination between relevant parties.

Since the earthquake, the center has also been involved in on-demand lectures to improve the public's awareness, who have been on the receiving end of "support for disaster victims", in order to help them view the integrated community care system as something that concerns them and to practice looking after and helping others. The Office for the Promotion of Integrated Community Care and Integrated Community Care Center aim to create a care system with the participation of residents by establishing regular discussion forums to encourage collaboration between the heads of residents' associations in emergency temporary housing, who understand and struggle with how very important self-help and mutual aid are, and the integrated community care systems of government agencies.

■Opening of the Ishinomaki Sasaeai Center

The Ishinomaki Sasaeai Center opened in May 2020 adjacent to Ishinomaki Municipal Hospital and was developed as a base facility to promote integrated community care. Activities are being developed at the center that are designed to provide comprehensive support and promote regional cohesion, such as the development of counseling services about childcare and spaces for children, and the establishment of a Comprehensive Welfare Consultation Service to help households dealing with compound problems such as "double care" (childcare and caregiving) and "8050 problems" (older parents living together with children who are unemployed and have withdrawn from society).

Sources (Listed in other case studies, etc.)

- ・ 宮城県保健福祉部「東日本大震災における被災者生活支援取組事例」（2013年8月）
<https://www.pref.miyagi.jp/soshiki/hohusom/jirei.html>
- ・ 公益財団法人ひょうご震災記念 21 世紀研究機構「事例に学ぶ生活復興」（2018年3月）p29-32
<https://www.reconstruction.go.jp/topics/m18/04/20180409160607.html>
- ・ 復興庁「「新しい東北」先導モデル事例集」（2015－2018年）
<https://www.reconstruction.go.jp/topics/main-cat1/sub-cat1-11/20150216105649.html>
- ・ 石巻市在宅医療・介護連携ウェブサイト
<http://ishinomaki-renkei.jp/>
- ・ 石巻市ささえあいセンター
<https://www.city.ishinomaki.lg.jp/sasaeai/index.html>

Systems and mechanisms applied:

- ・ Reconstruction Agency, "New Tohoku" Leading Model Projects
- ・ Comprehensive Community Medical and Healthcare Fund

Project cost:

12-2 Support for Disaster Victims (Support after the transition to permanent housing)

Case study	Establishment of the Rikuzentakata City Conference on Mapping the Future of Healthcare and Welfare Think-tank on the Region's Future and Promotion of the "Hamattekerain, Kadattekerain" Movement ("Hamakada" Movement)
Location	Rikuzentakata City, Iwate Prefecture
Phases	Emergency response phase Recovery phase <u>Early reconstruction phase</u> <u>Late reconstruction phase</u>
Members	Rikuzentakata City, residents and support groups, other
<p>Activity overview:</p> <p>Rikuzentakata City, Iwate Prefecture is implementing the "Hamattekerain, Kadattekerain" Movement (known locally as the "Hamakada" Movement) with the aim of maintaining and improving the physical and mental health of all residents by raising people's awareness of health and promoting interaction between residents in the community. To get the "Hamakada" Movement across to the public, the city focused its attention on spaces for residents and support groups in the city, which were registered as "Hamakada spots." The city compiled a "Hamakada Spot Guide" for each area and publicized the information online and in print.</p> <p>The "Hamakada" Movement is continuing to expand with the voluntary participation of residents in a wide variety of activities.</p>	
<p>Activity details:</p> <p>■ Establishment of the Rikuzentakata City Conference on Mapping the Future of Healthcare and Welfare</p> <p>Since December 2012, public health and welfare officials in Rikuzentakata City, Iwate Prefecture and support teams from around the country have shared information about the current state and challenges facing the city's public health and welfare system in a series of discussions exploring the latest measures on recovery and visions for the future. These meetings were renamed Rikuzentakata City Conference on Mapping the Future of Healthcare and Welfare (hereinafter referred to as the "Future Mapping Conference"), becoming a space for all residents to participate and talk about any topic related to their livelihoods.</p> <p>In these discussions, the participants recognized that although individual residents were receiving support to maintain their health through surveys, all of the residents in Rikuzentakata City had been affected in some way or another by the disaster, and that an awareness-raising and public participation campaign for the entire community was needed to help people rebuild their livelihoods while maintaining their health. In light of this realization, the "Hamattekerain, Kadattekerain" Movement ("Hamakada" Movement) was proposed to put the idea of "when people get together to talk, the mind naturally relaxes" into practice throughout the entire community. The "Hamakada" Movement has gradually spread throughout the community with the involvement of NPOs, public health promotion workers and residents, and support organizations, forming the foundation for the city's public health</p>	

services. In recognition of its effectiveness, the “*Hamakada*” Movement has been positioned as a suicide prevention initiative at prefectural health centers, supporters of the movement since the beginning, and extended out, covering the Kesen region.

■Promotion of the “*Hamattekerain, Kadattekerain*” Movement (“*Hamakada*” Movement)

A wide variety of activities by NPOs and residents’ groups are registered as “*Hamakada spots*”. Residents can easily stop in and take part in different activities, such as health consultations and tea ceremony parties, in addition to consultations on childcare, physical exercises, farm work, karaoke and taiko drumming.

For example, the Ochakko Salon (Spot No.126) offers tea, blood pressure checks and health consultations on the fourth Monday of every month at the local community center. Sogetsu School Matsuda Shachu (Spot No.148) offers residents the opportunity to participate in ikebana at the school representative’s home on the second and fourth Thursday of each month. Each spot sets the eligibility requirements and participation fees.

The city is engaged in popularizing and expanding the “*Hamakada*” Movement together with NPOs, public health promotion workers and other residents by linking it with the activities of the Future Mapping Conference and other public health projects and producing promotional and educational goods. The city is also conducting surveys on *Hamakada spots* to provide opportunities to build face-to-face relationships between government staff and residents. When it identifies activities that are struggling, the city supports the continuation of those activities by connecting them with available subsidies or to departments responsible for those activities.



Fig. *Hamakada Spot Guide* (Source: Rikuzentakata City Website)

Rikuzentakata City aims to create an “intentionally inclusive community” through this movement.

Sources (Listed in other case studies, etc.)

- 陸前高田市「はまってけらいん かだってけらいん運動」
<https://www.city.rikuzentakata.iwate.jp/kategorie/hoken-iryuu/hoken/hamattekerain/hamattekerain.html>
- 公益財団法人ひょうご震災記念 21 世紀研究機構（2018）「東日本大震災から 7 年 事例に学ぶ生活復興-災後・災前にすぐに役立つ<生活復興>読本-」 p14-15.
<https://www.reconstruction.go.jp/topics/m18/04/20180409160607.html>

Systems and mechanisms applied:

Project cost:

13-1 Support for Disaster Victims (Support for individuals rebuilding on their own)

Case study	Guidelines for Individual Debtor Out-of-Court Workouts
Location	-
Phases	Emergency response phase <u>Recovery phase</u> <u>Early reconstruction phase</u> <u>Late reconstruction phase</u>
Members	Governing Body for Guidelines on Debt Management for Victims of the Great East Japan Earthquake and Natural Disasters

Activity overview:

Guidelines for Individual Debtor Out-of-Court Workouts were formulated in July 2011 to ensure that disaster victims of the Great East Japan Earthquake faced no obstacles in rebuilding their livelihoods as a result of overlapping debts. These guidelines allow for debts to be forgiven through private arrangements by consensus between debtors and creditors.

These guidelines led to the formulation of Guidelines on Debt Management for Victims of Natural Disasters, a new set of guidelines that broadly apply to the natural disasters covered under the Disaster Relief Act. Both of these guidelines will be integrated as “Guidelines on Debt Management for Victims of Natural Disasters” from April 2021.

Activity details:**■Formulation of Guidelines for Individual Debtor Out-of-Court Workouts**

A Study Group on Guidelines for Individual Debtor Out-of-Court Workouts was established in July 2011, which included representatives from financial institutions and academic experts, since individuals with housing loans and sole proprietors with borrowed funds will find it difficult to rebuild their livelihoods while carrying the burden of existing debts due to the Great East Japan Earthquake. The study group formulated guidelines as a road map for individual debtors who are unable to repay existing debts, such as housing loans, to financial institutions and other creditors. The guidelines offer a fair and expeditious path forward to restructuring debt, such as deferring or reducing debt, based on consensus reached between creditors and debtors, rather than through bankruptcy procedures or other legal insolvency proceedings.

■Significance of the guidelines

These guidelines have been formulated as independent and autonomous standards for financial institutions and related organizations in relation to out-of-court workouts for individual debtors. While not legally binding, creditors, debtors and other stakeholders are expected to respect and voluntarily observe these guidelines. Using these guidelines to privately restructure debts and reduce the burden of disaster victims with existing debts will encourage them to be self-sufficient and help them rebuild their livelihoods and businesses, which will also be instrumental to the reconstruction and revitalization of disaster-affected areas.

■ Third-party support for individual debtors

The Steering Committee for Guidelines for Individual Debtor Out-of-Court Workouts was established as a third-party organization in August 2011 to ensure that debt arrangements under the guidelines were conducted accurately and smoothly from a neutral and fair perspective with no conflicts of interest (merged with the Governing Body for Guidelines on Debt Management for Victims of Natural Disasters in April 2019 and later renamed as the Governing Body for Guidelines on Debt Management for Victims of the Great East Japan Earthquake and Natural Disasters).

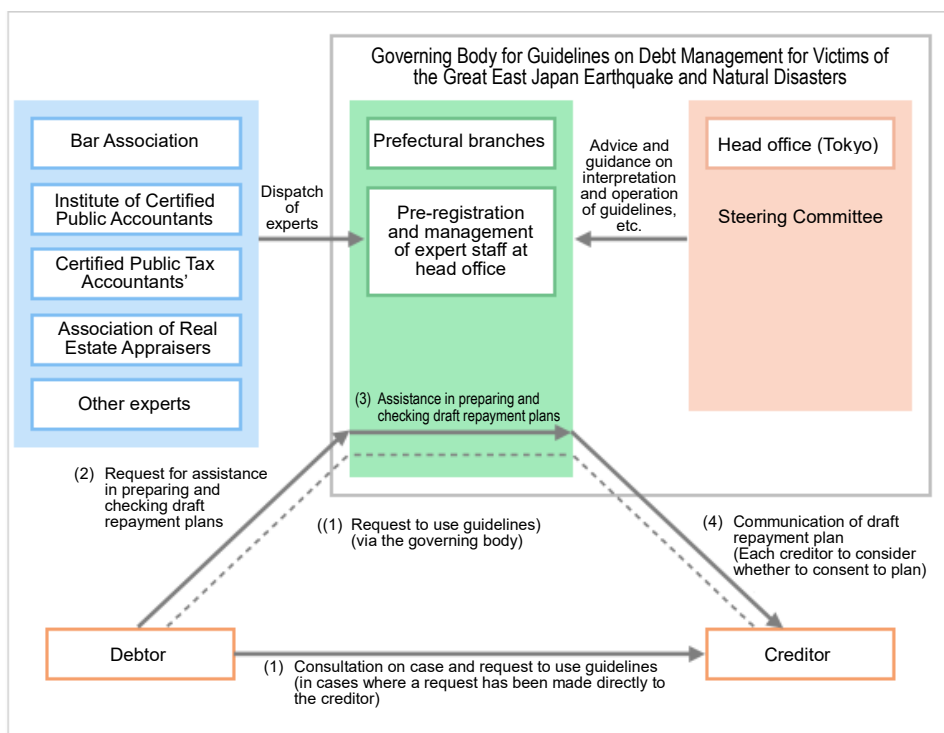


Fig. Governing Body for Guidelines on Debt Management for Victims of the Great East Japan Earthquake and Natural Disasters (* Status at initial stage)

The Governing Body for Guidelines on Debt Management for Victims of the Great East Japan Earthquake and Natural Disasters provides support for disaster victims to help them rebuild their livelihoods by: (1) allowing debtors to request creditors to use the guidelines to settle debts, (2) registering lawyers, property appraisers and other professionals and requests for assistance by debtors, (3) providing assistance with and checking the preparation of draft repayment plans, and (4) communicating draft repayment plans to creditors. Between August 2011 and the end of September 2020, there have been 5,976 consultations offered and 1,372 debt restructuring cases.

■ Formulation of Guidelines on Debt Management for Victims of Natural Disasters

A Study Group on Guidelines of Debt Management for Victims of Natural Disasters was subsequently established in September 2015 to broadly address the problem of overlapping debts arising from natural disasters, based on the experience gained through the process of formulating the

Guidelines for Individual Debtor Out-of-Court Workouts. The study group formulated the Guidelines on Debt Management for Victims of Natural Disasters, which offer guidance to financial institutions and other creditors on a fair and expeditious path forward to restructuring debts for individual debtors who are unable to repay existing debts, such as house loans, due to natural disasters covered under the Disaster Relief Act, such as by deferring or reducing debt, based on consensus reached between creditors and debtors, rather than through bankruptcy procedures or other legal insolvency proceedings. The guidelines went into effect on April 1, 2016.

Disaster victims of the Great East Japan Earthquake will also be covered by these guidelines from April 1, 2021, with the integration of guidelines on restructuring debts for victims of disasters. Special provisions were also established on October 30, 2020 for the application of the guidelines to COVID-19, and since December 1, 2020, the guidelines have been applied to debt restructuring for individual debtors who have been affected by COVID-19.

Sources (Listed in other case studies, etc.)

- ・ 一般社団法人東日本大震災・自然災害被災者債務整理ガイドライン運営機関
<http://www.dgl.or.jp/guideline/>

Systems and mechanisms applied:

Project cost:

14-1 Support for Disaster Victims (Care and training for support workers)

Case study	Support Activities for Supporters by the Miyagi Prefectural Mental Health and Welfare Center: Efforts to provide mental health support to prefectural staff and other support workers
Location	Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase (April 2011 to March 2014)
Members	Miyagi Prefectural Mental Health and Welfare Center, Employee Welfare Section and Municipal Section, General Affairs Department, Miyagi Prefecture, Well-being Section, Education Bureau, Miyagi Prefecture, Welfare Section, Police Affairs Department, Miyagi Prefectural Police, other
<p>Activity overview:</p> <p>The Miyagi Prefectural Mental Health and Welfare Center is a tertiary medical care facility that provides support to municipalities and prefectural institutions in the field of mental health and welfare. The center provided mental and emotional support to disaster victims in the 2003 Northern Miyagi Earthquake and the 2008 Iwate–Miyagi Nairiku Earthquake. In addition to support for victims of the Great East Japan Earthquake, the center also provided mental health support in collaboration with external experts over a period of three years from April 2013 to prefectural workers, teachers and others staff, who play pivotal roles in supporting disaster victims.</p>	
<p>Activity details:</p> <p>■Necessity of mental health support for prefectural workers, police and school staff</p> <p>The need to provide mental health support for prefectural workers who assisted disaster victims, police involved in search and rescue operations, and school staff who were involved in managing evacuation centers increased due to concerns that exhaustion and intense stress caused by disaster response duties could lead to an increase in the number of people with long-term physical and mental health problems.</p>	

■Mental health support

Over a period of three years from April 2011, the Miyagi Prefectural Mental Health and Welfare Center provided a space for relevant departments, including external experts, to exchange ideas and advice on the implementation of mental health measures for prefectural workers, police, and municipal workers, and provided expert advice on mental health measures to responsible departments. Subsequently, departments provided information on mental health care, set up counseling services, regularly implemented health surveys to support persons considered to be high risk. Based on the results of this advice, surveys and activities, departments also developed mental health projects in times of peace.

Stage	Stage I	Stage II	Stage III
System	<ul style="list-style-type: none"> Independent initiatives by each department One-off support by external organizations <p>* Some departments have existing systems that functioned well.</p>	<ul style="list-style-type: none"> Existing systems reopened e.g., implementation of regular health check-ups that were postponed, etc. Introduction of new systems/activities e.g., conduct of health surveys that include sections on mental health 	<ul style="list-style-type: none"> Integration of new systems/activities and resources into existing systems e.g., regular health check-ups that include items on mental health, enhanced consultation services
Details	<p>Awareness raising and psychological education</p> <p><Mainly distribution of materials> (including mental health self-checks)</p> <p>Rounds by external support teams (Connecting necessary staff to medical care and other services, etc.)</p>	<p><Distribution of materials and training></p> <p>Conducting health surveys Securing consultation services (follow-up with people who are high-risk)</p>	<p><Set up consultation services></p> <p><Conduct periodic mental health surveys></p> <p><Enhance mental health measures at the organizational level></p> <p>* The length of each stage will vary by department.</p>

Progress chart of post-disaster mental health projects for staff common to all organizations

* Extract from “Support Activities for Supporters in the Great East Japan Earthquake by the Miyagi Prefectural Mental Health and Welfare Center”

Sources (Listed in other case studies, etc.)

- 全国精神保健福祉センター長会「東日本大震災における宮城県精神保健福祉センターの支援者支援活動～県行政職員等へのメンタルヘルス支援の取組～」平成 26 年度センター長会報第 55 号 (2014 年) p3(142) - p4(143)

https://www.zmhwc.jp/pdf/nenpo/nenpo2606_06.pdf
- 兵庫県こころのケアセンター「兵庫県こころのケアセンター研究報告書 (令和元年度版)」 p.97

<http://www.j-hits.org/outline/pdf/r01jigyohoukoku.pdf#zoom=100>

Systems and mechanisms applied:

Project cost:

14-2 Support for Disaster Victims (Care and training for support workers)

Case study	Training Programs for Livelihood Counselors and Support Workers: Project to support community leaders in temporary housing
Location	Iwate Prefecture (Ofunato City, Otsuchi Town, Kamaishi City)
Phases	<u>Emergency response phase</u> <u>Recovery phase</u> Early reconstruction phase Late reconstruction phase (September 2011 to March 2013)
Members	The Nippon Foundation, NPO IWATE Fukko Collaboration Center, Johnson & Johnson Contributions Committee

Activity overview:

With financial support from private company Johnson & Johnson, the Nippon Foundation and NPO IWATE Fukko Collaboration Center organized training programs to improve the skills of lifestyle counselors and support workers assigned to emergency temporary housing as part of project to support community leaders in temporary housing, modeled after Ofunato City.

Activity details:

■Assignment of livelihood counselors and support workers to emergency temporary housing

Emergency temporary housing complexes in Ofunato City faced a number of issues with the lack of community building, evidenced in the number of residents withdrawing, households becoming isolated, and under-utilized meeting spaces, and Kitakami City, less damaged because of its location inland, was asked to provide support.

Kitakami City responded to this request with the application of an emergency job creation program, working with a staffing agency to assign approximately 80 livelihood counselors and support workers to emergency temporary housing, as well as seven area managers and four call center specialists in each area to support the activities of these workers.

Kitakami City and the NPO IWATE Fukko Collaboration Center subsequently signed a joint agreement and started working as a collaborative support team in Ofunato City in September 2011.

However, the livelihood counselors and support workers located in emergency temporary housing were primarily tenants in these housing complexes, with no experience in providing support to disaster victims. They required extensive training to acquire knowledge and skills in counseling and providing advice, as well as support on resolving problems that arise in emergency temporary housing.

■Skills training for livelihood counselors and support workers

Accordingly, the Nippon Foundation and NPO IWATE Fukko Collaboration Center implemented a project to support community leaders in emergency temporary housing, with a donation from the Johnson & Johnson Contributions Committee, modeled after Ofunato City.

Specifically, the Nippon Foundation and NPO IWATE Fukko Collaboration Center planned and conducted training programs on listening skills, stress care, computer courses, management compliance and other topics to improve the skills of livelihood counselors and support workers.

The Nippon Foundation developed the ROAD (**R**esilience will **O**vercome **A**ny **D**isaster) project which was built on five pillars of support for the Great East Japan Earthquake: (1) emergency support, (2) community support, (3) human resources training and development, (4) industry support, and (5) framework building. The project to support community leaders in temporary housing was implemented under this framework, which aimed to resolve a wide variety of issues in the management of emergency temporary housing and build communities.

The model project in Ofunato City attracted attention as a leading example for areas affected by disasters that face similar challenges. The project was later expanded to Otsuchi Town in February 2012 and to Kamaishi City in March of the same year.

Sources (Listed in other case studies, etc.)

- ・ 公益財団法人日本財団 「ROAD PROJECT 東日本大震災 1 年目の活動記録」
https://www.nippon-foundation.or.jp/app/uploads/2019/02/wha_pro_roa_02.pdf
- ・ 公益財団法人日本財団 「ROAD PROJECT 東日本大震災 2 年目の活動記録」
https://www.nippon-foundation.or.jp/app/uploads/2019/01/wha_pro_roa_03.pdf
- ・ 公益財団法人日本財団 「ROAD PROJECT 東日本大震災 3 年目の活動記録」
https://www.nippon-foundation.or.jp/app/uploads/2019/01/wha_pro_roa_04.pdf

Systems and mechanisms applied:

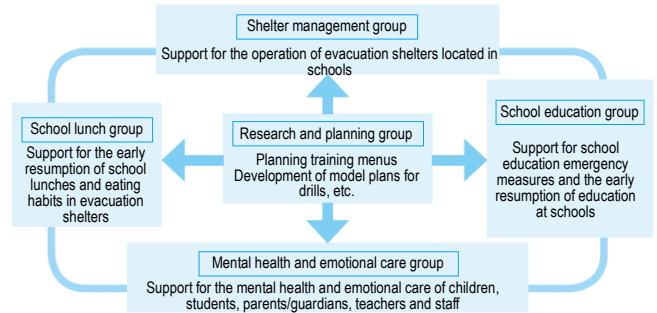
Project cost:

15-1 Support for Disaster Victims (Restoring schools)

Case study	Support for Schools Affected by the Disaster: Emergency and Rescue Team by school staff in Hyogo (EARTH)
Location	Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Hyogo Prefectural Board of Education, Miyagi Prefectural Board of Education, other
<p>Activity overview:</p> <p>The Emergency and Rescue Team by school staff in Hyogo (EARTH) was established in April 2000 after the Great Hanshin-Awaji Earthquake. The team is made up of teaching staff that have special knowledge and practical response skills to help classes resume at schools in disaster areas. A total of 197 people, mostly EARTH members, were dispatched to the Miyagi Prefectural Education Bureau and municipalities within the prefecture eight times between March 2011 and August 2015.</p>	
<p>Activity details:</p> <p>■ Establishment of the Emergency and Rescue Team by school staff in Hyogo (EARTH)</p> <p>Teachers and staff who worked at evacuation centers after the Great Hanshin-Awaji Earthquake have a deep well of expertise in managing shelters and reopening schools. Therefore, a school support organization during a disaster that consists of such teachers and staff was proposed to establish. Momentum for the establishment of this organization built with the dispatch of teachers and staff to areas in Turkey and Taiwan in 1999 that had experienced major earthquakes. On the fifth anniversary of the Great Hanshin-Awaji Earthquake, in April 2000, the Hyogo Board of Education launched the Emergency and Rescue Team by school staff in Hyogo (EARTH) in order to respond to major earthquakes in Japan and abroad and as a way to pay it forward for the support received from around the country after the Great Hanshin-Awaji Earthquake. EARTH was established as an organization of teachers and staff to support the reopening of schools, led by disaster educational promotion advisors (teachers and staff who have attended disaster management and prevention courses and are qualified as instructors) and teachers and staff who were involved in managing evacuation centers in schools in disaster-affected areas at the time of the earthquake.</p> <p>The team started out with 95 members, which included counselors who also acted as advisors. These members formed four groups: shelter management group, mental health and emotional care group, school education group, and school lunch group. A research and planning group was set up in 2006, bringing the number of groups to five (243 members as of FY 2020).</p> <p>■ Dispatch teams in the aftermath of the Great East Japan Earthquake and provide support to schools immediately after the disaster</p> <p>In the aftermath of the Great East Japan Earthquake, the Hyogo Prefectural Board of Education dispatched a total of 197 people, primarily EARTH members, to the Miyagi Prefectural Education</p>	

Bureau and municipalities within the prefecture eight times between March 2011 and August 2015.

Support was provided to schools immediately after the disaster, which included advice on managing evacuation shelters, mental health and emotional care for children and students, training programs for teachers and staff on mental health and emotional care, and an exchange of ideas on disaster prevention education and other topics during teacher trainings, in addition to activities targeting the reopening of schools, such as confirming children’s safety.



* When groups are deployed during a disaster, they carry out activities across the boundaries of each group.

Dispatch of EARTH Members to Areas Affected by the Great East Japan Earthquake

■ March 15-19, 2011	First visit (EARTH members, other: 3) Miyagi Prefecture Education Bureau, Minamisanriku Town Advice on shelter management and mental health/emotional care of children and students
■ March 21-26, 2011	Second visit (EARTH members, other: 9) Kesennuma City, Higashimatsushima City, Iwanuma City, Ishinomaki City Support for shelter management and advice on mental health/emotional care of children and students
■ April 17-20, 2011	Third visit (EARTH members, other: 6) Kesennuma City, Minamisanriku Town EARTH members and school counselors dispatched to advice on mental health/emotional care
■ July 25-August 10, 2011	Fourth visit (EARTH members, other: 60) Kesennuma City, Ishinomaki City, Minamisanriku Town Mental health care training for teachers and staff, exchange of ideas on issues faced by teachers and staff, support activities related to mental health/emotional care by helping students learn
■ July 29-August 4, 2012	Fifth visit (EARTH members, other: 63) Kesennuma City, Ishinomaki City, Higashimatsushima City, Minamisanriku Town, Onagawa Town Mental health/emotional care training for teachers and staff and exchange of ideas, support activities related to mental health/emotional care by helping students learn (accompanied by school counselors)
■ August 20-23, 2013	Sixth visit (EARTH members, other: 19) Kesennuma City, Ishinomaki City, Higashimatsushima City, Minamisanriku Town, Onagawa Town Training for teachers and staff on issues in the third year after the disaster and mental health/emotional care through education on disaster prevention
■ August 20-22, 2014	Seventh visit (EARTH members, other: 19) Kesennuma City, Ishinomaki City, Higashimatsushima City, Minamisanriku Town, Onagawa Town Participation in teacher training and exchange of ideas on disaster prevention education, disaster readiness, and mental health/emotional care
■ August 19-21, 2015	Eighth visit (EARTH members, other: 18) Kesennuma City, Ishinomaki City, Minamisanriku Town, Onagawa Town Introduction of practical case studies from training for teachers and staff on disaster prevention education, disaster readiness and mental health/emotional care, and exchange of ideas with local teachers and staff

* Status of dispatching EARTH members in the aftermath of the Great East Japan Earthquake

Hyogo Prefectural Board of Education materials (<https://www.hyogo-c.ed.jp/~kikaku-bo/EARTHHP/company.html>)

■ Entrenching the activities of the Emergency and Rescue Team by school staff in Hyogo (EARTH)

Over the years, EARTH has provided support in areas affected by the Great East Japan Earthquake, the 2016 Kumamoto Earthquake, Osaka Northern Earthquake, the Heavy Rain Event of July 2018, and the 2018 Hokkaido Eastern Iburi Earthquake, with its involvement in reconstruction support activities at

schools in disaster areas in Japan and overseas, such as emergency shelter management, and mental health and emotional care. When no disasters have occurred, EARTH plays a central role in education on disaster prevention and disaster management systems in schools, promoting collaboration between schools, communities and relevant organizations by being dispatched as lecturers to workshops on disaster education both in and outside the prefecture and participating in comprehensive disaster drills and workshops.

Drills and training workshops are also held twice a year to improve the skills of EARTH members and maintain and improve the organization's mobility, and support systems are in place inside the prefecture in preparation for a disaster.

In response to activities in Hyogo Prefecture, school support teams made up of teachers and staff with specialized knowledge and practical response skills in managing schools after a disaster, such as the early resumption of classes and mental health and emotional care for children and students, have been set up in Kumamoto Prefecture in fiscal 2018 (Kumamoto School Support Team), Miyagi Prefecture in fiscal 2019 (Disaster School Support Team Miyagi), and Mie Prefecture in fiscal 2020 (Mie Prefecture Disaster School Support Team). These teams aim to support the resumption of schools after a large-scale disaster occurs. The Kumamoto School Support Team was the second team set up in Japan, modeled on EARTH's activities, which raced to offer help after the Kumamoto Earthquake. The team was also on the scene to support municipalities affected by the Osaka Northern Earthquake, the Heavy Rain Event of July 2018, the 2018 Hokkaido Eastern Ibari Earthquake, and the Heavy Rain Event of August 2019. In the Heavy Rain Event of July 2020, 49 people were dispatched to offer assistance to nine municipalities, including Yatsushiro City and Kuma Village, a total of four times between July when the rains started and the end of August. Teachers and staff with experience in work to reopen schools during a disaster set up the Disaster School Support Team Miyagi in Miyagi Prefecture, which was damaged by the Great East Japan Earthquake, to support schools affected by large-scale disasters. The team is expected to pass on the experiences and lessons learned from the disaster to children and other teachers and staff. A team of 28 teachers and staff has been set up in Miyagi Prefecture, which was affected by the Great East Japan Earthquake, to pass on their experiences during the disaster and help other areas that may be affected by disasters in the future. The Mie Prefectural Board of Education also established the Mie Prefecture Disaster School Support Team in preparation for a large-scale disaster, such as the Nankai Trough Earthquake, expanding organizations staffed by teachers to help schools reopen in the aftermath of a disaster.

The Hyogo Prefectural Board of Education also sends out EARTH members as lecturers to training courses for members of support teams in Kumamoto and Mie prefectures. Twenty EARTH members were dispatched to Miyagi Prefecture in August 2019 to collaborate with different support teams, by exchanging information with participants at a training course for the Disaster School Support Team Miyagi.

Sources (Listed in other case studies, etc.)

- ・ 兵庫県「伝える（改訂版）」（2016年）第2章 第3節 55 震災・学校支援チーム（EARTH） p128
- ・ 兵庫県教育委員会「震災・学校支援チーム EARTH ハンドブック（平成28年度改訂版）」（2017年） <http://www.hyogo-c.ed.jp/~kikaku-bo/EARTHhandbook/28052syoun.pdf>

Systems and mechanisms applied:

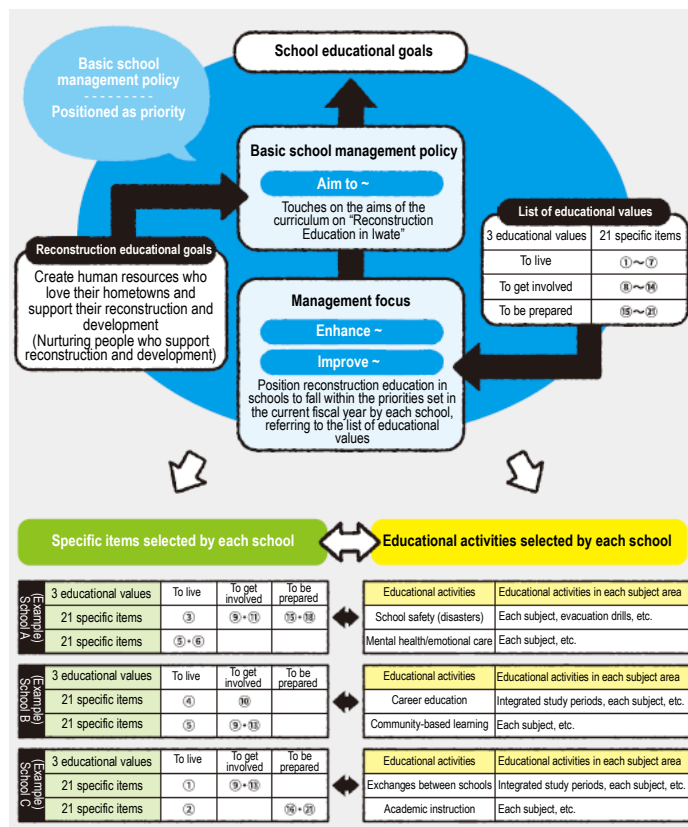
Project cost:

16-1 Support for Disaster Victims (School management and education in the aftermath of a disaster)

Case study	Reconstruction Education in Iwate: Developing “zest for life”
Location	Iwate Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Iwate Prefectural Board of Education, Otsuchi Town Board of Education, other
<p>Activity overview:</p> <p>The Reconstruction Education in Iwate program was developed in Iwate Prefecture to engender a “zest for life” in every child by utilizing the lessons learned from the disaster in school curriculums. Each school is engaged in education on reconstruction under a shared philosophy to develop the future leaders of the region.</p>	
<p>Activity details:</p> <p>■Reconstruction Education in Iwate program</p> <p>Educational activities in Iwate Prefecture that had been conducted in the past were reviewed from the perspective of reconstruction education, based on experiences in the disaster. Schools in disaster-affected areas and those in a position to provide support to these areas believed in the need to engage in reconstruction education under common thoughts and ideas, resulting in the creation of the Reconstruction Education in Iwate program in February 2012 (revised in February 2013 and publication of the third edition in March 2019). In fiscal 2012, the following year, the Reconstruction Education in Iwate program was promoted in all public schools throughout the prefecture to nurture the children who are the future of Iwate Prefecture, especially in the 50 “reconstruction education promotion schools” (elementary, junior high and prefectural high schools) designated in each municipality in the prefecture. (In March 2013, these practical activities were compiled into the “Reconstruction Education in Iwate,” a collection of practical case studies, for publication.)</p> <p>“Reconstruction Education in Iwate” is implemented with the aim of helping children develop the ability to survive any time by learning from the experiences of people in the earthquake and tsunami. Three educational values (“To live,” “To get involved,” and “To be prepared”) are cultivated through educational activities at each school, in order to create human resources who love their hometown and support its reconstruction and development.</p> <p>The Reconstruction Education in Iwate program lays out the above three educational values and 21 specific items that function as the pillars for activities. For example, specific items under the educational value of “To live” include “irreplaceable life (realize all life is precious and should be cherished)”; “community connections (help young children, the elderly, persons with disabilities and others understand the thoughts and feelings of people in the community where they live and develop a sense of attachment)” under “To get involved”; and under “To be prepared,” “skills to protect yourself and survive (anticipate (avoid) danger, protect yourself and others when faced with a disaster or accident, minimize damage, and develop the skills to survive in an emergency).”</p>	

Positioning the educational values they have determined and selected as important, each school develops a reconstruction educational program by linking activities to the 21 specific items.

The Reconstruction Education in Iwate program can be related to and transferred into responses to a wide variety of difficult events, not only natural disasters, and help children learn through initiatives and activities that aim to resolve these problems.



Positioning of Reconstruction Education in Iwate (Source: Reconstruction Education in Iwate program, 3rd ed.)

■ Implementation of an integrated educational curriculum from elementary to junior high school in Otsuchi Town and the establishment of a course of study on hometowns

An integrated educational curriculum has been taught in Otsuchi Town, Iwate Prefecture from elementary to junior high school from fiscal 2015 after the earthquake at Otsuchi Municipal Otsuchi Gakuen (compulsory education) and Otsuchi Municipal Kirikiri Gakuen (combined elementary and junior high school). A course of study on hometowns is also being promoted in Otsuchi Town as a special curriculum focus based on the concepts of “vitality” and “hometown creation.” The course compiles and reorganizes all of the integrated study periods and some of the life environment studies and special activities. The aim of this course is to take a look at the local area and lifestyles and develop “glocal” (global + local) human resources who can play a role in the reconstruction and development of Otsuchi Town. The main subjects of study are related to the local area and encourage schools, communities and families to work and cooperate with one another.

In the course of study on hometowns, learning is centered around three pillars: (1) learning to

nurture a sense of attachment to the community, (2) learning to develop the ability to enhance ways of life and guidance counseling, and (3) learning centered on disaster management and prevention education. For example, the pillar, “learning to nurture a sense of attachment to the community,” at Kirikiri Gakuen includes learning and researching about local performing arts and demonstration experiences (local performing arts). This class is also related to the specific lesson of “myself and my local community (being involved in building communities, with a wish for the beautiful nature of my hometown, traditional events and local performing arts, and a safe society with warm, human connections)” under the educational value of “getting involved” in the Reconstruction Education in Iwate program. A variety of other studies are also carried out, such as work-study programs in the community and joint evacuation drills with local residents, in addition to original reconstruction educational curriculums, education on disaster management and prevention, and career education.

Sources (Listed in other case studies, etc.)

- ・ 岩手県「いわての復興教育」
<https://www.pref.iwate.jp/kyouikubunka/kyouiku/gakkou/fukkou/index.html>
- ・ 大槌町応援団 OCHAN'S「ふるさと科の取り組み紹介」
<https://www.town.otsuchi.iwate.jp/ochans/furusato/kirikirigakuen/414416.html>
- ・ 文部科学省生涯学習政策局，初等中等教育局「地域と学校の連携・協働の推進に向けた参考事例集」（2016年4月）p35-36
<https://manabi-mirai.mext.go.jp/jirei/sankojirei.pdf>

Systems and mechanisms applied:

Project cost:

17-1 Support for Disaster Victims (Mental health and physical care of children in disaster-affected areas)

Case study	Ashinaga Rainbow House (currently, Sendai, Ishinomaki, and Rikuzentakata Rainbow House)
Location	Miyagi Prefecture (Sendai City, Ishinomaki City), Iwate Prefecture (Rikuzentakata City)
Phases	Emergency response phase Recovery phase <u>Early reconstruction phase</u> <u>Late reconstruction phase</u>
Members	Ashinaga Foundation
<p>Activity overview:</p> <p>Tohoku Rainbow House (Sendai, Ishinomaki, Rikuzentakata) was established in 2014 as an exchange facility for children who have lost their parent(s) in the Great East Japan Earthquake and tsunami, drawing on the experiences of Kobe Rainbow House, which was established after the Great Hanshin-Awaji Earthquake, and Ashinaga Rainbow House, opened in 2016 for children who have lost their parent(s) to illness or suicide from around the country. The houses are designed with various rooms where children can express their grief and emotions, and one-day programs and get-togethers (sleepovers) are offered to allow children from the same generation to talk about their feelings and shared life experiences.</p>	
<p>Activity details:</p> <p>■Support center for children who lost their parent(s) in the disaster</p> <p>Kobe Rainbow House, a home providing mental health and emotional care for children who lost one or both of their parents in the Great Hanshin-Awaji Earthquake, was completed in 1999, in the hope that the grief in the hearts (“Black Rainbow”) of these children could be transformed into a rainbow of seven colors.</p> <p>In light of this experience, the Ashinaga Foundation provided special lump-sum grants to 2,083 orphans at the time of the Great East Japan Earthquake and built “Rainbow House” in 2014, a space for children who lost one or both parents in the disaster to interact, in three locations in the cities of Sendai and Ishinomaki in Miyagi Prefecture and Rikuzentakata City in Iwate Prefecture where there were many recipients of this special one-time payment. All of these houses were opened in locations that were close to disaster-affected areas where the children could gather easily. The Rainbow Houses are designed with a variety of rooms to help children cope with their grief, while one-day programs and get-togethers (sleepovers) are organized to allow children of the same age to talk about their feelings and lived experiences.</p> <p>* Tohoku Rainbow House is the general name for Rainbow Houses in Sendai, Ishinomaki and Rikuzentakata.</p> <p><u>Sendai Rainbow House</u></p> <p>The Sendai Rainbow House, located in the heart of Sendai City, functions like a center for the</p>	

Tohoku region. Families with children who have lost one or both parents attend the regular “one-day programs” (jointly organized with the NPO Children’s Grief Support Station) from inside and outside the prefecture. “Get-togethers for junior and senior high school students,” are also organized in all areas, in addition to programs for university students and adults.

Ishinomaki Rainbow House

One-day and open Friday programs are held regularly. By municipality, Ishinomaki City has the highest number of children who have lost one or both parents due to the earthquake and tsunami. The center is used by children of all ages, from preschoolers to university students.

Rikuzentakata Rainbow House

Monthly programs are held regularly for families in Rikuzentakata City, Ofunato City, Sumita Town, and Ichinoseki City in Iwate Prefecture, and Kesenuma City in Miyagi Prefecture.

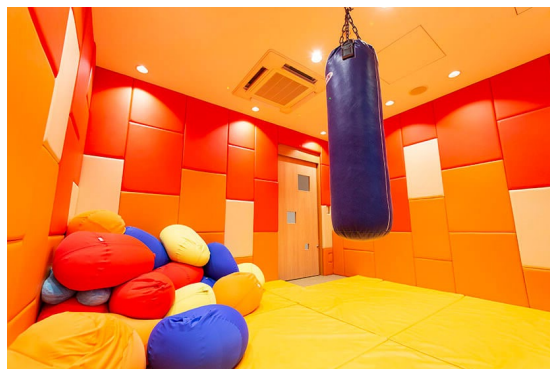
The three Rainbow Houses rent out facilities on days when there are no activities, mainly to local childcare support groups.

■“Rainbow House” grief support facilities

Drawing on the expertise from the Kobe Rainbow House, each of the Rainbow Houses contain three rooms designed to help children express their grief (profound sadness at missing someone): a “Chat Room” where children can sit on a large sofa and take time to talk; a “Volcano Room” where children can move around without hurting others and release stress; and a “Play Room” where children can immerse themselves in play using their heads and hands. The centers also have other facilities, including a multipurpose gymnasium-like hall, cafeteria and sleeping quarters, which combined, create an environment where children who have lost their parent(s) in the disaster can enjoy themselves. Children can play around in the multipurpose hall, which has a curved roof, lending it a different image than that of a gymnasium used as an evacuation center at the time of the earthquake.



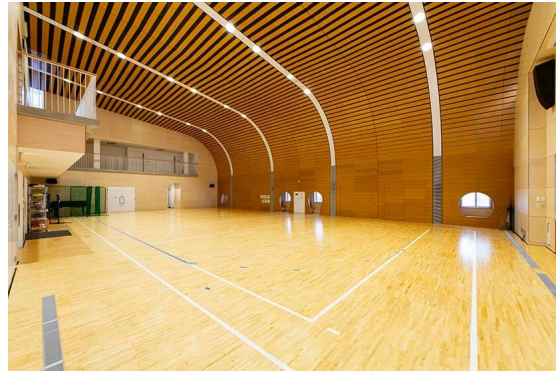
Chat Room



Volcano Room



Play Room



Multipurpose Hall

■Role of facilitators

Close to the children's hearts, volunteer staff at the centers, called "facilitators", are an essential part of programs aimed at providing emotional care to children who have lost one or both parents in the disaster. Only people who have attended training courses (2 days) on understanding a child's grief, practiced communication skills, engaged in grief work to reflect on their own feelings of grief, and learned about self-care can take part in these programs as facilitators. Some of the children who have lost their parent(s) in the disaster are now university students or adults and take an active role in programs as facilitators. Volunteers will play a major role in the organization of future programs, so the centers aim to call upon the community and hold training courses on an ongoing basis.

Sources (Listed in other case studies, etc.)

- ・ あしなが育英会 「東北レインボーハウス」
<https://www.ashinaga.org/activity/emotional-care/rainbow-house-sendai/>
<https://www.ashinaga.org/activity/emotional-care/rainbow-house-ishinomaki/>
<https://www.ashinaga.org/activity/emotional-care/rainbow-house-rikuzentakata/>
- ・ ソフトバンクニュース 「震災遺児・孤児を見守り続ける『仙台レインボーハウス』～東北の子どもたちに今、私たちができること～」
https://www.softbank.jp/sbnews/entry/20200304_01?page=02#page-02
- ・ 震災遺児の心に寄り添う：「一番つらいのはこれから」
<https://www.nippon.com/ja/in-depth/a04303/>

Systems and mechanisms applied:

Project cost:

17-2 Support for Disaster Victims (Mental health and physical care of children in disaster-affected areas)

Case study	Iwate Children's Care Center
Location	Iwate Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Iwate Medical University, Child and Family Division (currently, Office for Children and Childcare Support), Health and Welfare Department, Iwate Prefecture

Activity overview:

The Iwate Children's Care Center is a specialist child psychiatric facility opened to provide mental health and emotional care for children in the aftermath of the Great East Japan Earthquake (until September 2019). Iwate Medical University was commissioned by Iwate Prefecture to operate the center.

Primary functions:

- Dispatch physicians to community care centers in Miyako, Kamaishi, and Kesen areas to provide medical treatment and counseling
- Provide medical treatment and counseling for children living inland who are experiencing stress resulting from the disaster
- Secure and train child psychologists and train pediatricians and support staff

Activity details:

■ Establishment of Mental Health and Emotional Care Centers for Children

The loss of family and friends due to the Great East Japan Earthquake and the fearful experience of the earthquake and tsunami had a significant impact on the mental health of children. In response to this, Iwate Prefecture established the Miyako Mental Health and Emotional Care Center for Children in the Miyako Child Consultation Center, the Kesen Mental Health and Emotional Care Center for Children in the Taiyo Child and Family Support Center, and the Kamaishi Mental Health and Emotional Care Center for Children in the Kamaishi Public Health Center from June 2011, and started to provide mental and emotional care in cooperation with physicians from in and outside the prefecture. However, approximately 90% of the children treated at the centers were pre-school, elementary and junior high school age, raising the need for long-term care.

■ Establishment of "Iwate Children's Care Center" prefecture-wide base

A project team of experts from the prefecture was set up in March 2012, with the Child and Family Division (currently, Office for Children and Childcare Support), Health and Welfare Department, Iwate Prefecture operating as the secretariat, to discuss the state of mental health and emotional care for children.

Since Iwate Prefecture had few pediatricians, psychiatrists and medical institutions even before the disaster and relied on support from outside the prefecture, the Iwate Children's Care Center was

opened in Yahaba Town in May 2013 to fulfill the need to establish a base for long-term, stable support, with assistance from the State of Kuwait and the Japanese Red Cross Society.

Iwate Medical University was commissioned by Iwate Prefecture to manage the center. With four psychiatrists (including one child psychiatrist) and more than 20 staff from multiple disciplines (as of 2018), the center took over the functions of earlier child mental health care centers in different regions and established branches at prefectural hospitals in Miyako, Kamaishi and the Kesen area, where treatment was offered on a weekly basis. The center also functions as a child psychiatry outpatient department at university hospitals, with a prefecture-wide medical network in place to provide treatment and support for both trauma conditions directly related to the disaster, as well as more general mental health issues. Post-disaster trauma care for children is offered comprehensively at relevant centers through a multi-layered care system over three stages: (1) monitoring in collaboration with schools and communities, (2) logistical support for support staff involved with children who require some form of intervention, and (3) medical care for children who require psychiatric treatment.

Iwate Medical University Hospital expanded its specialized treatment system, including the opening of a child psychiatric ward, in line with the relocation and reconstruction of the hospital in September 2019. Treatment functions were transferred from the commissioned work to Iwate Medical University Hospital, which continues to offer counseling services and medical consultation support in disaster-affected areas, specialized recommendations to schools, and training programs (FY 2020 – Iwate Children's Care Center Disaster Area Medical Support Project)

- Location: 1F, Multimedia Education and Research Building, Iwate Medical University (Yahaba Town)
- Operated by: Commissioned to Iwate Medical University
- Functions:
 - Clinical treatment at child psychiatric clinics and in coastal areas
 - Medical treatment of children in inland areas (including evacuees from the coast)
 - Training of child psychiatrists and other specialist staff
 - Support for support staff using training programs
 - Awareness-raising activities and research on caring for children's mental health
- Maintenance costs: Support provided by the Japanese Red Cross Society, with relief aid from the Government of Kuwait
- Construction completed: April 26, 2013

■Support from Kuwait

The Government of Kuwait donated 5 million barrels of crude oil (equivalent to approximately JPY 40 billion) to the Government of Japan in October 2011 to support reconstruction from the Great East Japan Earthquake. This oil was distributed through the Japanese Red Cross Society to Iwate, Miyagi and Fukushima, the three prefectures that had been hit hard by the disaster, taking into account the scale of the damage and overall response to the nuclear accident.

Relief aid was allocated for projects carried out independently by each prefecture, which ranged

from reconstructing local infrastructure, medical care, education, public welfare and nursing care, to restoring agriculture, forestry and fisheries, creation of jobs and support for victims of the nuclear accident.

On July 19, 2012, the Government of Kuwait also sent approximately JPY 157 million to the Japanese Red Cross Society, separate and apart from crude oil aid, from which about JPY 137 million was used to support the Iwate Children's Care Center.

Sources (Listed in other case studies, etc.)

- ・ 岩手県「東日本大震災津波からの復興 岩手県からの提言」(2020年3月) p130-131
https://www.pref.iwate.jp/_res/projects/default_project/_page_/001/027/741/fukkou_teigen_i_all.pdf
- ・ 八木淳子 他「岩手医科大学附属病院・いわてこどもケアセンターにおける TF-CBT の実践」児童青年精神医学とその近接領域 59 巻 4 号 (2018 年) p21-28
https://www.jstage.jst.go.jp/article/jscap/59/4/59_369/_pdf
- ・ 八木淳子「震災・津波被害の小児のところに与えた影響～岩手県でのこころのケアのとりくみを中心に～」小児保健研究オンラインジャーナル 74 巻 1 号 (2015 年) p67-70
<https://www.jschild.med-all.net/Contents/private/cx3child/2015/007401/014/0067-0070.pdf>
- ・ 日本赤十字社「5/29『いわてこどもケアセンター』記念プレート除幕式へのご案内」(2013年5月) http://www.jrc.or.jp/press/130523_000430.html

Systems and mechanisms applied:

- ・ Support projects for disaster victims under general subsidy for support for affected people (comprehensive support projects for health and livelihood measures for children affected by the disaster)

Project cost:

- ・ FY 2019 (actual): JPY 92,122,000 (JPY 92,121,000 funded by the national government)

18-1 Support for Disaster Victims (Supporting children affected by the disaster in attending school and learning)

Case study	NPO KidsDoor: Learning support in Minamisanriku Town	
Location	Minamisanriku Town, Miyagi Prefecture	
Phases	Emergency response phase	Recovery phase
	Early reconstruction phase	Late reconstruction phase
Members	NPO KidsDoor	
<p>Activity overview:</p> <p>NPO KidsDoor started to offer support through the organization of play and study programs for children in Minamisanriku Town at an early stage after the disaster. In collaboration with local authorities and educational institutions, they have developed medium- to long-term activities that support the process of recovery in communities and schools.</p>		
<p>Activity details:</p> <p>NPO KidsDoor was established in Tokyo in 2009 to take up issues, such as child poverty and educational inequalities in Japan. After searching for what families who struggle financially really want, the NPO eventually arrived at a free learning support system for children. At the time of the Great East Japan Earthquake, NPO KidsDoor set up a Tohoku Division and started to provide learning support in the areas affected by the disaster. As the name suggests, KidsDoor develops specialized educational support activities for children in Japan, together with a number of university and high school student volunteers, in order to open the door for Japanese children to society.</p> <p>■Support project for children in Minamisanriku Town, Miyagi Prefecture</p> <p>Tokura Elementary School (moved to new building in fiscal 2015) and Tokura Junior High School (closed in fiscal 2013, merged with Shizugawa Junior High School in fiscal 2014) in the Tokura area of Minamisanriku Town, Miyagi Prefecture started their new term on May 10, 2011, borrowing school buildings and other facilities from (former) Zennoji Elementary School in neighboring Tome City since the school buildings were non-functional due to damage from the tsunami.</p> <p>With funding from the Nippon Foundation's ROAD Project, KidsDoor cleaned up the (former) Zennoji Elementary School before it reopened and provided support to children in the Tokura area so they could learn and play. After the school's reopening, KidsDoor implemented a variety of support activities, including play and learning opportunities for children in after-school programs and art workshops organized with the aim of helping children open their minds and get in touch with their emotions.</p> <p><u>Overview (April 14-17, 2011)</u></p> <ul style="list-style-type: none"> Clean-up and delivery of supplies to schools that elementary and junior high school students attended in the Tokura area of Minamisanriku Town, Miyagi Prefecture 		

○April 14 (Thursday)

- Mental health care seminar for volunteers involved in supporting disaster victims (19:00-21:30)
- Departure from Subaru Building (station side), Shinjuku Station West Exit (23:00)

○April 15 (Friday)

- Arrival at Minamisanriku Town Disaster Prevention Volunteer Center, report on start of activities (9:00)
- Arrival at Tome Municipal Zennoji Elementary School (closed), clean-up and delivery of supplies (10:30-16:00)
- Arrival at Miyagi Prefecture Shizugawa Nature Center, designated evacuation center in the Tokura area of Minamisanriku Town, Miyagi Prefecture (18:30)
- Preparation for program to start on Saturday (until lights out)

○April 16 (Saturday)

- Children's Play & Study Program
Aozora Classroom: Kids' Campus (9:00-16:00)

○April 17 (Sunday)

- Children's Play & Study Program
Aozora Classroom: Kids' Campus (9:00-11:30)
- Departure from Nature Center (13:00)
- Arrival at Subaru Building (station side), Shinjuku Station West Exit (22:30)

Tokura Elementary School was relocated and incorporated with Shizugawa Elementary School in April 2012. The school was relocated with the completion of a new building in October 2015, however, many students continued to go to school by bus even after the move to the new building. In response to a request from the Lifelong Learning Section, Minamisanriku Board of Education, KidsDoor hired mothers from the local community (primarily in their 30s and 40s) to look after the children until the school buses arrived (Tokura Children's After-School Program).

■Children's Play & Study Program "Aozora Classroom: Kids' Campus"

Many children at evacuation centers talked about how they wanted to study and play, while parents verbalized how they wanted their children to develop study habits even while in the shelters to help them get back into their daily routines. This resulted in the organization of the "Aozora Classroom: Kids' Campus" Children's Play & Study Program. Efforts were made to post timetables, create a roster of names and check attendance, and give directions to stand, bow and sit in order to provide a semblance of the "routine" of going to school.



(上、下左)本気ドッチボール。幼児から高校生まで参加。
(下右)ボールリレー。全力応援！



(上左)しっかり準備体操。(上右)一体感を作るワーク。輪くぐり
(下)みんなで大縄跳び。負ぶすも、縄を回す子も一生懸命！



(上)幼児～中学生の付き添い学習。計算や漢字のプリントなど
(下左)自由室では工作や絵本読み聞かせ (下右)中学生も真剣



(上左)みんな本気で取り組んだ (上右)リズムに合わせて踊ろう
(下)高校生には、国立大学の学生が丁寧に解説



■After-school study group

With the formation of the Tokura Junior High School after-school study group in 2012, the hours after school until the school bus left at the end of the day were used as time for study sessions. After Tokura Junior High School was incorporated into Shizugawa Junior High School in 2014, study sessions were organized for third-year students under the Shizugawa Junior High School after-school study group. Since it was difficult to find people in the town who could provide guidance on examinations, support staff were dispatched to the school from Sendai to lighten the load on teachers. Since 2015, an online class project has been implemented using a videoconferencing system with Watasu Nihonbashi. Staff

from KidsDoor and study help volunteers in Tokyo worked as instructors to help students prepare for high school entrance exams through online classes until 2017.

■Current activities: “Tadazemi Minamisanriku” and “English Drive Minamisanriku”

KidsDoor has continued to support learning opportunities for children in Minamisanriku since April 2011, in the immediate aftermath of the earthquake. Since 2018, KidsDoor has also provided support to junior high school students through “Tadazemi Minamisanriku”, a free preparatory course for high school entrance examinations for third-year students, as well as “English Drive Minamisanriku”, a free English study session for first- and second-year students.

■Current activities: “Minamisanriku Online Study Group”

With school closures continuing for extended periods of time due to COVID-19, KidsDoor Tohoku launched an online study group in May 2020 for children who were worried about their studies. This activity has led to the hope that more opportunities can be found for children who are unable to attend school because of distance or for financial reasons.

Sources (Listed in other case studies, etc.)

- ・ 特定非営利活動法人キッズドア東北事業部 「設立のきっかけ」
http://kidsdoor-fukko.net/?page_id=4135<https://kidsdoor.net/about/outline>
- ・ 特定非営利活動法人キッズドア東北事業部 「南三陸町の子どもたち、東日本大震災から5年目の現状と報告」 (2016年)
http://kidsdoor-fukko.net/?page_id=4292
- ・ 特定非営利活動法人キッズドア東北事業部 「【実施報告】宮城県南三陸町の子どもたち応援プロジェクト第一弾 4/14夜～4/17」 (2011年4月)
<http://kidsdoor-fukko.net/?p=441>
- ・ 特定非営利活動法人キッズドア東北事業部 「南三陸での学習会が今年もスタート！」 (2020年9月)
<http://kidsdoor-fukko.net/?p=6891>
- ・ 特定非営利活動法人キッズドア東北事業部 「Blog」
<http://kidsdoor-fukko.net/?cat=18>
- ・ 産経ニュース 「被災地の「学習支援」 地域の事情に合わせた“配慮”と“工夫”を」 (2015年3月)
<https://www.sankei.com/premium/news/150315/prm1503150033-n1.html>

Systems and mechanisms applied:

Project cost:

18-2 Support for Disaster Victims (Supporting children affected by the disaster in attending school and learning)

Case study	Utsukushima Fukushima Children's Future Support Project
Location	Fukushima Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	NPO Beans Fukushima

Activity overview:

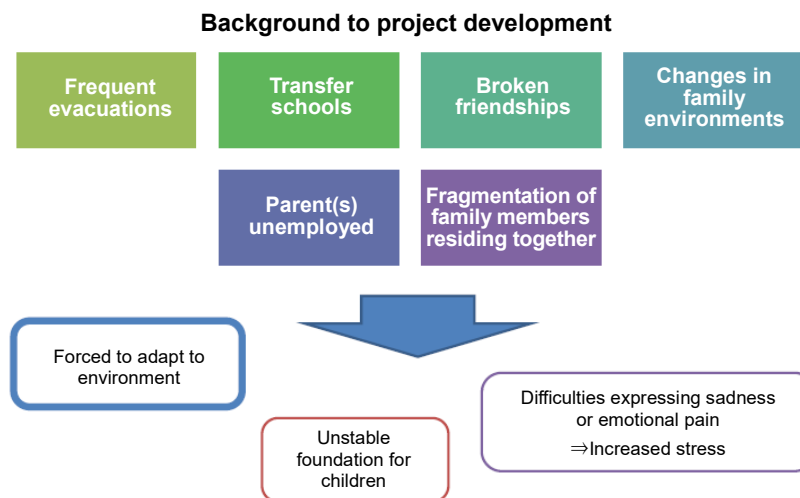
The NPO Beans Fukushima started activities in 1999 as an alternative school with the aim of providing support in life and learning to children who did not attend school and youth who had withdrawn from society.

Since the Great East Japan Earthquake, Beans Fukushima has used its expertise to launch the Utsukushima Fukushima Children's Future Support Project, which focuses on creating spaces for children in emergency temporary housing, supporting their learning endeavors, providing mental health and emotional care for parents/guardians and children, and supporting parents/guardians and children who have evacuated outside the prefecture. In addition to the learning opportunities and experiences over the past years, Beans Fukushima aims to implement activities that will offer a sustainable level of support, based on the perspective of mental health and emotional care through play.

Activity details:

■ Changes in children's living environments due to the Great East Japan Earthquake

The Great East Japan Earthquake and nuclear accident forced children in Fukushima to leave their familiar surroundings, change schools and be separated from their friends, putting them under a great deal of stress. This stress manifested itself in children who avoided going to school, became withdrawn, and faced emotional upheaval, which affected their mental health.

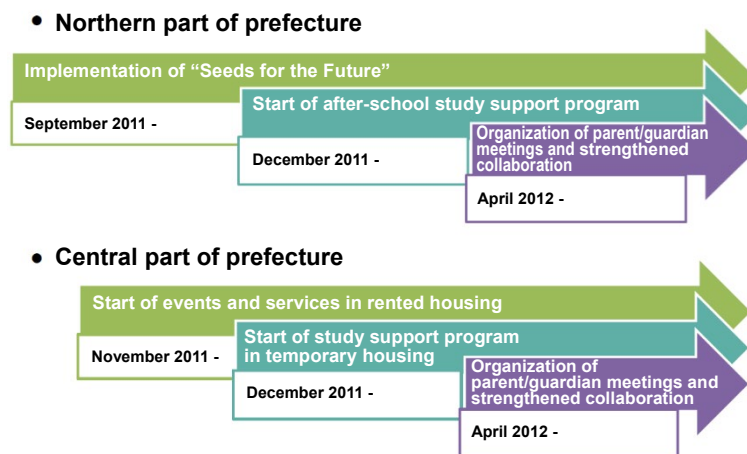


* Extract from the "Utsukushima Fukushima Children's Future Support Project Interim Report 2012"

■ Mental health and emotional care for children (support for learning and playing)

Beans Fukushima launched the Utsukushima Fukushima Children's Future Support Project in September 2011 in cooperation with the Toyota Foundation, Panasonic Education Foundation and other organizations, in order to provide support from schools, as well as families and communities from a long-term perspective. Children community lifestyle support coordinators from children's support centers were assigned to the northern and central regions of the prefecture. The following projects were developed in cooperation with local residents, students and professional organizations.

Development of support



* Extract from the "Utsukushima Fukushima Children's Future Support Project Interim Report 2012"

○Activities in the northern part of Fukushima Prefecture: After-school Study Support (Terakoya) Project for elementary and junior high school students

After-school study support projects were offered at three emergency temporary housings in the northern part of the prefecture (two in Fukushima City and one in Nihonmatsu City) in order to help children with their studies and create spaces for them. Various events and recreational activities are organized by full-time staff and volunteers for the children to enjoy, with the main focus on becoming close with the children, helping them get into the habit of studying, and enjoying the feeling of knowledge that comes with learning, rather than on extending the range of their academic skills.

○Activities in the central part of the prefecture: Children's Square (experiential learning for elementary and junior high school students)

The Children's Square program was implemented at four emergency temporary housings in central Fukushima Prefecture (two in Koriyama City and two in Miharu Town), designed as safe spaces for children to release them from the stress of daily life. Seasonal events and rice-growing activities also offered opportunities to educate the community and encourage parents/guardians to interact with one another, in addition to cooking, crafts and other activities.

By offering them opportunities to play and learn, these activities provided a constant source of support to children living in emergency temporary housing and post-disaster public housing in the northern and central parts of Fukushima Prefecture, creating a children-centric mechanism to regenerate communities, with the participation of parents/guardians and local residents.

■Ongoing support through other projects and transferring operations to partner organizations

The Utsukushima Fukushima Children's Future Support Project concluded in fiscal 2019, since many of the children started to attend schools in school districts and there was an increase in the number of local children attending, which diminished its significance as a reconstruction support project. A more precise approach is believed to be more effective for children from households that continue to need support, and Beans Fukushima is currently transferring this project to other programs, such as the Fukushima Children's Support Center, which is managed by Beans Fukushima, and the Second Program of "Everyone's House" Reconstruction Exchange Center.

The Fukushima Children's Support Center was established with the aim of providing a continuous and stable source of professional support for the mental and emotional care of children affected by the Great East Japan Earthquake and their parents/guardians who evacuated to locations in and outside Fukushima Prefecture. At the outset, the center was operated as the Fukushima branch of the Central Children's Support Center of the Great East Japan Earthquake, although the name was changed to the Fukushima Children's Support Center in April 2014 in line with changes to support schemes. NPO Beans Fukushima is commissioned by Fukushima Prefecture to assess the situations of children and compile information on their support needs, collect and disseminate information on support for children affected by the disaster and families raising children, and provide a wide variety of support services to these children, their parents/guardians and supporters.

A variety of events can be held at the Second Program of "Everyone's House" Reconstruction Exchange Center, a space where parents/guardians and children who have evacuated or returned to their place of origin can meet in a casual environment and share their worries and concerns with one another.

Sources (Listed in other case studies, etc.)

- ・ 特定非営利活動法人ワールド・ビジョン・ジャパン、特定非営利活動法人ビーンズふくしま「ふくしまの子どもたちとともに」(2018年3月)
https://www.worldvision.jp/news/item_img/works/web%E5%AD%90%E3%81%A9%E3%82%82%E3%81%9F%E3%81%A1.pdf
- ・ CANPAN「平成27年度ビーンズふくしまの活動紹介」(2015年)
<http://fields.canpan.info/data/organizations/161/161454/1614547402/files/PjTNKBdk.pdf>
- ・ 特定非営利活動法人法人 ビーンズふくしま「うつくしまふくしま子ども未来応援プロジェクト2019年度の活動報告」
beans-fukushima.or.jp/wp-content/uploads/2020/s05/R1_plan.pdf

Systems and mechanisms applied:

- FY 2011 Subsidy from Toyota Foundation (northern and central areas in Fukushima Prefecture)
- FY 2012 Subsidies from Toyota Foundation and Panasonic Education Foundation (northern and central areas in Fukushima Prefecture)
- FY 2013 Subsidies from Toyota Foundation and Panasonic Education Foundation (northern area in Fukushima Prefecture), Welfare and Medical Service Agency
- FY 2014 Subsidy from Save the Children, commissioned work to create a child-friendly environment in temporary housing (Fukushima Prefecture: General subsidy for support for affected people)
- FY 2015 Subsidy from Save the Children, commissioned work to create a child-friendly environment in temporary housing
- FY 2016 Commissioned work to create a child-friendly environment in temporary housing, New Year's postcard donations, emergency school counselor program (Commissioned by Namie Town)
- FY 2017 Commissioned work to create a child-friendly environment in temporary housing, New Year's postcard donations
- FY 2018 New Year's postcard donations, donations
- FY 2019 Subsidy from Chunichi Shimbun Social Enterprise, donations, subsidies for community-based childcare support projects (Fukushima Prefecture), Mental Recovery project (Reconstruction Agency)

Project cost:

- FY 2011 to FY 2017: JPY 12 to JPY 15 million annually
- FY 2018, FY 2019: Approximately JPY 4 to 5 million

21-1 Reconstruction of Homes and Cities (Consensus building process in city development)

Case study	Building consensus for group relocation, and reflection of residents' voices in development plans through workshops
Location	Tamauranishi district, Iwanuma City, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Iwanuma City, Tamauranishi District City Development Review Committee, The University of Tokyo

Activity overview:

Iwanuma City's Basic Policy for Earthquake Disaster Reconstruction calls for the development of a compact city, with policy decisions made early on to consolidate and relocate people from multiple districts. Consensus was built on group relocations at an early stage, and a series of workshops on reconstruction city planning was held in collaboration with a university to reflect residents' voices in the development of relocation sites.

Activity details:

■ Group relocation that values communities

Iwanuma City's Basic Policy for Earthquake Disaster Reconstruction, which was announced on April 25, 2011, calls for the "development of a compact city that values the revitalization of local communities." On November 2, 2011, the Tamauranishi district was selected as the group relocation site at the 6 District Representatives Council with representatives from extensively damaged districts along the coast. The Tamauranishi District City Development Review Committee was established on June 11, 2012 to examine city development in the group relocation site, and construction began at the site in August 2012.

After the group relocation site was selected, Iwanuma City and The University of Tokyo jointly organized workshops between November 2011 and January 2012 on reconstruction city planning in the Tamaura district. At the workshop, local issues were shared from the perspectives of creating a safe and secure community environment, reconstruction of living spaces, and passing on the community's history and culture, with discussions on the image and future vision of reconstruction city planning for the entire district. Participants (mostly disaster victims) from in and outside the city shared their opinions and ideas at the workshops, which were compiled to frame the concept of reconstruction city planning, including the integration of content from the workshops into a 1/200 scale model.

Subsequently, the abovementioned city development review committee was established prior to the start of construction work. Academic experts, representatives from the six disaster affected areas, and community representatives from areas around the relocation site met 28 times between June 2012 and November 2013 to engage in comprehensive discussions on city development policies, land use plans, and other elements of city development at the relocation site.

■Sustaining communities in evacuation centers and emergency temporary housing and consensus building for group relocation

In Iwanuma City, evacuees lived in shelters, grouped together by district. When they moved into emergency temporary housing, discussions were held on the number of units required and occupancy processes at briefing sessions for district representatives at evacuation centers, with a decision reached to move evacuees into emergency temporary housing by district. Applications for emergency temporary housing were accepted starting on April 5, 2011, with units occupied between April 29 and June 4, 2011, the earliest of all areas affected by the disaster (emergency temporary housing: 384 units in three locations, maximum occupancy 379 units). In this way, consensus was reached on group relocation without difficulty, as consideration was given to allow residents to move in groups by neighborhood association from the time they lived in shelters and emergency temporary housing, which prevented local communities from breaking apart and provided space and time for issues to be discussed (interview with Mr. Tsuneaki Iguchi, former mayor of Iwanuma City, November 27, 2019).

■Promoting efforts to attract commercial facilities, as well as housing

Iwanuma City designated industrial cluster zones for reconstruction as special zones to attract retail and service-oriented businesses by offering exemptions from property and city planning taxes. The city is attracting commercial centers and reconstructing public nursery schools damaged in the disaster, which will also improve lifestyle convenience for residents, including in the surrounding areas.

■Reflecting public opinion through workshops on reconstruction city planning

As mentioned above, Iwanuma City, a university and other stakeholders jointly organized 10 workshops and 18 city development review committee meetings. These gatherings provided an opportunity for residents to take a proactive stance in submitting proposals on the formation of sustainable city that transcend generations and maintain connections that had been developed in different areas over the years, with the aim of revitalizing history-filled hometowns. For example, as part of the community's identity, a green path in the shape of the Teizan canal and a small hill where people can evacuate on foot were developed as "symbolic hills."

Sources (Listed in other case studies, etc.):

- 岩沼市「東日本大震災 岩沼市の記録」(2020年3月)
<https://www.city.iwanuma.miyagi.jp/bosai/fukko/shinsaiapli/kirokushi.html>
- 園田千佳他「復興まちづくりの計画策定プロセスにおける住民ワークショップの役割に関する研究」日本都市計画学会都市計画論文集, Vol.48, No. 3 (2013年)
https://www.jstage.jst.go.jp/article/journalcpj/48/3/48_849/_pdf/-char/ja
- 宮城県岩沼市長井口経明「岩沼市の復興事業と課題 集落集約とコミュニティ再生のまちづくりは日本の復興モデル」(2013年9月)
http://www.toshi.or.jp/app-def/wp/wp-content/uploads/2013/10/130926_4.pdf

Systems and mechanisms applied:

- Project on promoting group relocation for disaster prevention
- Special Zones for Reconstruction based on the Act on Special Zones for Reconstruction in Response to the Great East Japan Earthquake

Project cost:

- Project on promoting group relocation for disaster prevention JPY 13,807 billion



Well-maintained green path



Commercial center



Get-together at meeting place next to park



Tamuranishi District Landscape Master Plan (Source: Iwanuma City, Miyagi Prefecture)

21-2 Reconstruction of Homes and Cities (Consensus building process in city development)

Case study	Building consensus for the reconstruction of a port area looking out over the sea
Location	Naiwan District, Kesenuma City, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Miyagi Prefecture, Kesenuma City, Naiwan District Reconstruction City Development Council, Kesenuma Regional Development Corporation, experts, Kesenuma City Study Group on Coastal Levees, other

Activity overview:

Naiwan district, Kesenuma City, a beautiful port town landscape without coastal levees, was extensively damaged by the tsunami. In this case, it was necessary to secure views of the ocean and ensure safety with the construction of coastal levees and other infrastructure.

Proposed by Miyagi Prefecture, the height of the coastal levee was 4.4 meters as seen from the city, which many residents opposed because it would spoil the scenery of the area. In response to this opposition, the city formed a Reconstruction City Development Council for Naiwan district, where residents and businesses could come together to discuss city development targets for the district, as well as plans and designs for the coastal levee. The council gathered together the opinions of residents and businesses in the district in collaboration with various organizations and experts, and submitted proposals to the prefectural and municipal governments. Consensus was reached through careful discussion on the construction of a coastal levee and other infrastructure that would ensure views of the sea.

Activity details:

■ Presentation of a draft reconstruction city plan by the local authority

Naiawn district in Kesenuma City was once a busy city center built around a fish market. Even after the fish market was relocated, the beautiful scenery of the levee-free port area had been a favorite attraction for tourists, but was extensively damaged by the tsunami of the Great East Japan Earthquake.

The Kesenuma City Earthquake Reconstruction Plan was formulated in October 2011 in response to the devastation wrought by the disaster. A decision was made to construct a coastal levee and build up the ground level through a land readjustment project, in order to improve the safety of the urban area in Naiwan district.

■ Developing a consultative framework on the construction of a coastal levee

Many residents opposed the proposal by Miyagi Prefecture for a 4.4 meter-high coastal levee, as it would block the view of the sea and ruin the beautiful scenery of the port area.

Subsequently, Kesenuma City held a competition on reconstruction city plans for Naiwan district between December 2011 and April 2012. With a focus on how to position the coastal levee plan in the city planning process, the competition provided an opportunity to build momentum for reconstruction city

plans. In June 2012, the Naiwan District Reconstruction City Development Council (Fig. 1) was created to serve as a forum for discussion between the local authority and residents, with Kesennuma City serving as the secretariat. Three committees were set up under the council (Housing Reconstruction Committee, Business Committee, and Public Facilities & Tourism Facilities Review Committee), and included the participation of 37 members, including neighborhood association leaders, local residents appointed by neighborhood association leaders, and local businesses. Experts with experience in architectural and urban planning, with expertise in consensus building, were also appointed as coordinators. Their role was to facilitate discussions, coordinate council members' opinions, and allow members to not only express their ideas about the plans presented by the local authority, but to also propose their own detailed plans and designs for the coastal levee to the local authority.

The following consultation framework was also developed before the start of discussions.

- Information was acquired from local groups other than the council, such as the Kesennuma City Study Group on Coastal Levees which was formed by local volunteers, in order to collect information on the coastal levee plan.
- A comprehensive review system was established in cooperation with experts in civil engineering, architecture and lighting.
- A forum was established to discuss the feasibility of proposed design changes with engineers in charge of the project in Miyagi Prefecture.
- Members were selected for each committee to ensure that discussions would stay on track and themes would be focused.

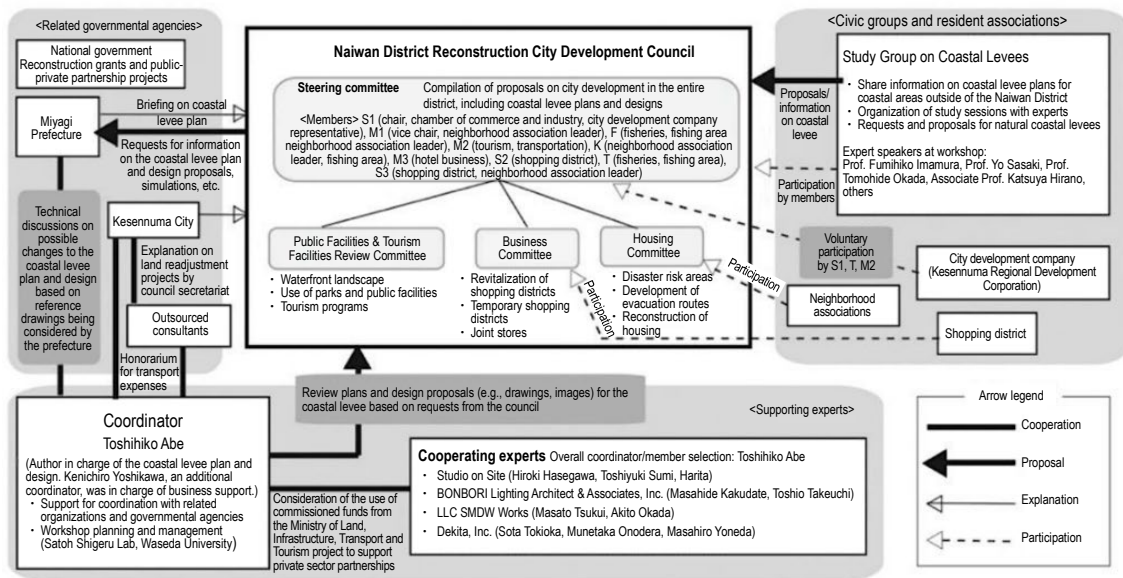


Fig. 1 Consultative framework for the Naiwan District Reconstruction City Development Council (Source: Toshihiko Abe)

■ Devising methods to build consensus on the development of a coastal levee

In response to requests from the Study Group on Coastal Levees and others, the Miyagi Prefectural

Assembly approved a Resolution on the construction of a coastal levee in respect of consensus with local residents in October 2012. The local authority and council continued discussions based on this policy. Through these discussions, the council members came to an understanding on a basic policy stating that “Naiwan district has grown in combination with the sea and town’s livelihoods and landscapes, and that there is a fear that the coastal levee may diminish the fishing and tourism industries. No agreement can be reached unless the view from the city area to the sea is secured.” The location, height, and shape of the coastal levee was discussed repeatedly on the basis of this policy, and a variety of simulations were conducted on tsunami patterns, with studies conducted continuously on the levee’s location, design and other attributes. As a result, plans and a detailed design for the coastal levee and other infrastructure were finalized in March 2014 that would ensure clear views of the sea in Naiwan district, with construction starting in October 2015.

The following measures were taken to ensure a smooth process for building consensus.

- 1) Opinions were actively exchanged and explanations were provided to stakeholders. For example, requests were made to prefectural government officials for their participation in council meetings, and fishery and tourism businesses that would be adversely affected by the loss of these ocean views directly communicated the problems they would face. In addition to briefings from the prefecture and city, neighborhood association leaders, who are council members, also provided detailed explanations to residents through their community channels.
- 2) Detailed conditions required to ensure the safety of the district and views to the sea were reviewed based on the knowledge acquired from the Study Group on Coastal Levees.
- 3) District blocks that could be built up ahead of time and rebuilt at an early stage were proposed, in order to achieve a balance between building up the city area to secure views to the sea, and the early reconstruction of housing and livelihoods.
- 4) An city development company (Kesenuma Regional Development Corporation) was established, with council members serving as representatives, to coordinate the design of public, commercial and tourist facilities to be developed together with the coastal levee, and to manage and operate the levee after construction in cooperation with the prefecture and city.
- 5) Models, computer graphics and mockups were created in line with the themes discussed to encourage consensus building.

Sources (Listed in other case studies, etc.):

- 阿部俊彦「気仙沼市内湾地区における防潮堤の計画とデザインの合意形成プロセス」土木学会論文集 D1 (景観・デザイン), Vol.73, No.1 (2017年) p37-51
https://www.jstage.jst.go.jp/article/jscejaie/73/1/73_37/_pdf/-char/ja
- 気仙沼市「内湾地区復興まちづくり協議会・全体会 【資料1】内湾地区復興まちづくりに係るこれまでの検討経過」(2013年1月) <https://dl.ndl.go.jp/info:ndljp/pid/8208660>
- 気仙沼市建設部都市計画課土地区画整理室「内湾地区復興まちづくり協議会 ワーキングの開催」記者発表資料 (2018年5月)

https://www.kesenuma.miyagi.jp/sec/s002/020/030/050/020/070/3005/2018-05-15_toshikei.pdf

Systems and mechanisms applied:

- Project to promote the effectiveness of land readjustment projects (administrative expenses for council secretariat)
- Ministry of Land, Infrastructure, Transport and Tourism public-private partnership support project for disaster reconstruction (costs for developing models and computer graphics, assistance to Kesenuma City)

Project cost:

22-1 Reconstruction of Homes and Cities (Devising project methodologies to rebuild and relocate cities)

Case study	Realization of careful and considerate urban reconstruction and relocation projects at an early stage that offer a sincere response to the needs of disaster victims
Location	Noda Village, Iwate Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Noda Village, Reconstruction Planning Committee (in cooperation with Iwate University), 21st Century Village Development Committee

Activity overview:

Disaster public housing in Noda Village was constructed at an earlier stage than other projects in Iwate Prefecture, with the process of rebuilding and relocating communities moving ahead at a rapid pace as construction started on projects on promoting group relocation for disaster prevention. As a small municipality, the foundation of the project was the face-to-face relationship between the village mayor and other village officials with disaster victims. A variety of different reconstruction options were put together for each of the communities affected by the disaster, with a sincere effort to address the needs of each and every disaster victim. Another feature of this project is that the entire village is involved in reconstruction efforts, including the organization of roundtable meetings with the participation of residents from outside affected areas as well.

Activity details:

■City development with multiple lines of defense against disasters with the construction of high embankments to act as tertiary levees

Noda Village, Iwate Prefecture constructed a 14-meter-high seawall as a primary levee and uses National Route 45 and the Sanriku Railway as secondary levees. In addition to this, the village also constructed high embankments to act as tertiary levees based on the results of tsunami simulations to reduce the scope of flood damage from tsunamis and secure enough time for evacuating, resulting in a form of city development providing multiple lines of defense against disasters. Pocket-shaped buffer zones between the secondary and tertiary levees have been developed into parks, and a tsunami of the same scale as that in the Great East Japan Earthquake would not flood residential areas inland past the tertiary levees.

Although restrictions were placed on residency due to the extensive disaster hazard zone (76.2 ha), the consensus building process was smooth because the area had already experienced a number of tsunamis in the past and residents had no desire to live there.

■Use of directly administered surveys

Through relief activities immediately after the disaster, the village had a general idea of the extent of the damage, but had no time to conduct basic surveys to publicize the true scope of the damage because they were busy providing support to the victims and temporarily restoring lifelines. For this reason, the

village requested a consultant responsible for directly administering surveys at the national level to implement a detailed study, conduct final checks, and organize information about damage conditions using data collected previously by the fire department and village workers, as well as tax data.

Village staff conducted frequent field inspections of disaster-affected areas. Armed with the knowledge of these conditions, they assumed a 6-meter flood line and restricted housing past that line towards the sea. The prefectural government determined the height of levees, and tsunami simulations based on the directly administered survey were used to scientifically verify and set this 6-meter line. Multiple patterns for the height of the tertiary levee were also considered to determine the height of this line of defense that would prevent flooding in the residential area.

■ Rebuilding and relocation with community focus

A total of five districts were affected by the disaster in the central city area (Jonai district) and small villages along the coast (Maita, Minamihama, Shimoakka, and Nakazawa districts). Smaller communities are relocating and rebuilding within their respective districts, in consideration of retaining the cohesiveness of their own communities.

Originally, the Shimoakka and Nakazawa districts were expected only to relocate to higher ground through a project on promoting group relocation for disaster prevention. However, in April 2011, the residents in the Shimoakka district submitted a request for their community to be rebuilt. Many of the residents in this district fished for a living in this area known as the location of the best salmon hatchery in the Tohoku region, so many members of the community wanted to rebuild in this original location. Residents also wanted to relocate to higher ground from a safety perspective, so in response to this, the village made use of a project to strengthen disaster management functions in fishery villages to rebuild housing in the area and relocate to higher ground by raising building lots. The same situation was found in the Nakazawa district. The prefectural government raised the prefectural road up to 4.5 meters in response to requests from residents to accommodate the raised housing lots in areas being reconstructed in the Shimoakka district. This same project also utilized the Great East Japan Earthquake and Tsunami Reconstruction Fund to subsidize interest for borrowing loans to rebuild housing without assistance, so that there would be no difference with those eligible for assistance through projects on promoting group relocation for disaster prevention. The Maita and Minamihama districts were relocated to higher ground nearby in the same area through a project on promoting group relocation for disaster prevention.

However, infrastructure in the former central urban area of the Jonai district, such as housing lots, roads, parks, water and sewage systems, were developed through a land readjustment project concerning reconstruction of urban districts damaged by disasters, with the district moved to higher ground through projects on promoting group relocation for disaster prevention. Support was also provided to residents to offer them a variety of choices regardless of the project area. Residential housing sites in disaster risk areas were purchased by the village through a project on promoting group relocation for disaster prevention, and the acquisition of land for an urban park project in the disaster risk zone also

played a role in building consensus among residents. However, residents in land readjustment project areas who expressed a desire to move to higher ground were able to choose to live in new locations through prior purchase. Land readjustment projects also include the construction of several roads toward the inland area, as well as the development of evacuation routes and construction of an evacuation building that also functions as a health center.

Independently reconstructed housing and disaster public housing were mixed and not divided into zones, at the request of residents in housing complexes on higher ground, in order to maintain community ties.

■Development of an urban park examined, planned, maintained and managed with the cooperation of residents

With the small size of the village, the development of an urban park approximately 19 ha in size was a large undertaking, requiring systems to be put in place for the utilization, maintenance and management of the park after it opened. Accordingly, this project was promoted through public participation, from the conception and planning stages. To ensure that the opinions of children as future leaders were reflected in plans, workshops were held on development and usage details for students at elementary, junior high and technical high schools in the village, in addition to the organization of workshops by the 21st Century Village Development Committee, which consisted of representatives from communities in all districts throughout the village and various organizations.

Since the park has opened, various groups in the village clean the restrooms and cut the grass as paid volunteers. Playground equipment has been installed at the multipurpose event square to offer a safe space for children to play, and is used as a destination for field trips by nursery schools and other groups in neighboring municipalities. With little snowfall during the winter, the plaza attracts a number of senior citizens from neighboring municipalities who enjoy playing “park golf” throughout the year. The park has become a space for recreation and relaxation for a wide range of people, age 0 to 100 and beyond.

■Organization of district roundtables in affected areas and the village as a whole

Noda Village formulated a tsunami reconstruction plan in November 2011. When a draft of the plan was almost finalized in September 2011, a ten-day roundtable meeting was held with local residents in all districts in the village. Subsequently, the village continued to hold panel discussions once a year in all districts to request the ongoing understanding and cooperation of residents who had not been affected by the disaster on the progress of reconstruction efforts and projects, utilizing the framework of public advisory councils that had been in place prior to the earthquake.

Since September 2012, the 21st Century Village Development Committee, consisting of representatives from communities and various organizations from all districts in the village, has examined the plan, which was upgraded to the Noda Village Reconstruction and Village Development Plan in April 2013, with guidelines established for the development of the streetscape.

Sources (Listed in other case studies, etc.):

- 岩手県野田村「野田村復興記録誌」(2018年3月)
<http://www.vill.noda.iwate.jp/kakusyukouhyou/663.html>
- 2020年10月26日実施のヒアリング結果に基づく

Systems and mechanisms applied:

- Project on promoting group relocation for disaster prevention
- Land readjustment projects concerning reconstruction of disaster areas
- Project to strengthen disaster management functions in fishery villages
- Urban park project

Project cost:

Project name	Project cost (yen)
Project on promoting group relocation for disaster prevention	2,183,131,768
Land readjustment projects concerning reconstruction of disaster areas	1,398,336,781
Project to strengthen disaster management functions in fishery villages	439,522,551
Urban park project	2,186,197,736
Total	6,207,188,836



Land readjustment project and urban park development in the central city area (Jonai district)



Health center that also functions as an evacuation building (in land



Disaster public housing (in land readjustment area)



Shinmachi district (project on promoting group relocation for disaster prevention)



Maita district (project on promoting group relocation for disaster prevention)

24-1 Reconstruction of Homes and Cities (Revitalization and management of city centers)

Case study	Creation of sustainable appeal of cities through area management and phased development to facilitate early reopening of businesses
Location	Ofunato City (Iwate Prefecture), Ofunato Station and surrounding area
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Ofunato City, Kyassen Ofunato Co., Ltd., Ofunato Chamber of Commerce and Industry, Urban Renaissance Agency, Daiwa Lease Co., Ltd. (area management partner)

Activity overview:

Ofunato City implemented land readjustment projects to consolidate land and develop infrastructure, in addition to reconstruction base development projects in areas affected by the tsunami to quickly build up urban areas that would serve as a base for reconstruction, with the aim of revitalizing the area around Ofunato Station, the main commercial and business center in the Kesen area.

The private sector took the lead in developing mechanisms for city development that diverges from shopping districts where commercial facilities and housing are integrated, to one where work and residences are separated from a safety perspective, and the formation of sustainable and attractive commercial, business, tourism, exchange and disaster management and prevention hubs, to create value for the city and for maintenance and upkeep through area management, with a promotional system established in cooperation with private companies and the recruitment of human resources from the private sector.

Priority development areas were established in order to resume business operations as soon as possible, and facilities in central areas were developed in stages so that they could be aligned with the construction of residences through land readjustment.

Activity details:**■ City development with repeat challenges and tests: Area management**

The area in front of Ofunato Station, which was devastated by the tsunami, developed together with the neighboring Port of Ofunato as the commercial and business center of Ofunato City and the Kesen area. However, as the population declines and ages, this area with a concentration of residences and shops has become what can be referred to as a shuttered shopping district. In light of these issues, the city has positioned this district as a logistical and tourism hub to regroup commercial and business functions in its reconstruction plan (formulated in October 2011). Ofunato City decided to create a mechanism for city development that would allow the private sector to repeatedly challenge and test themselves through the concept of area management, with the aim of creating an attractive, competitive and sustainable community capable of responding to future changes in consumer values and social conditions.

■ Reorganization of land use zoning and phased opening

JR Ofunato Station borders the mountains on one side, and by raising the JR Ofunato Line and the

area behind, a safe residential area capable of withstanding an L2 class tsunami was created through a land readjustment project. On the side of the ocean, the area between the levee designed to provide protection from an L1 class tsunami was designated as a disaster risk zone, which prohibited housing from being built there. The city purchased privately owned land that was intended for sale as part of reconstruction base development projects in areas affected by the tsunami, leasing it to the private sector as a commercial and business zone and creating a new central city area.

The phased development of the area was also instrumental in quickly securing relocation sites for stores and businesses that had been affected by the disaster. Ahead of the progress of the land readjustment project, which has been implemented since fiscal 2012 (total area: 33.8 ha (Fig. 1), scheduled for completion in fiscal 2020), a priority development zone was established in a tsunami reconstruction base area (10.4 ha (Fig. 1)), with a variety of functions developed in phases (opened in 2017).

■Area management initiatives

1) Basic study phase (FY 2011-FY 2013)

Institutional design was examined by a public-private partnership working group, and a decision was made to introduce a resident- and business-driven mechanism to cultivate the area (area management) in collaboration with the city through the application of land readjustment and tsunami reconstruction base systems. (City-owned) Land for the tsunami reconstruction base will, in principle, be leased to developers by block, and after a 20- to 30-year lease period, the area will be reassessed according to future conditions. Overall city development for the area around the station was reviewed in fiscal 2012, with the tsunami reconstruction base examined by three sub-committees (i.e., area management, governmental facilities, and commercial business facilities) in fiscal 2013.

The city recruited an area management partner in order to incorporate the expertise of the private sector into city planning (Daiwa Lease Co., Ltd., selected in fiscal 2013) and formulated a grand design for city development in the area around the station, as well as a basic plan for reconstruction base development projects in areas affected by the tsunami within the grand design.

○Development policy for tsunami reconstruction base areas and priority development areas

(Ofunato District Basic Plan for Reconstruction Base Development Projects in Areas Affected by the Tsunami)

<Priority development areas>: This tsunami disaster prevention zone will facilitate evacuations to the mountainside and emergency activities, and ensure convenience in ordinary times, function as a tourism and exchange zone with accommodation facilities and plazas, and support the rapid reopening of shopping areas as a neighborhood commercial zone.

<Non-priority development areas>: Restaurants and other commercial facilities, such as production, sales and marketing facilities, will be located in tourism and exchange zones, with large-scale store complexes located in neighborhood and wide-area commercial zones.

Consideration will be given to the effect of attracting customers to shopping districts in priority

areas. Main streets and arterial roads developed as part of land adjustment projects will also be used in order to ensure the integrity of the area to be developed in phases (Fig. 2).

2) Implementation preparation phase (FY 2014-FY 2018)

The public-private partnership city development council (comprising companies and other parties planning to lease land in tsunami reconstruction bases, the local authority, Chamber of Commerce and Industry, area management partners, etc.), which determines the direction of city planning, discussed specific policies and systems for area management, and was able to recruit a town manager from the private sector to play a central role in city planning practices, establishment of an city development company, and the approval of a revitalization plan for the area. The Kyassen Ofunato shopping center opened in April 2017 with the consecutive completion of a hotel, supermarket, home center, shopping area, and confectionery factory shop in the priority development area. The city's disaster prevention and tourism exchange center, Ofuna Port, opened in June 2018, moving area management into the full-scale implementation phase.

- Establishment of city development company (December 2015) and designation as an urban renewal corporation (March 2018)

Establishment of Kyassen Ofunato Co., Ltd.: "Kyassen" means "welcome" in the local dialect. In addition to the city (24.9% investment), there are several other investors in the company, including Daiwa Lease Co., Ltd. and the Chamber of Commerce and Industry. The private sector is responsible for implementing the project, with support from the city. The project was designated as an urban renewal corporation in March 2018 and is positioned as a leader in city development.

- City development company operations

- (a) Area management for the entire district around Ofunato Station: Creation of landscapes and attractions for the entire area, including residential sites (project area covered under the urban renewal corporation (44.7 ha, Fig. 1))
- (b) Area management of tsunami reconstruction base areas (improve quality): Creation of landscapes and attractions in terms of both tangible and intangible factors in collaboration with surrounding city blocks (10.4 ha, Fig. 1, financial resources: area management contributions)
- (c) Operation of company commercial facilities on land leased from the city: Real estate leasing (leasing commercial facilities to commercial entities), independent businesses (exterior design, implementation of intangible projects in the area, retail management, etc.)

- Formulation and approval of area revitalization plan (formulated in January 2016 and approved in February 2016)

The Ofunato City Area Revitalization Plan was approved by the Reconstruction Agency, and Kyassen Ofunato Co., Ltd. was selected to receive the Subsidy for Companies and Creating Jobs in Areas Affected by the Tsunami and/or Nuclear Disasters.

3) Area management implementation phase (FY 2019 and beyond) (See Fig. 3)

An area management contribution system was also launched in April 2019. Activities have continued to be implemented by the city development company with support from the city, businesses and local residents, aiming at “creating an area culture that can be passed down 100 years from now”. A variety of activities have been developed, including sales promotions outside the prefecture (Kyassen Caravan), PR and publicity for the entire area, festivals and other events for the public, improvement of circulation in the area, landscape preservation, human resources development (Machimori University, etc.), and acceptance of interns, in support of the city’s new appeal and activity bases.

○ Area management contributions

Contributions are collected from renters who take part in area management, in order to fund area management projects in tsunami reconstruction base areas. This method is referred to as the Ofunato BID (Business Improvement District), where rent paid to the city for land is reduced to an amount equivalent to property taxes.

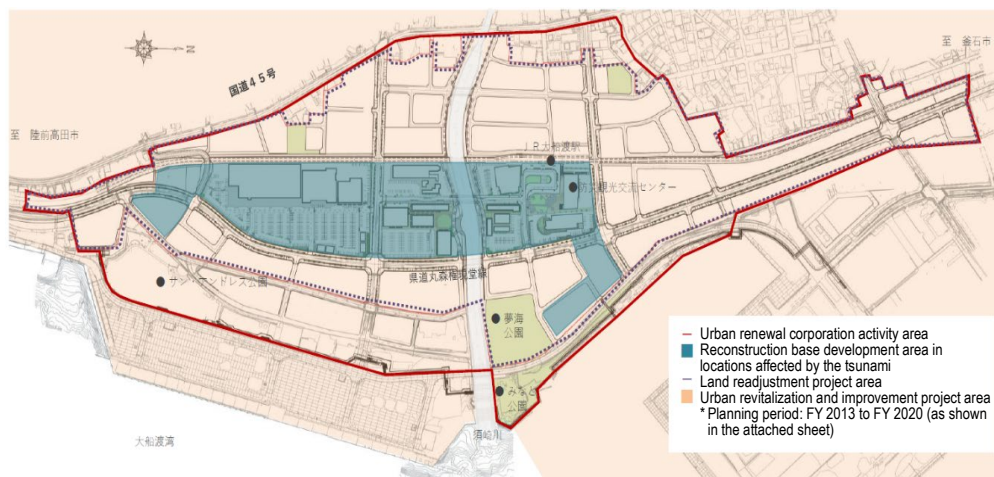


Fig. 1: Overview of Ofunato Station area
(Area covered by the urban renewal corporation for area management) (Source: Ofunato City)

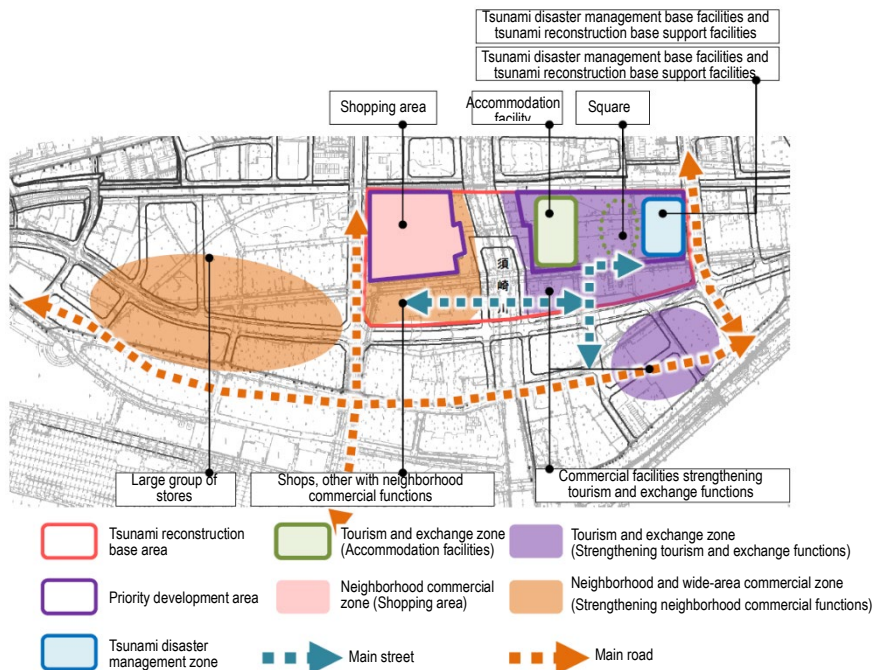
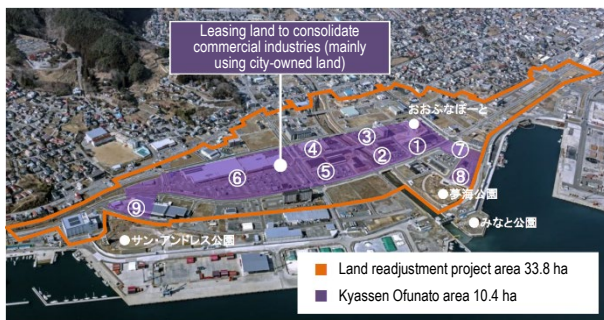


Fig. 2: Land use diagram for the tsunami reconstruction base area (Source: Ofunato City)



Block	Block name	Function	Lessee
(1)	Kyassen Factory	Factory shop (confection)	Saito Seika Co., Ltd.
(2)	Kyassen Food Village	Shopping area (food/beverages, service industry)	Kyassen Ofunato Co., Ltd.
(3)	Kyassen Stay	Hotel	Sakurada-PSC Co., Ltd.
(4)	Kyassen Dream Plaza	Shopping area (food/beverages, goods, services)	Ofunato Dream Shopping Area Cooperative
(5)	Kyassen Mall & Patio	Shopping area (food/beverages, goods, services)	Kyassen Ofunato Co., Ltd.
(6)	Kyassen Ofunato Shopping Center	Large stores (supermarkets, home centers, other)	Ofunato Redevelopment Co., Ltd.
(7)	Kyassen Pier	(Under consideration)...Use of sea, quays to encourage a culture of exchange	Kyassen Ofunato Co., Ltd.
(8)	Kyassen Creative Farm	Wineries, manufacturing facilities	Kyassen Ofunato Co., Ltd.
(9)	-	Seafood processing plant	Kamata Suisan, Ltd.

Fig. 3: Facilities in the tsunami reconstruction base area (as of 2020) (Source: Ofunato City)



Photo 1: Kyassen Ofunato shopping area (Source: Ofunato City)



Photo 2: Summer festival and other events (Source: Ofunato City)

Sources (Listed in other case studies, etc.):

- 大船渡市「復興に向けて 大船渡駅周辺地区のまちづくり」(2020年10月)
<https://www.city.ofunato.iwate.jp/site/hukkou/11049.html>
- 大船渡市「大船渡地区津波復興拠点整備事業 エリアマネジメントワーキンググループ 第1回資料」(2013年4月)
<https://www.city.ofunato.iwate.jp/uploaded/attachment/9697.pdf>
- 大船渡市「大船渡地区津波復興拠点整備事業基本計画」(2014年3月)
<https://www.city.ofunato.iwate.jp/uploaded/attachment/7504.pdf>
- 大船渡市「復興に向けて 土地区画整理事業の取り組み(平成25年度以前)」(2019年4月)
<https://www.city.ofunato.iwate.jp/soshiki/tochiriyo/756.html>
- 復興庁「大船渡市まちなか再生計画」(2016年2月)
<https://www.reconstruction.go.jp/topics/main-cat1/sub-cat1-15/20160209100846.html>
- キャッセン大船渡ホームページ
<https://kyassen.co.jp/>

Systems and mechanisms applied:

- Reconstruction base development projects in areas affected by the tsunami
- Land readjustment projects

Project cost:

- Land readjustment projects: Approx. JPY 20.7 billion
- Reconstruction base development projects in areas affected by the tsunami: Approx. JPY 6.02 billion

26-1 Reconstruction of Homes and Cities (Securing construction-type emergency housing)

Case study	Establishment of support centers for the elderly and other persons in need of care in construction-type emergency housing and welfare temporary housing
Location	Iwate Prefecture, Miyagi Prefecture, Fukushima Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Prefectural housing and welfare departments, municipality welfare departments, social welfare councils, academic experts, construction companies, social worker associations local welfare companies

Activity overview:

Prefectures in disaster areas established support centers for construction-type emergency housing equipped with day service functions and staffed by livelihood support assistants (LSA), as well as ramps to eliminate level differences and offices for LSA to provide lifestyle support for the elderly, persons with disabilities and others affected by the disaster.

Activity details:

■ Background: Notice from the Ministry of Health, Labour and Welfare

As construction-type emergency temporary housing was being built in disaster-affected areas, the Ministry of Health, Labour and Welfare issued a notice between mid- to late-April 2011 to all prefectures in disaster areas on specifications for support centers for the elderly and persons with disabilities (hereinafter, “support centers”) and group home/construction-type emergency housing (hereinafter, “welfare temporary housing”), as well as financial support for their construction (such as increases in the national government’s FY 2011 extraordinary special fund for emergency improvement of nursing care infrastructure in the supplementary budget (1) [Project on building local support systems]). This notice prompted prefectures in disaster areas to move forward with establishing facilities in cooperation with municipalities.

Support centers are located in construction-type emergency temporary housing complexes (hereinafter, “temporary housing complexes”) that provide comprehensive consultation services staffed by LSAs (livelihood support assistants), opportunities for community exchange, and day service functions. With space to accommodate multiple people who require special care in their daily lives, such as the elderly, the structure and facilities in welfare temporary housing make it easy for recipients of in-home elderly long-term care services to live in, such as ramps to eliminate floor level differences and offices for LSAs.

■ Activities by Iwate Prefecture (Building & Housing Division, Department of Prefectural Land Development)

Referring to examples from the Great Hanshin-Awaji Earthquake and Niigata-Chuetsu Earthquake, Iwate Prefecture took new measures, such as installing bathroom types that allow a person to be

assisted from three directions and ostomate-accessible facilities, based on advice received from academic experts on plans for both facilities. Support centers are located near the entrance and include consultation and meeting rooms, as well as restrooms that can also be easily accessed by users from outside (Fig. 1).

Measures for bathrooms and kitchens, which are not covered under the Disaster Relief Act, were taken using expenses appropriated in the national government's first supplementary budget, as mentioned above. Support centers were established in six buildings in three municipalities, with 120 welfare temporary housing units constructed in 12 buildings in four municipalities by the construction companies that built temporary housing complexes.

■Activities by Miyagi Prefecture (Health and Welfare Department, other) [1]: Support centers
Miyagi Prefecture encouraged municipalities along the coast to promote the development of support centers immediately after the disaster. However, cities and towns could not find the time to develop support centers as they ran into problems trying to secure land for construction-type emergency housing, they found that construction-type emergency housing was mainly being built by the prefectural housing division, and they were occupied with procedures for issuing certificates for disaster victims. After conducting door-to-door visits to municipalities along the coast and taking every opportunity to encourage the development of support centers, such as at meetings with the heads of divisions in charge of welfare for the elderly, the very first support center in the prefecture opened in Iwanuma City on July 1, 2011, which was followed by 49 other centers in 13 municipalities, with 50 planned by the end of March 2012. Support center operations were outsourced to social welfare councils in each municipality. Cities and towns with amicable relationships with social welfare councils prior to the earthquake found it easy to outsource work, but in some cases this proved difficult.

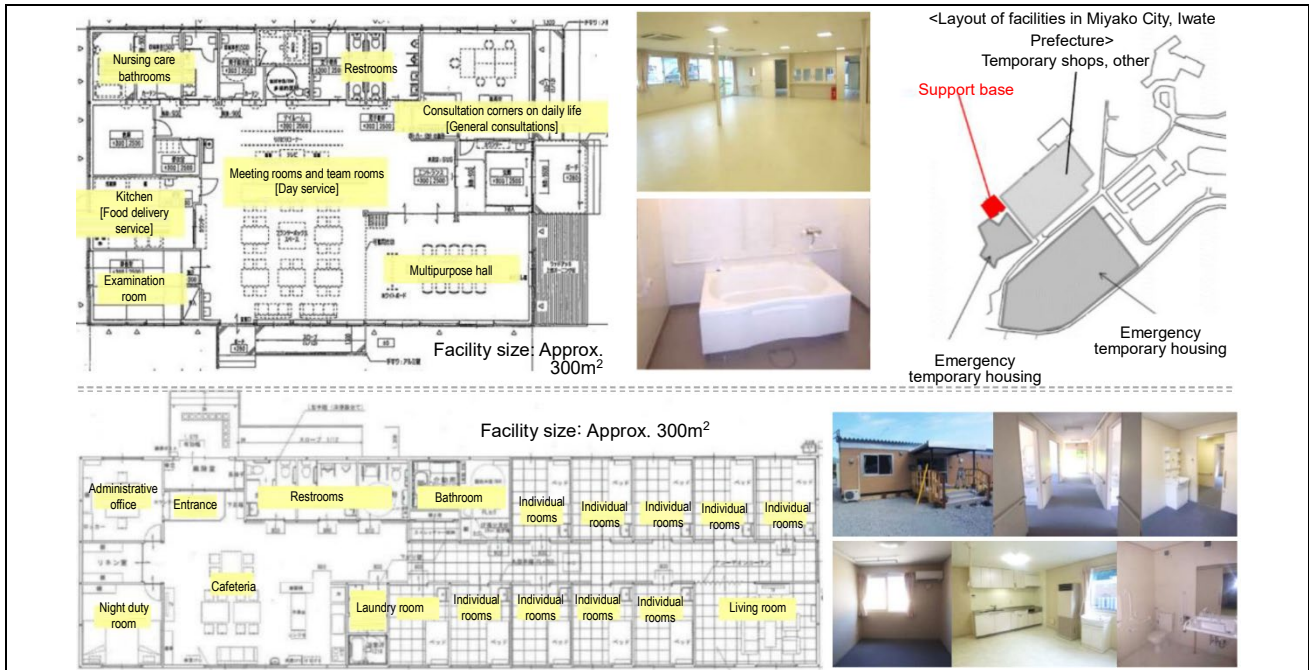


Fig. 1: Example of support base (above) and welfare temporary housing (below) in Iwate Prefecture, including floor plans and photos
(Source: Ministry of Land, Infrastructure, Transport and Tourism and Iwate Prefectural Building & Housing Division, Department of Prefectural Land Development, with some additions)

With the application of an emergency job creation program, a total of 939 livelihood support counselors were assigned to 13 municipalities in the prefecture (as of April 2012). These counselors regularly visited households to monitor the safety conditions of senior citizens and talk to them, in order to prevent those living alone from feeling isolated.

The Miyagi Prefecture Support Center Office opened on September 5, 2011 to provide logistical support within the prefecture, since municipalities were overwhelmed with work related to the earthquake disaster and there were concerns that the support center operations would be difficult. Since social welfare councils in the prefecture, which were initially expected to be charged with this work, were engaged in disaster volunteer center operations, work was outsourced to the prefectural Association of Certified Social Workers, where two to three people were trained to offer training for support center staff.

■ Activities by Miyagi Prefecture (Health and Welfare Department, other) [2]: Welfare temporary housing

As the Ministry of Health, Labour and Welfare issued various notices immediately after the disaster, the president of the NPO Miyagi Association of Group Homes for Dementia presented the prefectural Health and Longevity Division, Health and Welfare Department with a list of businesses that wanted to set up welfare temporary housing facilities. Discussions were held with Ishinomaki City, Natori City and Kesenuma City based on this list, and meetings were held with the heads of divisions in charge of welfare for the elderly in municipalities located along the coast to recommend the development of welfare temporary housing facilities. Construction started in June in Sendai City, and a total of 36 buildings designed to house 290 people were built in the prefecture (19 buildings for 165 senior

citizens (covered by long-term care insurance), 11 buildings for 71 persons with disabilities, and six buildings for 54 senior citizens). The prefecture constructed housing, outsourced management and operations to municipalities, and leased the buildings to management corporations. The Disaster Relief Act was used for the construction of emergency temporary housing, while installation and operation costs for nurse calls and fire sprinklers were covered by the project on building local support systems.

Sources (Listed in other case studies, etc.):

- ・ 全国保険医団体連合会「東日本大震災に伴い各保険医療機関等に向けた厚生労働省発出通知等のご案内」(2011年7月) https://hodanren.doc-net.or.jp/iryokankei/jisin/110316_4.html
- ・ 国土交通省「資料3 東日本大震災における応急仮設住宅の建設事例」(2011年10月) p.8-9, <https://www.mlit.go.jp/common/000170074.pdf>
- ・ 岩手県県土整備部建築住宅課「東日本大震災津波対応の活動記録～岩手県における被災者の住宅確保等のための5か月間の取組み～」(2011年11月) p.58-62, https://www.pref.iwate.jp/_res/projects/default_project/_page_/001/010/325/zenbun.pdf
- ・ 宮城県保健福祉部「東日本大震災～保健福祉部災害対応・支援活動の記録～」(2012年12月) p114, p 117 <https://www.pref.miyagi.jp/uploaded/attachment/121634.pdf>

Systems and mechanisms applied:

- ・ Disaster Relief Act, Project on building local support systems, Emergency job creation program, Social Inclusion and "Kizuna" Revitalization Project, other

Project cost:

Iwate Prefecture:

- ・ Support centers: Building maintenance costs: JPY 68,956,000/building, Operating costs: JPY 17,416,000/building per year
 - ・ Welfare temporary housing: Building maintenance costs: JPY 64,053,000/building, Operating costs: JPY 16,777,000/building per year
- (*) Operating costs for five of the 12 welfare temporary housing units constructed were subsidized by the prefecture.
- Operating costs for other welfare temporary housing facilities are covered by long-term nursing care benefits and benefits for persons with disabilities.

Miyagi Prefecture:

- ・ Welfare temporary housing: Building maintenance costs: Approx. JPY 30,000,000/building

26-2 Reconstruction of Homes and Cities (Securing construction-type emergency housing)

Case study	Development of community care-based, construction-type emergency housing complexes
Location	Heita district, Kamaishi City, Iwate Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Project members: Iwate Prefecture; Kamaishi City; Heita Park Temporary Housing City Development Council; Institute of Gerontology at The University of Tokyo; Ohkata-Koizumi Planning Laboratory, Department of Urban Engineering at The University of Tokyo Related organizations: Nishide-Otsuki Lab, Department of Architecture, Graduate School of Architecture at The University of Tokyo; Kano Lab at Iwate Prefectural University; Riken Yamamoto (architect); Japan Care Service Group Corporation, other
<p>Activity overview:</p> <p>The formation of communities was encouraged in construction-type emergency housing complexes through the arrangement of housing units and improvements to the living environment. City development councils were also set up with the participation of a variety of players, creating a system in which the public and private sectors could partner together to monitor and support residents.</p>	
<p>Activity details:</p> <p>■ Issues with prefabricated construction-type emergency housing</p> <p>Prefabricated construction-type emergency housing complexes supplied in large numbers following the Great East Japan Earthquake were arranged in a basic parallel layout facing south with north entry. Housing units were only 9-tsubo in size (equivalent to about 29 m²) and lacked facilities other than apartments, with no meeting halls installed in complexes with less than 50 units, which resulted in emerging issues in terms of forming communities, barrier-free access, shopping, employment, welfare, and medical care. Subsequently, Iwate Prefecture took these issues into consideration when developing prefabricated emergency housing complexes and promoted the introduction of community care-based, construction-type emergency housing that allow households in need of care, such as those with elderly members and children, to live in comfort and safety through the layouts of housing units and the installation of various temporary shared-use facilities.</p>	

■Development of community care-based, construction-type emergency housing complexes in the Heita district, Kamaishi City

(1) Zoning

In cooperation with The University of Tokyo and other organizations, Kamaishi City divided the Heita Park temporary housing complex into different zones (Care Zone, Childcare Zone, General Zone). Support centers, shops, a bus rotary, and other shared-use facilities were located near the Care Zone, where persons with disabilities and senior households resided. Shared-use facilities are connected to housing units in the Care Zone via a wooden desk with no steps, and a common roof has been installed to improve the barrier-free and thermal environment (Fig. 1).

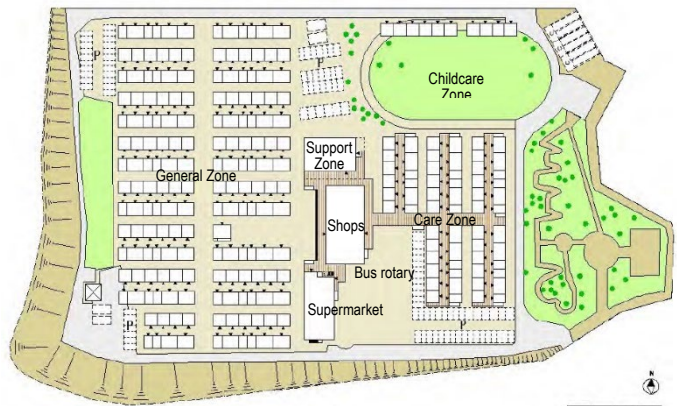


Fig. 1: Layout at Heita Park temporary housing complex in Kamaishi City (Source: Institute of Gerontology, The University of Tokyo / Architectural Planning Lab, Department of Architecture, Graduate School of Engineering, The University of Tokyo)

(2) Common access

Housing complexes were designed so that entrances to each housing unit face each other. With this arrangement, spaces do not function as passageways, and can be used instead as children’s playgrounds and snow removal spaces. Consideration is given to creating natural communities among residents to monitor and prevent lonely, solitary deaths (Fig. 2). Layouts were based on the lessons learned from the Great Hanshin-Awaji Earthquake and layouts used in the Niigata-Chuetsu Earthquake.

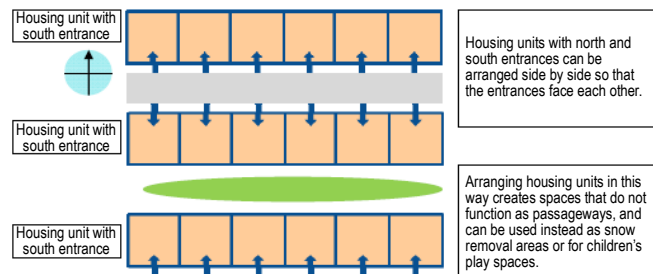


Fig. 2: Layouts of entrances to construction-type emergency housing (Source: Ministry of Land, Infrastructure, Transport and Tourism)

■Community care initiatives in construction-type emergency housing

The Heita Park Temporary Housing City Development Council was established in the Heita district, consisting of representatives from neighborhood associations in temporary housing complexes, shopping districts, NPOs, medical and welfare care providers, Kamaishi City and others, with every member working together to implement community-based care through a variety of activities, such as monitoring households of concern and interactive events for residents.

Located in the center of the construction-type emergency housing complex, management of the

Heita Area Support Center was outsourced by the city to the Japan Care Service Group Corporation. The center functioned as a comprehensive support base, with general consultation services on daily life and nursing care provided by nurses and care workers, nursing insurance, such as home-based nursing care and day care services, and medical care offered by physicians. The center also used a “care call” system (video calls) to provide round-the-clock monitoring services with staff rotations. At night, one staff member was available to respond to care calls and made the rounds of those in need of assistance.

Sources (Listed in other case studies, etc.):

- GOOD DESIGN AWARD 復興デザイン賞「仮設住宅団地 [釜石・平田地区コミュニティケア型仮設住宅団地]」（2012年）<https://www.g-mark.org/award/describe/38914>
- 国土交通省「東日本大震災における応急仮設住宅の建設に関する報告会 資料3 東日本大震災における応急仮設住宅の建設事例」（2011年10月）
http://www.mlit.go.jp/report/press/house04_hh_000294.html
- 東京大学高齢社会総合研究機構 工学系研究科建築学専攻建築計画研究室「コミュニティケア型仮設住宅」（2014年）
http://www.iog.u-tokyo.ac.jp/wp-content/uploads/2014/03/community_care.pdf
- 一般社団法人全国介護事業者協議会「3.11を忘れない！東日本大震災の教訓を生かす～災害発生時の介護事業者必携マニュアル～」（2013年3月）
<https://www.wam.go.jp/content/wamnet/pcpub/resources/a23725bf-ef4e-4050-806f-352ce387486d/all.pdf>
- 株式会社日本能率協会総合研究所（内閣府委託調査）「平成26年度東日本大震災の被災地におけるNPO法人等による復興・被災者支援の推進に関する調査 報告書」（2015年3月） p21-25.
<https://www5.cao.go.jp/keizai2/keizai-syakai/uneiryoku/chosa.html>

Systems and mechanisms applied:

- FY 2012 New Public Assistance Program, FY 2013 and FY 2014 Project to support reconstruction by enhancing the management capacity of NPOs and other organizations (costs for various activities on community-based care by the Heita Park Temporary Housing City Development Council)
- Reconstruction grants (operating expenses for support centers; the Iwate Prefectural Longevity and Social Policy Division serves as the point of contact for indirect subsidies)
- Disaster relief expenses (installation, maintenance and management, and demolition costs for emergency temporary housing), other

Project cost:

- Various activity costs for community-based care: Approx. several million yen/year

27-1 Reconstruction of Homes and Cities (Building maintenance for construction-type emergency housing)

Case study	Establishment of maintenance and management center for construction-type emergency housing				
Location	Iwate Prefectural Home Construction Center				
Phases	<table border="1"> <tr> <td>Emergency response phase</td> <td>Recovery phase</td> </tr> <tr> <td>Early reconstruction phase</td> <td>Late reconstruction phase</td> </tr> </table>	Emergency response phase	Recovery phase	Early reconstruction phase	Late reconstruction phase
Emergency response phase	Recovery phase				
Early reconstruction phase	Late reconstruction phase				
Members	<p>Project member: Iwate Prefecture</p> <p>Operations outsourced to Iwate Prefectural Home Construction Center</p>				
<p>Activity overview:</p> <p>Iwate Prefecture established the Maintenance and Management Center for Emergency Temporary Housing, which specializes in maintenance, management and repairs at construction-type emergency housing, and has outsourced work to the Iwate Prefectural Home Construction Center from the start.</p> <p>Centralizing points of contact for accepting requests for maintenance at construction-type emergency housing reduced the burden on local authorities. Quick responses to inquiries from tenants was also possible with contact available 24 hours a day.</p>					
<p>Activity details:</p> <p>■ Background: Extension of period for emergency temporary housing</p> <p>The period for emergency temporary housing is, in principle, set at two years. However, as this period was set at five years for the Great Hanshin-Awaji Earthquake and three years for the Niigata-Chuetsu Earthquake, it was believed that a period of more than two years would be necessary based on the scale of the damage caused by the Great East Japan Earthquake. The earthquake was therefore designated as a specified disaster, which enabled special provisions (Article 7) for the duration of emergency temporary housing under the Building Standards Act to be applied to extend the installation period. Periods could be extended by one year, in principle, after the two-year period.</p> <p>■ Installation of Maintenance and Management Center</p> <p>On June 20, 2011, Iwate Prefecture decided to establish a Maintenance and Management Center for Emergency Temporary Housing (hereinafter, "Maintenance and Management Center") to handle all requests for repairs at all construction-type emergency housing in the prefecture (e.g., condensation, pest control, frozen water pipes, interior repairs due to aging, defective air conditioning (Table 1)). The center was located in the Iwate Prefectural Home Construction Center, commissioned by the prefecture. The Iwate Prefectural Home Construction Center was originally the designated manager for prefectural housing, with expertise in handling maintenance, management and repairs. To set up the system, a dedicated telephone service for residents in construction-type emergency housing (toll-free, evening forwarding service) was created, in addition to the preparation of various supplies for increased staff, and drawing up contracts with night reception services.</p> <p>This reduced the burden on municipalities, compared to Miyagi Prefecture, which delegated contact</p>					

points for maintenance and management for construction-type emergency housing to municipalities, and ensured that speedy responses to requests for repairs were available 24 hours a day. Two staff members (one as of November 2020) from the Maintenance and Management Center were on duty to take calls on weekends and holidays. At night (17:30-08:30), calls were forwarded to a security company, which passed them on to the center's night staff on-call at home, who then faxed a record of the call to the center the following day. In addition, the two staff members on call at home at night carried dedicated cell phones with them to respond to the security company and residents (Fig. 1).

Outsourcing costs were calculated based on actual management costs for prefectural housing: repair costs + maintenance and inspection (septic tanks, receiving water tanks), legal inspection costs + administrative expenses. Septic tanks and receiving water tanks were also designed by the Maintenance and Management Center, and the volume of paperwork was enormous since the center responded to a number of construction-type emergency housing complexes.

The Maintenance and Management Center is still in operation as of November 2020, and is primarily tasked with equipment maintenance and facility upkeep prior to the demolition of buildings, as there are few households living in the limited number of construction-type emergency housing complexes in the area.

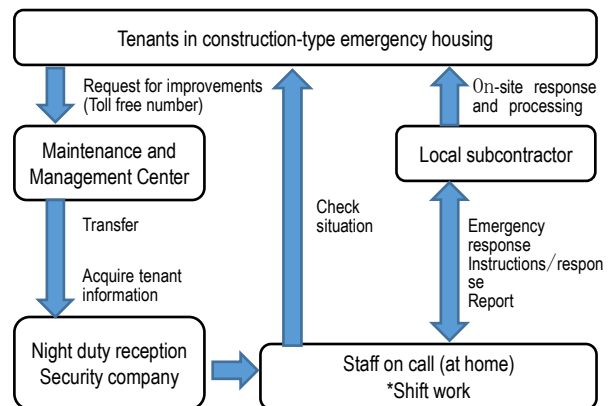
Table 1: Requests for repairs received by the center (Source: Activities to secure housing for disaster victims in Iwate Prefecture)

- Too small.
- Exposed steel frames are hot, with condensation.
- **Ants and other insects enter the unit through gaps** in the floor, other.
- Difficult to lock the front door (sliding-door type). Would like a bell at the entrance.
- Entrance eaves are too short and rain gets inside the unit.
- Kitchen is too small, especially cooking spaces.
- No shoe storage closet (installed in units constructed by companies selected through open recruitment).
- **No reheating function** in bathroom.
- Clotheslines are too high and are difficult for senior citizens to use. **No roof eaves to keep clothes from getting wet even in light rain.**
- Would like a bar to hang clothes on.
- Would like **sweep-out windows** (installed in some units constructed by the Housing Committee and companies selected through open recruitment).
- Rooms separated by walls, but want some to be open (for heating/cooling rooms with no air conditioning).
- Lack of storage. Would like shelves built in the top section of the closet.
- Would like a communal washing area.
- Installation of curved mirrors at the entrance to the housing complex.
- Foul odors from septic tanks (septic tanks should be separated as far from housing complexes as possible).

■ Maintenance and management system

The Maintenance and Management Center received complaints and requests for repairs from tenants, after which they contacted the Japan Prefabricated Construction Suppliers and Manufacturers Association's Management Center or a local contractor in the case of an assumed defect.

For claims other than defects or urgent matters, the company in charge, assigned and divided into blocks of 10, was dispatched to the site to carry out repairs. Actual costs were invoiced to the Maintenance and Management Center.



○ Supplementary note: Staff on call contact residents to determine how urgent a situation is. Non-urgent issues are handled at a later date, with orders to contractors made after coordinating schedules with the tenant again.

Fig. 1: Night response system (Prepared by the Iwate

In cases where an issue was assumed to be a defect, but in actuality was not, or vice versa, the dispatched company will repair the defect and charge the center for the cost of repairs, while the center will, in principle, invoice Japan Prefabricated Construction Suppliers and Manufacturers Association companies for the cost of the defect (Fig. 2).

Regular maintenance and inspection services (e.g., legal inspections, maintenance)

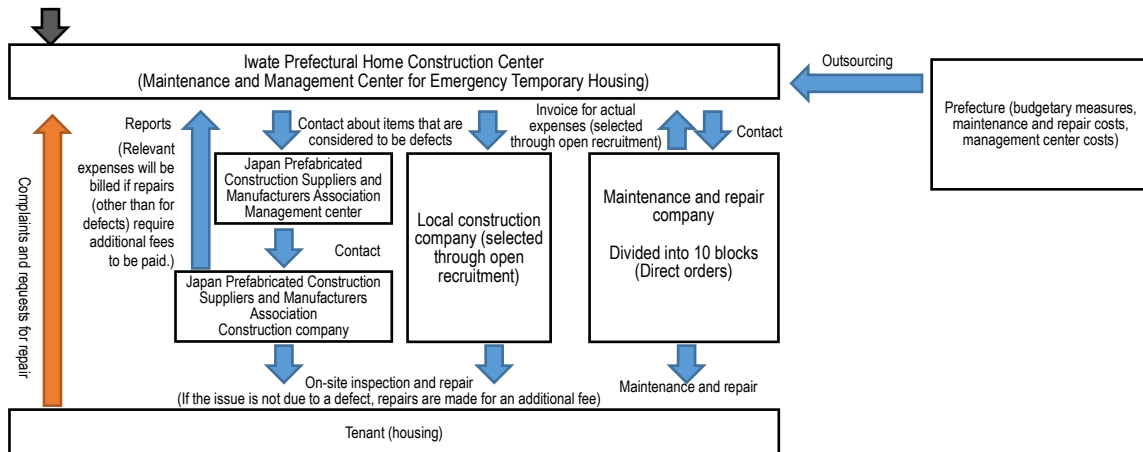


Fig. 2: System for handling complaints and requests for repairs by tenants in construction-type emergency housing by the Maintenance and Management Center (Note: Compiled based on activities to secure housing for disaster victims in Iwate Prefecture)

Sources (Listed in other case studies, etc.):

- 大水敏弘「岩手県における被災者住宅確保等のための取組み」(2011年)
https://www.cbr.mlit.go.jp/kensei/jutaku_seibika/h23/pdf/saigaishien-siyou3.pdf
- 岩手県「岩手県住宅復興の基本方針 岩手県住宅復興の基本方針について」(2019年2月) p1
https://www.pref.iwate.jp/_res/projects/default_project/_page_/001/010/349/juutakufukkou.pdf

Systems and mechanisms applied:

- Special provisions for the duration of emergency temporary housing under the Building Standards Act (Article 7)

Project cost:

- No costs by the consignee (Costs for replacement, etc. may be incurred until outsourcing administrative fees are deposited at the time of installation)

28-1 Reconstruction of Homes and Cities (Securing rental-type emergency housing)

Case study	Considerable volume of work associated with the supply of rental-type emergency housing
Location	Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Miyagi Prefecture, municipalities in Miyagi Prefecture, other prefectures, tenants in rental-type emergency housing, real estate agencies and related organizations (Miyagi Association of Real Estate Agents), property owners (including management companies), private companies (banks), others

Activity overview:

Approximately 26,000 rental-type emergency housing units were supplied in Miyagi Prefecture, the largest of all disaster areas.

The volume of work involved in decisions on tenants, concluding contracts, payments, and other administrative tasks was considerable, and the prefecture worked to improve this issue by outsourcing related work.

Activity details:**■ Supply of the largest number of rental-type emergency housing units in disaster areas**

Densely populated Sendai City and Ishinomaki City, which have a number of rental properties, are located in Miyagi Prefecture. Since a large number of disaster victims lost their homes, Miyagi Prefecture took in a considerable number of victims from both in and outside the prefecture. At approximately 26,000, the number of rental-type emergency housing units supplied by the prefecture was the largest of all areas affected by the Great East Japan Earthquake.

Miyagi Prefecture already had experience with the use of rental-type emergency housing at the time of the 2008 Iwate-Miyagi Nairiku Earthquake. As in that case, the prefecture received information about vacant properties from the Miyagi Association of Real Estate Agents and other related organizations immediately after the Great East Japan Earthquake, matching the requests of victims with properties and concluding contracts through real estate brokers. Briefings were organized for municipalities located on the coast between March 22 and 24, 2011, and notices were sent to municipalities on April 8. Contracts were three-way lease agreements between the prefecture, landlord and tenant (Act on Land and Building Leases; fixed-term lease agreements when re-contracting, described below).

Subsequently, a notice from the Ministry of Health, Labour and Welfare (dated April 30) expanded the scope of government funding available to include contracts that had not been covered previously and had been signed by the victims themselves after the disaster, if the names on the contracts were replaced with the prefecture's name. Notifications (dated May 13) were sent to municipalities. As a result of this notice and other factors, the number of applications jumped to more than 10 times the initial estimate, which caused a considerable amount of paperwork, including decisions on tenants, concluding contracts, payments, and other administrative tasks.

■ Increase in the number of staff in charge in the prefectural government and dispatch of prefectural staff to municipalities

At the beginning of April, the situation was being handled by two of the eight members of the Disaster Relief Response Team in the prefecture's Health and Welfare Affairs Division. However, this number rose to six by mid-May, and 13 by early July. Five part-time telephone support staff were also hired to handle the considerable volume of administrative tasks and inquiries.

At the request of municipalities, prefectural staff were dispatched as needed to help with related work. Approximately 25% of all requests were received from Ishinomaki City, with 14 employees dispatched each day for more than three months.

Contract review work required the involvement of 10 departmental staff members for a period of three weeks. However, this number was not sufficient to handle the volume of work, so five staff from Yamagata Prefecture were also dispatched for six weeks, for a total of 30 employees providing support over a nine-week period.

The prefectural government's payment management structure and systems were not designed to process a large volume of payments in a short period of time, so staff in the general affairs section of each department were also assigned to help prepare payment-related documents. The Accounting Division of the Treasurer's Office was also tasked with coordinating payments and providing support.

Although support and prefectural staff provided assistance and temporary staff were hired, reductions in workloads were limited in part due to the large number of cases requiring individual assessments that needed to be handled by staff in charge.

■ Outsourcing work to the private sector

Subsequently, payments were outsourced to a bank designated by the prefecture, and other services, such as contract review, payment procedures, and issuing payment statements, were partially outsourced to a private company from September 2011, and fully outsourced from October (Table 1). The management system developed through outsourcing made it possible to create payment data through "firm banking", which dramatically reduced later payment tasks. However, problems were plentiful, including incorrect transfer accounts, double payments, and delays in sending payment statements. Despite these problems, the first payments of almost all delayed rental payments had been completed by the end of December.

(1) Outsourcing of retroactive payments

Once a certain amount of delays in payments with normal contracts had been identified, the prefectural government started to retroactively cover rent and other expenses that the disaster victims had contracted and paid for themselves before the notice from the Ministry of Health, Labour and Welfare. The prefecture decided to handle the administrative work of approximately 10,000 contracts in bulk in order to reduce the workload on municipalities, since contract information was now stored in a management system and could be generated by inserting data into DMs, application forms and

envelopes. This work was assumed to require a full-time staff of 20 people to screen documents, answer calls, and return paperwork. However, the work was outsourced as the volume could not be handled by support staff.

(2) Outsourcing re-contracting procedures

Building lease agreements for rental-type emergency housing were set at a fixed term of two years, which required a new contract to be signed each time the period was extended. After confirming both the landlord and tenant's intentions, the contract was concluded if both parties agreed to the terms of the new contract. If the lessor did not agree to extend the contract, a system had been set up in which the tenant was able to move into another private rental, if there were no vacancies in prefabricated, construction-type emergency housing or public housing. However, this work was also outsourced, with the exception of decisions made, since the workload for screening and contract procedures for moving into other properties was also considerable.

Table 1: Outsourced work related to the supply of rental-type emergency housing

Activity name	Outsourced work
Support services for contract procedures for the provision of emergency temporary housing	Digital technology, outsourcing
Mailing services for new contracts to extend the provision period for temporary housing	Printing
Mailing services for payment statements and other documents related to renting out private rental housing	Printing, information
Maintenance and management services for management systems related to renting out private rental housing	Printing, information
Data preparation services for expenditures in private rental housing (unit price)	Data entry, outsourcing
Administrative services for retroactive payments of rent for private rental housing and organization of contracts	Manufacturing outsourcing, staff placement
Data entry services for retroactive payments for private rental housing	Printing, information
Information processing services on non-subscriptions to damage insurance related to private rental housing	Manufacturing outsourcing, staff placement
Improvement work on rental management systems for private rental housing due to extensions to the period of provision for emergency temporary housing	Printing, information
Improvement work on rental management systems for private rental housing	Printing, information
Server migration services for rental management systems for private rental housing	Printing, information

Sources (Listed in other case studies, etc.):

- ・ 重川希志依、田中聡、河本尋子、佐藤翔輔「借上げ仮設住宅施策を事例とした被災者の住宅再建に関する研究-恒久住宅への円滑な移行を目的とした住環境の分析-」住総研研究論文集, No.41 (2015年) p145-156,
https://www.jstage.jst.go.jp/article/jusokenronbun/41/0/41_1313/_pdf/-char/ja
- ・ 宮城県保健福祉部「東日本大震災～保健福祉部災害対応・支援活動の記録～」(2012年12月) p245-248 <https://www.pref.miyagi.jp/site/ej-earthquake/daisinsaikiroku-2.html>

Systems and mechanisms applied:

- ・ Disaster Relief Act (special provisions), other

Project cost:

- ・ Yearly rent/unit: Approx. JPY 660,000/unit (JPY 55,000/unit x 12 months)
(Yearly rent includes common service and management fees, but not other expenses, such as moving out and repair fees, etc.)
- ・ Annual outsourcing costs to the private sector: FY 2012 (Approx. JPY 230 million)

29-1 Reconstruction of Homes and Cities (Consolidation and removal of construction-type emergency housing)

Case study	Program for relocation and consolidation in prefabricated temporary housing complexes
Location	Ishinomaki City, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase <u>Late reconstruction phase</u>
Members	Ishinomaki City (Headquarters for Promoting Self-Reliance and Reconstruction*), contractors (social welfare councils, public interest foundations and other organizations supporting disaster victims), tenants in temporary housing complexes *Includes the mayor and departmental heads

Activity overview:

With the progress made in reconstructing housing in the months and years after the earthquake, the issue of maintaining community ties and the living environment in construction-type emergency temporary housing complexes (hereinafter, “temporary housing complexes”) loomed large amidst declining occupancy rates.

Ishinomaki City sought to resolve these issues by presenting policies and support measures for relocation and consolidating temporary housing complexes.

Activity details:

■ **Background**

A considerable number of people in Ishinomaki City were still living in emergency temporary housing in 2016, five years after the earthquake. With many people still undecided about rebuilding their homes, there was an urgent need to provide support to those facing physical and mental health issues, uncertain financial conditions and a variety of other challenges.

To address these issues, Ishinomaki City formulated a program to support self-reliance and reconstruction for disaster victims, in order to lay out these issues and provide detailed support.

While there have been a variety of different support programs for rebuilding livelihoods to help people move to different reconstruction sites, so too have issues emerged with preventing isolation and crime and maintaining community ties, due to the low occupancy rates in housing complexes. Therefore, Ishinomaki City established a Program for the Relocation and Consolidation of Prefabricated Temporary Housing Complexes, which outlined policies (ideas) for the planned early removal and consolidation of temporary housing complexes, in order to ensure healthy, safe and secure lives for disaster victims.

■ **Overview of the Program for the Relocation and Consolidation of Prefabricated Temporary Housing Complexes**

1. Basic policy

The program promotes relocation and consolidation under three policies to provide disaster victims

with healthy, safe and secure lives. Twenty-four temporary housing complexes were selected to serve as consolidation points (hereinafter, “consolidated housing complexes”), with consideration given to size and lifestyle conveniences.

○Preventing isolation and crime, maintaining community ties

Residents in prefabricated temporary housing complexes with occupancy rates expected to fall to 30% or below were relocated to other temporary housing complexes or to permanent housing, based on the circumstances of their tenants, as a way to prevent isolation and crime, and maintain community ties.

○Return of school grounds and private land, and restoration of parkland

Ishinomaki City promoted the relocation of residents from temporary housing complexes with a focus on future land use, while also prioritizing the return of school grounds and private land, and rebuilding children’s play areas (parks).

○Support for relocation between temporary housing complexes, taking the development and maintenance of post-reconstruction communities into account

Informational sessions and intention surveys were conducted for tenants that would be relocating, so that it would be easier to form new community ties, with relocation to consolidated housing complexes based on stated intentions. For example, forethought was given to allow tenants to relocate to temporary housing complexes close to reconstruction sites. In addition to informational sessions for disaster victims eligible for relocation, understanding was also obtained through briefing sessions held with tenants already living in consolidated housing complexes.

Twenty-four consolidated housing complexes were selected in 10 locations demarcated as support areas (four in the area around city hall and one in each of the six general branch offices), based on the following three points.

- (1) Temporary housing complex of a certain size
- (2) Temporary housing complex with a housing complex association (in consideration of communities)
- (3) Temporary housing complex with high-grade facilities (temporary housing complex built by housing manufacturers and prefabricated temporary housing complexes with reinforced foundations)

2. Careful thought and attention to the process of consolidating prefabricated temporary housing complexes

○Moving expenses related to relocation between temporary housing complexes

Ishinomaki City signed contracts with moving companies for packing, moving and unloading.

○Relaxed occupancy standards for consolidated housing complexes

Standards were relaxed for the number of rooms allocated for households with children and students. Standards were set for the number of household members + one person at the time of relocation, with consideration for the creation of a study environment (securing study space).

Ref: Pre-disaster occupancy standards: 1 person (1DK), 2-3 people (2DK), 4-5 people (3DK),
over 5 people: 2-in-1 unit (walls between two 2DK rooms removed to create one room), other

Ex. 1 Household with three people (1 child/student): Pre-disaster occupancy standard: 2DK (3 people)
⇒ Post-disaster relaxed standard: 3DK (3 + 1 person)

Ex. 2 Household with 5 people (3 children/students): Pre-disaster standard 3DK (5 people)
⇒ Post-disaster relaxed 2-in-1 standard (5 people + 1 person)

○Improving the living environment at new relocation sites to be on par with original locations

Specifications were the same for all units in construction-type emergency housing at the time they were being built. However, facilities/equipment differed in each unit, as what was determined to be necessary was addressed after confirming tenants' preferences, with additional work performed on air conditioners, hot water heaters, storage sheds, and other facilities/equipment. For this reason, Ishinomaki City implemented a variety of measures, such as selecting housing units comparable to those before relocation and moving facilities/equipment that were missing in new locations.

○Rental subsidies when consolidating prefabricated temporary housing

Households that are currently occupying units in prefabricated construction-type emergency housing in Ishinomaki City, with homes classified as having completely or partially collapsed (failed to meet conditions to occupy reconstruction public housing), and who will move from these units to private rental housing in the city after housing is consolidated or removed, and had a monthly income in the previous year that was JPY 104,000 or below were eligible for partial subsidies for rent according to government ordinance under the Public Housing Act (In addition to a cap on the amount of rent and subsidies, other conditions are in place, including payment of subsidies by the city to landlords).

■ Informational sessions and individual consultation services for disaster victims, and responses to improper use

Informational sessions were organized early in each area on Ishinomaki's program to support self-reliance and reconstruction for disaster victims. These sessions were followed by briefings on the relocation and consolidation of housing complexes at least six months before departure, in principle.

After these sessions, relocation sites were coordinated based on the preferences of those moving.

The relocation and consolidation process was completed within a certain period, with consideration paid to each resident's individual situations, such as the timing for reconstructing housing, financial

situation, health, and other factors.

In cases where it was determined that prefabricated construction-type emergency housing was being improperly used,* Ishinomaki City recommended that due process be followed and legally demanded that residents vacate the premises.

* Persons furnished with construction-type emergency housing that have not returned their units even though they are rebuilding their livelihoods in other locations (e.g., using housing units for storage), and persons who are not actually residing in their units and their locations cannot be confirmed, other

■ Post-consolidation challenges

○ Community relations

- Isolation prevention measures: Occupancy rates in some cases were 30% or lower, even after housing complexes were consolidated, leading the social welfare council to strengthen monitoring programs (information sharing).
- Communities: As reconstruction progressed, some neighborhood associations in housing complexes were disbanded. The social welfare council and NPOs created spaces to gather within complexes, with the organization of tea parties and other events.
- Provision of information: Information on the timing and number of households relocating to apartment complexes with neighborhood association heads, caretakers, or managers was provided in advance. The names and apartment numbers of the heads of neighborhood associations were also provided to persons relocating to these complexes in advance.

○ Facilities

- Some units had not been used for a while after the former residents had moved out, causing problems to occur after the new tenants moved in (e.g., water leaks) and requiring them to relocate again.
- Ishinomaki City performed environmental maintenance (e.g., mowing grass) around temporary housing complexes.

■ Removal of temporary housing complexes

The process of relocation and consolidation under this program started in fiscal 2016. As of January 17, 2020, tenants in all housing complexes have moved out, and temporary housing complexes in the city have been removed.

Sources (Listed in other case studies, etc.):

- 石巻市「石巻市被災者自立再建促進プログラムを策定しました」(2017年6月)
<https://www.city.ishinomaki.lg.jp/cont/10401200/8349/20160608115102.html>
- 石巻市「仮設住宅関係のお知らせ」(2020年2月)
<https://www.city.ishinomaki.lg.jp/cont/10401200/7625/7625.html>

<p>Systems and mechanisms applied:</p> <ul style="list-style-type: none">• Formulation and implementation of city's original program
<p>Project cost:</p> <ul style="list-style-type: none">• Expenses associated with the consolidation of housing complexes Approx. JPY 55 million (FY 2016 to FY 2019 for approximately 534 persons in 278 households) <p>*50% from the prefectural government's subsidy for the maintenance and management of shared facilities for emergency temporary housing (special tax subsidies from the national government and donations from some domestic and foreign sources), 50% from the city government's Earthquake Disaster Reconstruction Fund (special tax subsidies from the national government)</p>

30-1 Reconstruction of Homes and Cities (Early stage development of an adequate supply of disaster public housing)

Case study	Disaster public housing constructed with local timber by local contractors
Location	Minamisanriku Town, Miyagi Prefecture, Fukushima Prefecture, other
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Project lead: Local authorities (Minamisanriku Town, Fukushima Prefecture, other) In cooperation with: Local forestry and construction companies and councils; Ministry of Land, Infrastructure, Transport and Tourism; National Institute for Land and Infrastructure Management

Activity overview:

In some cases, disaster public housing was constructed with local timber with the participation of local contractors from the angle of revitalizing the local economy.

In some areas, disaster public housing was built by councils set up by local forestry and construction companies, and then purchased by local authorities.

Activity details:

■ **Background on the use of local timber and the involvement of local construction companies in the building process for disaster public housing**

In some cases, local forestry and construction companies were involved in the construction of housing using local timber in areas affected by the Great East Japan Earthquake. In a few cases, the production capacity and financial resources of a single local company were insufficient to meet construction demand. In response to this situation, groups of local forestry workers and builders formed a council to construct disaster public housing out of wood, which was subsequently purchased by the local authority after completion (council method).

The involvement of local contractors using local timber was intended as a way to supply housing suited to the climate, revitalize the local economy, engage in global warming countermeasures, respond to intense construction demand, pass on local building techniques, achieve a sustainable level of maintenance, and sell off housing (lower maintenance and management costs).

■ **Use of the council system in the construction of wooden disaster public housing: Minamisanriku Municipal Natari Reconstruction Housing (Miyagi Prefecture)**

Eight of the 21 municipalities in Miyagi Prefecture, the location of the largest number of disaster public housing units constructed, built those units out of wood through the “council method”. For example, the council built a detached disaster public housing complex in Minamisanriku Town’s Natari Reconstruction Housing area using cedar grown in the town, which was subsequently purchased by the local authority. Large windows installed on the south side of the building, which also contains a spacious bathroom and outside storage space, provide a sense of openness, ventilation and lighting in the atrium (Photo 1).



Photo 1: Exterior view of Minamisanriku Municipal Natori Reconstruction Housing site (left), interior view (right)
(Source: Miyagi Prefecture)

■ Use of standard drawings for wooden housing: Fukushima Prefecture's Negarayama Housing Complex (Nihonmatsu City), Ishizaka Housing Complex (Tamura City), and Johoku Housing Complex (Aizuwakamatsu City)

The possibility of dividing orders up into smaller lots was considered due to the difficulty of supplying local lumber on a large scale and involving local builders in the construction process. However, specifications and other factors needed to be standardized in cases where multiple companies were involved in constructing a single housing complex, as it can create problems if each builder constructed houses with significantly different designs and specifications.

To address this issue, the Ministry of Land, Infrastructure, Transport and Tourism and the National Institute for Land and Infrastructure Management examined basic layout planning studies and created standard drawings of wooden housing through a direct survey. These were used in Fukushima Prefecture's Negarayama Housing Complex (Nihonmatsu City), Ishizaka Housing Complex (Tamura City), and Johoku Housing Complex (Aizuwakamatsu City) (Photos 1, 2).

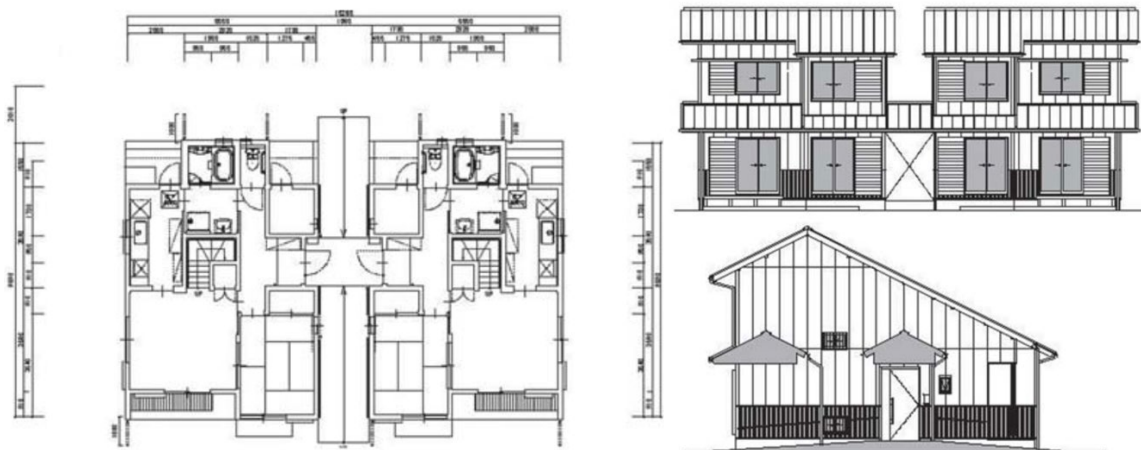


Fig. 1: Standard drawings for wooden housing



Photo 2: Exterior view of Ishizaki Housing Complex

Sources (Listed in other case studies, etc.):

- ・ 竹内賢吾、小野田康明、佃悠「東日本大震災の木造災害公営住宅事業における生産者協議会の類型化」日本建築学会技術報告集,第 23 巻,第 53 号 (2017 年) p215-218
https://www.jstage.jst.go.jp/article/aijt/23/53/23_215/_pdf
- ・ 宮城県「東日本大震災からの復興 災害公営住宅整備の記録 資料編 第 3 章第 1 節 2 「協議会方式」による整備」(2020 年 7 月)
<https://www.pref.miyagi.jp/site/ej-earthquake/shiryuu.html>
- ・ 宮城県「災害公営住宅が完成しました (南三陸町)」(2017 年 2 月)
<https://www.pref.miyagi.jp/site/ej-earthquake/kannsei-minamisannriku.html>
- ・ 福島県土木部「復興公営住宅整備記録 原子力災害による避難者の生活再建に向けて」(2018 年 3 月)
<https://www.pref.fukushima.lg.jp/site/portal/hukkoukoueiijyuutaku-seibikiroku.html>

Systems and mechanisms applied:

- ・ Project on the construction of disaster public housing, reconstruction grants (subsidy rate 7/8), bonds (1/8)

Project cost:

- ・ Minamisanriku Municipal Natori Reconstruction Housing: Approx. JPY 97 million (detached housing only)
- ・ Fukushima Prefecture Negarayama Housing Complex (Nihonmatsu City): Approx. JPY 2.464 billion (includes land and development)
- ・ Fukushima Prefecture Ishizaki Housing Complex (Tamura City): Approx. JPY 708 million (includes land and development)
- ・ Fukushima Prefecture Johoku Housing Complex (Aizuwakamatsu City): Approx. JPY 1.302 billion (includes land and land development)

31-1 Reconstruction of Homes and Cities (Construction of disaster public housing in consideration of communities)

Case study	Construction of disaster public housing in flood areas: Securing tsunami evacuation performance functions and revitalizing disaster-affected urban areas
Location	Sakuragi district in Tagajo City, Miyagi Prefecture; Naiwan district in Kesenuma City, Miyagi Prefecture; other
Phases	Emergency response phase <u>Recovery phase</u> <u>Early reconstruction phase</u> Late reconstruction phase
Members	Local authorities (Tagajo City, Kesenuma City, other)
<p>Activity overview:</p> <p>In some cases, disaster public housing was constructed in areas that had flooded because of the tsunami, with a view towards revitalizing urban areas affected by the disaster.</p> <p>Housing constructed in these areas was designed to facilitate evacuation from a tsunami and revitalize disaster-stricken urban areas by locating disaster public housing units above the flood level and installing community spaces and commercial facilities in addition to housing units.</p>	
<p>Activity details:</p> <p>■ Need to build disaster public housing and secure tsunami evacuation performance functions in disaster areas</p> <p>Occasionally, disaster public housing was constructed in areas that had flooded during the Great East Japan Earthquake in order to revitalize urban areas damaged in the disaster. Challenges were rooted in ensuring tsunami evacuation performance functions and figuring out how to interlace non-residential functions, such as exchange spaces and commercial facilities, to revitalize the urban area.</p> <p>■ Case study: Sakuragi district, Tagajo City, Miyazaki Prefecture</p> <p>Disaster public housing was built in the Sakuragi district of Tagajo City, Miyagi Prefecture, an area that was flooded almost 2 meters by the Great East Japan Earthquake. For safety, the first floor was used as a parking lot, constructed with a pilotis structure, with residential units located on the second floor and above. “Minna-no-Living (Everyone’s Living Space)”, a community deck connecting the residential building and exchange spaces, was built on the second floor, linked to the adjacent nursery school, senior lifestyle counseling center, meeting halls and other facilities, to encourage interactions between multiple generations. An evacuation space and disaster prevention shed were also installed on the rooftop, which will serve as a disaster management and prevention center for the area that can be used by neighborhood residents for temporary evacuation (Fig. 1, 2, photo 1).</p>	



Fig. 1: Image of overhead view
(Source: Reconstruction Agency)



Photo 1 Community deck connecting residential buildings (Source: UR Urban Renaissance Agency)

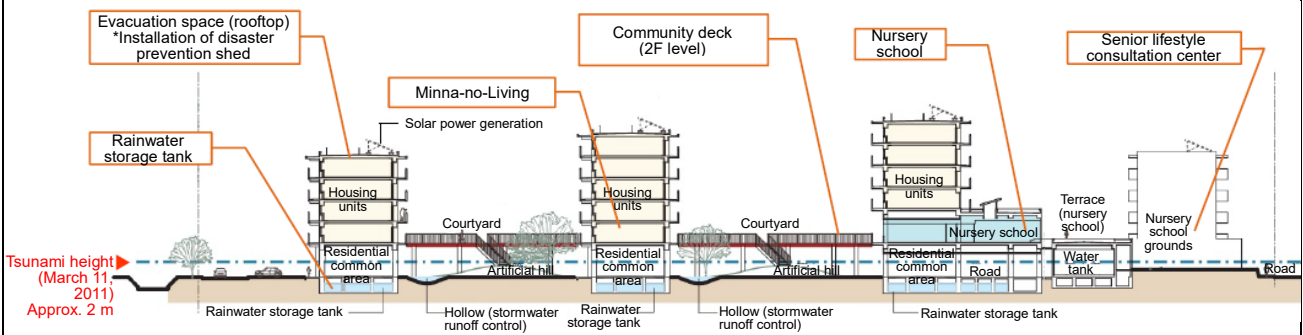


Fig. 2: Cross-sectional configuration image (Source: Reconstruction Agency)

■ Case study: Maiwan district in Kesenuma City, Miyagi Prefecture

A reconstruction land readjustment project was implemented in Naiwan district, Kesenuma City's central area, combining infrastructure development, livelihood reconstruction and disaster public housing development. First, a decision was made to build up four city blocks in the project area, where the government consolidated and converted land owned by businesses and residents rushing to rebuild. Four associations, which involved local residents and shopkeepers, constructed housing complexes with common stores, local welfare facilities, and community facilities in each block. The city purchased the residential units as disaster public housing in each area (joint conversion project). These four projects became the starting point for action, influencing self-reliance in the reconstruction of the surrounding area (Fig. 3, Photo 2).

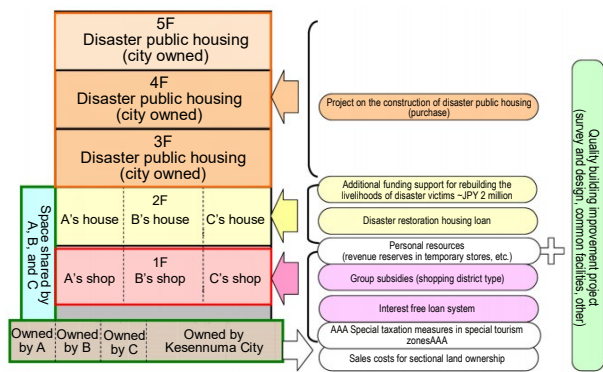


Fig. 3: Modeled on the joint project (Source: Association of Urban Housing Sciences)



Photo 2: Disaster public housing built during the joint project (Source Miyagi Prefecture)

Sources (Listed in other case studies, etc.):

- ・ 復興庁 「「新しい東北」住まいのこだわり設計事例集」
https://www.reconstruction.go.jp/portal/juutaku_koukyou/20131206171957.html
- ・ 宮城県 「多賀城市桜木地区災害公営住宅完成資料」 (2014 年)
<https://www.pref.miyagi.jp/uploaded/attachment/307169.pdf>
- ・ UR 都市機構 「市営桜木住宅[災害公営住宅]」 (2014 年)
https://www.ur-net.go.jp/rd_portal/urbandesign/event/awards/sakuragi.html
- ・ 公益社団法人都市住宅学会 「2019 都市住宅学会賞・業績賞 都市住宅学会賞 気仙沼市内湾地区の復興まちづくり市民事業による災害公営住宅および地域コミュニティ拠点の整備」
http://www.uhs.gr.jp/annai/gsyo/19_gjusyo.html
- ・ 阿部俊彦 「気仙沼市内湾地区における防潮堤の計画とデザインの合意形成プロセス」 土木学会論文集 D1(景観・デザイン),Vol.73,No.1 (2017 年) p37-51
https://www.jstage.jst.go.jp/article/jscejaie/73/1/73_37/_pdf/-char/ja
- ・ 宮城県 「気仙沼市気仙沼内湾 (南町一丁目) 地区災害公営住宅 完成資料」 (2016 年)
<https://www.pref.miyagi.jp/uploaded/attachment/645169.pdf>

Systems and mechanisms applied:

- ・ Project on the construction of disaster public housing
- ・ Land readjustment projects concerning reconstruction of urban districts damaged by disasters
- ・ Additional funding support for rebuilding the livelihoods of disaster victims
- ・ Disaster reconstruction housing loan
- ・ Group subsidies
- ・ Interest-free loans
- ・ Quality building improvement project, other

Project cost:

- Tagajo City Sakuragi Disaster Public Housing: JPY 3.871 billion (total construction costs)
- Kesenuma City Disaster Public Housing (total amount for four joint project areas): JPY 4.301 billion (total construction costs (combination of the city and private companies))

31-2 Reconstruction of Homes and Cities (Construction of disaster public housing in consideration of communities)

Case study	Living access-type disaster public housing
Location	Kamaishi City, Iwate Prefecture, Ishinomaki City, Miyagi Prefecture, other
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Project lead: Local authorities In cooperation with: Architects; house manufacturers; construction companies; Architectural Spatial Studies Laboratory, Department of Architecture and Building Science, Graduate School of Engineering, Tohoku University (Yasuaki Onoda/Haruka Tsukuda Laboratory)
<p>Activity overview:</p> <p>Constructed in various locations in light of the issues of isolation and dying alone that emerged in disaster public housing after the Great Hanshin-Awaji Earthquake, living access-type disaster public housing is effective in terms of monitoring people and building communities.</p>	
<p>Activity details:</p> <p>■Background: Isolation and dying alone after the Great Hanshin-Awaji Earthquake</p> <p>Disaster public housing in the aftermath of the Great Hanshin-Awaji Earthquake was provided in accordance with conventional housing complex plans. These conventional designs made it impossible to see inside units from common hallways, which has been said to have been a factor in causing the elderly and other people to feel isolated and die alone. Armed with this information, several local authorities coordinated with the Onoda/ Tsukuda Laboratory in the Department of Architecture and Building Science, Graduate School of Engineering, Tohoku University to construct living access-type disaster public housing, where living rooms and other areas are arranged so that they face corridors, in order to make it easier to build communities and monitor people's physical and mental health.</p> <p>■Case study: Omachi district, Kamaishi City, Iwate Prefecture</p> <p>Three six-story residential buildings constructed in Omachi Reconstruction Housing No.1 in Kamaishi City, Iwate Prefecture and a three-story building on the south side (to ensure lighting) were connected by a common corridor around the outside and designed in such a way that each unit's dining room and Japanese-style room faced the balconies. Opaque glass was used in the windows and doors facing the balconies, and shoji screens were installed in the windows in the Japanese-style rooms to ensure privacy. The living rooms face the courtyard opposite the balconies (Fig. 1, Photo 1).</p>	

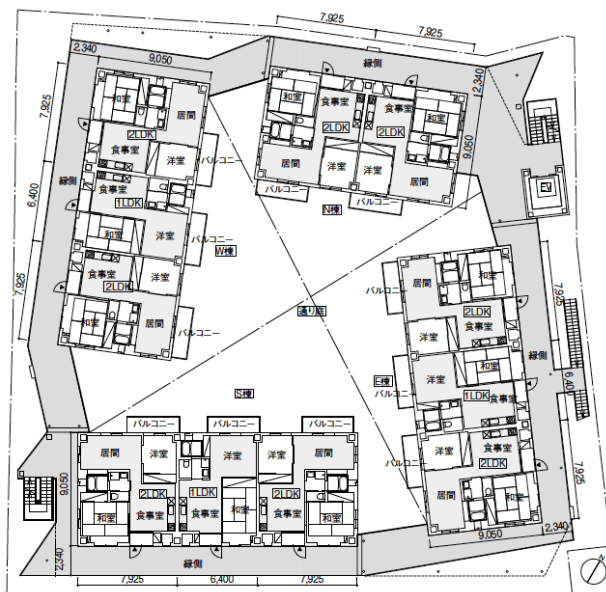


Photo 1 (right top): Windows with opaque glass and shoji screens facing the balcony in Omachi Reconstruction Housing in Kamaishi City (Source: Shinkenchiku-sha, August 2016)

Fig. 1 (left): 2F layout drawing for Omachi Reconstruction Housing in Kamaishi City (Source: Chiba Manabu)

■ Case study: Shin-Hebita district, Ishinomaki City, Miyagi Prefecture

The Ishinomaki Municipal Shintateno No.1 and No.2 Reconstruction Housing Complexes (Buildings A to D) were planned to be integrated with the Shin-Hebita district, a large-scale disaster management and prevention group relocation housing area. These complexes adopted designs for living access-type housing units* in townhouse-style residential buildings, taking community ties and monitoring into consideration and creating a balance with the landscape in detached houses constructed individually in the adjacent area (Fig. 2, Photo 2). In addition to the three-story apartment building, the area includes a one-story residential building and detached housing, with the three-story building containing flat-type units on the first floor and maisonette-style units on the second and third floors in order to meet a variety of needs. Common spaces and vegetable gardens were also planned between residential buildings.

*Low-rise housing complex with an efficiently-arranged series of low-rise housing (residential buildings). This design also features several buildings that have been grouped together with common spaces (gardens) between buildings.

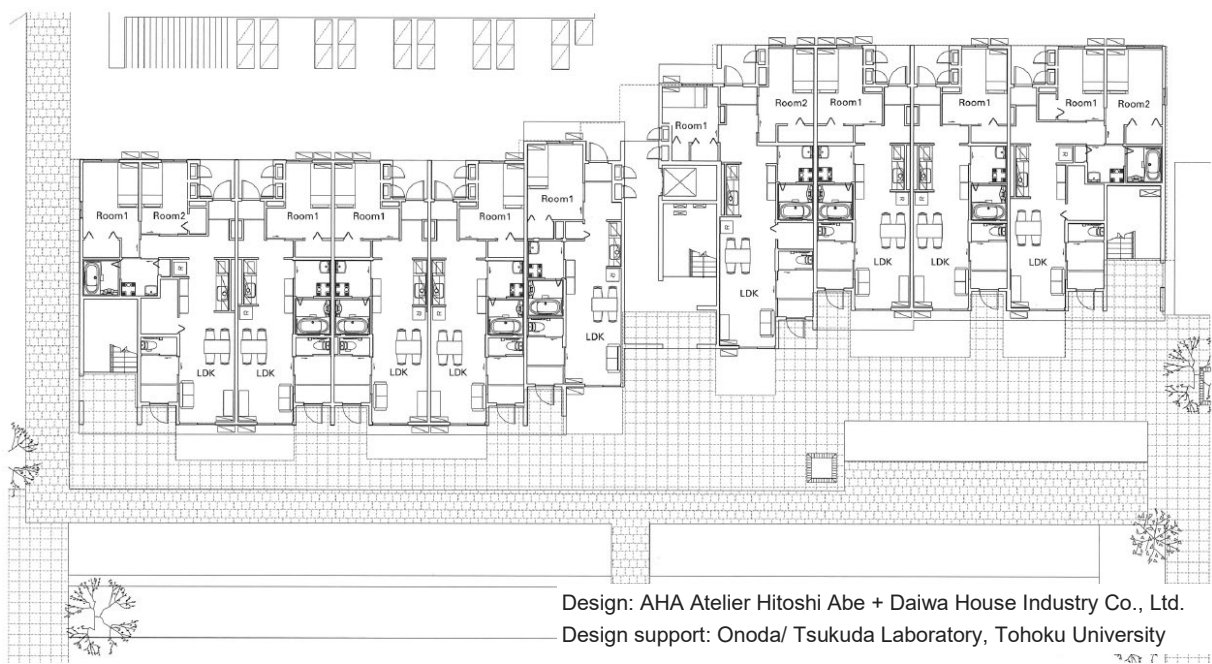


Fig. 2: 1F plan for the Ishinomaki Municipal Shintateno No.1 and No.2 Reconstruction Housing Complexes
 (Source: Shinkenchiu-sha, August 2016)



Photo 2: Exterior and common garden spaces in
 Ishinomaki Municipal Shintateno No.1 and No.2 Reconstruction Housing Complexes

Sources (Listed in other case studies, etc.):

- 千葉学「人の集まり方をデザインする 釜石市の復興住宅」東西アスファルト事業協同組合講演録 (2016年)
<https://www.tozai-as.or.jp/mytech/16/16-chiba05.html>
- 株式会社新建築社「新建築 2016年8月別冊 集合住宅の新しい文法—東日本大震災復興における災害公営住宅」(2016年8月)
- 宮城県「災害公営住宅が完成しました(石巻市)」(2019年4月)
<https://www.pref.miyagi.jp/site/ej-earthquake/kannsei-ishinomaki.html>

Systems and mechanisms applied:

- Project on the construction of disaster public housing

Project cost:

- Kamaishi Municipal Omachi Reconstruction Housing No.1 Building: JPY 1,525,842,240
- Ishinomaki Municipal Shintateno No.1 Reconstruction Housing Complex (Buildings A to D): JPY 2,116,000,000
- Ishinomaki Municipal Shintateno No.2 Reconstruction Housing Complex: JPY 2,609,000,000

32-1 Reconstruction of Homes and Cities (Maintenance and management of disaster public housing)

Case study	Responses to vacant housing units and lots in disaster public housing
Location	Municipalities affected by the disaster in Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Municipalities affected by the disaster in Miyagi Prefecture, other
<p>Activity overview:</p> <p>A certain number of vacant housing units and lots were still left during the completion, maintenance and management stages, even though Miyagi Prefecture had gone to extraordinary efforts to carefully interview residents about their intentions to rebuild and an appropriate number of units were provided.</p> <p>All municipalities made efforts to promote occupancy in vacant units and utilize vacant sites.</p>	
<p>Activity details:</p> <p>■ Emergence of vacant housing units and lots as a result of changes in the intentions of disaster victims</p> <p>Municipalities in Miyagi Prefecture continued to take a series of meticulous actions to gain an understanding of the intentions of disaster victims in rebuilding housing, such as by conducting continuous surveys and organizing consultation meetings, as well as going door-to-door to interview residents. However, it was difficult to reflect changing intentions in project plans depending on the development stage, resulting in the emergence of several vacant housing units during the completion, maintenance and management stages.</p> <p>In some cases, development plans were cancelled, even though land had been acquired and developed to construct disaster public housing (detached houses) in accordance with plans, due to changes in the intentions of prospective tenants, which resulted in vacant lots with no housing constructed on them.</p> <p>Municipalities were requested to promote occupancy in vacant housing units and utilize vacant lots.</p> <p>■ Factors behind changing intentions</p> <p>Prospective tenants' intentions changed for a variety of reasons: disaster victims who had hoped to move into disaster public housing decided not to because they were able to rebuild housing on their own with prospects for raising funds, and those who had hoped to move into disaster public housing, but found discrepancies with room types due to changes in household compositions, such as through marriage, birth, or separation of households, or incompatibilities in desired areas due to changes in living environments, such as employment or children attending school.</p> <p>Some units that were once occupied by disaster victims also became vacant after they left for different reasons, such as moving into facilities.</p> <p>■ Promoting occupancy in vacant housing units</p> <p>As a way to promote occupancy in vacant units, additional applications were accepted from disaster</p>	

victims other than original prospective tenants. Conditions on the number of tenants in one household were also relaxed to handle discrepancies in room types. Prospective tenants other than disaster victims were permitted to move into housing that continued to have vacant units even after additional applications were accepted and requirements were relaxed, which were then handled as regular public housing. Municipalities took steps to find tenants for disaster public housing other than the target population, such as by opening up vacancies to disaster victims throughout the entire prefecture for a certain period of time, based on views expressed by the Ministry of Land, Infrastructure, Transport and Tourism (Ref. 1).

Some municipalities also considered the use of disaster public housing by accepting people who are returning to the area, are moving from urban to rural areas, or moving to a slightly larger city near a rural area (referred to as U-turn, I-turn, and J-turn, respectively) and regional development, based on a notice on the “Utilization of public housing for local needs” issued by the Housing Bureau of the Ministry of Land, Infrastructure, Transport and Tourism on February 27, 2009, in addition to promoting occupancy as regular public housing. To cite a specific example, Kesenuma City started to accept rental applications from people relocating to the city for 13 disaster public housing units in December 2020, which remained vacant even after repeated calls to prospective tenants, for a one-year period (in principle).

Vacant units that may occur in the future may be converted into welfare facilities, such as day care services, or accommodation facilities connected to the local tourism industry, based on medium- to long-term demand forecasts. In some RC-constructed housing complexes, the partitions between units were partially dried with the expectation of reconstruction associated with the conversion of facilities.

Ref. 1: Views of the Urban and Housing Development Division, Tohoku Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism dated September 2015

(Source: Public Works Department, Housing Division, Miyagi Prefecture)

1. Occupancy

- (1) If there are no prospective tenants after three years have passed since the disaster, even after a sufficient effort has been made to call for applications from disaster victims and there are vacant units, persons who meet income and other requirements may be permitted to move into housing after a call for applications is made.

(*) The phrase, “even after a sufficient effort has been made to call for applications”, means that each project entity can confirm that there are no disaster victims who wish to move in after a general open call for applications from disaster victims in all areas of the prefecture for a considerable period of time.

- (2) Each entity shall make a comprehensive determination about the possibility of permitting the general public to move into disaster public housing after confirming that there are no disaster victims who want to take up occupancy, and ascertaining the progress of reconstruction and the intentions of disaster victims in terms of securing their own housing.

2. Government subsidies

- (1) If appropriate development plans are formulated based on the intentions of disaster victims and plans are timely and appropriately reviewed, and it is understood that a surplus has resulted as an unavoidable consequence, it is not considered necessary to return finances from the national treasury for the difference in the subsidy rate, even if disaster public housing is provided to persons in need who are not victims of a disaster.

■ Utilizing vacant lots

The following options have been used to handle vacant sites, depending on situations (Table 1).

- (1) Use of disaster public housing as sites for communal facilities (e.g., parks, green spaces, community squares) (core projects)
- (2) Use of land for local facilities, including disaster public housing complexes (e.g., meeting halls, parks) (projects to promote the effectiveness of reconstruction grants)
- (3) Purchase of sites by municipalities for sale as residential land for general use (Return of subsidies)

Options for using vacant land must be discussed with the national government, with rationales and verification conducted to a certain extent. Early action needed to be taken with vacant land, since projects could not be completed and final performance reports could not be submitted until decisions had been made on options for the use of vacant sites.

Table 1: Status of the use of vacant land (Source: Public Works Department, Housing Division, Miyagi Prefecture)

Project lead	Project lead	Project lead	Project lead
Ishinomaki City	District 7	27	Shared square, grant returned to subdivide land for sale
Kesennuma City	District 5	6	Assembly hall land, communal plaza
Natori City	District 1	25	Land for sale after returning grant
Higashimatsushima City	District 2	10	Meeting hall, communal square, land for sale with grants returned
Onagawa Town	District 3	5	Common plaza, grant returned, land for sale

Sources (Listed in other case studies, etc.):

- ・ 宮城県土木部住宅課「東日本大震災からの復興 災害公営住宅整備の記録」(2020年6月) p203-204,207 <https://www.pref.miyagi.jp/site/ej-earthquake/seibinokiroku.html>
- ・ 河北新報「気仙沼市が移住者受け入れ 災害公営住宅を活用」(2020年12月16日) <https://kahoku.news/articles/20201215khn000063.html>

Systems and mechanisms applied:

- ・ Project on the construction of disaster public housing
- ・ Projects to promote the effectiveness of reconstruction grants, other

Project cost:

33-1 Reconstruction of Homes and Cities (Disaster waste management)

Case study	Reusing disaster waste at Taiheiyo Cement Corporation's Ofunato Plant
Location	Ofunato City, Iwate Prefecture and other neighboring municipalities (Miyako City, Yamada Town, Otsuchi Town, Rikuzentakata City)
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Project lead: Taiheiyo Cement Corporation's Ofunato Plant Other stakeholders: Companies affiliated with Taiheiyo Cement Corporation's Ofunato Plant, Tohoku Electric Power Co., Ltd., Ofunato City, Miyako City, Yamada Town, Otsuchi Town, Rikuzentakata City, other

Activity overview:

Taiheiyo Cement Corporation's Ofunato Plant has made considerable contributions to the disposal of disaster waste in Ofunato City and neighboring municipalities by recycling non-combustible materials sorted at secondary temporary storage sites immediately after the disaster as cement materials, as well as combustible materials, pillar components and squared lumber materials as fuel.

The plant accepted and processed both disaster waste, as well as reconstruction-related waste generated through reconstruction projects.

Activity details:

■ Process of trial and error to restore facilities and recycle waste into cement resources immediately after the disaster, with the incineration of disaster waste and conversion into cement resources as a result

About 70% of all facilities at Taiheiyo Cement Corporation's Ofunato Plant were damaged by a 10-meter tsunami and operations were suspended. In the immediate aftermath of the disaster, the company worked around the clock to restore facilities, conducting discussions with Ofunato City and issuing a declaration by the president at that time to restore the plant, in order to dispose of the massive volume of disaster waste and supply cement for restoration and reconstruction efforts. Facilities in kiln No.5, which had only minor damage from the tsunami, were inspected immediately, with the incineration of disaster waste starting on June 22 in cooperation with Tohoku Electric Power Co., Ltd. It took three months after this first attempt using a cement kiln to incinerate disaster waste before operations were stable.

Conventional processes used to incinerate and landfill disaster waste would have caused delays in reconstruction efforts because of insufficient treatment capacity and the immense volume of materials that were difficult to treat. The Ofunato Plant used disaster waste to produce cement, due to its essential role in restoration efforts. This project was promoted as natural resources, such as limestone, silica stone, and iron, all raw materials for cement, are similar in composition to disaster waste, such as sewage sludge and cinders, while the high-temperature firing process does not produce dioxins.

The plant also installed new equipment to remove salt and ensure quality in order to convert disaster

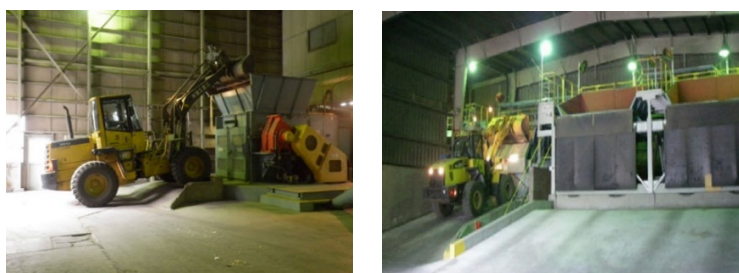
waste into cement resources. With this shift to the production of cement resources, all residual waste landfilled at final disposal sites during incineration were converted into cement products. The company went on to restore damaged facilities, accepting 969,000 tons of waste over three years until March 2014, including those transported by sea from three cities and two towns along Iwate Prefecture's coast: Miyako City, Yamada Town, Otsuchi Town, Ofunato City, and Rikuzentakata City. This was equivalent to about 20% of the total volume of disaster waste generated in Iwate Prefecture. Zero emissions could be achieved with no secondary waste generated through the use of combustible disaster waste as an alternative to fossil energy and mixing cinders into cement, which extended the remaining service life of the final disposal facility.



Photos: Kiln No.5 undamaged by the tsunami (left), installation of salt removal equipment (center), wide-area receipt of waste by ship (right) (Source: Taiheiyo Cement Corporation's Ofunato Plant)

■Acceptance of reconstruction-related waste

After the treatment/disposal of disaster waste, soil, logging materials and other waste generated as a result of the development of residential land (reconstruction-related waste), as well as other by-products, such as coal ash and waste plastics, were received from local authorities in surrounding areas to be converted into cement resources. By supporting reconstruction efforts from both ends, i.e., processing waste generated from reconstruction projects, while simultaneously supplying cement as materials for reconstruction, Taiheiyo Cement Corporation's Ofunato Plant processed up to 472 kg of disaster waste per ton of cement in fiscal 2013.



Photos: Waste plastic crushing and processing facility (left), waste treatment facility for non-combustible waste (right) (Source: Taiheiyo Cement Corporation's Ofunato Plant)

■Wide-area treatment of waste using technology generated through reconstruction efforts

With the progression and completion of reconstruction projects, the volume of reconstruction-related waste received was expected to taper off. In this context, the Ministry of the Environment launched the

“Disaster Waste Treatment Support Network (D.Waste-Net)”, which aims to improve disaster response capabilities in collaboration with the national government, local authorities and businesses. Taiheiyo Cement Corporation is also a member of the private sector group. The company has expanded its reach in the collection and processing of disaster and other types of waste both in the Tohoku region and from a wider area by taking advantage of its plant facilities and technologies used to process the immense volume of disaster waste after the earthquake, as well as its location next to a dedicated port. (The company accepted waste from the Kanto region and after the Kumamoto earthquake for processing.)

Sources (Listed in other case studies, etc.):

- 一般社団法人セメント協会「太平洋セメント(株) 大船渡工場」月刊セメント・コンクリート (2016年7月) p3-7
http://www.jcassoc.or.jp/cement/4pdf/jg3_05.pdf
- 太平洋セメント株式会社「TAIHEIYO CEMENT CSR REPORT 2017」(2017年9月) p16-19
<https://www.taiheiyo-cement.co.jp/csr/pdf/csrrpt2017.pdf>
- 川辺孝治「大船渡工場の震災復旧と災害廃棄物処理」コンクリート工学, Vol.50, No.1 (2012年) p91-93 https://www.jstage.jst.go.jp/article/coj/50/1/50_91/_pdf/-char/ja
- 三浦啓一「セメント産業における廃棄物・副産物の有効利用と災害廃棄物の受け入れについて」(2016年11月) https://www.env.go.jp/press/y030-16/mat01_3.pdf

Systems and mechanisms applied:

Project cost:

34-1 Reconstruction of Homes and Cities (Restoration and reconstruction of road networks)

Case study	Operation “Comb”
Location	Aomori Prefecture, Iwate Prefecture, Miyagi Prefecture, Fukushima Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Tohoku Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism: local construction companies, road administrators, Self-Defense Forces, police, prefectural and municipal government agencies
<p>Activity overview:</p> <p>Operation “Comb” repaired and cleared several national routes stretching from the Tohoku Expressway and National Route 4, which run north to south through the inland area, to the coastal area in a “comb shape”, in order to secure lifesaving rescue routes.</p> <p>Even with the risk of aftershocks and recurrence of the tsunami, construction companies and road administrators worked to clear the roads. With the cooperation of the Self-Defense Forces, police, and municipal authorities to identify houses where the owners were unknown and missing persons, roads could be opened up quickly.</p>	
<p>Activity details:</p> <p>■Rapid assessment of damages and formulation of plans for countermeasures</p> <p>The Great East Japan Earthquake and tsunami caused a devastating level of damage to many areas along the Pacific coast, washing away bridges and isolating coastal areas.</p> <p>In the days immediately after the disaster, officials and staff at the Tohoku Regional Development Bureau’s Disaster Countermeasures Office gathered together to contact road-related offices and branch offices and quickly confirm the status of damage in order to formulate countermeasures for emergency rescue and the transportation of relief supplies, triggering Operation “Comb”.</p>	

■ Working together to reopen emergency routes in three steps

As aftershocks continued to shake the region and tsunami warnings continued, officials from the Tohoku Regional Development Bureau (Ministry of Land, Infrastructure, Transport and Tourism), local construction companies, Self-Defense Forces, police, and prefectural and municipal staff worked together to clear emergency roads in three steps (Fig. 1, Photo 1).

In Step 1, a line was secured running on a longitudinal axis of the Tohoku Expressway and National Route 4, which traverses inland.

In Step 2, a horizontal axis line was secured from the Tohoku Expressway and National Route 4 to the coastal area. On the 12 (the next day), 11 routes opened along the horizontal axis, and 15 routes opened on the 15, providing access to emergency vehicles, such as ambulances, police and the Self-Defense Forces.

The third step secured a line for National Routes 45 and 6, connected to the coastal areas. By the 18, 97% of the roads had been cleared, and shifted into the emergency restoration phase after the 18.

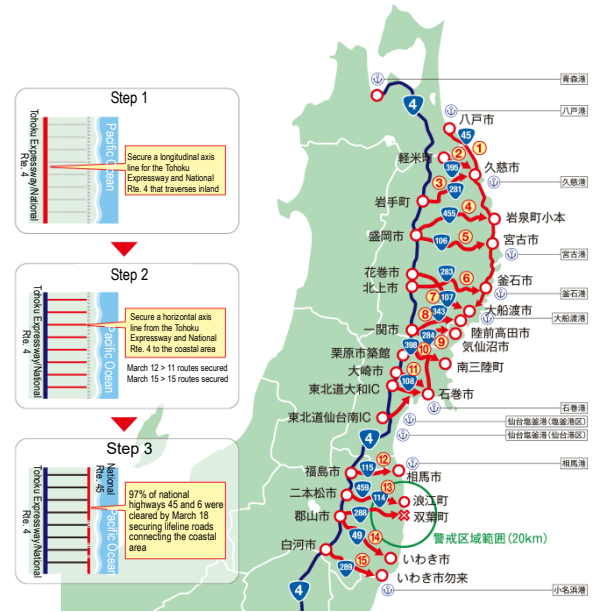


Fig. 1: Overall view of Operation “Comb” (Source: Tohoku Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism)



Photo 1: Clearing roads in Rikuzentakata City (left: before, right: after)
(Source: Tohoku Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism)

Sources (Listed in other case studies, etc.):

- 国土交通省 東北地方整備局 震災伝承館「啓開「くしの歯」作戦」
<http://infra-archive311.jp/s-kushinoha.html>
- 国土交通省 東北地方整備局「東日本大震災の実体験に基づく災害初動期指揮心得」（2015年2月）
https://www.thr.mlit.go.jp/bumon/kisya/kisyah/images/54939_1.pdf

Systems and mechanisms applied:

- Agreements on disaster response operations

Project cost:

35-1 Reconstruction of Homes and Cities (Restoration and reconstruction of railroads, ports and airports)

Case study	Conversion of JR Kesenuma and Ofunato lines to BRT
Location	Iwate Prefecture, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	JR East Japan Railway, local motor vehicle operators, other
<p>Activity overview:</p> <p>An acronym for “Bus Rapid Transit”, BRT is a bus system with higher order functions that can ensure rapid and on-time delivery and increase transportation capacity through a combination of articulated buses, PTPS (Public Transportation Priority Systems), bus-only roads and bus lanes.</p> <p>The Great East Japan Earthquake caused damage to the JR Kesenuma and Ofunato lines across an extensive and widespread area. BRT operations were launched in order to provide safe and convenient transportation services as quickly as possible.</p> <p>BRT presented a new option to maintain public transportation services, rather than simply a choice between reopening or discontinuing railway operations.</p>	
<p>Activity details:</p> <p>■ Extensive damage and proposals on the early restoration of transportation services using BRT in the middle of falling demand that started before the disaster</p> <p>The shift to an automobile-centric society had already started along the JR Kesenuma and Ofunato lines even before the Great East Japan Earthquake, and transportation/passenger volume had fallen to about half that of 20 years ago. Both lines had been severely damaged during the earthquake, and included low-lying areas that needed to be raised, leading to the expectation that a considerable period of time would be required to restore railway services.</p> <p>Under these conditions, a proposal was made to offer “temporary restoration” of the railway lines using BRT, so that transportation functions could be restored earlier than they could by rail, contribute to earthquake recovery efforts, and offer a sustainable transportation system that would be better suited to the actual conditions of the area.</p> <p>The Kesenuma Line restarted operations using an alternative bus system three months after all parties reached agreement in May 2012, using existing roads for operation routes and converting the original railway lines into a dedicated BRT road.</p> <p>■ Installation of flexible stations and operation routes in line with city development</p> <p>BRT stations were newly built or relocated in response to feedback from local residents, and took the location of town hall, hospitals, shopping areas, schools, construction-type emergency housing complexes, temporary shopping areas and other convenient infrastructure into account. New stations were built or relocated in accordance with the various stages of the city development, with operation</p>	

routes also changing accordingly. A survey of local passengers in 2015 showed that only a small number of passengers were dissatisfied with the BRT system.

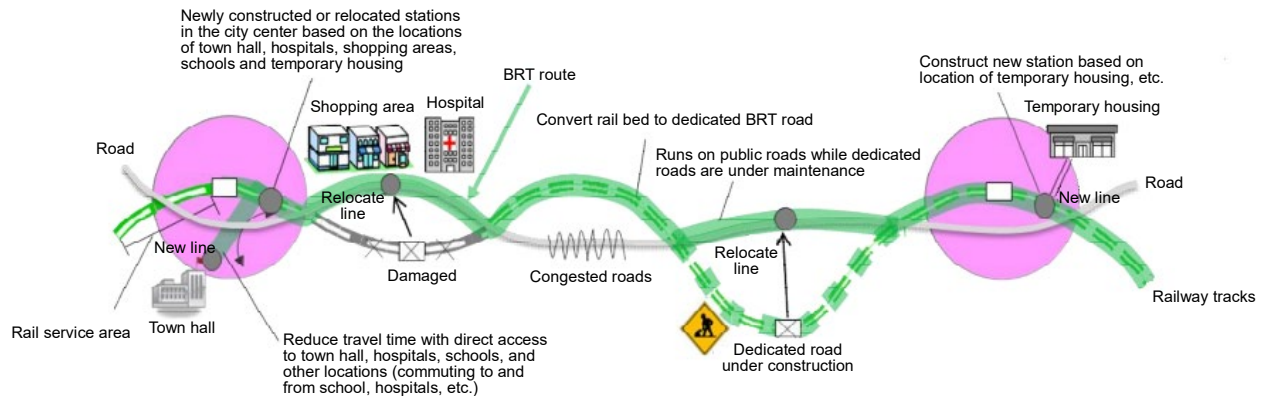


Fig.: Image of temporary restoration using the BRT system (Source: Symposium materials, other)

■ Improved convenience

Delays for each line are less than five minutes for most buses, even in fiscal 2020 when the dedicated road was not fully constructed. The number of buses has increased by 1.5 to 3 times compared to the years the railway was in operation. The bright and smartly designed stations are also barrier free, and passengers can change trains on the same platform at the station connected to the railway. The BRT's GPS-based "location system" is constantly checking the vehicle's location, which can be accessed by passengers via station monitors and smartphones and offer a sense of security.



Seamless connections between bus and rail lines

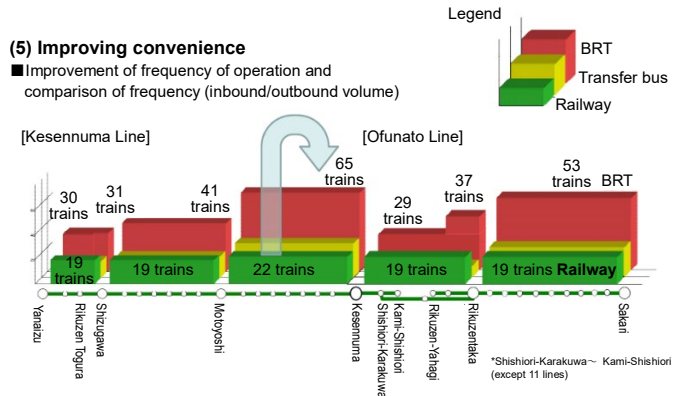


Photo (left): Connecting stations between BRT and railroads (Source: JR East website)

Photo (right): Comparison of frequency of operations with rail service (Source: Symposium materials)

■ Ensuring safety when evacuating from a tsunami

In the event of an earthquake or tsunami, vehicles travel under their own power as far as they can. Each vehicle is equipped with a tsunami evacuation map, and evacuation drills are conducted to ensure passenger safety. When tsunami warnings and advisories were issued after earthquakes in 2012 and 2016, evacuations were completed in a little over 10 minutes.

■Eco-friendly, fun-to-photograph vehicles

Eco-friendly hybrid vehicles are the most common type of vehicle used. The vehicle's exterior is designed with local characters, creating community-based routes loved by local passengers and visitors.

■Full-scale operations outsourced to local motor vehicle operators

After obtaining a motor vehicle business license, the BRT system moved into full-scale operation, which was outsourced to local motor vehicle operators.

Sources (Listed in other case studies, etc.):

- ・ JR 東日本「気仙沼線・大船渡線 BRT（高速バス輸送システム）」
<https://www.jreast.co.jp/railway/train/brt/system.html>
- ・ JR 東日本「地域公共交通シンポジウム in 旭川 事例発表③気仙沼線・大船渡線の BRT による復旧」
<https://www.tb.mlit.go.jp/hokkaido/bunyabetsu/tiikikoukyoukoutsuu/69shinpojiumu/290616/06jrhighasi.pdf>
- ・ 公益財団法人日本デザイン振興会「グッドデザイン賞 BRT（バス高速輸送システム） [気仙沼線／大船渡線 BRT]」（2016 年）<https://www.g-mark.org/award/describe/43923>

Systems and mechanisms applied:

Project cost:

36-1 Reconstruction of Homes and Cities (Restoration and reconstruction of coastal levees)

Case study	Designing coastal levees and other infrastructure that reflect diverse needs
Location	Miyagi Prefecture, Iwate Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Prefectures, municipalities, area residents, experts, other

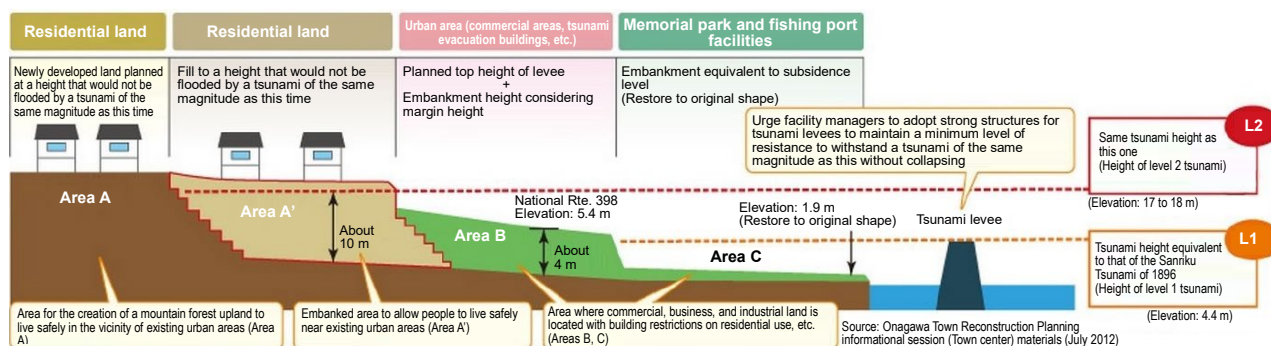
Activity overview:

Coastal levees and other infrastructure were planned and constructed in areas affected by the tsunami, with due consideration given to various needs in local city development, such as landscapes, tourism and the natural environment, in addition to ensuring safety.

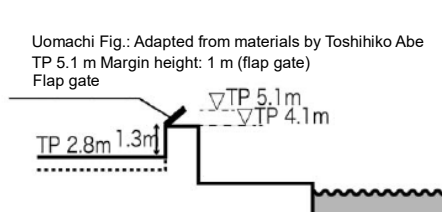
Activity details:

■ Example of levee design with views from urban areas to the sea (Onagawa Town, Uomachi in Naiwan district, Kesenuma City)

The following measures were implemented in order to continue to allow the sea to be visible from Onagawa Town: (1) Construction of a strong levee offshore that would not collapse if a tsunami struck, (2) Development of land or embankment above the height of an L2 tsunami and consolidation of residential areas, (3) Use of low-lying areas damaged by the tsunami for industrial purposes, with embankments planned for commercial areas where people gather at the height of an L1 tsunami.



The height of the levee in the Uomachi in Naiwan district, Kesenuma City was based on T.P+5.1 . A flap gate (movable type) levee was installed with a margin height equivalent to 1.0 m, and views of the sea were secured by raising the height of the ground on the town side. The movable-type levee was more expensive than other types, however, it was determined to be a reasonable option and installed after considering the economic impact on Naiwan district which is the central city district. If all the buildings on the town side were demolished at the same time to complete work to build up the area, reconstruction of buildings would be delayed and increase the burden on landowners. Therefore, efforts were made to determine which area should be built up first so that land could be consolidated and converted as quickly as possible for reconstruction.



■ Example of levee design that takes tourism into account (Minami-machi in Naiwan district, Kesennuma City, Yuriage district, Natori City)

A coastal commercial facility in Minami-machi, Naiwan district, “Mukaeru (Welcome)”, and a city, people and work interactive plaza in Kesennuma City, “Umareru (Creation)”, were built together with the Minami-machi Coastal Park, a waterfront facility (with public and commercial facilities) that offers a view of the sea and is integrated with the levee to make it less visible. Visitors can connect to retail facilities, restaurants and parking lots on the first floor of the facility from the town, while from the sea, people can connect to the second floor of the facility through sloping green areas and stairways. There are also five land locks to allow for the maximum amount of traffic flow between the sea and the town.

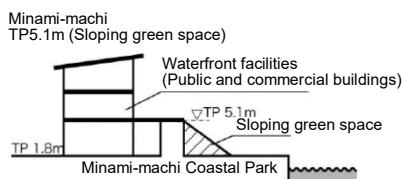


Fig.: Adapted from materials by Toshihiko Abe

A commercial facility, Kawamachi Terrace Yuriage, was constructed on the levee strip of the Natori River in the Yuriage district of Natori City. With 26 shops selling goods, food and beverages, visitors can dine out while they enjoy the waterside. A reconstruction grant was also used to construct an access road from the prefectural road.



■ Examples of levee designs featuring the landscape and natural environment (Iwanuma City, Hikado fishing port in Kesennuma City, Ogatsu-cho in Ishinomaki City)

An evacuation hill was constructed in Iwanuma City using earthquake debris and waste for the foundation. Volunteers planted trees from all over the country on the slopes, connecting the hills with parkways, to form a “green levee” for the future. The “Millennium Hope Hills” are one of multiple lines of defense to mitigate the power of tsunamis and protect people. It is also a space where the legacy of the earthquake can be passed down to future generations for them to learn about disaster prevention.

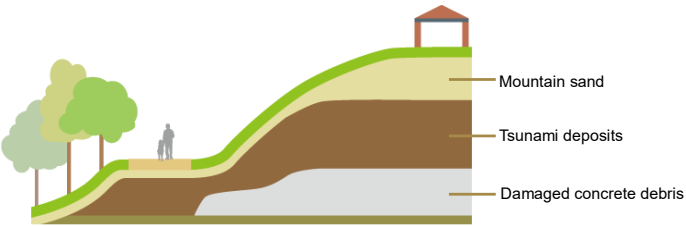


Illustration from Iwanuma City



Photo from Iwanuma City

In light of the local opinion that the scenery itself is an asset for the community, the national route will be raised around the Hikado fishing port in Kesenuma City, so that the sea is visible from the national route behind the levee in order to promote local tourism and evacuation measures. A levee will be located on the former railway tracks to secure as much sandy beach as possible. Consideration was given to the natural environment in both the design and construction plans, based on advice from an environmental advisor, such as not performing construction work during the time when brent goose come to shore to rest.



Photo from Miyagi Prefecture materials

In the Namiita district of Ogatsu-cho, Ishinomaki City, *gensho-seki* plates, a type of slate from Miyagi Prefecture and a specialty of the area, was used to cover the surface of the levee, which is not organic. Local residents and volunteers also took part in this stone-covering work, which included placing stones in the shape of fans or crescent moons on the central staircase and other sections in order to lend expression to the local character of the area.



Photo from Miyagi Prefecture materials

Sources (Listed in other case studies, etc.):

- ・ 東北復興新聞「[宮城県女川町]千年に一度のまちづくり 人口減少率日本一からの持続可能性への挑戦」(2014年11月) <http://www.rise-tohoku.jp/?p=8884>
- ・ 阿部俊彦「気仙沼市内湾地区における防潮堤の計画とデザインの合意形成プロセス」土木学会論文集D1(景観・デザイン),Vol.73,No.1(2017年)p37-51
https://www.jstage.jst.go.jp/article/jscejaie/73/1/73_37/_pdf/-char/ja
- ・ 復興庁「かわまちてらす開上開業記念式典が開催されました」(2019年4月)
<https://www.reconstruction.go.jp/portal/chiiki/2019/20190516natori.html>
- ・ 合同会社 住まい・まちづくりデザインワークス「内湾ムカエル設計+気仙沼内湾復興まちづくり支援」<http://www.smdw.co.jp/mukaeru/>
- ・ 千年希望の丘交流センター「千年希望の丘」<https://sennen-kibouno-oka.com/about/>
- ・ 河北新報社「気仙沼・日門漁港の防潮堤イメージ提示 宮城県、2年後の完成目指す」(2020年8月) https://www.kahoku.co.jp/special/spe1062/20200822_01.html
- ・ 宮城県「海岸保全施設(防潮堤)整備に係る説明会の概要について」(2019年9月)
<https://www.pref.miyagi.jp/soshiki/ks-tihouken-sg/boutyoutei-setumeikai-kekka.html>
- ・ 河北新報社「石巻圏・新百景>波板の防潮堤(石巻市雄勝町)」(2020年4月)
https://www.kahoku.co.jp/special/spe1000/20200408_07.html

Systems and mechanisms applied:

- ・ Coastal protection facility development projects
- ・ Land readjustment projects
- ・ Disaster recovery projects
- ・ Quality building improvement projects
- ・ Subsidies for development projects of model facilities to increase the non-resident population in coastal areas, other

Project cost:

37-1 Revitalization of Industries and Livelihoods (Initiatives aimed at resuming business operations)

Case study	Free matching support project for idle machinery
Location	Six Tohoku prefectures
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Japan Chamber of Commerce and Industry, Tohoku Federation of Chambers of Commerce and Industry, Sendai Chamber of Commerce and Industry

Activity overview:

In June 2011, the Japan Chamber of Commerce and Industry (JCCI), the Tohoku Federation of Chambers of Commerce and Industry, and the Sendai Chamber of Commerce and Industry launched the Free Matching Support Project for Idle Machinery, calling on member companies nationwide to provide their idle machinery, equipment, and vehicles to help SMEs in disaster areas that were having difficulty continuing their operations due to loss or damage of production facilities or machinery in the earthquake.

5,731 offers for machinery were received through December 2015, of which 3,266 were matched. 323 businesses in the affected areas received machinery, helping them to quickly resume operations.

Activity details:**■How the project got started**

This got started when a business advisor from the Nagoya Chamber of Commerce and Industry, who was dispatched immediately after the earthquake to the Sendai Chamber of Commerce and Industry to provide support, sent out requests to businesses in Nagoya that he was acquainted with to provide machinery in order to help the disaster-affected companies in Sendai restart their businesses. Since the early resumption of business was one of the challenges in rebuilding industry in the six prefectures of the entire Tohoku region, the JCCI took the lead in developing this project into one where chambers of commerce and industry throughout Japan would be called upon to provide machinery and other resources.

■Assessing the needs of affected companies and requesting member companies to provide resources

Business advisors from chambers of commerce and industry in the affected areas, and disaster response counselors hired by the Tohoku Federation of Chambers of Commerce and Industry under the emergency employment program visited affected companies to identify the machinery and equipment they needed for resuming production, which were then registered in the federation's database.

Meanwhile, the JCCI called on the then 514 chambers of commerce and industry nationwide to gather information on machinery, equipment, and vehicles that their member companies could provide, and these chambers registered member companies who responded that they could cooperate, and the machinery and other equipment they were able to provide in the JCCI database.

■Providing machinery and other equipment to affected companies

Earthquake response consultants, who were machine connoisseurs, identified equipment and

facilities, etc., that matched the needs of the affected companies on the JCCI database, and assisted in matching them with these companies.

Donor companies were not asked to pay for the transportation of their machinery, etc., to the disaster-affected companies. This was paid for out of nationwide donations received at the Tohoku Federation of Chambers of Commerce and Industry.

In addition, the JCCI requested the national government to provide a tax measure that would allow companies that provided machinery to deduct the book value of their machinery as advertising expenses, thereby reducing their tax burden.

■ Network of chambers of commerce and industry provides rapid support

In the four and a half years since the project was launched, 5,731 offers to provide machinery were received from all over Japan, of which 3,266 matches were made. Machines were provided by 448 businesses belonging to 83 chambers of commerce and industry in 30 prefectures nationwide to 323 businesses belonging to ten chambers of commerce and industry in the affected areas.

Although the machines provided were previously used, they were infused with the passionate desire of these manufacturing companies to help their peers. In the aftermath of the Great East Japan Earthquake, the national and prefectural governments established generous group subsidies, but the process from application to grant decision was time-consuming and labor-intensive.

This project utilized a nationwide network of industrial support organizations that were already providing support in the management of SMEs during normal times, and resulted in rapid and organic support that was tailored to the actual conditions faced by affected businesses.

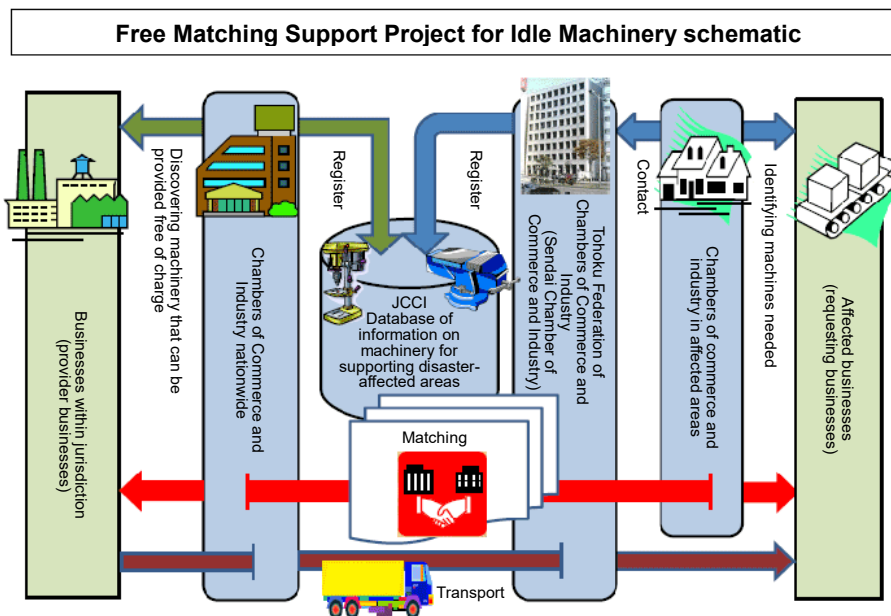


Fig: Japan Chamber of Commerce and Industry Free Matching Support Project for Idle Machinery schematic (Source: Japan Chamber of Commerce and Industry web site "Free Matching Support Project for Idle Machinery")

Source (Listed in other case studies, etc.):

- 日本商工会議所「遊休機械無償マッチング支援プロジェクト」
<https://www.jcci.or.jp/region/tohokukantodaisinsai/matching/project.html>
- 東北六県商工会議所連合会・日本商工会議所中小企業振興部「全国から届けられた明日への希望—遊休機械無償マッチング支援プロジェクト5年間の軌跡—」
<https://www.jcci.or.jp/chusho/yukyu.sasshi.pdf>

Systems and mechanisms applied:

Project cost:

38-1 Revitalization of Industries and Livelihoods (Funding support)

Case study	Kesenuma Shinkin Bank, promoting community-based financing	
Location	Kesenuma City, Miyagi Prefecture	
Phases	Emergency response phase	Recovery phase
	Early reconstruction phase	Late reconstruction phase
Members	Shinkin Central Bank	
<p>Activity overview:</p> <p>The Kesenuma Shinkin Bank is a credit union that mainly operates in Kesenuma City, Miyagi Prefecture, and other areas along the Sanriku coast. Ten of its 12 branches were forced to close due to the earthquake, and because its borrowers' businesses were also hit by the disaster, it faced difficulty foreseeing its financial conditions moving forward. To address this issue, in February 2012, the bank received a capital injection of JPY 15 billion from the national government and Shinkin Central Bank under the Special Exception for Cooperative Financial Institutions under the Act on Special Measures for Strengthening Financial Functions.</p> <p>Based on its Business Enhancement Plan under Specific Special Provisions for Earthquake Disasters formulated in 2012 (updated in 2016), the bank — through the routine visits made by its sales reps, which are one of the strengths of shinkin banks — promoted community-based financing that addressed business issues that individual businesses faced, such as cash flow, business upgrades, business restructuring, and livelihood reconstruction, thereby contributing to regional reconstruction and revitalization, as well as the revitalization of the regional economy.</p>		
<p>Activity details:</p> <p>■ Preserving and stabilizing financial functions that support the regional economy</p> <p>Kesenuma Shinkin Bank is a credit union that mainly operates in Kesenuma City, Miyagi Prefecture, as well as Minamisanriku Town, Rikuzentakata City, and Ofunato City, areas that suffered catastrophic damage in the Great East Japan Earthquake. Ten of its 12 branches were forced to close due to the earthquake. From the third day after the earthquake, customers who did not have their bank cards or pass books were able to receive JPY 100,000 in cash at branches that had escaped the disaster if they gave the name of a Shinkin Bank employee who had been servicing them, giving them peace of mind in meeting their immediate cash flow needs.</p> <p>A total of 980 or 14% of the bank's borrowers and JPY 21 billion or 47% of its total credit exposure were affected by the earthquake. Immediately after the disaster, the bank responded flexibly as a financial institution that called the affected areas home, extending new loans to affected businesses (a total of 3,597 borrowers, totaling JPY 65,192 million as of May 2020), modifying loan terms (a total of 422 borrowers, totaling JPY 7,356 million as of May 2020), and temporarily suspending scheduled repayments, thereby contributing to the preservation and stabilization of financial functions that support the regional economy.</p>		

■Capital infusion based on Special Provisions for Earthquake Disasters under the Act on Special Measures for Strengthening Financial Functions

Because it was difficult for Kesenuma Shinkin Bank to foresee its financial conditions moving forward due to the damage suffered by bank itself and its borrowers' businesses, in February 2012, the bank received a capital injection of JPY 15 billion from the national government and Shinkin Central Bank under the Special Exception for Cooperative Financial Institutions under the Act on Special Measures for Strengthening Financial Functions. The bank has formulated five-year Business Enhancement Plans under the Specific Special Provisions for Earthquake Disasters over two terms (April 2011 to March 2016, and April 2016 to March 2021) and currently promotes smooth financing in the region under the guidance of the Shinkin Central Bank, including the management and collection of loans of affected businesses.

■Support for business improvement and revitalization of companies

To assist regional businesses in improving their business operations, the bank gathers information on these businesses' actual business conditions during their regular sales visits, provides ongoing guidance and advice, and assists in the formulation of plans to improve their business.

With regard to the issue of double debt among businesses affected by the disaster, the Miyagi Industrial Reconstruction Corporation, the Iwate Industrial Reconstruction Corporation, and the Corporation for Revitalizing Earthquake-Affected Business are working to revitalize their businesses such as by supporting the purchase of their existing debt. As of the end of June 2020, these organizations have been utilized in 56 cases.

For customers with mortgages, the company is promoting awareness of the Individual Borrowers' Guidelines for Private Settlement by visiting individual customers to explain the guidelines, and holding consultation meetings to promote debt settlement in accordance with these guidelines. As of June 2020, the bank has received 41 offers to initiate debt settlement, of which repayment plans have been agreed upon in 26 cases.

■Support for business start-up and sales channel development

In November 2011, the Sanriku Reconstruction Tomodachi Fund was established with contributions from international NGOs and U.S. companies, and the fund worked with NPO Planet Finance Japan to provide grants for new business startups and re-employment at affected companies, as well as provide interest subsidies (the fund concluded in FY2014).

In cooperation with credit unions nationwide, the bank supported customers' exhibits in matching events such as Business Match Tohoku to help them expand their business.

In December 2013, the Kesenuma Shinkin Reconstruction Assistance Fund was established with support from the Mitsubishi Corporation Disaster Relief Foundation and the Nippon Foundation. In addition to subsidizing interest from Kesenuma Shinkin Bank's loans, the bank supported product planning and development, held sales channel development strategy classes to help businesses

develop sales channels, and provided support for social businesses.

In July 2016, the bank partnered with the Tokyo Higashi Shinkin Bank to implement the Produce Locally and Consume in Tokyo Project, with the aim to expand the sales channels of fishermen and fisheries processors in the Kesenuma region, who were working to rebuild from the earthquake, by matching them with restaurants and food-related businesses in Tokyo. In October 2017, the bank held a cross-industry meeting of young business owners from both regions.

■Reconstruction and revitalization of the region and regional economy

The bank celebrated its 90th anniversary in September 2016, and completed the construction of its new main branch in February 2017. As of September 2020, six of the ten branches affected by the disaster were operating normally, three were operating either in other branches or in temporary buildings, and one has been integrated with another branch. As for the three branches operating either in other branches or in temporary buildings, two branches are scheduled to be reconstructed in FY2020, and one in FY2021.

Going forward, the bank, through face-to-face sales, which is one of the strengths of credit unions, is committed to strengthen its consulting function which involves understanding its clients' business issues, and providing consultation and advice, and is also committed to provide support for business operations at affected companies, and to work to achieve the reconstruction and revitalization of the region, and the revitalization of the regional economy.

Source (Listed in other case studies, etc.):

- 気仙沼信用金庫「経営強化計画の履行状況報告書の公表について」(2020年9月)
http://www.shinkin.co.jp/kshinkin/kokuti/01shinsaikanren/keieikyokakeikaku_202009.pdf

Systems and mechanisms applied:

- Act on Special Measures for Strengthening Financial Functions (Special Provisions for Earthquake Disasters)

Project cost:

39-1 Revitalization of Industries and Livelihoods (Promoting corporate location)

Case study	Leveraging the region's locational environment to attract companies BioChem Corporation
Location	Rikuzentakata City, Iwate Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	BioChem Corporation, Rikuzentakata City

Activity overview:

BioChem Corporation (Sakado City, Saitama Prefecture) is a manufacturer of bulk pharmaceuticals, cosmetics and health food ingredients, and other products extracted from salmon milt. The company aims to develop high value-added products that make effective use of unused and underutilized parts of fish. Since May 2020, the company has been constructing a new plant in Rikuzentakata City on the marine-resources-rich Sanriku coast, using the Tsunami Location Subsidy program, and plans to start operations in June 2021.

The construction site is a formerly occupied site purchased by the city under the project on promoting group relocation for disaster prevention. A fisheries processing complex is situated nearby, making this an ideal location for the company that develops products from marine resources.

Activity details:

■ The company extracts and refines pharmaceutical raw materials from unused marine resources

Established in 1994 in Sakado City, Saitama Prefecture, BioChem Corporation extracts and refines unused resources from salmon milt for ingredients for bulk pharmaceuticals, cosmetics, health food, and other products. Although BioChem is a small company with under 20 employees, it has been engaged in the development of technology for extracting and refining active ingredients from natural products — substances that have gone underutilized — since before its incorporation. It has gone on to build a business model that leverages its unique ingenuity and technical know-how, and has grown to the point where it currently does business with major global pharmaceutical manufacturers.

As of January 2020, the company's production relied on two factories in Saitama Prefecture (Kawagoe City and Tokigawa Town), and one located in Kamaishi City, Iwate Prefecture. After being accepted for the Subsidy for Creating Jobs and Establishing Business Facilities in Areas Affected by the Tsunami and/or Nuclear Disasters in July 2017, the company decided to build a new plant in Kesen-cho, Rikuzentakata City. After making various adjustments, the grant decision was made in January 2020, and the company signed an agreement on company location with the city in February 2020. Construction will begin in May, with the aim of starting operations in June 2021.

■ Leading up to company's location to Rikuzentakata City

The site for the new plant was a site from where people relocated purchased by Rikuzentakata City under the project on promoting group relocation for disaster prevention. Rikuzentakata City has been working to revitalize the city by utilizing land in the coastal areas damaged by the disaster and its newly

developed central city area to locate companies and improve the attractiveness of these areas. As part of these efforts, the city was working to utilize formerly occupied sites to form agglomerations of new industries in ways that would benefit city development and revitalization of the region. In order to promote the location of companies at formerly occupied sites, the city and private sector worked together as a team to attract companies such as by actively conducting activities to attract companies, disseminating information on land and buildings, conducting PR activities, and by asking local companies to provide information on their business connections that might potentially locate to sites in the city.

Meanwhile, BioChem had been considering locating in the marine-resources-rich Sanriku coastal area in order to expand its production of ingredients for bulk pharmaceuticals and health food that were made from marine products. With the availability of the Subsidy for Creating Jobs and Establishing Business Facilities in Areas Affected by the Tsunami and/or Nuclear Disasters, the decision to locate the plant at the candidate site in Rikuzentakata City was reached based on the fact that the plant will be able to collaborate with fisheries processors that operated in the fisheries processing complex nearby, and on its business strategy that was aimed at improving production efficiency and creating a system with a larger production capacity by reducing the number of products manufactured at the aging Kamaishi and Kawagoe plants, and locating its primary production center to the new factory in Rikuzentakata.

■Collaborating with the local fisheries processing industry and creating local employment

The new plant is scheduled to be built on a formerly occupied site west of the city's Osabe fishing port and will include a 920m² plant and a one-story wooden office. At present, the new plant is scheduled to employ eight workers, consisting of employees from the Kawagoe and Kamaishi plants as well as local residents. The company plans to hire more local residents going forward, depending on business conditions.

Going forward, the company is also looking into working with fisheries processors, its raw material suppliers, to make use of resources other than salmon milt that currently go unused, as well as establishing a quality control department. It also aims to serve as a place of employment for young people majoring in chemistry at universities and other institutions who seek to return to their local areas and work in Rikuzentakata City.



Photo: BioChem's new Rikuzentakata Plant
(Photo courtesy of BioChem Corporation)

Source (Listed in other case studies, etc.):

- 有限会社バイオケム ホームページ <http://www.biochem-jp.com>
- Web 東海新報 「長部地区に工場整備へ 健康食品の原料製造 陸前高田」 (2020年2月28日)
<https://tohkaishimpo.com/2020/02/28/282580/>
- 陸前高田市 「第6回土地利活用促進会議 これまでの取組状況について」 (2020年12月)
<http://www.city.rikuzentakata.iwate.jp/kategorie/fukkou/toshikei/totikukakuseiri/totirikatuyou/sokusin-kaigi/203-torikumi-jyoukyou.pdf>

Systems and mechanisms applied:

- Project on promoting group relocation for disaster prevention (use of formerly occupied sites)
- Subsidy for Companies Locating Businesses and Creating Jobs in Areas Affected by the Tsunami and/or Nuclear Disasters (food product manufacturer)
- Business Location Incentive Program (Rikuzentakata City, Iwate Prefecture)

Project cost:

40-1 Revitalization of Industries and Livelihoods (Developing new sales channels and launching new businesses)

Case study	Launching new businesses by making the most of experiences from the disaster ONETABLE, Inc.
Location	Tagajo City, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	ONETABLE, Inc.
<p>Activity overview:</p> <p>ONETABLE Inc. was founded in 2016 in Natori, Miyagi Prefecture, with the vision of creating a new business that enriches lives, based on the president's own experience from the disaster.</p> <p>In the aftermath of the Great East Japan Earthquake, the president himself became a disaster victim, and what caught his eye at evacuation shelters were the dried bread that was being distributed to feed the evacuees. Seeing elderly people who had difficulty eating hard foods and children with allergies eating the dry bread without water, his company developed LIFE STOCK, the world's first stockpile food in jelly form, which can be stored for as long as five and a half years after manufacture, is nutritionally balanced, and is easy for anyone to eat.</p> <p>The company relocated its head offices from Natori City to Tagajo City in 2019 and established a factory to produce LIFE STOCK using the Subsidy for Companies Locating Businesses and Creating Jobs in Areas Affected by the Tsunami and/or Nuclear Disasters.</p>	
<p>Activity details:</p> <p>■ Experience at evacuation shelters</p> <p>President Shimada of ONETABLE Inc. founded an educational venture while still in university and started a community development event business. One year before the Great East Japan Earthquake, he was taking advantage of his connections with entrepreneurs from Tohoku and working on a new business in Miyagi Prefecture in collaboration with local farmers.</p> <p>In the aftermath of the Great East Japan Earthquake, Shimada, himself a disaster victim, made visits to evacuation shelters to deliver relief supplies, etc. This is where he saw elderly people struggling to eat solid dry bread in evacuation shelters that had no supply of water, and children with wheat allergies eating the dry bread due to lack of food. This made him keenly aware of the need to develop a new type of stockpile food that everyone can eat with peace of mind.</p> <p>■ Developing stockpile food that can be eaten without water</p> <p>Based this experience from the disaster, Shimada developed LIFE STOCK as a new type of stockpile food. This is a jelly product that can be stockpiled at room temperature for five and a half years after manufacture, and takes into consideration not only calories but also nutritional balance such as vitamins and dietary fiber. It is easy to consume for children, the elderly, and disaster victims undergoing medical treatment, and is attracting a great deal of attention as a new type of stockpile food.</p>	

The product is packaged in a pouch-type package made using aluminum to preserve quality and allow for long-term storage.

In addition, the manufacturing process utilizes TOKINAX, the company's original technology brand that enables the long-term preservation of food products. This proprietary technology consists of a filling technology, packaging materials with four layers of film including aluminum and their shapes, and recipe control technology. These technological developments and extensive hygiene control of the manufacturing process have enabled the company to achieve a shelf life of five and a half years after manufacture.



Photo: Stockpile jelly, LIFE STOCK
(Source: ONETABLE website)

■ Revitalizing regional economies through the creation of new industries

To begin mass production of its LIFE STOCK stockpile jelly, the company relocated its head office from Natori City, Miyagi Prefecture to Tagajo City, Miyagi Prefecture, and also built a new plant using the Ministry of Economy, Trade and Industry's Subsidy for Companies Locating Businesses and Creating Jobs in Areas Affected by the Tsunami and/or Nuclear Disasters. The plant has been in operation since 2019, helping to secure jobs for regional residents and revitalize the regional economy.

For the reconstruction of the affected areas, the company conceptually produced commercial facilities such as ROKU FARM ATALATA in Natori City and SHICHI NO RESORT in Shichigahama Town to create towns with a lively atmosphere and create jobs in the affected areas. These efforts have been contributing to the economic revitalization of the affected areas and attracting more customers than before the disaster.



Photo: ROKU FARM ATALATA
(Source: ROKU FARM ATALATA website)

■ Developing new businesses on the disaster management theme

The development of its jelly stockpile food attracted a great deal of attention from within and outside the affected areas, as well as internationally. The company is also actively collaborating with other industries, including a partnership with the Japan Aerospace Exploration Agency (JAXA) which is engaged in space-related projects, to create new businesses and solve social issues from the perspective of disaster management × space.

In addition, it is also developing a system to diagnose the level of disaster safety in communities and simulate their stockpiling conditions. This project is being promoted with investment from dozens of companies, including medical corporations and system development companies, and is being developed with the aim of launching new businesses.

In addition, in order to make the most of its production technology, the company is communicating its interest in OEM on its website, and is developing its business with an awareness of cooperation with other companies.

Source (Listed in other case studies, etc.):

- 復興庁「東日本大震災から9年～持続可能な未来のために～」(2020年2月)
<https://www.reconstruction.go.jp/topics/main-cat4/sub-cat4-1/jireishu2019.html>
- Makuake「3.11の極限状態を教訓に生まれた「5年保存備蓄食」防災の日に先行販売」
<https://www.makuake.com/project/onetable/>
- 株式会社ワンテーブルウェブサイト
<https://www.onetable.jp/business/mamoru/>

Systems and mechanisms applied:

- Ministry of Economy, Trade and Industry, Subsidy for Companies Locating Businesses and Creating Jobs in Areas Affected by the Tsunami and/or Nuclear Disasters (food product manufacturer)

Project cost:

- JPY 600 million (including JPY 80 million in national government funds)

40-2 Revitalization of Industries and Livelihoods (Developing new sales channels and launching new businesses)

Case study	Promoting corporate collaboration Banzai Factory Co., Ltd.
Location	Rikuzentakata City, Iwate Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Banzai Factory Co., Ltd., and Fujitsu Limited
<p>Activity overview:</p> <p>Banzai Factory Inc. was established and registered in December 2005, and started research and development on 3D IT-based woodworking products in Morioka City, Iwate Prefecture in 2006. However, after the Great East Japan Earthquake struck, the company relocated its factory to Rikuzentakata City, Iwate Prefecture, to be part of the reconstruction of the affected area. Based on creative ideas, the company develops and markets products such as star-shaped pasta noodles and wooden smartphone cases with a focus on developing products that are made with Iwate's local resources.</p> <p>In addition, in order to take advantage of its originality in product development and high technological capabilities, the company is developing its business while putting into practice its technological capabilities and securing human resources through industry-academia collaboration, such as matching up with companies and engaging in industry-academia partnerships in developing new products.</p>	
<p>Activity details:</p> <p>■The company's actions regarding the Great East Japan Earthquake</p> <p>Banzai Factory Co., Ltd. has been active in Morioka City, Iwate Prefecture since before the Great East Japan Earthquake, and its focus was on wood, lacquer, ironware, and IT themes. Winning the Grand Prix in the Iwate Business Plan Grand Prix in 2007 for a drinking cup made of high-grade lumber from Iwate Prefecture, the company had long been known for its technological capabilities. The company subsequently expanded its business into Akita Prefecture.</p> <p>It was when it was operating its business in a workshop by Lake Tazawa in Akita Prefecture that the Great East Japan Earthquake hit. In the wake of the earthquake, the company made the decision to relocate its workshop to support Rikuzentakata City in Iwate Prefecture, where many of its benefactors and friends lived.</p> <p>■Developing new products made with local resources</p> <p>After relocating its workshop to Rikuzentakata City, the company worked on developing products, such as its star-shaped cross section pasta, wooden smart phone cases, and Fuku Ochoko (happy sake cup) fitted with a horseshoe made of Nanbu ironware that were made from resources that were local to Iwate Prefecture.</p>	

In 2015, the company released its Sanriku Kanroni (sweet dish), a health-conscious product made without white sugar, soy sauce, or refined salt. The kanroni comes in different varieties made from wakame seaweed, scallops, sweetfish, and other local resources from Ofunato and Rikuzentakata. The company has been improving its products, such as by including them on the menu at one of its direct sales outlets so that customers can actually try them. As a result, Sanriku Kanroni attracted a great deal of attention, and also won the grand prize in the business category in the "New Tohoku" Reconstruction Business Contest sponsored by the Reconstruction Agency.

■Developing high value-added products through industry-academia collaboration and business matching

The president is a graduate of Mie University, and the company's management team had corresponded with Mie University when they were developing a medical information system during a previous employment. And this led to the start of an industry-academia collaboration with Mie University. The collaboration led to the development of the Wagahai Cup, a wooden cup that matches the shape of the user's grip based on analysis of data on ease of gripping from a wide range of people.

Building on the results of this research, the company then collaborated with Musashino Art University to jointly design the shape of a smartphone case, which is said to be the most common object that we grip and hold in the modern age. With special attention paid to the ease of gripping wooden cases, the company developed and commercialized a smartphone case that would soften the impact even if dropped, was well-designed, and suited the characteristics of people's fingers. This product has been highly acclaimed both in Japan and internationally, and in 2017 won a prize in the Japan Wood Design Award, the largest contest in Japan of wood-derived items. These cases are currently being sold mainly online, and there is reportedly a two-month waiting period on orders.

The company also took part in "Yui no Ba" Regional Reconstruction Matching by the Reconstruction Agency to receive technical advice on product development from a major company, Fujitsu Limited, and went on to develop and manufacture a wooden iPhone case licensing Fujitsu's patented fragrance emanation technology that allows the case to emanate fragrance for long periods of time when perfume or other substance is put on a chip. After a one-year trial production period, the company commercialized the product using the FY2018 New Product and Service Development Project for the Northern Coastal Area of the Prefecture funded by the Sanriku Fund, a benefit corporation.



Photo: iPhone case jointly developed with Musashino Art University
(Source: Banzai Factory Co., Ltd.)

■The significance of industry-academia collaboration and business matching

Most companies and design firms that design products with user-friendliness in mind are concentrated in the Kanto region, with few businesses located in non-central regions. The company was able to effectively utilize ICT as a framework for industry-academia collaboration and receive technical and design support. Matching with large companies also provides an effective opportunity to utilize businesses resources such as technology, information, and sales channels that an SME may not have.

The company compensates for its lack of technological and design capabilities by collaborating with universities and corporations to develop high value-added products.

Source (Listed in other case studies, etc.):

- ・ 高橋和良ほか (2019) 「産学連携による過疎地・地方でのものづくりと地域ブランド商品の創出」『産学連携学』15(1)41-49.
- ・ 復興庁「私たちが創る 産業復興創造 東北の経営者たち」(2016年2月)
<https://www.reconstruction.go.jp/topics/main-cat4/sub-cat4-1/20160210094116.html>
- ・ 東北復興新聞「バンザイ・ファクトリーの「三陸甘露煮」大賞に、復興庁ビジネスコンテストで/陸前高田」(2015年10月)
<https://tohkaishimpo.com/2015/10/02/61224/>
- ・ Web 東海新報「(株)バンザイ・ファクトリーが香るスマホケース開発、富士通の特許技術活用/大船渡」(2018年10月)
<https://tohkaishimpo.com/2018/10/30/226409/>

Systems and mechanisms applied:

- “*Yui no Ba*” Regional Reconstruction Matching (Reconstruction Agency)
- Support Project for New Businesses and other Enterprises (Pool of Experts Providing Hands-on Support Project) (Reconstruction Agency)
- FY2018 New Product and Service Development Project for the Northern Coastal Area of the Prefecture (Sanriku Foundation)

Project cost:

41-1 Revitalization of Industries and Livelihoods (Securing human resources for industry)

Case study	Hiring local human resources Iwate Moriya Co., Ltd.	
Location	Kuji City, Iwate Prefecture	
Phases	Emergency response phase	Recovery phase
	Early reconstruction phase	Late reconstruction phase
Members	Iwate Moriya Co., Ltd.	
<p>Activity overview:</p> <p>Iwate Moriya Co., Ltd., located in Kuji City, Iwate Prefecture, is a manufacturer of mainly luxury brand women's clothing and other products. The Great East Japan Earthquake caused a temporary suspension of production, resulting in a significant decrease in sales. To address this issue, along with its efforts to reduce cost by consolidating its workshops and extensive energy saving measures, the company is also improving productivity through the use of IT, such as by building efficient production lines and implementing process management based on tablet devices.</p> <p>The company actively employs local human resources in the face of a declining population and the continuing exodus of young people to other regions of the country. To ensure that female employees, who have traditionally been the main force of the company, remain with the company for longer years, the president himself works at the forefront of creating a comfortable work environment for them, such as by enhancing the childcare leave system, providing support for child rearing, and helping female employees acquire Women's and Children's Clothing Manufacturing Specialist certification. The company focuses on hiring and training local high school students, and also has them conduct market research at department stores in city centers as a way to boost their motivation.</p>		
<p>Activity details:</p> <p>■The earthquake disaster exposes management issues</p> <p>Iwate Moriya Co., Ltd., located in Kuji City, Iwate Prefecture, primarily manufactures luxury brand jackets, coats, and women's clothing. When the Great East Japan Earthquake hit, all employees remained safe and there was no major damage to facilities or equipment. However, power outages caused its production line to stop, and furthermore, purchase orders plummeted due to consumers holding off purchases of luxury items during the post-disaster period, resulting in a significant decrease in company sales.</p> <p>In addition, the apparel industry was shifting toward overseas production, and in order to survive in Japan, the company needed to bolster its cost competitiveness as well as further improve its technological capabilities.</p> <p>■Cost reductions and productivity improvements</p> <p>In addition to its advanced sewing skills, the company's strengths lay in its integrated production which enabled in-house production from fabric testing to cutting, sewing, and shipping, and it possessed a number of large facilities that made this possible. To reduce power consumption, the</p>		

company took extensive energy saving measures to cut costs, starting off with upgrading to equipment that consumed less power, consolidating its workshop buildings from two to one, and converting to LED lighting. Cost reductions were passed on to employees in the form of bonuses to boost their motivation.

It also actively introduces new equipment, and incorporates IT and IoT to improve productivity. The company is vigorously working on internal reforms. For example, in addition to internal activities such as tidying up, kaizen activities, and visualization, tablet devices were introduced for sewing tasks and process management to create a working environment that is not dependent on the experience and techniques of individual employees.

■ Training young employees and creating a comfortable work environment

The company believes that the sewing industry is a labor-intensive industry, and business will not be viable unless skilled workers can be relied upon over a long period of time. As such, it has been working to improve the working environment to ensure the continued employment of women, the main force of the company's factory. Specifically, the company has been improving its employment conditions, such as by introducing a childcare leave program and a company-unique childcare support program, as well as actively supporting employees who seek to acquire Women's and Children's Clothing Manufacturing Specialist certification by setting up work areas where they can apply the skills needed for certification, and lending out fabrics and textbooks that they can use to prepare for their practical and written exams. The company was also approved by Iwate Prefecture as an Iwate Women-Oriented Company, and now more than 70% of all the company's executives are women, and the motivation of female employees as a whole has increased.

The shortage of workers due to the declining population and the outflow of young people to the cities has been a major business issue since before the earthquake, and the company has been focusing on hiring and training local high school students. As part of its training for young human resources, the company proactively provides, among other programs, opportunities to visit department stores and select stores in city centers where the company's products are being sold to give them first-hand experience of how high the company's level of technical capabilities are and boost their motivation.



Photos: State-of-the-art pattern cutting CAM equipped with a TV camera (left)
Specialized sewing machine with built-in computerized sleeves (right)
(Source: Iwate Moriya website)

■Vision for the future

Since immediately after the earthquake, the company has consistently worked to create an environment for actively employing people from the local community and the continued employment of women. These efforts to improve the employment environment are beginning to show results. As of 2016, all employees have been hired from local communities, and approximately 90% of the company's 100 employees are women.

Going forward, in addition to improving and upgrading its employment environment, the company plans to continue to introduce new equipment and make extensive cost reductions aiming for "a production process that does not rely on human intuition, experience, or techniques."

Source (Listed in other case studies, etc.):

- ・ 復興庁「私たちが創る 産業復興創造 東北の経営者たち」(2016年2月)
<https://www.reconstruction.go.jp/topics/main-cat4/sub-cat4-1/20160210094116.html>
- ・ JUKI「わが社のモノ作り戦略第22回 岩手モリヤ代表取締役社長 森奥信孝氏」
https://www.juki.co.jp/industrial_j/craftsmanship/case_study/detail.php?id=36
- ・ 復興庁「地域における人材確保ノウハウブック」(2018年3月)
<https://www.reconstruction.go.jp/topics/main-cat4/sub-cat4-1/20180312171637.html>

Systems and mechanisms applied:

Project cost:

41-2 Revitalization of Industries and Livelihoods (Securing human resources for industry)

Case study	Securing new human resources Fisherman Japan, a general incorporated association
Location	Ishinomaki City, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Fisherman Japan, a general incorporated association
<p>Activity overview:</p> <p>Fisherman Japan was formed in 2014 by young people working in the fishing industry to address the shortage of labor in the fishing and fisheries processing industries, which are key industries for municipalities located along the Sanriku coast. The group works to secure new human resources by proposing the New 3Ks (<i>kakkoi</i>, <i>kasegeru</i>, and <i>kakushinteki</i> [cool, profitable, and innovative]) as a new way of working in the fishing industry, and also by communicating how the traditional fishing industry has been transformed.</p> <p>In addition to selling processed marine products, its primary activities span over a diverse range of areas including PR activities for the fishing industry, merchandise sales, and providing training for successors of the industry, all with the aim to reconstruct industry in the disaster-affected areas through fisheries.</p>	
<p>Activity details:</p> <p>■The decline in the number of workers in the fishing and fisheries processing industry post-Great East Japan Earthquake</p> <p>The coastal areas of the Tohoku region are home to some of the leading fishing port communities in Japan. The Sanriku coast facing these communities is counted among the world's three best fishing grounds, and countless fishermen have fished in these excellent fishing grounds.</p> <p>However, the depopulation of rural areas combined with the aging of the fishing industry workforce had been causing serious labor shortages in the fishing and fisheries processing industries, the region's key industries. Such was the state of affairs when the Great East Japan Earthquake struck, causing extensive damage to entire communities. The fishing and fisheries processing industries, the backbones of these communities, had their facilities and equipment swept away by the tsunami. Workers lost their jobs, giving rise to speculation that the downturn of these industries would accelerate even further. Municipalities located along the Sanriku coast were faced with the critical challenge of quickly resolving labor shortages, reclaiming lost sales channels, and rebuilding the fishing industry.</p> <p>■Fisherman Japan is established</p> <p>It was Fisherman Japan that emerged to tackle the issues of labor shortage and loss of sales channels that the fishing and fish processing industry faced. Fisherman Japan is a general</p>	

incorporated association formed in 2014 based on the concept of being a legion of young Tohoku fishermen. It is a youth-centered organization that rose to the occasion to drastically revamp the traditional image of the fishing industry, and secure new leaders for the fishing and fisheries processing industry.

The establishment of the organization was triggered by the desire of local fishermen to secure successors. Fishing cooperatives in coastal areas have long faced the problem of securing successors, and after the earthquake, they continued to reach out to young people in their communities in an effort to secure new leaders. Fisherman Japan was formed by a group of young people who wanted to help Tohoku's recovery by revitalizing the fishing industry.

■Advocating a new fishing industry through the New 3Ks

Major activities included developing sales channels in the Tokyo metropolitan area for freshly landed fish, acquiring international certification (ASC) and branding for silver salmon farming, holding symposiums on the future of the fishing industry, selling oysters, scallops, and other fisheries products online, as well as implementing novel programs from the perspectives of young people, such as internships programs for young people, and the sale of key chains and other merchandise.

Fisherman Japan is revamping the traditional image of the fishing industry and advocating the New 3Ks (*kakkoii*, *kasegeru*, and *kakushinteki* [cool, profitable, and innovative]). By presenting a new style of fishing and fishermen to society, the project aims to renew the image of the fishing industry, secure new human resources, and promote processed marine products.

Currently, it focuses most of its efforts on fostering successors. Activities of the TRITON PROJECT, which aims to foster new fishermen, include a consultation service for young people interested in fishermen and the fishing and fisheries industry, a job site dedicated to the fishing industry, and a short-term training program to learn about the fishing industry. In addition, local fishermen, local municipalities, and universities have come together to hold various events with entire communities coming together to secure and train successors.

■Spreading fisheries innovation to other regions

Currently, Fisherman Japan continues to work on their projects with the aim of securing workers and developing sales channels. For example, they have opened restaurants to provide a place where consumers and fishermen can meet and fishermen can communicate the appeal of their products. They are also extending their sales promotion activities nationwide, such as selling their directly-shipped seafood in Tokyo. They are also actively involved in activities to revitalize the fishing industry in Ishinomaki, such as opening a community space for fishermen where they can gather just outside Ishinomaki Station premises.

They have also made connections with fishermen in other prefectures, and are helping to establish similar organizations in Hokkaido and Fukuoka, transcending regional boundaries.



Photo: Fisherman Japan image photo
(Photo courtesy of Fisherman Japan)

Source (Listed in other case studies, etc.):

- 公益財団法人ひょうご震災記念 21 世紀研究機構「事例に学ぶ生活復興」（2018 年）
https://www.reconstruction.go.jp/topics/m18/04/20180410_seikatsufukko.pdf
- フィッシャーマン・ジャパン 公式サイト
<https://fishermanjapan.com/>
- 「ヤフーの社員だからこそできること、やるべきことがある！ ヤフー株式会社、長谷川琢也さん（フィッシャーマン・ジャパン発起人）」（プランナーズラボ、2017 年 3 月）
<http://plnrs.me/labo/kikakujin/11419/>
- 農林水産省「漁業の新潮流（1）水産業の復興に向け担い手を育成」（2019 年 8 月）
https://www.maff.go.jp/j/pr/aff/1908/spe1_02.html

Systems and mechanisms applied:

Project cost:

42-1 Revitalization of Industries and Livelihoods (Recovery and reconstruction of shopping streets and commercial facilities)

Case study	Rebuilding the Minamisanriku Sun Sun Shopping Village
Location	Minamisanriku Town, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Minamisanriku Sun Sun Shopping Village
<p>Activity overview:</p> <p>The Minamisanriku Shopping Arcade suffered catastrophic damage in the tsunami, and in February 2012, a temporary shopping street was built as a symbol of recovery with a diverse mix of stores, attracting large numbers of tourists.</p> <p>In March 2017, a new commercial facility was built on raised and developed land along with a facility for personal exchanges and parking lot. Offering gourmet food and merchandise made from the region's unique marine products, the facility represents a full-scale reconstruction of the shopping street.</p>	
<p>Activity details:</p> <p>■Development of temporary shopping street</p> <p>Minamisanriku Town had a population of approximately 17,000 the year before the earthquake, and the percentage of seniors (the percentage of elderly people aged 65 and over in the population) had reached 30%. The town's main industries were fishing and tourism. The tsunami washed away most of the buildings on the flatlands and caused catastrophic damage to several shopping streets.</p> <p>With no stores or products to sell, local merchants took matters into their own hands, and held a Fukko-Ichi (Recovery Market) just 49 days after the earthquake with support from the Bosai Asaichi Network, a nationwide network of shopping streets. Upon receiving encouraging feedback from many of their customers, the merchants decided to reopen their stores as soon as they could.</p> <p>In February 2012, they opened a 35-lot, one-story steel-frame building with a total floor area of 1,583 m² in the Shizugawa district, a temporary shopping area which they christened the Minamisanriku Sun Sun Shopping Village. The shopping street consisted of a variety of stores, including restaurants serving Minamisanriku Kira Kira Don, a rice bowl topped with seasonal seafood as well as stores selling fresh local seafood. As a symbol of reconstruction, it was visited by not only locals but also by large numbers of tourists. For these efforts, it was selected as one of the 30 Ganbaru (hard-working) Shopping Streets by the Ministry of Economy, Trade and Industry in 2014.</p> <p>■Machinaka (Town Center) Revitalization Plan approval</p> <p>In 2015, the town decided to build a new commercial facility along with a facility for personal exchanges and parking lot in a new 12-hectare urban area on raised land in the Shizugawa district, which was a bustling center before the earthquake, and to relocate the Minamisanriku Sun Sun Shopping Village there to fully reconstruct the shopping street. In June, Minamisanriku Machizukuri Mirai Co., Ltd. was</p>	

established as the main body for the development and operation of the facility, and in October, it received the Minamisanriku Machinaka (Town Center) Revitalization Plan approval from the national government. The company used the tsunami location subsidy to develop a facility with six one-story wooden store buildings with a total floor area of 3,086 m².

In conjunction with the relocation of residences to higher ground, a bus route connecting the facility with residential areas was considered.

■Rebuilding the Minamisanriku Sun Sun Shopping Village

The Minamisanriku Sun Sun Shopping Village opened its doors in March 2017 with a mix of 28 retailers and restaurants. The commercial facility's subdivided spaces were not individually owned, but were all owned by the city development company and leased to tenants. Rents were set at levels lower than the market rate. The company also receives revenue from the management and operation of shared areas to ensure profitability.

In the three and a half years since its opening, the Minamisanriku Sun Sun Shopping Village has attracted more than 2 million visitors, mainly tourists.

■Attracting customers by highlighting local attractiveness

The facility was designed under the supervision of architect Kengo Kuma and built using Bijin-sugi (beautiful cedar) from Minamisanriku. The city development company built the building skeleton, and their interiors were built by the tenants.



Photo: Shopping street facilities designed using Bijin-sugi
(Source: Minamisanriku Sun Sun Shopping Village website)

Continuing a practice from the time the facility was a temporary shopping street, restaurants here serve Kira Kira Don, gourmet brand rice bowls topped with generous servings of fresh in-season Minamisanriku seafood, and they continue to be very popular.

Fresh seafood from Minamisanriku and large varieties of souvenirs are also sold with the aim to attract visitors from outside the region.



Photo: Kira Kira Uni Don (Kira Kira Sea Urchin Rice Bowl), a specialty of the shopping village
(Source: Minamisanriku Sun Sun Shopping Village website)

■Working closely with local tourism organizations

The shopping village continues to work closely with the town and other associated organizations. The town has installed a moai statue in the area adjacent to the Minamisanriku Sun Sun Shopping Village, a symbol of friendship between Minamisanriku and Chile, with whom friendly relations were established after the 1960 Chilean earthquake. The town's tourism association has set up a tourist information center and a program called town-walking storytellers, a guided tour of the area for visitors.

In addition, the tourism association of Minamisanriku Town holds a variety of events as the organizer. These include, for example, fishing experience tours, and empty-handed fishing a Minamisanriku Blue Tourism program where fishermen serve as instructors and allow visitors to experience fishing on board fishing boats, as well as beach flag competitions, summer festivals and other town-revitalization events held by the Minamisanriku Reconstruction Youth Association. The Sun Sun Shopping Village collaborates with these initiatives to attract more visitors. With the Minamisanriku Sun Sun Shopping Village actively promoting events held by the tourist association and tourist attractions in Minamisanriku on its website, the entire town has come together to attract tourists.

Through its active involvement and commitment to the town's development, the Minamisanriku Sun Sun Shopping Village was recognized as a commercial area that plays a central role in its community and is a driving force in its region, and received the Japan SC Grand Prize Special Award from the Japan Council of Shopping Centers in May 2019.

Source (Listed in other case studies, etc.):

- 中小企業基盤整備機構「仮設設備整備事業例 宮城県【南三陸さんさん商店街】」
<https://www.smrj.go.jp/doc/reconstruction/001-31.pdf>
- がんばる商店街30選（経済産業省、2014年）
<https://www.chusho.meti.go.jp/keiei/sapoin/monozukuri300sha/zenbun/2014ganbaru.pdf>
- 復興庁「南三陸町まちなか再生計画の認定について」（2015年10月）
<https://www.reconstruction.go.jp/topics/main-cat1/sub-cat1-15/20151001124953.html>

- 新・公民連携最前線 「南三陸町まちなか再生計画」が始動、新商店街が着工」（2016年7月）
<https://project.nikkeibp.co.jp/atclppp/15/433782/070800407/>

Systems and mechanisms applied:

- Subsidy for Companies Locating Businesses and Creating Jobs in Areas Affected by the Tsunami and/or Nuclear Disasters

Project cost:

- JPY 700 million (including JPY 500 million in national government funds)

43-1 Revitalization of Industries and Livelihoods (Creating and revitalizing a lively atmosphere)

Case study	Seapal-Pier Onagawa, Onagawa Mirai Sozo Co., Ltd.
Location	Onagawa Town, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Onagawa Mirai Sozo Co., Ltd., Onagawa Town
<p>Activity overview:</p> <p>As part of efforts to revitalize the central city area damaged by the tsunami following the Great East Japan Earthquake, Onagawa Mirai Sozo Co., Ltd., a city development company, built — on raised and developed land — a new commercial cluster including a tenant-leased shopping area which opened in December 2015. Through these efforts, the company continues to improve the functionality of attracting customers and creating liveliness in the town center.</p> <p>The retail spaces in the tenant-leased shopping street are owned by the city development company, and merchants occupy these spaces on a lease basis. This means that even if a store closes, new merchants are able move in, allowing the company to reduce retail space vacancy rates. The city development company also plans and implements events to attract customers, playing a central role in the commercial revitalization of the region.</p>	
<p>Activity details:</p> <p>■ Onagawa Town receives Machinaka (Town Center) Revitalization Plan approval</p> <p>Onagawa Town, whose central city area was severely damaged by the tsunami from the Great East Japan Earthquake, received government approval for the Onagawa Machinaka (Town Center) Revitalization Plan in December 2014. The town aimed to revitalize the central city area by integrating public facilities with tourist and commercial facilities on a 7.4 ha plot of raised and developed land centered around the JR Onagawa Station.</p> <p>Along a pedestrian promenade leading from the station to the sea, a tenant-leased shopping street, a regional exchange center, and a regional produce center were to be developed, and tenants were scheduled to include retail stores and restaurants, providing a lively atmosphere and the functionality of attracting customers.</p> <p>■ Developing Seapal-Pier Onagawa, a tenant-leased shopping street</p> <p>Onagawa Mirai Sozo Co., Ltd. was established in June 2014 as a third-sector city development company of Onagawa Town. Of JPY 10 million in capital, the town's investment amounted to JPY 2.4 million, and the company aims to operate the property by leveraging the strengths of the private sector.</p> <p>Based on the Machinaka (Town Center) Revitalization Plan, a 30-year fixed-term lease agreement was concluded with the town for town-owned land. The land is being leased free of charge from the town for the time being. In December 2015, the company developed and opened Seapal-Pier Onagawa, a commercial facility which includes a tenant-leased shopping street.</p> <p>The total cost of the project came to approximately JPY 630 million, of which about JPY 440 million</p>	

was subsidized by the national government's Subsidy for Creating Jobs and Establishing Business Facilities in Areas Affected by the Tsunami and/or Nuclear Disasters (private commercial facilities development type), and about JPY 90 million, excluding the subsidy from the town, was financed by an interest-free loan under Miyagi Prefecture's Loan Program for Advanced Schemes.

With 27 retail spaces occupied by merchants, some of them from outside of town, the shopping street features an area for people from town selling fresh produce, a food area with restaurants and pubs, and an area for tourists with cafes and a diving shop. Parking is also available on the site.

The area around the station has been developed with extended stay facilities such as hot springs and coworking facilities, creating a synergistic effect in attracting visitors and creating a new lively atmosphere.

Retail space is owned by Onagawa Mirai Sozo Co., Ltd., separating ownership and use of retail space. If a vacancy occurs, the company can lease the retail space to new merchants to promote better retail space turnover and ensure a group of stores that addresses consumer needs.

The private businesses engaged in the reconstruction of Onagawa Town are mainly made up of young people, and the company plans events based on innovative ideas to attract customers, also playing a central role in the revitalization of the area's commerce.

■Developing Local Market Hama Terrace

A year later, in December 2016, Local Market Hama Terrace opened on a plot adjacent and to the south of Seapal-Pier Onagawa. With eight shops and restaurants based on the concept of the sea of Onagawa, including retailers that sell fresh fish, processed seafood and other specialty products from Onagawa, and restaurants where visitors can enjoy local seafood and sweets, this has boosted the area's ability to attract tourists.

Onagawa Mirai Sozo Co., Ltd., the same company that operates Seapal-Pier Onagawa, runs this market, and is working to create new tourism resources that combine fisheries processing and tourism, the core industries of the region.



Photo: Exterior of Hama Terrace at Seapal-Pier Onagawa
(Source: Seapal-Pier Onagawa website)

Source (Listed in other case studies, etc.)

- シーパルピア女川ウェブサイト <http://onagawa-mirai.jp/>
- 復興庁「女川町まちなか再生計画の認定について」（2014年12月）
<https://www.reconstruction.go.jp/topics/main-cat1/sub-cat1-15/20141222160057.html>
- 新・公民連携最前線「町有地+テナント店舗」をまちづくり会社が運営、女川町」（2015年7月）
<https://project.nikkeibp.co.jp/atclppp/15/434167/072600005/>

Systems and mechanisms applied:

- Subsidy for Companies Locating Businesses and Creating Jobs in Areas Affected by the Tsunami and/or Nuclear Disasters (private commercial facilities development type)

Project cost:

- Total project cost for Seapal-Pier Onagawa (opened December 23, 2015): JPY 637 million (of which JPY 446 million was covered by the Subsidy for Creating Jobs and Establishing Business Facilities in Areas Affected by the Tsunami and/or Nuclear Disasters)
- Total project cost for Local Market Hama Terrace (opened December 23, 2016): JPY 318 million (of which JPY 231 million was covered by the Subsidy for Creating Jobs and Establishing Business Facilities in Areas Affected by the Tsunami and/or Nuclear Disasters)

44-1 Revitalization of Industries and Livelihoods (Initiatives to restore farmland and agricultural facilities, and resume farming operations)

Case study	“Strawberry Complex” revives producing region				
Location	Watari Town and Yamamoto Town, Miyagi Prefecture				
Phases	<table border="1"> <tr> <td>Emergency response phase</td> <td>Recovery phase</td> </tr> <tr> <td>Early reconstruction phase</td> <td>Late reconstruction phase</td> </tr> </table>	Emergency response phase	Recovery phase	Early reconstruction phase	Late reconstruction phase
Emergency response phase	Recovery phase				
Early reconstruction phase	Late reconstruction phase				
Members	Initiative bodies: Watari Town and Yamamoto Town, Miyagi Prefecture Supported by: Sendai City, Miyagi				

Activity overview:

Strawberry producers in Watari Town and Yamamoto Town, Miyagi Prefecture, the largest strawberry producing areas in Tohoku, suffered catastrophic damage from the tsunami.

They were able to secure alternative parcels of land in inland areas, which enabled them to quickly resume strawberry growing and shipment. In addition, they built strawberry complexes where they introduced a new and more productive method of growing called elevated bed nutriculture to replace conventional soil cultivation, and also strawberry sorting facilities. With shipment amounts exceeding that of the pre-earthquake period and other improvements, they are on a steady path to recovery.

Activity details:

■ Early resumption of strawberry growing by securing alternative sites

Before the earthquake hit, JA Miyagiwatari was the largest strawberry producing region in Tohoku with a growing area of 96 ha and 380 producers producing a sales volume of 3,600 tons. But the tsunami from the Great East Japan Earthquake caused catastrophic damage to 95% of their growing area, as well as facilities such as pipe frame greenhouses and strawberry sorting facilities.

While there was only a limited amount of land that could be used for fields to resume growing in a short amount of time, they were able to secure alternative land, including abandoned farmland in the Awakuma Oyama district of Watari Town along the Abukuma River in the inland area. There they constructed pipe frame greenhouses and other facilities using the Great East Japan Earthquake Grant for Agricultural Production Measures. They received free seedlings from other producers in the prefecture and Tochigi Prefecture, and 104 growers resumed growing with soil cultivation on 19.2 ha, or about 20% of the area of their original farmland that was affected by the disaster. Thanks to their efforts to have the strawberries ready for shipment before Christmas when demand for strawberries is at its highest, they were able to ship in November 2011.

■ Developing strawberry complexes with national government subsidies

The affected growers requested support from the towns of Watari and Yamamoto so that they could re-erect their pipe frame greenhouses and take other steps to resume strawberry production early. In response, the two towns, in cooperation with JA and other organization, used the Great East Japan Earthquake Grant for Agricultural Production Measures from FY2011 to FY2012 to repair large

greenhouses and elevated benches, and also introduced production materials such as pipe frame greenhouses. In FY2012 and FY2013, seven strawberry complexes (103 ha of land with 41 ha of growing area) and a strawberry sorting facility (1.8 ha of land and 0.4 ha of facilities) were newly developed in Watari and Yamamoto with the use of the "Grant for Recovery from the Great East Japan Earthquake." As a result, 151 growers have been able to resume strawberry growing in September 2013.

■Introducing new growing methods, and challenges

In resuming growing strawberry in the complexes, the growers introduced high-efficiency elevated bed nutriculture instead of conventional soil cultivation, and improved productivity by automating temperature control. Elevated bed nutriculture is a method of growing strawberries by installing planters at a height of about one meter above the floor and circulating nutrient solution. While soil cultivation requires work such as ridge making, this method eliminates the need for such work and allows people to work while standing, thus saving labor and improving efficiency.

The conversion from soil cultivation to elevated bed nutriculture required growers to learn growing techniques that they had no previous experience in, so the government, prefecture, and JA provided support, including training programs. As a result, the strawberry complexes in Watari and Yamamoto achieved yields of more than 5 tons per 10 hectares, a significant increase from before the earthquake. However, one of the issues that the growers now face is that their cost burden is high, as they are basically responsible for all costs related to the cultivation environment, such as maintenance and management costs associated with the introduction of elevated bed nutriculture and the rebuilding of pipe frame greenhouses.

■Steadily recovering as a strawberry producing area

Although, in the beginning, growers had a very difficult time learning the techniques due to a combination of difficulties, including the pressure they faced to quickly restart production, aging growers, and the work that went into rebuilding their own lives, production recovered in 2015, with 59 ha of cultivated area, 218 growers, and 2,476 tons sold. Largely owing to the introduction of the elevated bed nutriculture, the region has been steadily accelerating its recovery, with sales exceeding pre-disaster levels at JPY 3.4 billion in 2018 (cultivated area: 64 ha, 232 growers).

Source (Listed in other case studies, etc.):

- ・ 梅本雅「小特集「震災と地域農業—食と農の視点から—」震災からの復旧・復興過程における農業経営と地域農業」農林業問題研究（2012年）p365-373
https://www.jstage.jst.go.jp/article/arfe/48/3/48_365/_pdf
- ・ 農林水産省東北農政局「農業者等による復旧・復興取組事例 宮城県 東北一のいちご産地復興への取組」（2016年3月）
https://www.maff.go.jp/tohoku/osirase/higai_taisaku/hukkou/pdf/ja-miyagiwatari_2803.pdf
- ・ 同上「農業・農村の復興・再生に向けた取組と動き」（2021年2月）p17

https://www.maff.go.jp/tohoku/osirase/higai_taisaku/hukkou/torikumi.html

- 農林水産省「東日本大震災からの農林水産業の復興支援のための取組」(2020年2月) p8

<https://www.maff.go.jp/j/kanbo/joho/saigai/attach/pdf/torikumi-0202.pdf>

- 宮城県「みやぎ復興プレス第43号」(2015年12月)

<https://www.pref.miyagi.jp/uploaded/attachment/335329.pdf>

Systems and mechanisms applied:

- Grant for Agricultural Production Measures
- Reconstruction grants

Project cost:

- FY2011-2012 project cost: JPY 1.06 billion (JPY 530 million)
(Great East Japan Earthquake Grant for Agricultural Production Measures)
- FY2012-2013 project cost: JPY 20.5 billion
(Grant for Recovery from the Great East Japan Earthquake)

45-1 Revitalization of Industries and Livelihoods (Developing new sales channels for agriculture and forestry)

Case study	Initiatives aimed at resuming farming in cooperation with companies outside the prefecture
Location	Naraha Town, Fukushima
Phases	Emergency response phase Recovery phase <u>Early reconstruction phase</u> <u>Late reconstruction phase</u>
Members	Initiative body: Fukushima Shirohato Farm Corporation, a qualified farmland-owning corporation Shirohato Farm Corporation, a qualified farmland-owning corporation Supported by: Naraha Town, Fukushima Prefecture, and Shirohato Food Industry Corporation

Activity overview:

As part of its reconstruction efforts, Naraha Town in Fukushima Prefecture set out to revitalize agriculture, the town's core industry, and the challenge it faced was how to create new agricultural business. It was at this time that the town was approached by Shirohato Farm Corporation (currently Fukushima Shirohato Farm Corporation), a subsidiary of the Shirohato Food Industry Corporation, which was seeking to grow sweet potatoes in its pursuit of the sextiary industrialization of sweet potatoes. The town has been supporting the company's drive to build a full-scale business since 2017 when demonstration cultivation began.

In September 2020, the town built a large sweet potato storage facility and leased it to the company. With the aim to grow approximately 1,500 tons of sweet potatoes on 50 ha of cropland, the town is working to create a large sweet potato producing area in cooperation with companies.

Activity details:

■ Creating new forms of agriculture to promote the return of its residents

The Shirohato Group, with Shirohato Food Industry Corporation playing a leading role, is engaged in what is referred to as sextiary industrialization, where the entire process from sweet potato production, manufacturing and processing, and sales of sweet potatoes, baked potatoes, etc., is vertically integrated. Its subsidiary, Shirohato Farm Corporation, a qualified farmland-owning corporation, has its own farms in Miyazaki and Ibaraki prefectures where it grows sweet potatoes. In the course of further business development, the company had identified large-scale, stable production as an urgent issue for ensuring a stable supply of sweet potatoes and was seeking a route that would provide a stable supply of sweet potatoes.

Meanwhile, in September 2015, the evacuation order on Naraha, Fukushima Prefecture, an Evacuation Order Cancellation Preparation Zone, was lifted, and the town was faced with the challenge of rebuilding its agriculture industry since it needed to create new agricultural business to accelerate its rebuilding efforts, and was committed to restore the town to its original form to realize true rebuilding.

It was under these circumstances that Shirohato Food Industry Corporation approached Naraha Town to see if it could use land that was being used as fields and temporary storage areas for growing sweet potatoes, and the town's response was to cooperate with the company in securing farmland.

■ Sweet potato cultivation begins in Naraha Town

In 2017, Shirohato Farm Corporation gained the cooperation of three growers in Naraha in a demonstration that involved growing sweet potatoes on a 1.3 ha growing area to study the suitability and profitability of growing potatoes in Naraha. Leading up to this, town officials conducted a survey of farmers' intentions and acted as an intermediary between farmers who showed interest in growing sweet potatoes, and Shirohato Farm Corporation.

Farmers engaged in the demonstration under the guidance of the company, and with subsidies it received for seedlings and fertilizer from the town's Iki-Iki Agri Reconstruction Fund. After the company concluded from the demonstration that it would be feasible to grow sweet potatoes in the town, it established the Shirohato Farm Fukushima Branch in Fukushima Prefecture in January 2018, leased 11 ha of farmland from 12 growers with cooperation from Naraha Town, and began independently growing sweet potatoes full-scale, using the Fukushima Prefecture Farming Resumption Support Project to lease machinery necessary for cultivation management. In addition, the company purchased all sweet potatoes produced by farmers who received technical assistance from the company.

■ Establishing a large-scale farming model by enhancing production and shipping systems

In April 2019, Shirohato Food Industry Corporation carried out a development-oriented dissolution of the Shirohato Farm Fukushima Branch, and established Fukushima Shirohato Farm, a qualified farmland-owning corporation, in Naraha Town. In October of the same year, Tokyo Electric Power Company invested in the project to expand sweet potato cultivation, and currently cooperates in planting, harvesting and other operations. As a result, in October 2020, the sweet potato growing area grew to 40 ha, about 30 times the area of the initial demonstration.

In September 2020, Naraha Town utilized the Fukushima Restoration Acceleration Grant to build a new sweet potato storage facility, the largest in Japan, which it currently leases to Fukushima Shirohato Farm Corporation. The facility is equipped with a curing room — curing being a process of extending storage periods in high-temperature and humid conditions — and a storage building with a storage capacity of up to 1,260 tons, enabling the company to ship sweet potatoes year-round. Aiming to establish a new model of large-scale farming, the company will continue to further enhance its growing environment through the production of sweet potatoes in Naraha.

■ Actions going forward

With the goal of building back to the 75 ha of dry fields that were being farmed in Naraha before the earthquake, Fukushima Shirohato Farm Corporation aims to expand its sweet potato crop acreage to 50 ha and produce about 1,500 tons in 2020. Going forward, the company plans to lease larger parcels

of farmland over the long term to expand its crop acreage.

In addition, in order to promote sweet potato cultivation widely in Naraha, a sweet potato working group made up of farmers was established, and the town of Naraha and the company are working together to create a major sweet potato producing region as can be seen in developments such as where approximately 30 new farmers are planning to grow sweet potatoes and have them purchased by the company starting in FY2021. In response to these initiatives, the cities of Koriyama, Minamisoma, and Tamura, also in Fukushima Prefecture, have also begun growing sweet potatoes. Hope is growing further.

Source (Listed in other case studies, etc.):

- 復興庁福島復興局 HP 営農再開情報「大規模さつまいも栽培で地域雇用の創出を」(2018年10月)
<https://www.reconstruction.go.jp/portal/chiiki/hukkoukyoku/fukushima/material/201810.naraha.pdf>
- 日本経済新聞「白ハト食品、福島にイモ農場 地元雇用で復興後押し」(2018年3月13日)
<https://www.nikkei.com/article/DGXMZ028043310T10C18A3AM1000/>
- 日本経済新聞「福島 サツマイモ大農場」(2018年3月13日)
- 毎日新聞「福島・檜葉町大規模サツマイモ栽培スタート」(2018年5月29日)
<https://mainichi.jp/articles/20180529/k00/00e/040/199000c>
- 農林水産省「東日本大震災からの農林水産業の復興支援のための取組」(2020年2月) p62
<https://www.maff.go.jp/j/kanbo/joho/saigai/torikumi.html>
- いわき経済新聞「福島県檜葉町に日本最大規模のサツマイモ倉庫完成 1200トン超貯蔵可」(2020年10月) <https://iwaki.keizai.biz/headline/384/>
- 復興庁 HP HandinHand レポート「檜葉町の美味しい“季節の実り”を体感！」(2020年12月)
<https://www.fukko-pr.reconstruction.go.jp/2018/fukushimanoima/reports/report-19/>
- 毎日新聞「福島旧避難指示区域 農業は今…県外企業誘致、イノベーションが描く未来図と課題」(2021年1月) <https://mainichi.jp/articles/20210119/k00/00m/040/094000c>

Systems and mechanisms applied:

- Naraha Town, Fukushima Prefecture Iki-Iki Agri Reconstruction Fund
- Fukushima Prefecture Farming Resumption Support Project
- Fukushima Restoration Acceleration Grant

Project cost:

45-2 Revitalization of Industries and Livelihoods (Developing new sales channels for agriculture and forestry)

Case study	Producing grapes on abandoned farmland and making wine with local ingredients
Location	Nihonmatsu City, Fukushima Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Initiative body: Fukushima Farmers' Dream Wine Co., Ltd. Supported by: Nihonmatsu City, Fukushima Prefecture, etc.
<p>Activity overview:</p> <p>Since before the earthquake, farmers in the Towa district of Nihonmatsu City, Fukushima Prefecture, have been cultivating grapes on abandoned land that had been a problem for the region, and 20 producers started up the Towa Wine Study Group to begin winemaking as a new endeavor. Taking advantage of the Special Structural Reform Zone System, the group obtained a small volume production license, established Fukushima Farmers' Dream Wine Co., Ltd. the year after the earthquake, built a brewery, and launched a full-fledged wine business.</p> <p>Since brewing its first wine in 2013, the company has expanded production and is working to develop new sales channels through active participation in various events, including having its wine served in restaurants on JR East's luxury sleeper trains.</p>	
<p>Activity details:</p> <p>■Abandoned land repurposed as vineyards</p> <p>The Towa district in the northeastern part of Nihonmatsu City, Fukushima Prefecture, was traditionally a sericultural (silk worm growing) area, but with the decline of the sericultural industry, many of the plots of land were abandoned and became idle farmland. For these reasons, farmers had been making preparations from even before the earthquake to eliminate abandoned land by converting them to vineyards. It was under these circumstances that the Great East Japan Earthquake struck.</p> <p>■Establishing a wine company</p> <p>Since the Towa area suffered relatively little damage from the earthquake, 300 grape seedlings were planted as initially planned, and the Towa Wine Study Group was established by 20 producers to begin wine production.</p> <p>By taking advantage of the Special Zone System for Fruit Wine (Wine) under the Special Structural Reform Zone System, the company initially started out on a small scale after obtaining a license for small volume production.</p> <p>In September 2012, the group established the Fukushima Farmers' Dream Wine Co., Ltd., and launched their wine business once they completed a brewery in a renovated sericultural facility.</p>	



Photo: Vineyard created on a former mulberry field
(Source: Fukushima Farmers' Dream Wine website)

■ Winemaking begins

After the brewery was completed, the company began brewing ciders made 100% from the prized Hayama apples of Nihonmatsu City, whose sales had declined due to negative rumors. The product was well received and information of their first shipment spread by word of mouth, selling out in no time. In the fall of 2013, grapes planted in the year of the earthquake were harvested and the company made wine for the first time. Shipment of this wine was postponed because of its small production volume. The quality of the wine was good, however, so the company held an event in January 2014, the following year, to unveil the wine as their original.

To date, the company has planted approximately 10,000 seedlings (as of 2021) on abandoned land, and as of 2019, approximately 15 tons of grapes and apples have been harvested and approximately 15,000 bottles of wine (in 720 ml bottles) have been produced.



Photo: Red wine, Ikkei brewed by the company
(Source: Fukushima Farmers' Dream Wine website)

■ Sales performance and issues going forward

The company continues to develop products made from local produce, such as branded wines brewed

and bottled from grapes harvested from different vineyards so that customers are able to enjoy the different characteristics of the same variety of grape grown in different vineyards, as well as wines made from blueberries and mulberry berries, and bread made from by-products of the production process.

The company's wine was selected for serving in the restaurant of JR East's TRAIN SUITE Shikishima sleeper train, as its efforts toward rebuilding and the quality of its wine attracted attention. Since the selection of the wine for serving on the Shikishima will lead to the acquisition of new sales channels, the company says it will continue to vigorously produce and promote their wines with the aim of adding more value to them.

The company sees the further expansion of its sales channels as their challenge going forward, and aims to achieve this by actively participating in consumer exchange events and regional produce events, as well as developing hands-on projects that only a farmers' brand can offer, such as grape harvesting and brewing experience programs; programs where individual customers can create their own unique labels; and tours developed in collaboration with farmhouse lodging homes.

Source (Listed in other case studies, etc.):

- 復興庁「2016-2017 産業復興事例 30 東北発私たちの挑戦」(2017年2月) p102-103
<https://www.reconstruction.go.jp/topics/main-cat4/sub-cat4-1/20170208130404.html>
- 産経新聞「【みちのく会社訪問】 ふくしま農家の夢ワイン 復興への希望を乗せて」(2014年6月27日)
<https://www.sankei.com/region/news/140627/rgn1406270002-n1.html>
- ふくしま農家の夢ワイン株式会社 公式HP
<https://www.fukuyume.co.jp/>
- 東北農政局「各県ごとの6次産業化事例集 ふくしま農家の夢ワイン株式会社」
https://www.maff.go.jp/tohoku/6zi_koudou/jireihassin/kakuken/attach/pdf/kakukenjirei-58.pdf

Systems and mechanisms applied:

- Special Zone System for Fruit Wine (Wine) (Special Structural Reform Zone System)
- Emergency support project for disaster-stricken areas for building ties with cuisine and between communities

Project cost:

46-1 Revitalization of Industries and Livelihoods (Upgrading and progressing agriculture and forestry)

Case study	Creating new business models by collaborating with companies from different industries				
Location	Watari Town, Sendai City, Miyagi Prefecture				
Phases	<table border="1"> <tr> <td>Emergency response phase</td> <td>Recovery phase</td> </tr> <tr> <td>Early reconstruction phase</td> <td>Late reconstruction phase</td> </tr> </table>	Emergency response phase	Recovery phase	Early reconstruction phase	Late reconstruction phase
Emergency response phase	Recovery phase				
Early reconstruction phase	Late reconstruction phase				
Members	<p>Initiative body: Butai Agri Innovation Co., Ltd. (Butai Farm Co., Ltd., and Iris Ohyama Co., Ltd.)</p> <p>Supported by: Watari Town, Miyagi Prefecture</p>				

Activity overview:

A partnership between two companies from different industries, Butai Farm Co., Ltd., an agricultural production corporation, and Iris Ohyama Co., Ltd., a manufacturing company, led to the establishment of Butai Agri Innovation Corporation. By leveraging each of the companies' strengths, the company developed a new business model for the production and sale of milled rice to meet consumer needs. The company also contributed to the sustainable development of local agriculture by providing technical assistance and human resource development, as well as purchasing all of the rice produced by rice farmers.

Activity details:

■ Collaboration between companies from different industries

Butai Farm Co., Ltd. suffered extensive damage from the tsunami caused by the Great East Japan Earthquake, including damage to approximately 80 hectares of rice paddies and fields, including farmland owned by partner farmers, as well as the loss of its stockpile of rice.

A meeting with representatives from Iris Ohyama Co., Ltd., a household goods manufacturer and wholesaler, at a council meeting on the rebuilding of disaster-affected areas, became the impetus for the company to establish Butai Agri Innovation Co., Ltd., a rice milling business company, in April 2013 in Sendai City, Miyagi Prefecture, through a joint investment with Iris Ohyama. In 2014, the company built a new rice milling plant in Watari Town, utilizing the Subsidy for Companies Locating Businesses and Creating Jobs in Areas Affected by the Tsunami and/or Nuclear Disasters.

The company produces and sells milled rice by leveraging the strengths of the two companies: Butai Farm's expertise in vegetable and rice production and sales, and Iris Ohyama's nationwide sales channels.



Photo: Butai Agri Innovation's Watari Rice Mill
(Source: Butai Agri Innovation website)

■ Establishing a wide-area coordination system for a stable supply of rice

Rice farmers entered contracts to have all of their rice purchased, and this stabilized the farmers' business. The company has also succeeded in reducing costs by establishing a stable supply system for rice, mainly in eastern Japan, by providing guidance on cultivation, training and dispatching human resources, and supporting the shared use of farming equipment. The company has also introduced the latest inspection equipment and established an inspection system that inspects all lots to provide consumers with safe rice and peace of mind. In addition to milled rice, the company is also expanding into the production of other product lines that are being marketed by the Iris Group, as well as rice cakes and packaged rice.

■ Developing products that meet consumer needs and securing sales channels

The delicious taste of freshly milled rice is preserved through cold milling, cold storage, and cold packaging. In addition, in light of the trend toward nuclear families, the company has developed products packed in small packages to meet consumer needs while ensuring taste and quality. The company also conducts tests for hazardous chemical substances, radioactive material, etc., to ensure safety and peace of mind for the consumer.

It has also secured sales channels through sales contracts with actual rice consumers. Utilizing Iris Ohyama's sales channels, the company is developing its business with the aim of expanding its scale of operations.

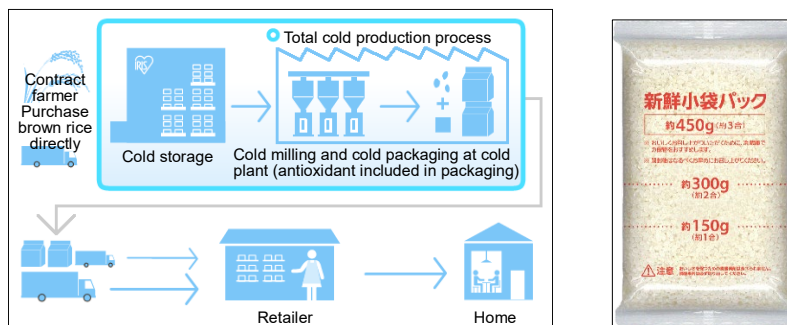


Fig: Total cold production process (left)

Small package (right)

(Source: Butai Agri Innovation website)

Source (Listed in other case studies, etc.):

- 公益財団法人ひょうご震災記念 21 世紀研究機構 「東日本大震災から 7 年 事例に学ぶ生活復興」 (2018 年) p98
<https://www.reconstruction.go.jp/topics/m18/04/20180409160607.html>
 - 吉沢文雄 「「亙理精米工場」を復興のシンボルに」 食品包装 (2016 年 3 月) 60:3, 22-25.
 - 舞台アグリイノベーション株式会社 「NEWS RELEASE アイリスオーヤマ・舞台ファーム農業ビジネスの共同出資会社を設立」 (2013 年 4 月)
https://www.butai-agri-innovation.co.jp/news/BAI_130424.pdf
 - 農林水産省 「第 2 回稲作コスト低減シンポジウム 特別講演 「異業種連携の生み出す新たな米ビジネス～新鮮なお米を毎日届けるために～」」 (2016 年 12 月)
 - 復興庁 「世界に通用するビジネスモデルを作る」 (2015 年 2 月)
https://www.reconstruction.go.jp/topics/main-cat4/sub-cat4-1/20150208_genki40_challenge2.pdf
- 日刊工業新聞 ニュースイッチ 「アイリスオーヤマはなぜ精米事業に参入したのか? コメ流通の疑問と「3・11」」 <https://newswitch.jp/p/296>

Systems and mechanisms applied:

- Subsidy for Companies Locating Businesses and Creating Jobs in Areas Affected by the Tsunami and/or Nuclear Disasters

Project cost:

46-2 Revitalization of Industries and Livelihoods (Upgrading and progressing agriculture and forestry)

Case study	Upgrading and diversifying agricultural business operations
Location	Iwaki City, Fukushima Prefecture
Phases	Emergency response phase Recovery phase <u>Early reconstruction phase</u> <u>Late reconstruction phase</u>
Members	Initiative bodies: Tomato Land Iwaki Ltd., Wonder Farm Co., Ltd. JR Tomato Land Iwaki Farm Co., Ltd. Supported by: East Japan Railway Company, Ministry of Agriculture, Forestry and Fisheries, etc.

Activity overview:

Since before its incorporation in 2001, Tomato Land Iwaki Ltd. has been engaged in tomato production, and the processing and sales of tomato juice and other products. In 2013 it established Wonder Farm Co., Ltd., and in 2016 opened "Wonder Farm," an agricultural experience complex where visitors can experience tomato harvesting, as well as a restaurant in Iwaki City. In 2016, the company established JR Tomato Land Iwaki Farm in partnership with JR East Japan and, in addition to developing its tomato growing facilities, is currently working to develop new sales channels, including stores and restaurants in the Tokyo metropolitan area.

Activity details:

■ Developing a diverse portfolio of businesses ranging from tomato production to food processing, and restaurants, etc.

Tomato Land Iwaki Ltd. in Iwaki City, Fukushima Prefecture, has been expanding its business since before the company was incorporated in 2001, and has built Honshu's first Dutch-style coco wool nutriculture system to grow tomatoes, and launched a processing business for agricultural products.

After the Great East Japan Earthquake in 2011, the company faced a business survival crisis due to damage to its facilities and negative rumors. But after its facilities were restored, it was able to stabilize its business through the dissemination of information on safety and the establishment of an inspection system.

In 2013, Wonder Farm Co., Ltd. was established in Iwaki City with Tomato Land Iwaki Ltd. serving as the mother body. In 2016, the company opened Wonder Farm Co., Ltd., an agricultural experience complex based on the concept "Cultivate your five senses on a farm where you can experience farming and food." Wonder Farm Co., Ltd. processes tomatoes into juice, jam, dressing, and other value-added products at a processing facility built on site. It also provides food and beverages at its restaurant and cafe, and sells to consumers at its direct sale shop. With its tomato harvesting experience tour, a BBQ space, and a garden space for multipurpose use, it also functions as a space for personal exchanges for a variety of users, and plays an important role as a base of activities to have more people engage in personal interactions with others and revitalize the local community.



Photo: Crops being grown using a coco wool nutriculture system
(Source: Tomato Land Iwaki website)

The company is also engaged in human resource development as part of its regional revitalization efforts. In July 2016, Kirin Holdings Company, Limited held the Tohoku Reconstruction and Agricultural Training Center Project as part of the Reconstruction Support Kirin Kizuna Project, and currently jointly implements training programs aimed at developing future agricultural workers and leaders.

■Collaborating with JR East to expand business in the Tokyo metropolitan area

JR East has been working with local farmers under the concept of "living in the community" to expand sales channels for local products and promote sextiary industrialization efforts. In 2016, the company established JR Tomato Land Iwaki Farm Co., Ltd. in partnership with East Japan Railway Company which appreciated Tomato Land Iwaki's business. In the same year, utilizing the government's Grant for Creating Resilient Agriculture, the company built a solar-powered tomato growing facility (site area: 2.5 ha) on land adjacent to Wonder Farm Co., Ltd.

In addition to being processed and sold at Wonder Farm, the tomatoes produced are shipped to the Iwaki Central Wholesale Market, and are also used at JR East Group's Ekinaka stores and restaurants in the Tokyo metropolitan area.

By running wrapped trains that promote tomatoes as well as conducting promotional activities, etc., in train stations, the project aims to develop new sales channels that link local producers with urban consumers, and to revitalize the region by having more people interact with each other.

Source (Listed in other case studies, etc.):

- ・ 被災地の元気企業 40 –創造的な産業復興を目指すフロントランナーたち (2015年2月) p. 86
<http://reconstruction.go.jp/topics/main-cat4/sub-cat4-1/20150205114848.html>
- ・ JR 東日本「JR 東日本が地域の方々と一緒に栽培したトマトが様々なメニューで販売開始」(2016年9月)
<https://www.jreast.co.jp/press/2016/20160914.pdf>
- ・ 東北農政局「各県毎の6次産業化事例集」

https://www.maff.go.jp/tohoku/6zi_koudou/jireihassin/kakuken/attach/pdf/kakukenjirei-44.pdf

- 経済産業省「福島イノベーション・コースト構想推進分科会（第1回）資料5」

https://www.meti.go.jp/earthquake/nuclear/kinkyu/committee/innovation/bunkakai/pdf/171127_01j.pdf

Systems and mechanisms applied:

- Agriculture, forestry and fisheries Fund (A-FIVE)
- FY2015 Grant for Creating Resilient Agriculture
- Subsidy for Companies Locating Businesses and Creating Jobs in Areas Affected by the Tsunami and/or Nuclear Disasters
- Fukushima Reconstruction Fund for the Sextiary Industrialization of Regional Industry

Project cost:

47-1 Revitalization of Industries and Livelihoods (Initiatives to resume business in the fisheries industry)

Case study	Establishing a fisheries processors' cooperative	
Location	Kesenuma City, Miyagi Prefecture	
Phases	Emergency response phase	Recovery phase
	Early reconstruction phase	Late reconstruction phase
Members	Kesenuma Shishiori Processors' Cooperative Association, Kesenuma City	
<p>Activity overview:</p> <p>The City of Kesenuma, Miyagi Prefecture, which suffered tsunami damage from the Great East Japan Earthquake, has resolved to expand the Kesenuma Fishing Port zone to the Shishiori district to agglomerate fisheries processing facilities with the aim of revitalizing the fisheries processing industry, the region's core industry. Meanwhile, 17 fisheries processors also joined hands to establish a fisheries processors' cooperative, and built shared facilities including freezing and refrigeration facilities, and an office building to reduce production costs.</p> <p>In addition, the cooperative is taking a new perspective in revitalizing the fisheries processing industry by developing new products made from fishery products landed at Kesenuma Fishing Port and developing sales channels domestically and internationally under the Kesenuma Shishiori brand name.</p>		
<p>Activity details:</p> <p>■ Restoring the Kesenuma Fishing Port and expanding of fishing port zone</p> <p>Kesenuma Fishing Port is one of the leading fishing ports in Japan, known for its catches of bonito, swordfish, sharks, etc. Because it sustained severe damage from the Great East Japan Earthquake and tsunami, the national government acted on behalf to carry out disaster reconstruction work. This was completed in October 2014, with all of its facilities available for use. As in Ishinomaki, Shiogama, and other fishing ports, restoration involved the introduction of advanced sanitation control methods (HACCP). The quay walls and catch handling station (fish market) were constructed in an integrated configuration that meets sanitation control requirements.</p> <p>Meanwhile, the revival of the fisheries processing industry, a key industry of the region, became a critical issue, as the facilities and equipment used by fisheries processors, including fish processing facilities, and ice making and freezing facilities, were all washed away in the tsunami. To address this issue, the City of Kesenuma resolved to develop a new cluster of fish processing facilities in two areas in the city (Shishiori and Minami Kesenuma) with the aim to improve the resilience of these operational structures by reducing costs and improving work efficiency.</p> <p>In June 2012, the Minister of Agriculture, Forestry, and Fisheries expanded the fishing port zone to include these two areas, and from August 2012, Kesenuma City proceeded to carry out land-raising work in these areas based on the national government's Fisheries Infrastructure Improvement Project.</p>		

■Establishing a Fisheries Processors' Cooperative Association

In July 2012, in order to restore the fishery industry in the coastal region as quickly as possible, the Kesenuma Shishiori Processors' Cooperative Association was established in the Shishiori area with the participation of 17 local fisheries processors and with support from several major trading companies. The cooperative coordinated with the government on land conversion and consolidation, and negotiated with them on the land-raising project so that they can resume business operations, and rebuild their plants and offices as soon as possible. While the processors saw each other as rivals and not collaborators before the earthquake, the decision to establish a cooperative was unanimous. The first thing the cooperative worked on immediately after its establishment was the allocation of plots on the raised land. Coordination was difficult, as all processors naturally wanted to rebuild in the best location, but through dialogue with each processor one by one, they were able to quickly determine the locations for each processor. Because of the nature of the industry, there were few connections between individual processors, and the cooperative chairman at the time had great difficulty in allocating land.

In May 2014, the city completed its 11-ha land-raising project, and member processors, which until then had been processing fisheries at prefabricated temporary processing plants built using group subsidies on land adjacent to the fishing port zone, decided to construct their processing plants on the new land.

The cooperative aimed to achieve a significant reduction in costs incurred by individual processors by establishing shared-use facilities such as freezing and refrigeration facilities, seawater sterilization treatment facilities, and an office building for shared use by member processors.

■New product development and branding

The cooperative is working not only to improve its facilities, but also to develop new products and branding their products to open up new sales channels.

In 2014, with the support of the Kirin Kizuna Project by Kirin Company, Limited, and the Nippon Foundation, the cooperative developed products under a unified brand called UMI-TO GOCHISO, which are sold at the Sendai Uminomori Aquarium and online.



Photo: UMI-TO GOCHISO gift assortment

(Source: Courtesy of Kesenuma Shishiori Processors' Cooperative Association)

■Developing sales channels overseas

The office building, which was developed as a shared-use facility, has a presentation room equipped with cooking facilities and serves as a place for product presentations. Currently, the cooperative has 20 members, and with the aim of expanding sales channels overseas, it has been actively conducting product sales activities overseas. For example, in 2016, it participated in a trade show in Singapore which resulted in closed deals, and from 2019, it has been conducting activities in Thailand to expand sales channels there.

Source (Listed in other case studies, etc.):

- 水産庁「東日本大震災からの水産業復興へ向けた現状と課題」（2020年3月）
https://www.jfa.maff.go.jp/j/yosan/23/attach/pdf/kongo_no_taisaku-13.pdf
- 水産庁「平成24年度水産白書」（2015年）
https://www.jfa.maff.go.jp/j/kikaku/wpaper/h24/attach/pdf/05_2shoulsetu.pdf
- 復興庁「復興推進委員会第7回 参考資料2 復興に向けた取組事例」（2013年2月）
https://www.reconstruction.go.jp/topics/20130509_sanko02.pdf
- 亀岡紘平「宮城県内の水産加工業の復旧状況と協同組合の貢献」農林金融（2015年6月）
<https://www.nochuri.co.jp/report/pdf/n1506re1.pdf>
- キリン株式会社・公益財団法人日本財団「復興応援キリン絆プロジェクト 水産業復興支援事業：気仙沼鹿折水産加工業協同組合における組合商品開発、およびブランド化事業」
<http://kizuna-nipponfoundation.info/kizuna-story-book/03miyagi.html>

Systems and mechanisms applied:

- Fisheries Infrastructure Improvement Project (Fisheries Agency)
- Project for the Restoration of Disaster Damage to Shared Facilities, etc., at SMEs and other Organizations (Reconstruction Agency)
- Kirin Kizuna Project

Project cost

48-1 Revitalization of Industries and Livelihoods (Developing new sales channels for the fisheries industry)

Case study	Improving the quality and brand value of oysters by reforming production structures
Location	Minamisanriku Town, Motoyoshi-gun, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Togura Oyster Working Group, Shizugawa Branch, Miyagi Prefectural Fisheries Cooperative

Activity overview:

Their oyster cultivation facilities being washed away in the tsunami became an impetus for the Togura Oyster Working Group, Shizugawa Branch, Miyagi Prefectural Fisheries Cooperative, to take steps to drastically reform their production structure which was characterized by overcrowded aquaculture, a situation that had long been a problem for this producing region. After persistent discussions with its members, the cooperative launched a new aquaculture method in 2012 that involved reducing the number of oyster farming racks. As a result of these efforts, the quality of their oysters improved, and the cooperative became the first in Japan to receive ASC certification. The cooperative is working to improve the value of the Togura oyster brand and develop sales channels.

Activity details:

■Earthquake becomes an impetus to reform the production structure of overcrowded oyster aquaculture

Oyster farmers in the Togura district of Minamisanriku Town, Miyagi Prefecture, have been using aquaculture racks called *ikada* to grow oyster. Before the earthquake, the racks were overcrowded due to their narrow spacing in the sea. This resulted in oyster spat not receiving enough nutrition, delaying their growth and degrading their quality.

The tsunami caused by the earthquake washed away all of their oyster farming facilities. The earthquake became an impetus for the Togura Oyster Working Group, Shizugawa Branch, Miyagi Prefectural Fisheries Cooperative, to take steps to drastically reform their farming methods, and improve oyster varieties. Specifically, they widened the spaces between the racks, and reduced the number of racks to 1/3 of the more than 1,000 they were using before the earthquake.

■Reaching a consensus among fishermen on fair rack allocation

In determining the allocation of racks, all fishermen were asked to temporarily relinquish their fishing rights, and the cooperative made the necessary adjustments so that they would be fairly allocated, taking into account, among other things, whether or not the fishermen had any successors.

It was a difficult task to reconcile the opinions of the fishermen, who are sole proprietors, but thanks to the numerous discussions and persistent negotiations with many members of the cooperative by then Chairman of the Oyster Working Group, Mr. Goto, a consensus was reached for the cooperative as a whole.

In 2012, the cooperative launched a new method of aquaculture with the support of the government's Support Project for the Reconstruction of Ganbaru (hard-working) Aquaculture.

■ Increasing brand value and expanding sales channels by improving quality

By eliminating their overcrowded aquaculture operations, the cooperative was able to reduce oyster mortality while improving their quality. Quality improved and unit prices also rose as producers competed with each other to achieve better quality. Yields are also on the rise, leading to increased sales.

Thanks to their efforts to preserve their fishing ground environment and reorganize their aquaculture production system into a more sustainable format, the Togura Oyster Working Group received financial support from the town of Minamisanriku and assistance from WWF, and in March 2016, became the first in Japan to receive ASC (Aquaculture Stewardship Council) certification, an international certification awarded only to aquaculture businesses that are friendly to their environment and local communities. Other oyster producers in Miyagi Prefecture have joined this movement, and now approximately 60% of the oysters produced in and distributed from Miyagi Prefecture are ASC-certified.

The brand value of Togurakko oysters produced in the Togura area has grown, and they are now being advertised as being produced in Togura instead of in Miyagi Prefecture. For these efforts, the cooperative received the Emperor's Award at the Agriculture, Forestry and Fisheries Festival in 2019. Building on this opportunity, efforts are underway to continue to develop their sales channels.



Photo: Poster of Minamisanriku Togurakko Oysters
 (Source: Shizugawa Branch of the Miyagi Prefectural Fisheries Cooperative)
 (Photo: Masashi Asada)

Source (Listed in other case studies, etc.)

- ・ 復興庁「岩手・宮城・福島の産業復興事例 30 2018-2019 想いを受け継ぐ次代の萌芽～東日本大震災から8年～」(2019年2月)
<https://www.reconstruction.go.jp/topics/main-cat4/sub-cat4-1/20190215142526.html>
- ・ 特定非営利活動法人 水産業・漁村活性化推進機構「がんばる養殖復興支援事業～東日本大震災か

らの養殖復興～」(2018年3月)

http://www.fpo.jf-net.ne.jp/gyoumu/gyoumu_top.html

- ・ドコモ東北復興・新生支援「笑顔の架け橋 Rainbow プロジェクト 日本初! ASC 国際認証を取得した南三陸町戸倉のカキ養殖」(2016年6月)

<http://rainbow.nttdocomo.co.jp/enterprise/detail/179/>

- ・サステナブル・ブランドジャパン 箕輪弥生「南三陸カキ養殖場で ASC 認証活用の働き方改革進む」(2018年6月)

https://www.sustainablebrands.jp/news/jp/detail/1190553_1501.html

- ・農林水産省「令和元年度(第58回)農林水産祭天皇杯等の選賞について」(2019年10月)

<https://www.maff.go.jp/j/press/kanbo/bunsoyo/191018.html>

Systems and mechanisms applied:

- ・ Fisheries Agency, Support Project for the Reconstruction of Ganbaru (hard-working) Aquaculture

Project cost:

49-1 Revitalization of Industries and Livelihoods (Upgrading and progressing the fisheries industry)

Case study	Upgrading and diversifying the fisheries processing industry
Location	Kesennuma City, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Hachiyo Suisan Co., Ltd.
<p>Activity overview:</p> <p>While Hachiyo Suisan Co., Ltd. had all of its production facilities damaged in the tsunami, thanks to support from the national government, it now produces and sells salted fish and other products as one of major fisheries processors in Kesennuma City. The company is working to develop new products by building on the ideas and inspiration of student interns, and using local resources to develop new sales channels.</p> <p>The company launched its Rias Food Project, a regional brand for products produced in Kesennuma, to revitalize the fisheries processing and food industries in the Sanriku region. The company also actively disseminates information to build Kesennuma's regional brand, such as by holding the Rias Food Grand Prix for dishes made from ingredients from Sanriku.</p>	
<p>Activity details:</p> <p>■Head office and plant damaged in the Great East Japan Earthquake</p> <p>Since before the earthquake, Hachiyo Suisan Co., Ltd. has been a leading fisheries processor of Kesennuma City, Miyagi Prefecture, manufacturing and selling various salted fish and seaweed-based products such as Michinoku Shiokara (salted fish) and Michinoku Mekabu (thick wakame) made from local resources.</p> <p>However, the company suffered catastrophic damage in the Great East Japan Earthquake, losing its head office building, as well as all five of its plants, including not only its machinery and equipment, but also its stock of raw materials and products. While the company was able to rebuild its plants in 2012, sales channels for its products had shrunk due to negative rumors and a loss of customers due to the earthquake. This combined with a shortage of workers made it difficult to continue business.</p> <p>■Company rebuilds with the use of various programs</p> <p>The company took advantage of various support programs to quickly rebuild its business. It was able to continue its business by actively making use of programs such as the following: group subsidies to restore production facilities and equipment; support for existing debt relief by the Organization for Supporting Recovery of Businesses Affected by the Great East Japan Earthquake as a measure to address its double debt issue; business consultation through the Reconstruction Agency's Concentrated Expert Dispatch Support Program; and the Smart Community Introduction Promotion Project for introducing and promoting the use of new energy.</p>	

■Developing products based on ideas and inspiration of young people

The company is running its business based on flexible ideas in order to run it in ways that correctly address changes in the market. Through the Reconstruction Agency's Internship Program for Reconstruction and Creation, the company incorporates innovative ideas and concepts from young people into its own product development and sales promotion. So far, the company has taken in about ten interns in its business operations.

Taking advantage of the ideas and planning skills of these interns, the company reflects the opinions of young people in the company's business activities by actively working on product development, creating the company website, and creating product packages and labels based on these students' novel ideas. The taking in of interns by the company is also a part of its efforts to have them understand the appeal and branding of Tohoku's fisheries industry, and actively promote them to students and young people.

■Establishing local brands

The company launched the Japan Brand MICHINOKU Project in cooperation with its industry peers based on the standpoint that "Regional cooperation is necessary not only for recovering from the earthquake but also for creating a Tohoku for later generations." The company is actively working to develop and expand sales channels by branding and developing new products that are made using salted squid, *mekabu* (thick wakame), and other processed fishery products from Kesenuma, and also by actively participating in JAPAN FOOD LABO and various other trade shows held in Japan and abroad.



Photo: Hachiyo Suisan's Michinoku Shio Kara (salted fish)
(Source: Hachiyo Suisan website)

■Developing sales channels overseas

In January 2019, the company exhibited at the Sirha World Hospitality and Food Service Event in France. It developed a seaweed sauce and is actively working to develop sales channels in Europe and the United States.

Source (Listed in other case studies, etc.):

- ・ 復興庁「岩手・宮城・福島産業復興事例 30 続く挑戦つなぐ未来へ」(2018年2月) p26-31

<https://www.reconstruction.go.jp/topics/main-cat4/sub-cat4-1/20180216125933.html>

- 東北地方のはばたく中小企業・小規模事業者（中小企業庁）
- 八葉水産「Japanブランド みちのく MICHINOKU」プロジェクトの紹介（2019年8月）

https://suisan-innv.jp/media/files/document/vol2/vol2_6.pdf

- 復興庁「令和元年度「チーム化モデル」事例集」（2020年3月）

https://www.reconstruction.go.jp/portal/sangyou_nariwai/suisan/2019/material/20200622_r1_jireisyu.pdf

Systems and mechanisms applied:

- Group subsidy
- Internship Program for Reconstruction and Creation
- Concentrated Expert Dispatch Support Program
- FY2013 Smart Community Introduction Promotion Project
- Loan purchases and other support from the Organization for Supporting Recovery of Businesses Affected by the Great East Japan Earthquake Co., Ltd.

Project cost:

50-1 Revitalization of Industries and Livelihoods (Restoring tourist facilities and functions)

Case study	Restoring a tourist facility with industry peer support Aquamarine Fukushima
Location	Iwaki City, Fukushima Prefecture
Phases	<u>Emergency response phase</u> <u>Recovery phase</u> Early reconstruction phase Late reconstruction phase
Members	Fukushima Marine Science Museum, and aquariums and other facilities neighboring Fukushima prefecture

Activity overview:

A large number of the creatures at Aquamarine Fukushima, an aquarium in Iwaki City, Fukushima Prefecture, were lost in the earthquake and tsunami, but the surviving marine animals, seabirds, and fish were dispersed and evacuated to Kamogawa Sea World and other aquariums. With support from other aquariums, the aquarium was able to recover quickly and reopened in July 2011.

Damage to facilities, equipment, and infrastructure caused by a large-scale disaster can endanger invaluable living organisms. A network of industry peers that house rare animal species had already been established in normal times, and this led to the aquarium's early recovery.

Activity details:

■ Damage to facilities caused by the Great East Japan Earthquake

Aquamarine Fukushima (Fukushima Marine Science Museum), a large aquarium located in Onahama Port, Iwaki City, Fukushima Prefecture, was open when the Great East Japan Earthquake struck. Visitors in the building were asked to immediately evacuate the facility, and 80 staff members and volunteers quickly evacuated to the third floor. However, the tsunami had isolated the aquarium.

On March 12, the day after the disaster, the entire building was without power, and the staff worked to keep the fish and other animals alive by powering the blowers with the aquarium's private power generator to supply air. But the fuel oil eventually ran out and they were left with no way to supply air. The earthquake and tsunami also caused damage to water tanks and buildings, damaged electrical equipment from flooding, and caused ground subsidence due to liquefaction around the buildings, resulting in the loss of many fish species.

The staff of Aquamarine Fukushima were dedicated to restoring the aquarium, and after carrying out repair and restoration work at a rapid pace, they were able to open the facility on July 15, 126 days after the disaster. After reopening to visitors, the aquarium has been working to attract tourists to the disaster-stricken areas as a symbol of tourism in Fukushima Prefecture, while introducing new facilities and equipment.

■ Temporary evacuation of marine animals to other facilities

Keepers and staff at Aquamarine Fukushima sent out requests to other aquariums in their network to ask if they can take in sea lions, walruses, and other marine animals and seabirds that survived the

disaster for temporary evacuation to protect their lives. Thanks to these efforts, they were able to transfer marine animals, etc., to Kamogawa Sea World (Kamogawa City, Chiba Prefecture), Shin-Enoshima Aquarium (Fujisawa City, Kanagawa Prefecture), Kasai Rinkai Aquarium (Tokyo), Izu-Mitsu Sea Paradise (Numazu City, Shizuoka Prefecture) and Marinepia Nihonkai (Niigata City, Niigata Prefecture) where they would be taken care of for the time being.

Owing partly to the fact that the director of the aquarium had previously held a post at the Kuwait Institute for Scientific Research, the Kuwaiti government donated \$3 million in reconstruction assistance to Aquamarine Fukushima in 2012, which was used to build the Kuwait-Fukushima Friendship Memorial Garden on the aquarium grounds and develop the Waku Waku Satoyama Jomon Village that opened in 2015.



Photo: Kuwait-Fukushima Friendship Memorial Garden
(Source: Aquamarine Fukushima website)

■Efforts to achieve full-fledged reconstruction

Since the earthquake, Aquamarine Fukushima has been working to attract tourists by upgrading its existing exhibition facilities while developing new facilities, using reconstruction assistance funds it received from Kuwait and other sources. At the 10th World Aquarium Congress held in Onahama in 2018, Aquamarine Fukushima presented its activities to the world.

Although the number of visitors to Aquamarine Fukushima has remained sluggish since the earthquake, it has established friendly partnerships with 13 domestic and overseas facilities, and will be cooperating with five facilities, notably in China, South Korea, and Hong Kong, not only in the area of staff and technical exchange, but also for their capacity as a resource for attracting visitors to Aquamarine Fukushima.

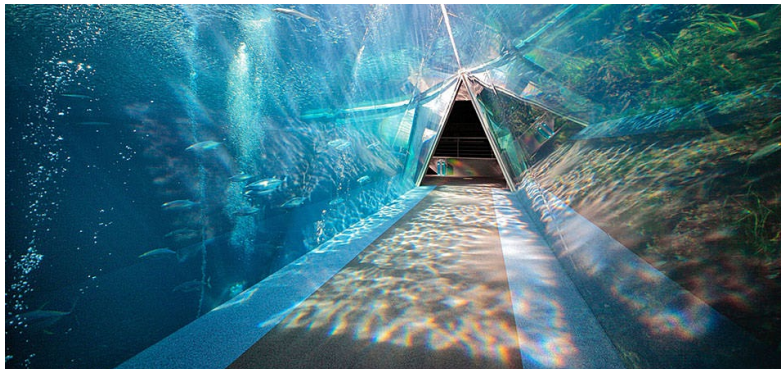


Photo: Exhibit "Tide Sea"
(Source: Aquamarine Fukushima website)

Source (Listed in other case studies, etc.):

- アクアマリンふくしま「アクアマリンふくしま被災報告（第一報）」（2011年3月）
<https://www.aquamarine.or.jp/curator-message/no47/>
- アクアマリンふくしま「被災から学んだこと」（2011年7月）
<https://www.aquamarine.or.jp/curator-message/no50/>
- アクアマリンふくしま「クウェート・ふくしま友好記念日本庭園について」（2014年2月）
<https://www.aquamarine.or.jp/curator-message/no64/>
- アクアマリンふくしま「アクアマリンふくしまの近況」（2019年7月）
<https://www.aquamarine.or.jp/curator-message/no75/>
- 岩田雅光「よみがえれ！ アクアマリンふくしま復興計画」学術の動向（2011年）p46-47
https://www.jstage.jst.go.jp/pub/pdfpreview/tits/16/12_16_12_12_46.jpg
- 株式会社ヤクルト本社「ヘルシスト アクアマリンふくしまの復活物語」（2014年3月）
https://www.yakult.co.jp/healthist/224/img/pdf/p20_23.pdf

Systems and mechanisms applied:

- Kuwait Government Reconstruction Assistance Fund (\$3 million: as at 2011)

Project cost:

51-1 Revitalization of Industries and Livelihoods (Preservation and development of the soft aspects of tourism)

Case study	Creating tourism campaigns by utilizing local food and culture Matsukawaura Tourism Promotion Group
Location	Soma City, Fukushima Prefecture
Phases	Emergency response phase Recovery phase <u>Early reconstruction phase</u> <u>Late reconstruction phase</u>
Members	Matsukawaura Tourism Promotion Group; Soma City, Fukushima Prefecture; Soma City Tourism Association; Soma City Matsukawaura Tourism Ryokan Association

Activity overview:

Soma City in Fukushima Prefecture has set its sights on the sea as a sustainable tourism resource in order to attract large numbers of tourists to disaster-stricken areas, and has developed eco-tours such as Revival Challenge Gourmet and Crabbing Experience Tours as new tourism products that are based on the Matsukawaura and fishery products concepts to promote a city-wide recovery of tourism.

The tourism policy of the Matsukawaura area is being promoted by the Matsukawaura Tourism Promotion Group, a team consisting of the city's tourism association, ryokan associations, restaurants, and souvenir stores, with a group of local businesses playing a central role. Through group activities, the group contributes to the revival of tourism and regional revitalization of the prefecture and city by developing new products and carrying out ongoing communication regarding the region's attractions, as well as vigorously publicizing tourism campaigns.

Activity details:

■ Soma City before the earthquake

Soma City in Fukushima Prefecture is nationally known for its fishing ports, which before the earthquake boasted an annual catch of just under JPY 5 billion, and Matsukawaura Prefectural Natural Park, which was selected as one of the 100 most scenic spots in Japan. The coastal area is one of the prefecture's leading tourist destinations, with ryokans, direct sale seafood stands, souvenir stores, restaurants, and other facilities.

The Great East Japan Earthquake caused extensive damage to the coastal areas of Soma City, causing catastrophic damage to industry in general. The city was further affected by voluntary restrictions by the fishing industry and negative rumors regarding the industry which stemmed from the Fukushima Daiichi Nuclear Power Plant accident. The catch of snow crab, a specialty of the area, dropped precipitously to about 15% of its pre-disaster level due to the earthquake, making it impossible to maintain a stable supply of local foodstuff. As a result, Soma City and the Matsukawaura area could no longer receive tourists as they had before, and this hit the tourism industry very hard.

In addition, immediately after the disaster, workers who were engaged in restoration work in the affected areas used ryokans in Matsukawaura as their lodging, but tourist activity slowed after the workers left and sales declined. So, to achieve reconstruction, it was necessary to bring back tourists

as soon as possible.

■ Collaboration by bringing businesses together: The Matsukawaura Tourism Promotion Group is formed

In order to attract tourists back to Soma City, a total of 27 businesses (25 businesses in the Matsukawaura area and 2 businesses in the Iwako area), including restaurants, souvenir stores, and businesses on the opposite shore formed, with the Matsukawaura Tourism Ryokan Association playing a central role, the Matsukawaura Tourism Promotion Group, a group aimed at the recovery of tourism.

The group utilized the Subsidy Project for the Recovery and Installation of Facilities, etc., for Groups of SMEs, etc. (group subsidy) to restore their facilities, and resumed business at the same locations they were before the disaster.

■ Utilizing existing tourism resources: Creating tourism campaigns drawing on the sea as their resource

The group set its sights on the sea as Soma City's tourism resource. Local young people got together to form the Matsukawaura Guides Association and worked hard to uncover tourism resources. Through activities mainly led by young people, the guides uncovered a variety of tourism resources and worked to create tourism plans that would create new value. In addition, to preserve people's

memories of Matsukawaura as being "a town with great fish ... end of discussion!" the 11 ryokan and restaurants participating in the group worked to also develop new products made from fish. The younger members of the group took the lead in actively holding meetings where they brainstormed ideas on how to rebuild Matsukawaura and discussed how they could realize those ideas.



Photo: Revival Challenge Gourmet ad
(Source: Soma City Matsukawaura Tourism Promotion Group)

■ Developing new products: Revival Challenge Gourmet and eco-tours

The group developed their Revival Challenge Rice Bowl project, observing that, first of all, it was critical that they act quickly to communicate Matsukawaura's resolve to rebuild. Currently, the group develops dishes based on ingenious ideas that never fail to please, collectively called the Revival Challenge Gourmet, to attract many tourists back to the area and instill them with an energetic image of Matsukawaura.

In addition, the group has developed new eco-tours that feature hands-on content, including

crabbing tours on the seashore, crabbing having long been a favorite pastime of local children. This is also being promoted as a family-friendly event with cooperation from the Soma City Tourism Association.

■Future initiatives

The Matsukawaura Tourism Promotion Group is working toward the future to develop and realize nuclear power plant tours for inbound visitors. With the aim of further revitalizing the city by proposing packaged tourism plans going forward that include overnight stays in Matsukawaura, the group is exploring new tourism-related initiatives with young people playing a leading role.

Source (Listed in other case studies, etc.):

- ・ 復興庁「被災地での55の挑戦—企業による復興事業事例集—」(2013年3月)
https://www.reconstruction.go.jp/topics/post_197.html
- ・ 復興庁「岩手・宮城・福島の産業復興事例30 2018-2019 想いを受け継ぐ次代の萌芽～東日本大震災から8年～」(2019年2月)
<https://www.reconstruction.go.jp/topics/main-cat4/sub-cat4-1/20190215142526.html>
- ・ 独立行政法人中小企業基盤整備機構「松川浦を拠点に、観光による再生を」(2012年8月)
https://www.smrj.go.jp/doc/reconstruction/fukushima_02.pdf

Systems and mechanisms applied:

- ・ Subsidy Project for the Recovery and Installation of Facilities, etc., for Groups of SMEs, etc. (group subsidy)

Project cost:

- ・ JPY 1.5 billion (including JPY 1.125 billion in national government funds)

52-1 Revitalization of Industries and Livelihoods (Creating new tourism demand)

Case study	Attracting wealthy inbound visitors
Location	Tohoku region
Phases	Emergency response phase Recovery phase <u>Early reconstruction phase</u> <u>Late reconstruction phase</u>
Members	Tohoku Premium Supporters Club (formed under the leadership of Diamond Big Co., Ltd)
<p>Activity overview:</p> <p>The tourism industry in the Tohoku region was hit hard by the earthquake, and in order to regain tourists, the region has been working to establish a mechanism for creating new tourism programs targeting overseas inbound tourists, especially wealthy westerners.</p> <p>To this end, Diamond Big Co., Ltd. has taken the lead in establishing the "Tohoku Premium Supporters Club" as a mechanism to develop and market tourism resources that spotlight Japanese culture including the natural settings, cultural heritage, and handicrafts of Tohoku, and has teamed up with travel agencies, limousine companies, ryokan, DMOs, and other companies in the tourism industry.</p>	
<p>Activity details:</p> <p>■ Tourism resources in the affected areas</p> <p>In order to rebuild the tourism industry, which suffered serious damage in the earthquake, it was important to have more people engage in personal interactions with others in order to attract inbound foreign visitors to Japan. However, despite the fact that the Tohoku region was rich in tourist attractions for wealthy tourists, such as its natural settings, cultural heritage, and handicrafts, the region has not been able to attract wealthy people interested in Japan due to a lack of development of tourist products and marketing communication that targeted wealthy segments in overseas markets.</p> <p>In order to attract more overseas tourists who are interested in Japan, including wealthy people from Europe, the U.S., and Singapore, it was important to understand the needs of travel agencies that serve wealthy customers, and to create new tourism programs based on findings, and market these programs to the world through overseas markets.</p> <p>■ Tohoku Premium Supporters Club is formed</p> <p>In an effort to promote Tohoku's tourism resources to the world, Diamond Big Co., Ltd. has taken the lead in establishing the Tohoku Premium Supporters Club with members including travel agencies who serve wealthy customers, hotels and ryokan, bus and cab companies, and regional DMOs to develop and market high-quality travel packages. The Supporters Club focuses on providing information, mainly by publishing newsletters about tourism products through member websites and holding business meetings with club members.</p>	

■Attracting foreign visitors to Japan

Leading up to developing travel products, members of the Premium Supporters Club toured the Tohoku region to exchange opinions on whether certain tourism resources and model plans available in the region would meet the needs of travelers, and to cross-check each other's products, thereby deepening exchanges among members leading up to developing new tourism plans.

In order to strengthen its system for accepting foreign visitors to Japan, foreign super guides were invited as lecturers in Interpreter Guide Skill Up Training programs organized by the club. The club is also taking steps to train guides for wealthy visitors interested in Japan and the Tohoku region.

The Tohoku Premium Supporters Club is promoting Tohoku travel products on international media, such as by promoting services and travel products that member companies offer to overseas travel agencies and media. In addition, a food writer residing in the U.S. was invited to gather information based on the theme of Tohoku's cuisine, and this led to the publication of an article on the charms of Tohoku.

■Achievements to date and challenges going forward

Tohoku Premium Supporters Club's annual performance targets for FY2018 were to bring in at least 70 visitors and a total of 200 overnight stays, but the actual results came in at 174 visitors (45 from Singapore, 45 from the U.S., 22 from Israel, etc.) and 1,194 overnight stays in all, far exceeding both targets.

For FY 2019, targets were to bring in at least 70 visitors and a total of 150 overnight stays, but the actual number of visitors came in at 104 and a total of 491 overnight stays, again exceeding targets. The club plans to strengthen its promotional activities by encouraging local governments to create an environment tailored to wealthy visitors (upgrading infrastructure such as heliports, enhancing experience-based content, and training guides for wealthy visitors who are familiar with Tohoku).

Source (Listed in other case studies, etc.)

- ・ 復興庁・株式会社 ダイヤモンド・ビッグ社「平成 30 年度「新しい東北」交流拡大モデル事業「東北プレミアムサポーターズクラブ」を設立し、海外富裕層向けに旅行商品を造成・販売する仕組み」
<https://www.reconstruction.go.jp/topics/main-cat1/sub-cat1-19/20191106161430.html>
- ・ 復興庁・株式会社 インアウトバウンド仙台・松島「令和元年度「新しい東北」交流拡大モデル事業」(普及・展開型):「欧米富裕層向けにテーマで旅する東北」をプロデュース 東北 DMC を世界に通用する DMC に」(2019 年)
<https://www.reconstruction.go.jp/topics/main-cat1/sub-cat1-19/20191122165603.html>
- ・ PR TIMES「復興庁による東北活性化プロジェクト「新しい東北」東北プレミアムサポーターズクラブ結成 東北 ONE TEAM へ」(2020 年 3 月)
<https://prtimes.jp/main/html/rd/p/000000002.000053386.html>

Systems and mechanisms applied:

- Reconstruction Agency, FY2018 “New Tohoku” Exchange Expansion Model Project (dissemination and development type)
- Reconstruction Agency, FY2019 “New Tohoku” Exchange Expansion Model Project (dissemination and development type)

Project cost:

53-1 Revitalization of Industries and Livelihoods (Promoting reconstruction tourism)

Case study	Disaster heritage site, Taro Kanko Hotel and Guided Tour to Learn Disaster Prevention
Location	Miyako City, Iwate Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Miyako City Miyako Tourism and Cultural Exchange Association

Activity overview:

The City of Miyako, Iwate Prefecture, purchased the tsunami-damaged Taro Kanko Hotel, and currently preserves and manages the building as a tsunami heritage site in the same condition as it was when it was damaged. The Miyako Tourism and Culture Exchange Association offers a Guided Tour to Learn Disaster Prevention that includes a tour of the Taro Kanko Hotel where visitors can learn about the threat that tsunamis pose and the importance of life.

Activity details:

■ Preservation of Taro Kanko Hotel

The Taro Kanko Hotel in Miyako City was a six-story, 30-room tourist hotel built in 1986. On March 11, 2011, the tsunami caused by the Great East Japan Earthquake inundated the hotel up to the fourth floor, and although everything up to the second floor except for the building's pillars was washed away, the hotel remained standing without collapsing.

At a time when buildings damaged in the tsunami were being demolished, Miyako City reached a resolution to preserve the Taro Kanko Hotel as a tsunami heritage site and acquired the building in March 2014.

In order to convey the horror of the tsunami to visitors and to prevent a recurrence of tsunami-induced destruction, Miyako City decided to preserve the site as it was and carried out preservation and maintenance work using a reconstruction grant.

In order to preserve the Taro Kanko Hotel tsunami heritage site over the long term, the city has been calling for hometown donations (hometown tax payment) to cover maintenance and management costs, etc., a portion of which is set aside for a tsunami heritage site preservation fund. In FY2020, approximately JPY 2.492 million was allocated for preservation of tsunami heritage sites.



Tsunami heritage site, Taro Kanko Hotel

■ Guided Tour to Learn Disaster Prevention

The Miyako Tourism and Culture Exchange Association, an affiliated organization of Miyako City, has been conducting earthquake disaster guided tours since 2012 under the title, Guided Tour to Learn Disaster Prevention.

In this guided tour of the earthquake disaster, visitors gather on a seawall to listen to explanations of what happened that day and experience walking along evacuation routes that were actually used, to get a true sense of the horror of natural disasters and the importance of taking refuge early. Also, in cooperation with the Taro Kanko Hotel, a tsunami heritage site, visitors take a tour of the hotel and are shown actual footage of the tsunami taken from the sixth floor of the hotel (not available on media). In particular, the video taken from the Taro Kanko Hotel is a valuable source of information in that it allows visitors to realize how quickly the tsunami came over the seawall before it reached the hotel.

Tours are available in durations of 30 minutes to one hour (JPY 4,000), or 90 minutes to two hours (JPY 10,000). For convenience, times can be adjusted to meet participants' needs.

The number of participants in the Guided Tour to Learn Disaster Prevention reached 100,000 as of May 2016. Since it is difficult for the private sector alone to sustain tours guided by storytellers, the tourism association is taking on the responsibility of conducting tours to ensure the continuation of legacy activities.

Source (Listed in other case studies, etc.):

- 宮古市「津波遺構たろう観光ホテルについて」(2020年9月)
<https://www.city.miyako.iwate.jp/kanko/tsunamiikoutaroukankouhotel.html>
- 宮古市「学ぶ防災ガイド」(2020年7月)
<https://www.city.miyako.iwate.jp/kanko/manabubousaiguide.html>
- 宮古市「「学ぶ防災」利用者10万人記念セレモニー」
<https://www.city.miyako.iwate.jp/eventcal/evt6808.html>
- 宮古市「寄付金の活用状況について」(2020年6月)
https://www.city.miyako.iwate.jp/zaisei/kifu_katuyou2.html

- 宮古市観光文化交流協会ホームページ
<https://www.kankou385.jp/bousai/>

Systems and mechanisms applied:

- Grant for Recovery from the Great East Japan Earthquake

Project cost:

- JPY 237,504 thousand (including JPY 190,003 thousand in national government funds)

53-2 Revitalization of Industries and Livelihoods (Promoting reconstruction tourism)

Case study	Hope Tourism, a program of learning trips to disaster-affected areas for personal growth
Location	Fukushima Prefecture
Phases	Emergency response phase Recovery phase <u>Early reconstruction phase</u> <u>Late reconstruction phase</u>
Members	Fukushima Prefecture Tourism Exchange Division, Fukushima Tourism and Product Exchange Association, etc.

Activity overview:

Having experienced the Great East Japan Earthquake (earthquake and tsunami), the nuclear power plant accident, and damage from negative rumors all at once, Fukushima Prefecture faces a variety of challenges. Nevertheless, people continue to take on the challenge of rebuilding the region. These communities are working together to create initiatives to revitalize their communities, something that can only be undertaken in the Fukushima of today.

In order to stop the decline in tourists that came in the wake of the earthquake, tsunami, and nuclear power plant accident caused by the Great East Japan Earthquake, these regions developed Hope Tourism as a new tourism program with the aim of dispelling negative rumors, preventing the memories of the great earthquake fading away, and fostering the desires and pride of local residents for recovery, as well as to contribute to the economic revitalization of the region.

Activity details:

■ Hope Tourism: Fukushima's Unique Learning Trips

Due to the earthquake, tsunami, and nuclear power plant accident caused by the Great East Japan Earthquake, the number of overnight visitors to Fukushima Prefecture for tourism purposes still remains lower than that of pre-disaster levels, and attracting tourists back remains an important issue. In particular, the number of tourists visiting the Hamadori area, which was affected by the tsunami and nuclear power plant accident, has declined significantly, and educational tours, which had been one of Fukushima Prefecture's strengths, have been slow to recover. This meant that a new initiative was needed to have more people engage in personal interactions with others.

To address this issue, and to pass on to future generations the lessons learned from the Great East Japan Earthquake and the thoughts of Fukushima's disaster victims, Fukushima Prefecture and the Fukushima Tourism and Product Exchange Association collaborated to launch Hope Tourism as a new learning trip unique to Fukushima in FY2016. The purpose of this tour is to provide participants with an opportunity to learn about the true light and dark of Fukushima that cannot be conveyed through news reports alone, and for participants to take this opportunity to develop themselves through dialogue with local residents who continue to take on the challenge of reconstruction in the midst of difficult circumstances. Meanwhile, for Fukushima Prefecture, this initiative will help to dispel negative rumors associated with the earthquake, keep memories and experiences fresh, expand the circle of sympathy both domestically and internationally, revitalize regional economies, and connect to reconstruction city

development.

■Hope Tourism overview

Hope Tourism is a program centered in the Hamador" area of Fukushima Prefecture, and its theme is to be a new type of learning trip that is unique to Fukushima. Its sales proposition is that it is an educational trip designed to be a learning trip unique to Fukushima that leads participants to understand through their own experiences, the light and dark of Fukushima's reconstruction, something that cannot be conveyed through media reports alone.

Tour formats and targets include educational tours mainly for high school students on school excursions, human resource development for prospective national public officials and corporate employees, etc., as well as JICA trainees and foreign students from overseas, and individuals interested in Fukushima.

The elements that are addressed in the tours are seeing, listening, and thinking. In seeing, participants are able to deepen their understanding by actually visiting and observing with their own eyes the Fukushima Daiichi Nuclear Power Plant and the current situation in the surrounding areas after the nuclear accident, as well as initiatives in new industries such as mega solar power plants that have become drivers of recovery. In listening, participants hear stories directly from people involved in nuclear power plant decommissioning, regional development, agriculture, etc., as part of Fukushima's reconstruction efforts, and gain an understanding on the current status of their efforts and thoughts on reconstruction. In thinking, time is set aside during the tour for reflection, and a workshop is held to discuss social issues that have emerged as a result of the earthquake and nuclear power plant accident, and other elements that lead to creating new values and developing a new outlook on life.

■Hope Tourism results

In FY2016, one tour was conducted with 35 participants, and in FY2019, 45 tours were conducted with 948. The number of schools, companies, etc. taking part in Hope Tourism is steadily increasing, and the association is inviting more schools to participate, drawing on its strength as an educational school trip.

In particular, the number of school trips by private integrated junior high and high schools, as well as high schools from all over Japan is on the rise. Teachers commented that the trip provided a good opportunity for students to learn about how there can be a multitude of viewpoints and opinions on a single issue, and students commented that they wanted to be involved in the reconstruction and growth of Fukushima rather than be a bystander.

	FY2016	FY2017	FY2018	FY2019
Tours	1 (1)	20 (9)	50 (23)	45 (26)
Participants	35 (35)	597 (233)	1052 (597)	948 (687)

Table: Fukushima Prefecture Hope Tourism Participation Results (numbers for educational trips are shown in brackets)
(Source: Courtesy of Fukushima Prefecture Tourism and Products Association)

■Issues going forward

The following issues need to be addressed to grow this program: [1] promote the involvement of travel agencies by taking advantage of the name Hope Tourism, a registered trademark, because the activities that the association is able to carry out alone are limited; [2] establish training programs for companies and governments; and [3] enhance the draw and product appeal of Hope Tourism, such as by developing tours that are useful for overseas observers.

In addition, the association implemented training programs for interpreter guides and an English language website for overseas tourists under the FY2018 "New Tohoku" Exchange Expansion Model Project (regional type). The challenge going forward is to improve tourist intake systems by training tour guides and strengthening cooperation with NPOs and storytelling groups.

Source (Listed in other case studies, etc.):

- 公益財団法人福島県観光物産交流協会「ホープツーリズム」
<https://www.hopetourism.jp/>
- 復興庁・公益財団法人福島県観光物産交流協会「平成 30 年度「新しい東北」交流拡大モデル事業（地域型）ホープツーリズム海外誘客事業」（2018 年）
https://www.reconstruction.go.jp/topics/main-cat1/sub-cat1-19/Tourism_industry/comic/20191120_30kouryumodelchiiki_6.pdf
- 復興庁・株式会社東北博報堂「令和元年度「新しい東北」交流拡大モデル事業（地域型）：ホープツーリズム海外誘客事業」（2019 年）
<https://www.reconstruction.go.jp/topics/main-cat1/sub-cat1-19/20191122165603.html>
- トラベルボイス・観光産業ニュース「博報堂グループ旅行会社、福島復興を考えるインバウンド向けツアー開始、住民との交流会等体験と学びを提供」（2019 年 11 月）
<https://www.travelvoice.jp/20191127-142086/print>

Systems and mechanisms applied:

- "New Tohoku" Exchange Expansion Model Project (regional type) (applicable fiscal years: FY2018-2019)

Project cost:

- 54-1 Collaboration and Posterity (Securing human resources such as volunteers and NPO staff, and collaborating with them from normal times)

Case study	Diverse support for disaster victims by authorized NPO Japan Association for Refugees
Location	Rikuzentakata City; Ofunato City; Sumida Town, Kesen-gun; Otsuchi Town, Shimo-Keshi-gun; Kamaishi City, etc.
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Authorized NPO Japan Association for Refugees, Rikuzentakata City Development Collaboration Center, NPO Maam Takata

Activity overview:

In the wake of the Great East Japan Earthquake, the Japan Association for Refugees, an authorized NPO, carried out a wide range of activities in eight categories in addition to the organization's original activities, which were to assist refugees. Issues that persisted for over two years after the disaster, such as community support and building relationships among support groups, were handed over to local groups, and recovery efforts shifted to those that were led by organizations in the affected areas.

Activity details:

■Background leading up to these activities

The Japan Association for Refugees was established in 1999 to provide support to refugees and refugee claimants, and was authorized in 2008. While the organization initially dispatched staff to Tohoku after the Great East Japan Earthquake struck to carry out emergency assistance projects for refugees and possibly for foreign residents, it faced a situation where Japanese residents were also in need of support, and this was what prompted these activities. Although it initially established its base of operations in Hanamaki City, Iwate Prefecture, in April 2011 and proceeded to provide various types of support based out of this location, as activities became more focused in Rikuzentakata City, Iwate Prefecture, it relocated its base to Rikuzentakata in January 2012. Refugees who the organization had been assisting also expressed their desire to go and help disaster victims, so the organization decided to dispatch them as volunteers along with its own staff.

■Eight types of support activities other than assistance for refugees

The Japan Association for Refugees carried out the following eight types of activities in addition to their emergency support for refugees:

(1) Legal consultation services

In order to fill the shortage of lawyers in the Sanriku coastal area, the Association organized legal consultation sessions with lawyers that it had working relations with. As an effort to make it easier for participants to participate and understand, explanations were given in a picture-story show format on matters that were frequent topics of consultation, namely, mortgages and Inheritance and the Act on

Support for Reconstructing Livelihoods of Disaster Victims. Through March 31, 2013, the Association held a total of 242 of these events at various local authorities including Rikuzentakata City and Otsuchi Town, with a total of 3,011 participants. In April 2013, these operations were handed over to a local NPO, Maam Takata.

(2) Women's support project → (3) Community support project

In cooperation with councils of social welfare, nurses, etc., the Association also provided support to address the needs of women living in shelters. It distributed the Onna no Nattemo (Nandemo) Pouch containing women's underwear, sanitary napkins, and a crime prevention buzzer, as well as booklets for young females who were entering puberty.

Starting in April 2012, it expanded its scope from women to the entire community, and expanded its activities to include aroma salons and cooking classes. By the end of March 2013, the Association distributed 6,669 of the aforementioned women's products kits, and a total of 3,253 took part in its consultation meetings. In April the same year, these operations were handed over to NPO, Maam Takata.

(4) Employment support program for foreign residents

Starting in June 2011, the Association taught Japanese reading and writing to foreign residents who wished to work in the nursing care industry. All 24 students obtained nursing care certifications, and 12 of them found employment.

(5) Refugee volunteers dispatch project

Upon receiving offers from refugees to participate as volunteers, the Association arranged for and coordinated the dispatch of disaster relief volunteer teams that included refugees. Teams of 20 to 50 volunteers were sent on chartered buses from Tokyo to Rikuzentakata, which suffered heavy damage, where they performed tasks such as debris removal and soup kitchen operations. From April to November 2011, a total of 1,863 people (including 203 refugees) were dispatched for a total of 148 days.

(6) Volunteer center operation support program

The Disaster Relief Volunteer Center at Rikuzentakata was short-staffed as weekends saw the arrival of an average of 100 to 200 volunteers, and even up to 1,200 at times. At the Center's request, the Association dispatched a total of 20 staff for 660 days from June 2011 to the end of March 2013. At their destinations, the groups were divided into three teams — the needs assessment and matching team, the volunteer briefing team, and the general affairs team — to provide operational support. In April 2013, this project was handed over to the Rikuzentakata City Development Collaboration Center, a non-profit organization that supports resident-led city development.

(7) Support for building a network of support groups

With many organizations involved in providing support, the lack of coordination among support organizations often resulted in lopsided and inefficient support. To address this issue, the Association held a Rikuzentakata City Network Liaison Meeting to gather information on organizations and create a mailing list to network the different organizations. Twenty-seven liaison meetings were held through the end of March 2013, and 69 organizations took part in these meetings. From April 2013, this activity was continued as the Rikuzentakata Platform, and in May 2017, the Rikuzentakata NPO Association, the predecessor of which was this Platform, took over the project.

(8) Support for the establishment and operation of local organizations

In September 2011, six months after the disaster, residents of Rikuzentakata consulted the Japan Association for Refugees about setting up a non-profit organization, and the Association offered its cooperation on the matter. The aim of the project was to plant 17,000 cherry trees at tsunami tidemarks along the entire 170 km length of inundation to keep the experience of the disaster from fading. With the cooperation of the Association, an executive committee was organized, which was incorporated in May 2012 and authorized in May 2014. As of February 2020, this non-profit organization, Sakura Line 311, has completed the planting of 1,704 trees.

Project title	2011												2012												2013			
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr onward		
Emergency assistance program for refugees	←						Program ended																					
Legal consultation program	←												←												Program handed over to local organization			
Women's support program	←						←						←												Program handed over to local organization			
Community support program													←												Program handed over to local organization			
Employment support program for foreign residents													←												Program handed over to local organization			
Refugee volunteers dispatch program	←						Program ended																					
Volunteer center operation support program	←												←												Program ended			
Support for building a network of support groups													←												Program being discussed with local organization			
Support for the establishment and operation of local organizations	←												←												Program is ongoing			

(Table: Matrix of each initiative by the Japan Association for Refugees
Source: Japan Association for Refugees Activity Report)

Sources (Listed in other case studies, etc.):

- 内閣府特定非営利活動法人ポータルサイト「難民支援協会」
<https://www.npo-homepage.go.jp/npoportal/detail/013000282>
- 難民支援協会 HP 「荒波の連続だった 20 年。日本に逃れてきた 6000 人と歩んだ難民支援協会の軌跡」
<https://www.refugee.or.jp/20th/3-jar.shtml>
- 難民支援協会 「東日本大震災の支援活動報告書 2011 年 3 月～2013 年 12 月」, 2014,
https://www.refugee.or.jp/about/postfile/jar_reliefproject_report_201401.pdf

Systems and mechanisms applied:

- Minister of Land, Infrastructure, Transport and Tourism Award, Handmade Homeland Prize (Sakura Line 311)

Project cost:

- Total project expenditures (March 2011 - June 2013): JPY 121,584,574

55-1 Collaboration and Posterity (Safeguarding the elderly and children and providing support for daily life activities through NPOs and other organizations)

Case study	NPO Mobility Support Rera
Location	Ishinomaki City, Higashimatsushima City, Onagawa Town, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	NPO Mobility Support Rera, NPO Center for Independent Living-HOP, etc.
<p>Activity overview:</p> <p>Rera, a non-profit organization, provides mobility support for disabled and elderly people who live in evacuation shelters or are evacuated in their homes, mainly for hospital visits, but also for moving to emergency temporary housing and for grocery shopping. While the organization initially provided its service completely free of charge, it made changes to the working arrangements of its pick-up and drop-off staff, as well as its fee structure, and revised its policy to manage the organization in a more sustainable manner. In addition to mobility support, the organization expanded its activities to include farm work experience excursions for disaster victims who were no longer able to engage in agriculture as a result of the disaster, and the organization of forums to discuss issues related to mobility support with the participation of various actors, including government officials (related to transportation, welfare, and reconstruction), business operators, and universities.</p>	
<p>Activity details:</p> <p>■Background leading up to its establishment</p> <p>On March 15, 2011, four days after the disaster, the Center for Independent Living-HOP, a Sapporo-based NPO that had been providing support for people with disabilities, arrived in Ishinomaki City, Miyagi Prefecture, to provide assistance. While the Center for Independent Living-HOP had been engaged in support activities such as clearing debris, setting up shelters, and organizing supplies in the affected regions, it became clear that vulnerable road users who had no means of transportation were in need of assistance, such as for transportation from shelters or damaged homes to hospitals or temporary bathhouses and, for relocating to emergency temporary housing after April 1 when the first of these housings were built. This was due to the fact that approximately 60,000 automobiles in the Ishinomaki area were damaged in the tsunami. To address this issue, the Center's field team, together with the Sapporo Kyodo Fukushikai social welfare corporation and others who were also in Ishinomaki City, began activities in 2011 as "Disaster Mobility Support Volunteer Rera," an organization that specialized in providing mobility support. Subsequently, local residents took over operations from the above organizations, which were in the city for disaster relief purposes, and in February 2013, the operation was incorporated as a non-profit organization under the name "Mobility Support Rera."</p>	

■Form and structure of use

Rera initially offered this service completely free of charge, with no limit on the number of times users could use it, and also provided 24-hour support. However, a year after the disaster, it became difficult to maintain the support system, both financially and in terms of personnel. In addition, public transportation was being restored to some extent and people were beginning to rebuild their lives, so the organization decided that it was time to move on from "emergency phase support" to ongoing support. To this end, the organization decided to change the pick-up and drop-off hours from 24 hours to between 8:00 a.m. and 6:00 p.m., and charge a fee equivalent to the cost of gasoline (the cooperation fee described below). The organization was now able to receive a portion of the expenses necessary to operate its services. And users, by paying the actual cost, albeit inexpensive, were able to avoid taking these services for granted. In addition, from around October 2011, residents of the Ishinomaki area began to take the lead in involving themselves as volunteer staff for pick-up and drop-off. Through these efforts, the organization was able to transition from what was originally temporary support provided by outside organizations immediately after the earthquake to a highly sustainable operation led by local residents.

Currently, the organization's services are limited to residents who (1) have difficulty getting around on public transportation, (2) have no family members or other relations who can provide transportation, and (3) have financial difficulty paying high costs for transportation. To receive the service, eligible persons register with the organization by submitting a consent form and an application form. When a user requests service, staff members or volunteers registered with the organization provide the transportation. To use the service, users are asked to pay a cooperation fee of JPY 100 per two kilometers and are able to use the service up to twice a week. The roster of registered pick-up and drop-off users reached 1,653 persons through FY 2018, for a cumulative total of 158,965 persons picked up and dropped off. The project's operations are funded primarily by grants and donations from within and outside the prefecture.

■Operation details

In addition to the transportation assistance activities described above, Rera also conducts the following activities:

(1) Creating purposes for going out

Since 2016, Rera has been organizing monthly recreational outings accompanied by escorts it arranges for. Destinations include flower viewing, day trips to hot springs, and visits to graves during the Higan period. 163 people used this service in FY2018, accompanied by 146 staff members. As part of these outings, Rera also runs the Rera Farm program where users are able to enjoy hands-on farming experience. This program provides users who have lost the opportunity to farm due to the disaster or poor health with an opportunity to experience farming at a farm managed by Rera. Users who help in the fields several times a month can also harvest vegetables on the farm.



(Photo: Rera providing mobility assistance
Source: Top image of Rera's website)

(2) Training leaders, organizing forums, and conducting educational activities

Since some Rera users are elderly or have special needs and require assistance, special needs vehicles, etc. are needed to provide transportation and assistance. For this reason, Rera commissions MILT (Ministry of Land, Infrastructure and Transport)-certified instructors of driving assistant training courses to train its mobility support personnel. Rera held three certification courses in FY2018, with a total of 49 participants completing the course.

In addition, since FY2016, it has been organizing forums to discuss the issues related to mobility which has been attended by a diverse range of actors, including government officials (related to transportation, welfare, and reconstruction), as well as representatives from businesses and universities. In FY2018, this forum was attended by 150 attendees.

Since 2017, the organization has also been focusing on educating users. Rera has been creating excursion plans and organizing tours that use buses and other forms of public transportation with the aim to reduce users' resistance to using public transportation. These Ishinomaki Mystery Tours were held twice in 2018, with a total of 23 participants.



(Photo: Rera Forum on Sustainable "Everyday Transportation" in Tohoku
Source: Rera's FY2018 Operations Report)

Sources (Listed in other case studies, etc.):

- 国土交通省住宅局住宅生産課「東日本大震災における応急仮設住宅の建設に係る対応について」(2011年) <https://www.mlit.go.jp/common/000170090.pdf>
- 宮城県「みやぎ県政だより 495号」(2011年9月)
<https://www.pref.miyagi.jp/uploaded/attachment/756429.pdf>
- 移動支援 Rera「事業報告書」(2015年-2018年) <http://npo-rera.org/group.html>
- 内閣府「復興・被災者支援に取り組む NPO 等向け 東日本大震災の被災地における NPO 法人等による復興・被災者支援の推進に関する調査報告書(事例集)」(2014年3月)
https://www5.cao.go.jp/keizai2/keizai-syakai/uneiryoku/pdf/h25_result.pdf
- 公益財団法人未来工学研究所「平成30年度内閣府委託事業 平成30年度東日本大震災の被災地における NPO 等による復興・被災者支援活動の推進に関する調査報告書」(2019年3月)
https://www5.cao.go.jp/keizai2/keizai-syakai/kizunaryoku/pdf/h30_result.pdf

Systems and mechanisms applied:

- Mazda's Support Program for Mobility Support Groups
- Japan Platform, Living Together Fund
- Toyota Mobility Fund

Project cost:

- Transportation support activities for residents with mobility difficulties (FY2018): JPY 9,777,000
- Information gathering, research, and dissemination project (FY2018): JPY 1,227,000
- Donations received (FY 2018): JPY 12,340,229

55-2 Collaboration and Posterity (Safeguarding the elderly and children and providing support for daily life activities through NPOs and other organizations)

Case study	Authorized NPO Katariba Collaboration School
Location	Onagawa Town, Miyagi Prefecture; Otsuchi Town, Iwate Prefecture; Hirono Town, Fukushima Prefecture
Phases	Emergency response phase Recovery phase <u>Early reconstruction phase</u> <u>Late reconstruction phase</u>
Members	Authorized NPO Katariba
<p>Activity overview:</p> <p>Leveraging its expertise in providing educational support to children, authorized NPO Katariba launched Collaboration School, an after-school program for children who were affected by the disaster. In order to secure its project finances and continue its efforts, the organization relies on not only commissioned projects, but also actively takes advantage of CSR and crowdfunding.</p>	
<p>Activity details:</p> <p>■Background leading up to these activities</p> <p>Katariba is an educational NPO established in 2001 with the goal of creating a society where teenagers, regardless of the circumstances of their birth and upbringing, are able to nurture their creativity and desires to create their own future. At the time it was established, the organization also launched a career learning program for high school students called Katariba. After its incorporation in 2006, Katariba started activities to share its know-how of diagonal relationships, which it had always strived to achieve (i.e., relationships where teachers and learners can grow together; one that is neither vertically oriented, such as with their parents and teachers, nor horizontally, such as with their peers), and after the Great East Japan Earthquake in 2011, it started the Collaboration School, an after-school program that provides tutoring and mental health care for children affected by the disaster, in many cases who were living in cramped temporary housing, having had their homes and places where they can learn with peace of mind swept away in the tsunami.</p> <p>■Details of its initiatives</p> <p>These Collaboration Schools are primarily for students from elementary school through high school who were affected by the disaster, and provide learning support, and a place where they can spend time after school with peace of mind and are emotionally cared for. Two school sites were developed in the coastal areas that were severely damaged by the tsunami. The Onagawa school opened in July 2011 (courses fully commenced in August), and the Otsuchi school opened in December 2011 (courses fully commenced in January 2012). In 2017, the Collaboration School Futaba Mirai Lab was opened to provide not only the above-mentioned mental health care and learning support, but also to support activities that junior and senior high school students can engage in to deepen their understanding of the revitalization of their local communities, or matters that interest them. Initially, the</p>	

school was intended to be handed over to a community-based operation after three years, but the organization has continued to operate the program in response to requests from local residents, with 1,277 elementary, middle, and high school students using the Collaboration Schools in FY2018.

This activity has since spread not only to affected areas in Tohoku, but also to Mashiki Town in Kumamoto, which suffered severe damage in the Kumamoto earthquake in April 2016, providing learning support and mental health care to 990 elementary, junior high, and high school students in FY2018.

■ Making changes to the activity's policy and creating a more robust financial foundation

With its duration having been extended, it had been anticipated that the Collaboration School project will run short of operating funds as of 2012. To supplement its annual operating cost of approximately JPY 65 million per school, Katariba sought donations and support from private companies, as well as from government agencies. In addition to typical monetary and material support, Katariba's fundraising portfolio includes gratuities for holding lectures, and special donation-coupled vending machines installed at companies where a portion of sales therefrom would be donated to Katariba. In return for this support, Katariba publishes the names of these companies on its annual report, and also organizes employee seminars that tour disaster affected areas, so companies also benefit from these activities for their CSR and public relations purposes.

As a new form of securing funds, the Collaboration School in Mashiki Town, Kumamoto Prefecture, began raising funds through crowdfunding in 2017. In February 2018, the school received JPY 11,841,000 in support, exceeding its goal of JPY 10 million. The school has been actively crowdfunding during the current COVID-19 outbreak to raise JPY 32,504,000 in September 2020 against a fundraising goal of JPY 30 million to support needy families.

As a result of these efforts, the school has successfully transformed its revenue structure, with the percentage of government commissions, which accounted for about 36% of total revenue in FY2017, dropping to about 31% the following fiscal year, while the percentage of donations and other contributions rose from roughly 52% to roughly 62%. Overall revenues also increased by approximately JPY 200 million during this period.



(Collaboration School classroom [left], and students self-studying [right]. Source: Collaboration School website)

Sources (Listed in other case studies, etc.):

- 特定非営利活動法人カタリバ「年次報告」(2011-2018年)
<https://www.katariba.or.jp/outline/annual/>
- コラボ・スクールHP「子どもたちへの寄付・募金」
<https://www.collabo-school.net/donate/>
- Readyfor HP「熊本仮設住宅最後の中学生が卒業する日まで放課後学校を続けたい」
<https://readyfor.jp/projects/13994>
- 特定非営利活動法人カタリバHP「【ご報告】「あの子にまなびをつなぐプロジェクト」クラウドファンディング、目標金額を達成することができました！」(2020年9月)
<https://www.katariba.or.jp/news/2020/09/01/25303/>

Systems and mechanisms applied:

Project cost:

- Total expenses for FY2018: JPY 870.31 million

57-1 Collaboration and Posterity (Intermediary support organizations and networks)

Case study	Fukko Collaboration Centers (Iwate, Miyagi, and Fukushima prefectures)
Location	Iwate, Miyagi, and Fukushima prefectures
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Iwate Fukko Collaboration Center, Miyagi Fukko Collaboration Center, and Fukushima Fukko Collaboration Center

Activity overview:

Activities carried out by NPOs, volunteers, and self-driven citizens, and not only activities conducted by government agencies, played major roles in the recovery and reconstruction from the earthquake. However, because disaster areas extended over wide areas covering multiple prefectures, there was a need for intermediary support organizations to smoothly match the support sought by disaster victims with support provided by NPOs, etc., as well as coordinate activities among NPOs, and support individual NPOs.

As such, intermediary support organizations were established in three affected prefectures: Iwate Fukko Collaboration Center in April 2011, Miyagi Fukko Collaboration Center in March 2011, and the Fukushima Fukko Collaboration Center in July 2011. Although they differ in their origins, organizational make-up, and operations, they share a common main purpose, which is to "coordinate between organizations and sectors to accelerate the recovery of the disaster-affected areas in their prefecture." These Fukko Collaboration Centers in the three prefectures, commonly referred to as 3 RENPUKU, occasionally worked together on certain projects.

Activity details:

■ Iwate Fukko Collaboration Center (specified nonprofit corporation)

Even before the Great East Japan Earthquake, Iwate Prefecture had an Iwate NPO Intermediary Support Network where NPOs could share information with each other. This also functioned as a forum for NPOs from various parts of the prefecture to exchange information one to three times a year. This network was the predecessor to the Iwate Fukko Collaboration Center which was established in April 2011. Made up of 10 NPOs from four areas (Morioka, northern Iwate, southern Iwate, and coastal region), the Center's objective was to match NPOs arriving from outside the prefecture to provide support with NPOs in the disaster-stricken areas.



Excerpted from "About Iwate Fukko Collaboration Center" on the Iwate Fukko Collaboration Center website <http://www.ifc.jp/about/profile.html>

Based on the vision that its role is to "support resident-led activities," the Center supports activities carried out by local residents and NPOs, etc. Specifically, its main activities include region-specific seminars on NPO operations, meetings on specific activity themes, creation of opportunities to foster cooperation between organizations within and outside the prefecture, and the Meetings of Fukko Centers of Three Prefectures to create a "forum" for sharing information with intermediary support organizations in other prefectures. Among the Fukko Collaboration Centers, one of the unique features of this Center is that, from its beginning to the present, it has consistently maintained its characteristic as an intermediary support organization that provides support for NPOs.

From July 2011 to September 2015, when construction of emergency temporary housing was underway, the Iwate Fukko Collaboration Center, in collaboration with NPO Tono Magokoro Net and other NPOs and NGOs in and outside of the prefecture, conducted several "Assessment Surveys of Living Conditions in Emergency Temporary Housing" to assess the health conditions and other matters regarding disaster victims. In addition, as a collaborative project with an NPO, the Iwate Fukko Collaboration Center also accepted young staff who were dispatched by the Right-Hand Person Program, a program run by ETIC, an NPO, which dispatches young right-hand persons to work for leaders working on reconstruction projects and programs in the Tohoku region.

As for cooperative projects with government agencies, a Reconstruction Cooperative Support Agreement was signed with Kitakami City on May 12, 2011, and the Iwate Prefecture Coordination and Reconstruction Meetings held with the Reconstruction Bureau of Iwate Prefecture is ongoing to date. Having been selected as a Support Coordination Project for Disaster Victims by the Reconstruction Agency, the Center has become a major organization involved in matching support groups with disaster victims.

○Example of initiative: Iwate Prefecture Coordination and Reconstruction Meeting (Iwate Prefecture)

Immediately after the Great East Japan Earthquake, the Iwate Fukko Collaboration Center and other support organizations met weekly or fortnightly with the Livelihood Reconstruction Division of the Reconstruction Bureau of Iwate Prefecture and other related divisions. Discussions on how to proceed with support for disaster victims were carried out based on mutually shared information where the prefectural government shared details of support systems for disaster victims, and the status of its liaison and coordination with municipalities, and NPOs, etc., provided information on consultations received from disaster victims, and the assignment of cooperating coordinators for managing NPO/NGO meetings, etc.

○Example of initiative: Creating a Citizens' Perspective-Based Roadmap for Recovery by collaboration between Fukko Collaboration Centers of three prefectures

In 2016, Fukko Collaboration Centers of three prefectures, Iwate, Miyagi, and Fukushima, worked together to create the "Citizens' Roadmap for Recovery: The Process of Recovering from the Great

East Japan Earthquake Going Forward from the Citizen Sector's Perspective," which provides a roadmap for recovery and the roles of various actors in the fifth year and on based on the perspective of citizens who are acting on their own initiative.

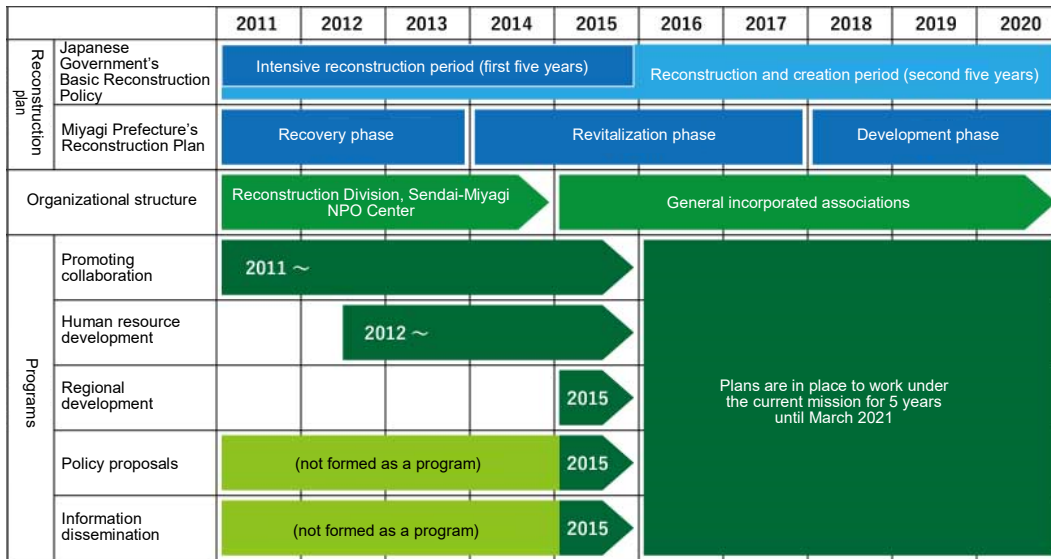
○Example of initiative: Match-making exchange meeting between companies in the Tokyo metropolitan area and NPOs supporting reconstruction

This was a match-making exchange program between NPOs, etc., who were engaged in reconstruction support activities in Iwate Prefecture, and companies and grant-making organizations in the Tokyo metropolitan area, with the aim of providing ongoing support for the disaster-stricken areas. These efforts provided an impetus for companies to provide various types of support to organizations working in the affected areas.

■Miyagi Fukko Collaboration Center (general incorporated association)

The Sendai-Miyagi NPO Center, an NPO intermediary support organization established in 1997 and the predecessor of the Miyagi Fukko Collaboration Center, had been actively engaged in establishing mechanisms for providing human resources and funds (Minmin Fund) since before the Great East Japan Earthquake. In the wake of the Great East Japan Earthquake, the Sendai-Miyagi NPO Center established the Miyagi Fukko Collaboration Center on March 18, 2011 to serve as a liaison and coordinator between organizations providing support to disaster-stricken areas and local NPOs, etc. Subsequently, on June 20, 2011, it opened the Regional Creation Fund Miyagi (currently The Sanaburi Foundation for Regional Creation [public interest incorporated association]) as an intermediary to provide various management resources needed by NPOs and citizens' groups.

At the time the disaster hit, the Miyagi Fukko Collaboration Center served as a liaison and coordinator between support groups, and until around June, when victims began moving from evacuation shelters to emergency temporary housing, conducted activities to match the needs in the field that it identified through assessments of evacuation shelters, with supplies and human resources sent from all over Japan. In July, when the need for emergency support gradually declined and the affected areas shifted from the emergency phase to the recovery phase, the Miyagi Fukko Collaboration Center was transferred to the Recovery Support Division of its parent organization, the Sendai-Miyagi NPO Center. There, it was primarily engaged in the Tsunagu (Connecting) Project to create opportunities of collaboration between support organizations as well as collaboration between disaster victims, Hagukumu (Fostering) Project to support the challenges of disaster victims and help them recover, and Shiraberu (Examine) Project to investigate and understand the current situations in disaster-stricken areas and of disaster victims, all of which represented mid- to long-term support aimed at providing opportunities for cross-sector collaboration and funding support for organizations engaged in disaster relief, as well as carrying out studies, human resources training, making policy proposals, and disseminating information. The Miyagi Fukko Collaboration Center became fully independent from the Sendai-Miyagi NPO Center when it became a general incorporated association in July 2015.



Excerpted from "About Miyagi Fukko Collaboration Center" on the Miyagi Fukko Collaboration Center website https://www.renpuku.org/about_center/

○ Example of initiative: Hagukumu (Fostering) Project

Project initiatives include the Reconstruction Challenge Cram School, which supports citizen activities that lead to the recovery of citizens affected by the disaster, and the Business Start-up School, which fosters entrepreneurs who create new jobs in the community.

In FY2012, the Recovery Challenge Cram School supported 40 projects at JPY 100,000 per project from its Recovery Challenge Cram School — Activity Support Fund.*

* After the earthquake, the Habatake (Take Off)! Miyagi NPO Reconstruction Support Fund (Habatake Fund) was established under Sendai-Miyagi NPO Center's Minmin Fund. The fund awarded financial grants to NPOs engaged in relief and reconstruction support activities, and NPOs that sustained damage in the earthquake (1st to 3rd round of grants). In cooperation with the Miyagi Fukko Collaboration Center, the Recovery Challenge Cram School — Activity Support Fund was also awarded grants to help victims themselves initiate actions toward recovery (4th round of grants). A total of 23 grants totaling JPY 6.1 million were awarded in the first four rounds.

■ Fukushima Fukko Collaboration Center (general incorporated association)

Fukushima Fukko Collaboration Center was established in July 2011 by the Fukushima University Research Institute for Disaster Recovery and Revitalization, and NPOs in Fukushima Prefecture to address the need for an intermediary support function to promote operational partnerships and collaboration, create networks, and disseminate information among actors engaged in recovery efforts.

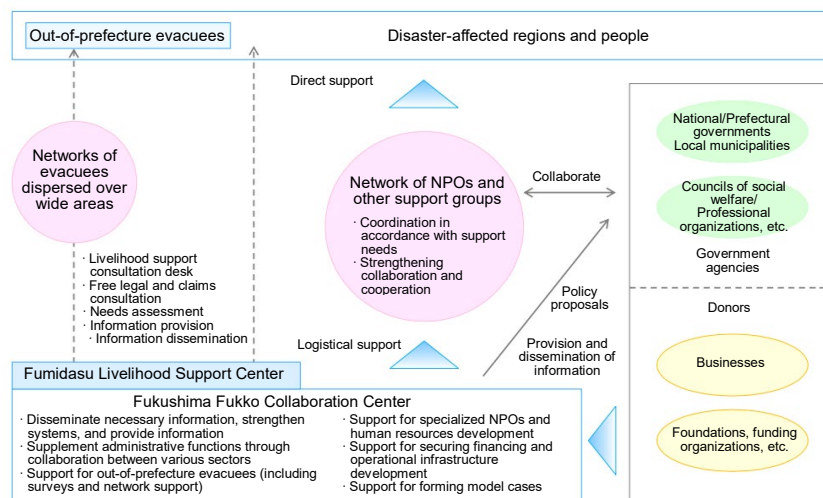
Based on lessons learned from the Fukushima Daiichi Nuclear Power Plant accident in the aftermath of the earthquake disaster, the Center aims to realize "Fukushima, a dignified society" where diverse actors continue to create new values to rebuild Fukushima. The Center's activities include coordinating and networking a wide range of support efforts, disseminating information, and supporting efforts to promote business partnerships and collaborations. Characteristic activities include support for evacuees dispersed over wide areas, including the installation of livelihood reconstruction support

centers (consultation desks) in 26 locations nationwide to provide consultations and promote personal interactions with others, as well as reconstruction and creation efforts to secure human resources relocating to Fukushima from outside the prefecture, and to promote their retention.

○Example of initiative: Assigning consultation advisors

Every year, more and more consultations received from evacuees across Japan at the various livelihood reconstruction support centers are becoming complex, diverse, and serious. Although the Fukushima Fukko Collaboration Center provides training for its counselors at all of its livelihood reconstruction support centers, the situation has reached a point where many of the issues can no longer be addressed by those armed with only uniform training. Because these circumstances called for more in-depth support in its general consultation services, consultation advisors were assigned starting in FY2019, and a system was set up to provide consultation based on the perspective of specialists in difficult cases, such as by commissioning certified social workers and psychiatric social workers, as well as providing advice on choosing services to which people can be referred.

□ Fukushima Fukko Collaboration Center <functions as an organization>



Excerpted from "An Overview of the Challenges to Rebuilding Fukushima from the Perspective of NPOs"
https://www.jpn-civil.net/2014/activity/genchi_kaigi/docfiles/20121128_fukushima_doc_02_02.pdf

○Example of initiative: "Consultation room 'toiro' connected with present-day Fukushima"

The Fumidasu Livelihood Support Center shown in the above diagram is not currently in operation. In order to respond to consultations from evacuees and returnees (and those who wish to return) inside and outside of Fukushima Prefecture, "Consultation room 'toiro' connected with present-day Fukushima" was formed under the Fukushima Fukko Collaboration Center to assist evacuees and returnees so that they are able to lead stable lives.

(→ Related material: 3-2 Establishment of 26 livelihood reconstruction support centers around Japan for wide area evacuees)

Sources (Listed in other case studies, etc.):

- ・ 東日本大震災支援全国ネットワーク「JCN レポート Vol. 6」(2016年8月)
https://www.jpn-civil.net/2014/activity/report/docfiles/JCN_report06.pdf
- ・ いわて連携復興センター「いわて連携復興センターとは」
<http://www.ifc.jp/about/profile.html>
- ・ いわて連携復興センター「3.11 いわて NPO の軌跡―東日本大震災における支援団体の取り組み(2015年)」
- ・ いわて連携復興センター「3.11 いわて NPO の軌跡Ⅱ～東日本大震災から生まれた地域のネットワーク体と中間支援組織～」(2017年)
- ・ 東北電力「東日本大震災復興情報レポート」
<https://www.tohoku-epco.co.jp/csrreport/backnumber/>
- ・ みやぎ連携復興センター「センターについて」
https://www.renpuku.org/about_center/
- ・ せんだい・みやぎ NPO センター「2011年度事業報告書」
<https://minmin.org/about/report/>
- ・ 仙台市市民活動サポートセンター通信「ぱれっと」No. 151 (2012年3月)
<http://sapo-sen.jp/wp/wp-content/uploads/2014/06/palette1203.pdf>
- ・ ふくしま連携復興センター「ふくしま連復とは」
<https://f-renpuku.org/about/>

Systems and mechanisms applied:

Project cost:

57-2 Collaboration and Posterity (Intermediary support organizations and networks)

Case study	Public interest incorporated association, 3.11 Mirai Support (formerly Ishinomaki Disaster Assistance Council)
Location	Ishinomaki City, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Public interest incorporated association, 3.11 Mirai Support (formerly Ishinomaki Disaster Assistance Council [registered organizations: 344])

Activity overview:

3.11 Mirai Support started out as the secretariat of the NPO/NGO Liaison Council established after the Great East Japan Earthquake, and was established as the Ishinomaki Disaster Assistance Council, its predecessor, in May 2011. During the emergency response phase, it provided coordination and support for NPOs and NGOs that arrived in Ishinomaki to provide support to disaster victims to ensure that they were able to work with the government and disaster volunteer centers to carry out their activities smoothly.

After the emergency response phase, it proactively shifted its operations to providing support to parties in Ishinomaki City, and in November the following year, renamed itself Mirai Support Ishinomaki and became a public interest incorporated association in July 2015 after organizing its structure. Furthermore, in response to changes in the affected areas and its environment, the organization shifted its activities from "collaboration in earthquake disaster support" to "collaboration in passing down the legacy of the disaster" and currently supports a system of collaboration for passing down the legacy of Ishinomaki City and the wider Tohoku region under its mission "Connecting 3.11 -- Transforming Learning to the Power to Live." It carries out activities that are tailored to each phase of the post-disaster period drawing on the power of resident-driven activities, such as the launching of the first app-based disaster readiness program in Tohoku, collaboration between storytellers, the passing down of the legacy online, and the establishment of new legacy facilities by the private sector.

Activity details:

■ Information sharing and coordination of activities by the Ishinomaki Disaster Assistance Council

After the Great East Japan Earthquake struck, the Ishinomaki Disaster Assistance Council based in Ishinomaki City, coordinated NPOs, NGOs, and individuals with specialized skills involved in emergency relief to create an organic and efficient forum for coordinating activities. 344 organizations had registered as of May 2012, which made it possible to receive a large number of volunteers, with 121,969 volunteers received at disaster relief volunteer centers operated by the Social Welfare Council, and 158,298 volunteers at NPOs and NGOs for a total of more than 280,000.

Since the NPO/NGO Liaison Council meeting on March 20 of the same year, daily council meetings were held to share information among the various organizations and to conduct support activities that addressed issues in the affected areas.

The activities of NPOs through the Council were reported to the Ishinomaki City Disaster Response Headquarters on the same day, providing opportunities that enabled collaboration with the public sector. The Council, Ishinomaki City Hall, and the SDF held weekly Three-Party Meetings to carry out more specific information sharing and coordination of activities, such as avoiding the duplication of soup kitchens, sharing relief supplies, and transitioning support operations from evacuation shelters to emergency temporary housing. The Council enabled many NPOs and NGOs in and outside the affected areas to share information and coordinate overall activities, such as coordinating all soup kitchen processes and providing 878,000 meals until evacuation shelters were permanently closed, and establishing policy principles on providing supplies to emergency temporary housing.

In November 2012, the name of the organization was changed from Ishinomaki Disaster Assistance Council to Mirai Support Ishinomaki. As the process of recovery and reconstruction progressed, it shifted its operations to supporting nationwide post-disaster victim support collaboration projects and community development programs led by parties in the affected areas. In April 2019, the organization was renamed again to 3.11 Mirai Support and is currently shifting its activities to earthquake legacy programs which it had been engaged in since 2011, including storytelling and the operation of memorial museums, disaster readiness education, and the building of private sector systems for passing on the legacy in three Tohoku prefectures.

■ Disaster victim support collaboration projects (coordination with relevant organizations, emergency dispatch)

After the emergency response and recovery phases, the organization has been providing coordinated support for disaster response nationwide, coordinating with NPOs, NGOs and related organizations, taking records and giving lectures, and conducting interview-based surveys and verifications of intermediary support functions.

• Example of initiative: Temporary Salon Support Liaison Meetings

It held Temporary Salon Support Liaison Meetings a total of 12 times until their conclusion in March 2013. The purpose of these meetings was to exchange information and collaborate with NPOs that provide support for emergency temporary housing in Ishinomaki City. The Ishinomaki City Council of Social Welfare, which provides support in the form of visits to disaster victims, and 10 to 20 NPOs involved in salon activities at assembly halls, etc. took part in these meetings and shared their support policies, such as in preparing a "Guide to Activities at Temporary Housing Complexes in Ishinomaki City" which summarizes the current situation in Ishinomaki City and things to consider for organizations considering conducting support activities from outside the city. For one year from April 2013, monthly preparatory meetings of the Ishinomaki Temporary Housing Support Liaison Committee were held jointly with the Council of Social Welfare. In April 2014, the Council of Social Welfare took over secretariat functions and continues to fill that function as of 2020 as the Ishinomaki Temporary Housing Support Liaison Committee.

• Example of initiative: Emergency dispatch

Drawing on its experience in Ishinomaki City working with NPOs, the government and disaster relief volunteer centers in areas such as coordination, community building, and the passing down of the earthquake disaster legacy following the Great East Japan Earthquake, the organization provides emergency support as part of its disaster victim support collaboration project.

- 2016: Kumamoto Earthquake (Mashiki Town, Mifune Town, Minamiaso Village, etc.)
Support for Hinokuni Kaigi, evacuation shelter surveys, aerial photography, dispatch of volunteer heavy equipment operators
- 2018: Torrential rainfalls of July 2018
Support for NPO liaison meetings, aerial photography, 3.11 Memorial Network youth volunteer activities
- 2019: East Japan Typhoon of 2019
Support for NPO liaison meetings, aerial photography, 3.11 Memorial Network youth volunteer activities

■ Programs for passing down the legacy and for personal interactions (Shifted to activities for passing down the legacy of the earthquake disaster)

The organization offers a variety of programs for passing on the legacy of the disaster, such as Storytelling, and Disaster Prevention Machiaruki, a tour of the town using a disaster readiness app, Onboard Guides in which staff members accompany passengers in buses and passenger vehicles to communicate what the town was like before and immediately after the earthquake as well as information on restoration and reconstruction work, and Walk with Storytellers 3.11, a experiential learning program for students. In addition, in response to the sharp decline in visitors caused by the COVID-19 outbreak, the organization also actively offers online storytelling programs. It has also established and operates the Tsunagukan and Minamihama Tsunagukan which are spaces for earthquake disaster exhibits and personal interactions. In March 2021, it newly established MEET Kadonowaki and is preparing to accept educational tours and inspection visits that create synergistic effects that transcend organizational boundaries with the nearby Reconstruction Memorial Park and disaster heritage sites.

■ Ingenuous results that were achieved through public-private partnerships and the factors of these successes

- Disaster agreement preparations were in place between Ishinomaki City, the CSW, and Ishinomaki Senshu University before the disaster hit.
→Availability of "places" for coordinating collaboration
- CSW's and volunteer centers' flexible policies for taking in NPOs.
→Call for liaison meetings and subsequent collaboration
- The presence of NPOs with extensive disaster relief experience
→Know-how and advice provided in anticipation of challenges that could follow

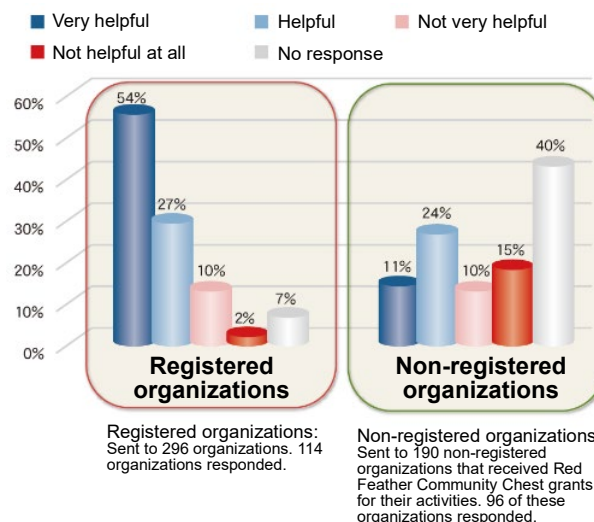
- Local volunteers participated in the secretariat.
→Fostering local initiative, and taking advantage of local information and networks in coordination efforts
- Disaster was too large for individual organizations to handle singlehandedly.
→Situations were such that activities could not be executed without information sharing and collaboration.
(The judgement that soup kitchens stemming from infrastructure damage are needed or not could be a factor in decision-making. This is an example of a situation that cannot be handled by disaster volunteer centers, and requires an organization that carries out coordination efforts.)

■ Reflections and examples of failures in preparing for the next disaster

The "Investigative Report on Interviews with Those Engaged in Intermediary Support Functions in the Recovery Process and Emergency Assistance in Ishinomaki" summarizes the matter as follows:

1) Assessments by assistance recipients during the emergency response phase, and limitations to collaboration

Organizations registered with the Ishinomaki Disaster Assistance Council gave high marks, but many other organizations either gave low marks or did not respond. (Based on results of the March 2012 questionnaire) Results showed the limitations of intermediary support in disasters of the magnitude and geographic extent of the Great East Japan Earthquake, and at the same time, showed how supporters from outside were not able to take part in coordination systems in the affected areas. These are expected to continue to be issues going forward.



2) Ishinomaki NPO embroiled in a disaster waste disposal business fraud case

While the case of business embezzlement on the part of NPO Taisetsu Ribaa Net can be cited as an NPO-related court case in the aftermath of the Great East Japan Earthquake, similarities to this case were found in the work conducted by the Ishinomaki Disaster Assistance Council, such as in the endowment of a special-purpose vehicle and implementation of bathing assistance. The director of the

Ishinomaki Disaster Assistance Council was the head of a local construction company, and this in some respects made possible the prompt mobilization of special-purpose vehicles, coordination of operations involving heavy equipment, and the installation of temporary bathing facilities, etc. However, for an organization with a public role in providing emergency support, the contractual conflict of interest with an organization in which the same individual served as director — or in general terms, a form of outsourcing to one family member from another — resulted in actions that were not in the public's interest.

3) Insufficient relationship building between the Ishinomaki City Council of Social Welfare and the City of Ishinomaki

The example of collaborative efforts conducted in Ishinomaki has been introduced in magazines and books as the Ishinomaki Model, but the Council of Social Welfare disapproved the posting of a diagram that placed NPOs at the top, indicating that there were conditions that made it difficult for some parties to accept changes that involved creating a new organization that would go beyond the frameworks of the Council of Social Welfare and NPOs. Meanwhile, a relationship of trust needs to be cultivated between staff of councils of social welfare and NPO leaders, and organizations who arrive from outside to provide assistance during a disaster and local organizations both need to respect each other's position and activities.

Although there was collaboration with the City of Ishinomaki in disaster task force meetings and Three-Party Meetings, "no government presence in liaison meetings" was cited as an example of failure by those involved, and there was no regular participation by the city in plenary or subcommittee meetings. The participation of the Cabinet Office and the prefectural government in the Hinokuni Kaigi in the aftermath of the Kumamoto earthquake and other efforts have promoted better understanding of NPO activities in subsequent disasters, and the relationship between government and NPOs is believed to be improving.

4) NPOs are not sufficiently included into the decision-making structure of intermediary support organizations.

Due to the fact that priority was given to the quick establishment of a corporation to serve as a recipient of the various categories of support, no coordination was made in the process of considering incorporation to appoint officers from NPOs that had participated in the plenary sessions or the Council of Social Welfare which was responsible for disaster volunteer centers. This later became a major issue.

There was no mechanism to reflect, in the operation of the corporation, the will of the many NPOs that formed a council as a voluntary network, and the secretariat was a separate organization. Reasons for this were the discrepancy of the word, Council in the corporation's name, as if it included various support groups, and its membership system that did not allow for support groups to take part in the corporation's decision-making. Similar risks are apparent in other organizations providing intermediary support in Tohoku.

In addition, in order for a prefectural-level intermediary support organization to ascertain critical situations at municipal-level intermediary support organizations as they arise and make decisions regarding support, it is necessary to find ways to have municipal-level entities participate as members of the organization.

■ Recommendations for future policies, etc.

The "Investigative Report on Interviews with Those Engaged in Intermediary Support Functions in the Recovery Process and Emergency Assistance in Ishinomaki" summarizes the conclusions that must be reached for potential major disasters in the future as follows:

1) Need for an "agent of change" function to bring out positive change

Since it was confirmed that an "agent of change" function that brought about changes had taken shape immediately after the disaster and during the recovery process in organizations and individuals related to intermediary support, future disaster response will also require a function (human resources, institutions, and budget) that will dynamically bring about change with determination and initiative, both in terms of organizations and activities.

2) The need for conscious change according to changes in the scope of intermediary support and phases of support

The roles of intermediary support at the national and prefectural levels are distinctly different from those at the municipal level: The broader the scope of coverage, the more abstract they become, and issues need to be understood and roles need to be established in the system. In the emergency phase, the role of accepting different sectors and promoting change was considered important, but in the ninth year after the earthquake, the importance of the role of making issues visible and promoting collaboration in a coordinated manner has been suggested. Therefore, it is necessary to devise ways to encourage conscious change in intermediary support in response to transitioning phases.

3) The need for forms of governance that enable the participation of all support groups in affected areas as constituent members

In order to avoid shortfalls in the understanding of issues in the affected areas and inadequacies in collaborative actions taken with support groups, it was suggested that it is necessary to have open governance that allows local support groups to represent communities by participating in decision-making with voting rights as members and directors, especially if the base of operations of intermediary support is located in a prefectural capital or other location away from the affected areas, and that open governance is an important requirement for intermediary organizations.

4) The need for new intermediary support measures and a space for public-private collaboration to create them

In preparation for future wide-area disasters, a system for training human resources who are able to

promote organizational change is needed to achieve both the sharing of experiences from disaster relief and reconstruction assistance, and improvements to the quality of intermediary support in normal times. Also suggested was the possibility of a system in which the first stage would be intermediary support for NPOs during normal times, including designated management, and the second stage would be performance-linked outsourcing in which compensation is paid when "change" — such as the creation of a disaster network — is achieved, or a system in which the self-driven participation of citizens is defined as a prerequisite for subsidy or outsourcing. Many respondents expressed concern about the current intermediary support organizations and systems, indicating that there is a need for a forum where the public and private sectors can work together to examine and create a public support system that supports the autonomy of the private sector.

Sources (Listed in other case studies, etc.):

- ・ 3.11 みらいサポート 「事業内容」
<https://311support.com/project/cooperation>
- ・ 内閣府「平成24年版防災白書 東日本大震災におけるボランティアの取組」(2012年)
http://www.bousai.go.jp/kaigirep/hakusho/h24/bousai2012/html/honbun/1b_2h_4s_02_02.htm
- ・ 公益社団法人みらいサポート石巻「石巻におけるNPOの貢献 3.11～東日本大震災から5年～」(2016年4月)
<https://311support.com/wp2/wp-content/uploads/2019/04/IFSA5yearsReport.pdf>
- ・ 石巻の復興過程及び緊急支援における中間支援機能ヒアリング検証報告書
https://311support.com/wp2/wp-content/uploads/2020/08/311NPO_ChangeAgentReportFin.pdf

Systems and mechanisms applied:

- ・ Interim Special Grant under the Emergency Job Creation Program, Emergency Job Creation program (Ministry of Health, Labour and Welfare)
- ・ Financial Actions through Special Allocated Tax for Rebuilding from the Disaster, Disaster Reconstruction Support Staff program (Reconstruction Agency, and Ministry of Internal Affairs and Communications)
- ・ Comprehensive Grant for Disaster Victims Support: Comprehensive Project for Disaster Victims Support, Psychological Rebuilding program (Reconstruction Agency)
- ・ Comprehensive Grant for Disaster Victims Support: Comprehensive Project for Disaster Victims Support, Coordination of Disaster Victims Support program (Reconstruction Agency)

Project cost:

	1st period	2nd period	3rd period	4th period	5, Public benefit 1st period	Public benefit 2nd period	Public benefit 3rd period	Public benefit 4th period	Public benefit 5th period	Public benefit 6th period
Project cost (million yen)	3,369	8,863	3,604	4,190	4,802	5,435	3,901	4,477	4,978	7,797
Recovery budget percentage	0.0%	57%	61%	69%	58%	40%	63%	55%	53%	37%

58-1 Collaboration and Posterity (Cooperation and division of roles between public and private sectors)

Case study	Kitakami Reconstruction Support Collaborative				
Location	Kitakami City, Iwate Prefecture				
Phases	<table border="1"> <tr> <td>Emergency response phase</td> <td>Recovery phase</td> </tr> <tr> <td>Early reconstruction phase</td> <td>Late reconstruction phase</td> </tr> </table>	Emergency response phase	Recovery phase	Early reconstruction phase	Late reconstruction phase
Emergency response phase	Recovery phase				
Early reconstruction phase	Late reconstruction phase				
Members	Kitakami City, Kitakami City Council of Social Welfare, Kitakami Employment Measures Council, Kurosawajiri-Kita District Self-Governance Promotion Council, Iwate NPO-NET Support, Iwate Fukko Collaboration Center				
<p>Activity overview:</p> <p>In August 2011, Kitakami City, Kitakami City Council of Social Welfare, Kitakami Employment Measures Council, Kurosawajiri-Kita District Self-Governance Promotion Council, Iwate NPO-NET Support, and Iwate Fukko Collaboration Center established the Kitakami Reconstruction Support Collaborative to provide support in the areas of health, day-to-day life, employment for disaster victims, and community support, as well as information and support know-how for support groups. Kitakami Shinsai Fukkou Station was established as a base for these activities in September of the same year.</p>					
<p>Activity details:</p> <p>■ Livelihood support for evacuees and logistical support in coastal areas</p> <p>Coastal municipalities in Iwate Prefecture lost many of their city functions and functions needed for day-to-day living in the Great East Japan Earthquake, mostly due to tsunami damage. Meanwhile, the inland areas of Iwate Prefecture, although they suffered damage in the earthquake, were largely spared of damage to infrastructures needed for day-to-day living, and local authorities in these areas took on roles that were needed for reconstructing the coastal areas, such as mobilizing to the coast immediately after the disaster to provide emergency assistance.</p> <p>Approximately 580 people from the coastal areas of Iwate Prefecture, and from Miyagi and Fukushima prefectures evacuated to Kitakami City after the Great East Japan Earthquake. In August 2011, Kitakami City, Kitakami City Council of Social Welfare, Kitakami Employment Measures Council, Kurosawajiri-Kita District Self-Governance Promotion Council, Iwate NPO-NET Support, and Iwate Fukko Collaboration Center established, as local authorities located inland, the Kitakami Reconstruction Support Collaborative to provide livelihood support for these evacuees and to build a logistical support system for coastal areas. The Collaborative collaborated with various organizations to provide support in the areas of health, day-to-day life, and employment. It also provided community support as well as information and support know-how from coastal areas in the Kurosawajiri-Kita area where many evacuees lived. A system was set up where Iwate NPO-NET Support, an intermediary organization in Kitakami city, would coordinate these efforts with weekly meetings held to share information, identify issues, and determine the support measures needed.</p>					

■ Functions of the Kitakami Shinsai Fukkou Station

The Kitakami Reconstruction Support Collaborative established the Kitakami Shinsai Fukkou Station as its base of operations on September 1, 2011. The purpose of this station was to provide a space for evacuees and supporters to exchange information and have personal interactions, and to consolidate and disseminate information about the affected areas to help resolve issues in each of their communities. This created a forum for personal exchanges between the various volunteer groups that provided support for disaster victims who have evacuated inland, providing a one-stop contact that gave evacuees access to effective services including consultations on employment and daily living, and support for community building, etc.

Station's activities

- Installed an office for personal exchange and research
 - Installed an office (back office) for personal exchange and research for various academic conferences, etc.
- Operational support for volunteer buses
 - Supports busing service for students and community volunteers.
 - Temporary Housing Living Environment Enhancement Project (implementation of the temporary housing customization project)
- Concierge for various organizations and researchers
 - Refers researchers and volunteers to accommodations and other services.
 - Support for inspection visits to disaster-affected areas
 - Support for volunteers, NPOs, etc., in holding conferences (e.g., reserving venues, etc.)
- Meetings for exchanging information on reconstruction
 - Implementation of the Reconstruction Salon (information provided by researchers)
 - Invites officials from local authorities in affected areas to explain their recovery plan

■ Why was Kitakami able to set this up? -- Kitakami City's push to promote community development

A major factor behind the establishment of the Kitakami Shinsai Fukkou Station and the creation of a system capable of supporting both inland evacuees and the wider community was the foundation of cooperation that was in place between the public and private sectors in Kitakami City.

For example, the city has had a history of researchers, NPOs, local communities, and government agencies working together to examine the directions of city development. An example of this is how researchers, Iwate NPO-NET Support, related departments of Kitakami City (planning, urban planning, agricultural policy, commerce, etc.), and local government councils collaborate to hold workshops under the "Kitakami City Comprehensive Plan: Second Phase Basic Plan" to examine the establishment of sustainable social structures in Kitakami City, the results of which are reflected in various policies. This existing foundation played a major function in establishing the Kitakami Reconstruction Support Collaborative, and Kitakami Shinsai Fukkou Station's operations.

Sources (Listed in other case studies, etc.):

- きたかみ震災復興ステーション「事業趣旨」
https://kitakamicity.jp/fukkou/?page_id=673
- 特定非営利活動法人いわて NPO-NET サポート「第 17 回通常総会資料」(2016 年 7 月)
https://npo2000.jp/media/2/20170425-_____.pdf
- 北上市企画部政策企画課「北上市総合計画 2011-2020 後期基本計画」(2016 年 3 月)
<https://www.city.kitakami.iwate.jp/material/files/group/2/soukei00.pdf>

Systems and mechanisms applied:

Project cost:

58-2 Collaboration and Posterity (Cooperation and division of roles between public and private sectors)

Case study	Four-Party Liaison Conference for Disaster Victims Support				
Location	Miyagi prefecture				
Phases	<table border="1"> <tr> <td>Emergency response phase</td> <td>Recovery phase</td> </tr> <tr> <td>Early reconstruction phase</td> <td>Late reconstruction phase</td> </tr> </table>	Emergency response phase	Recovery phase	Early reconstruction phase	Late reconstruction phase
Emergency response phase	Recovery phase				
Early reconstruction phase	Late reconstruction phase				
Members	Government Emergency Disaster Local Response Headquarters, Miyagi Prefecture (Social Welfare Division), Self-Defense Forces, NPOs (ADRA Japan, Japan Platform, etc.)				
<p>Activity overview:</p> <p>On April 4, 2011, a Four-Party Liaison Conference for Disaster Victims Support was established at the Miyagi Prefectural Government Office, consisting of the Government Emergency Disaster Local Response Headquarters, the government of Miyagi Prefecture, Self-Defense Forces, and NGO/NPOs. Matters discussed at the meeting included the provision of meals for disaster victims, support for evacuation shelter operations, material support, and support for residents of emergency temporary housing, and other support for disaster victims that were being conducted through the collaboration of government agencies and NPOs, etc.</p>					
<p>Activity details:</p> <p>■A forum for information sharing between the government and NPOs, etc.</p> <p>In order to support local authorities affected by the Great East Japan Earthquake, the government established the Government Local Response Headquarters at the Miyagi Prefectural Government on the day after the disaster struck.</p> <p>On March 26, the Local Response Headquarters held a meeting (commonly known as the volunteer meeting) consisting of the Government Local Response Headquarters, Miyagi Prefecture, the Self-Defense Forces, and NPOs, etc., to serve as a forum for information sharing and liaison coordination between the government and NPOs, etc. At the meetings, information on disaster victims support by government agencies was shared, and how the public and private sectors can work together to provide support for disaster victims was discussed. Meetings were held daily, and on April 4, the meeting was renamed the Four-Party Liaison Meeting for Disaster Victims Support (hereinafter the Four-Party Meeting).</p> <p>Matters discussed at these Four-Party Meetings included support for coordinating soup kitchens, support for volunteer operations during Golden Week, support for residents in emergency temporary housing, and measures to help people cope with the summer heat. Given that the Self-Defense Forces would be withdrawing in August, the future of the Four-Party Meeting itself also became a matter of discussion. This was because many NPOs continued to provide support to victims in evacuation shelters and emergency temporary housing in the disaster areas, and there were calls for a means for collaborating with government agencies. To this end, it was decided that the meeting would continue as the Liaison and Coordination Meeting for Disaster Victims Support.</p>					

■ Major initiatives of the Four-Party Meeting

○ Support for coordinating soup kitchens

Since many disaster victims were evacuated to locations other than designated evacuation shelters, the soup kitchen support that the SDF were providing at evacuation shelters and other locations were not enough to keep up. Furthermore, volunteer groups operating in various disaster-affected areas were also providing similar soup kitchen support, and this gave rise to problems such as the duplication of soup kitchens. Coordination was needed for providing efficient support, and based on requests from the SDF, the Government Local Response Headquarters called for meetings including itself, the prefectural government, SDF, CSW, and NPOs, etc., which was held on March 26, 2011. The meetings were held once a day until March 31, throughout which information on soup kitchens was shared and the division of roles was discussed.

○ Coordinating support for those living in emergency temporary housing

The provision of day-to-day support supplies was discussed at the Four-Party Meeting by coordinating collaboration with NPOs, etc. When evacuees began moving into their emergency temporary housing, NPOs, etc., that were responsible for providing support in cities and towns in Miyagi Prefecture provided relief supplies consisting of combinations of supplies from private companies, from prefectural and municipal stockpiles, and supplies procured independently by NPOs, etc. The supplies they provided were named starter packs because they contained necessities for the evacuees' day-to-day lives.

■ Collaboration between prefectural government departments and NPOs, etc.

The Miyagi Prefectural Social Welfare Division was the secretariat of the meeting, but because the range of fields that NPOs, etc., provided support in were diverse and related to several different divisions within the prefectural government, the relevant divisions also began to attend the meetings. Four meetings were held from August 2011 to February the following year, and meetings between relevant divisions in charge and the Miyagi Fukko Collaboration Center (*), which was in charge of collaborating with NPOs, etc., were held as necessary.

* See material 57-1 for information on the Miyagi Fukko Collaboration Center

○ Organizations attending the 4th Liaison and Coordination Meeting for Disaster Victims Support

• Miyagi Reconstruction Bureau, Reconstruction Agency

• Miyagi Prefecture:

Crisis Management Division, Earthquake Disaster Reconstruction Promotion Division, Community Reconstruction Support Division, and Communal Participation Society Promotion Division, Earthquake Relief Office, Longevity and Social Policy Division, Child Rearing Support Division, Disability Welfare Division, Social Welfare Division

• Miyagi Prefectural Council of Social Welfare, Miyagi Support Center Support Office

• NPOs, etc.:

Miyagi Fukko Collaboration Center, Japan Platform

Sendai-Miyagi NPO Center, Hope Worldwide Japan, Inc.

ADRA Japan, Tomodachi in Natori International Relations Association

Personal Support Center, Caritas Japan, Aqua Yme Club,

Rescue Stock Yard, Higashi-Matsushima Machizukuri Ouen-dan,

Ishinomaki Disaster Assistance Council, Kesenuma NPO/NGO Liaison Office, Kesenuma Recovery Association

Shanti Volunteer Association, World Vision Japan

Association for Aid and Relief, Plan Japan, Japan Civil Network for Disaster Relief in the East Japan

Sources (Listed in other case studies, etc.):

- 宮城県保健福祉部 「東日本大震災～保健福祉部災害対応・支援活動の記録～」 (2012年12月) P258
<https://www.pref.miyagi.jp/uploaded/attachment/121634.pdf>
- 阪本真由美 「行政と NGO/NPO との連携による被災者支援について-被災者支援4者連絡会議の取り組みより-」 地域安全学会東日本大震災特別論文集 No. 2 (2013年)
<http://issn.jp.net/issn-site/wp-content/uploads/2019/02/02-2013-19.pdf>

Systems and mechanisms applied:

Project cost:

59-1 Collaboration and Posterity (Reconstruction support from the private sector)

Case study	Shiseido's "Tsubaki" (camellia) connects reconstruction support activities		
Location	Ofunato City, Iwate Prefecture		
Phases	Emergency response phase	Recovery phase	
	Early reconstruction phase	Late reconstruction phase	
Members	Shiseido Company, Limited		
<p>Activity overview:</p> <p>The camellia tree-planting project at Ofunato Municipal Akasaki Junior High School (Ofunato City, Iwate Prefecture) in 2012 became a catalyst for new reconstruction support activities launched in FY2013 in Ofunato City, Iwate Prefecture, whose city flower is the camellia, a flower that is closely associated with Shiseido Company, Limited. In collaboration with government agencies and NPOs, etc., Shiseido provided support for city development through the revitalization of industry and tourism. With conditions now moving into the full-scale reconstruction phase as evidenced by the self-sustained reconstruction of homes, the rebuilding of shopping districts and regional industries, etc., as well as the changing and diversifying needs of disaster victims due to differences in rates of recovery from region to region, the company is currently engaged in three activities to move recovery forward working together with residents of these regions, namely, activities to grow camellia together with communities, activities aimed at developing a camellia industry, and city development activities to create a Tsubaki no Sato (Camellia Village), all of which revolve around its tree-planting activities in the Kesen region to increase the number of camellia trees and nurture them.</p>			
<p>Activity details:</p> <p>■ Activities to grow camellias together</p> <p>Through a series of student activities, from planting camellia trees to pressing camellia oil and experiencing products made from camellia oil, the company demonstrated to students of Ofunato Akasaki Junior High School (Ofunato City, Iwate Prefecture) that camellias are a resource that will become a new industry for the city. The company worked with local school officials to design long-term activities that help to foster the next generation of leaders for the region's reconstruction, and these activities are now incorporated as part of educational activities at schools in Ofunato City.</p>			



Tree planting activities at Akasaki Junior High School in 2012

Excerpted from Shiseido website <https://corp.shiseido.com/jp/news/detail.html?n=00000000000093>

■Activities aimed at developing a camellia industry

The company has established a system of planting and cultivating camellia trees, and harvesting their seeds, and also supports the development, manufacture, and marketing of products that are made from camellia seeds. As part of its activities to enhance the value of camellias from the Kesen area, the company sold the Shiseido Relaxing Night Mist (100 ml, JPY 1,400 [plus tax]), a product created through reconstruction support activities carried out since October 2014, exclusively on its comprehensive beauty website, watashi+. This product contains the fragrant ingredients of Sanmen Camellia,* an old camellia tree that is a respected symbol of Ofunato City.

* The Sanmen Camellia, a high-profile camellia in Ofunato City, is a giant 1,400-year-old tree located in the precincts of Kumano Shrine in Suezaki Town. It is called Sanmen (three side) Camellia because camellias were planted on the east, west, and south sides of the shrine's premises when the shrine was built. The fragrance of this three-sided camellia was analyzed, and the results were referenced to prepare the fragrance.



Sanmen Camellia in Ofunato City (designated natural monument of Iwate Prefecture)
<http://kihan5.sakura.ne.jp/sanmentubaki.html>

■ Activities to create a Tsubaki no Sato (Camellia Village)

In consultation with Ofunato City, the company carried out its activities under the theme of "Creating a town where people can enjoy the sights of camellias," including the planting of camellia trees as symbolic trees in the city and support for camellia-related events.



Line of camellia trees completed in 2014 (Ofunato City)
Excerpted from Shiseido website <https://corp.shiseido.com/jp/news/detail.html?n=00000000000093>

Sources (Listed in other case studies, etc.):

- ・ 株式会社 資生堂「次世代につなげる『椿』を軸にした復興支援活動について」(2016年2月)
<https://corp.shiseido.com/jp/news/detail.html?n=00000000000093>

Systems and mechanisms applied:

Project cost:

59-2 Collaboration and Posterity (Reconstruction support from the private sector)

Case study	Yamato Group: Great East Japan Earthquake Livelihood and Industrial Infrastructure Recovery and Revitalization Fund
Location	Iwate, Miyagi, Fukushima ,and other prefectures
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Yamato Group, donors, grantees, etc.

Activity overview:

The Yamato Group, which has close ties with the disaster victims and industries in the affected areas, mainly through its TA-Q-BIN business, has decided to make a 10-yen donation for every TA-Q-BIN parcel it delivered for a one-year period to support the recovery of regional everyday-life infrastructures and industries.

The donations accumulated by the Yamato Group were used through the Yamato Welfare Foundation, a public interest incorporated association, to help rebuild the fisheries industry and agriculture in the affected areas, as well as other social infrastructure such as hospitals and daycare centers that support the community.

Activity details:

■ Establishment of the Great East Japan Earthquake Livelihood and Industrial Infrastructure Recovery and Revitalization Fund and its designation as a designated donation

The affected areas, mainly in the Tohoku region, had formed one of the bedrocks of Japan's "dining" industry through fisheries and agriculture, and the Yamato Group strongly felt that this market had been instrumental in the growth of its service, the Cool TA-Q-BIN. With the earthquake expected to take a long period of time and great amounts of capital to rebuild from, the company decided (on April 7, 2011) to launch a donation program to help rebuild the region's infrastructure and revitalize its fisheries industry and agriculture. In this program, the company was to donate JPY 10 for every TA-Q-BIN parcel it delivered for a period of one year.

In response to a call by the Public Interest Corporation Authorization Committee of the Cabinet Office that stated, "Now is the time for public interest foundations to play a central role in providing support to disaster-stricken areas in response to the need for early recovery," the Yamato Welfare Foundation, a public interest incorporated association (hereinafter the Yamato Welfare Foundation), applied for a change to add reconstruction support programs for disaster-stricken areas in addition to its support programs for people with disabilities, and the Yamato Welfare Foundation was granted authorization by the Cabinet Office. The Great East Japan Earthquake Livelihood and Industrial Infrastructure Recovery and Revitalization Fund (hereinafter: the Fund) was launched and designated a designated donation that allows donors to make tax-exempt contributions. The Fund was to collect donations from a broad base of individuals, corporations, and organizations, and the Yamato Group was to donate all accumulated donations to the Yamato Welfare Foundation.

To ensure the appropriateness and objectivity of the use of the donations, the Yamato Welfare Foundation established a third-party Reconstruction Assistance Selection Committee to determine the recipients of grants that would be used to revitalize the fisheries industry and agriculture in the affected areas and to rebuild social infrastructure such as hospitals and daycare centers that support the everyday lives of people in those areas. The final number of grant projects through 2017 totaled 31, with a cumulative grant amount of more than JPY 14.2 billion.

(Examples of grantees)

○Social Welfare Corporation Noda Village Daycare Association, Noda Village Daycare Center Reconstruction Project

The Noda Village Daycare Center in Noda Village, Iwate Prefecture, had been conducting monthly disaster drills, as well as repeated verifications and improvements to its safe evacuation routes and evacuation sites. Thanks to these efforts, all 91 children and staff were able to evacuate safely at the time of the earthquake, prompting a newspaper to headline, "All Daycare Children Make Miraculous Escape." However, the facility was destroyed in the tsunami, and rebuilding the daycare center became an urgent task so that guardians could leave their children in their care with peace of mind as they put their efforts into recovery efforts. So, the village applied for the grant, and the Yamato Welfare Foundation decided to fund the project. The new nursery was built 1 km inland on higher ground 17 meters above sea level in accordance with the wishes of the Noda Village Daycare Center that it be built on "higher ground where there is no danger of tsunami" and on "a larger site so that children can grow up unfettered in a spacious environment." This led to a boost in efforts to rebuild the "community-supported, parent- and child-friendly environment" that Noda Village aims to create.

○Minamisanriku Town, Fisheries Industry Infrastructure Reconstruction Project

The earthquake caused severe damage to fish markets and workshops in Minamisanriku Town, Miyagi Prefecture. Without a fish market to land salmon during the fall fishing season for salmon, which yields the largest catch in Miyagi Prefecture, the very survival of the region's fishing industry itself was in jeopardy, and there was a possibility that the town would not be able to revive its economic cycle. The grants helped restore salmon fishing and other fisheries and processing industries.

Sources (Listed in other case studies, etc.):

- ヤマトホールディングス株式会社「CSR 報告書 2013」(2013 年) p27-30
<https://www.yamato-hd.co.jp/csr/report/mds9bo00000078wo-att/2013.pdf>
- 公益財団法人ヤマト福祉財団「東日本大震災 生活・産業基盤復興再生基金」について
<http://www.yamatowf-saisei.jp/overview.html>

Systems and mechanisms applied:

Project cost:

59-3 Collaboration and Posterity (Reconstruction support from the private sector)

Case study	Takeda Pharmaceutical Company Limited: "Energize Japan. Support Reconstruction" Project
Location	Iwate, Miyagi, Fukushima and other prefectures
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Takeda Pharmaceutical Company Limited

Activity overview:

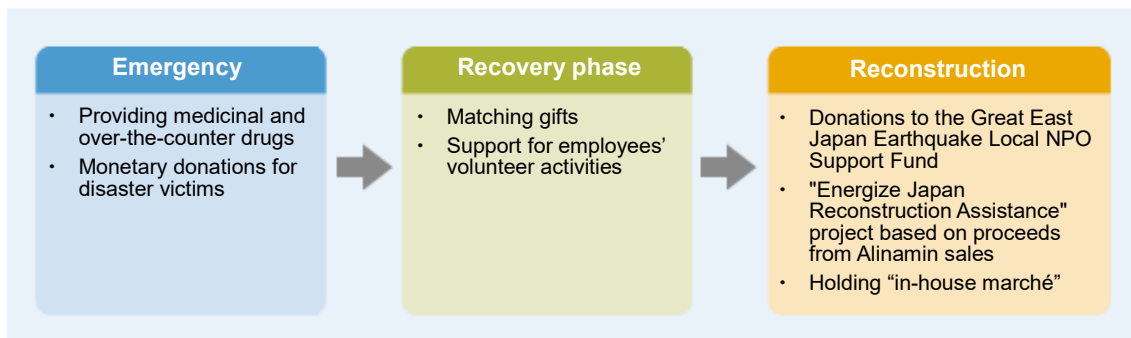
Takeda Pharmaceutical Company Limited (hereinafter Takeda) has traditionally provided support to disaster-affected areas through pharmaceutical aid and matching gifts, but in the wake of the Great East Japan Earthquake, the company now provides assistance based on three pillars: 1) long-term support through donations, 2) support by its employees in affected areas, and 3) activities to keep the disaster from fading away in people's memories. In particular, in the area of long-term support through donations, the company provided approximately JPY 700 million in aid through the Japanese Red Cross Society and other organizations immediately after the Great East Japan Earthquake, which was followed by activities through the Japan Platform. The "Energize Japan Reconstruction Assistance" project (2011-2021) provided a total of approximately JPY 3.2 billion in assistance to 12 organizations and 13 reconstruction support programs in the four areas of "life and livelihood," "industry reconstruction," "fostering the next generation," and "policy proposals." The company is studying and implementing flexible support schemes that can respond to local needs as they change over time.

Activity details:

■ Long-term support through donations

The company divided its donations-based long-term support activities into three phases: emergency, recovery, and reconstruction.

Line of thinking regarding support for affected areas and specific activities



■ Emergency support measures

In addition to donating JPY 300 million to the Japanese Red Cross Society as a disaster relief fund, the company also provided medicinal and over-the-counter drugs in accordance with its social responsibility as a pharmaceutical company and based on consultations with the Japan

Pharmaceutical Manufacturers Association and Japan Self-Medication Industry. In addition, the company's overseas affiliates donated a total equivalent to approximately JPY 100 million through the Red Cross and other organizations in their respective countries.














■Recovery support measures

In collaboration with the Takeda Pharmaceutical Workers Union, the company matched the donations made by its employees and donated approximately JPY 76 million to the Japan Platform, a certified NPO. Additionally, in response to the desire of many employees to volunteer in the affected regions, the company established a system to support its employees' volunteering activities, such as by granting special paid leave and covering the premiums for their volunteer insurance.

■Reconstruction support measures

Recognizing that long-term and continuous support is necessary for the reconstruction of the affected areas, the company decided to contribute a portion of the proceeds from Alinamin, an OTC drug, over a multi-year period to support 13 programs as part of its "Energize Japan. Support Reconstruction" project. In one such effort, the company donated a total of JPY 1.2 billion to the Japan NPO Center, a certified NPO, to launch the Takeda Life and Life Restoration Program. This program was designed to support the recovery of areas affected by the Great East Japan Earthquake over the long-term, i.e, 10 years from the time of the disaster. The project defined the 5-year period from October 2011 as Phase 1 and provided grants for activities carried out by 36 NPOs engaged in welfare and health support for the socially vulnerable, and support for job creation and other efforts to help people build foundations of their livelihoods in the affected areas, as well as grants for six voluntary projects, including support for bereaved families and mental care for those providing assistance and support. In Phase 2 which started in 2016, the program supported resident-led creation of new communities following their relocation from emergency temporary housing to disaster public housing, as well as the practical implementation of collaboration between various organizations. In addition, it held NPO Management Seminars in three disaster-affected prefectures in Tohoku (Iwate, Miyagi, and Fukushima) to train NPO leaders who can work sustainably with local communities. Furthermore, this program not only attracted attention as a model case of collaboration between NPOs and businesses, but also helped to strengthen the organizational foundation of local NPOs. In addition, it donated JPY 20 million to the Great East Japan Earthquake Local NPO Support Fund to support local NPOs working over the long term in the affected areas.

"Energize Japan Reconstruction Assistance"

	Name of program	Support recipients	Support period	Amount contributed
Life and livelihood	 Takeda Life and Livelihood Revitalization Program	Japan NPO Center	10 years (2011-2021)	JPY 1.2 billion
	 Takeda and Red Feather Community Chest Support Program for Wide-Area Evacuees	Central Community Chest of Japan	5 years (2014-2018)	JPY 290,087,207
	 Disaster Volunteer/NPO Activity Support Fund	Central Community Chest of Japan	7th round grant (2012)	JPY 20 million
	 Takeda Capacity Building Initiative	Great East Japan Earthquake Local NPO Support Fund	3 years (2012-2014)	JPY 20 million
	 CliniClowns Tohoku Support Project	CliniClowns Japan	6 years (2013-2018)	JPY 10,522,223
Industry reconstruction	 IPPO IPPO NIPPON Project	Japan Association of Corporate Executives	4 years (2011-2015)	JPY 829,720,912
	 Tohoku Future Creation Initiative	Tohoku New Business Council	5 years (2012-2016)	JPY 20 million
Fostering the next-generation	 TOMODACHI	U.S.-Japan Council	10 years (2011-2020)	JPY 180 million
	 BEYOND Tomorrow	Global Fund for Educational Assistance	3 years (2011-2013)	JPY 60 million
	 ARK NOVA Children's Music Program	ARK NOVA Project	3 years (2013-2015)	JPY 40 million
	 OECD Tohoku School	Fukushima University	1 year (2013)	JPY 10 million
Policy proposals	 Rebuild Japan Initiative Foundation	Rebuild Japan Initiative Foundation	10 years (2011-2020)	JPY 500 million
	 Comprehensive Health and Lifestyle Support Project for the Elderly in Yamada Town, Iwate Prefecture	Health and Global Policy Institute	2 years (2012-2014)	JPY 25 million

Total: JPY 3,205,330,342

Excerpted from Takeda Pharmaceutical Company Limited "2019 SUSTAINABLE VALUE REPORT" p. 88

Additionally, the company established a system in 2011 to support its employees' volunteering activities in the affected areas, such as by granting special paid leave and covering the premiums for their volunteer insurance.

In order to keep the disaster from fading away in people's memories, the company also held internal forums and CSR briefings, and launched the Takeda Great East Japan Earthquake website on the company intranet to keep its employees up to date on volunteering and other activities. The company holds its In-House Marché for Reconstruction Support (co-sponsored by labor and management) on an ongoing basis to not only support the recovery of consumption in the affected areas, which was severely affected by damage caused by the earthquake itself and also by negative rumors, but also to keep the disaster from fading from people's memories. At these marché, employees are able to purchase regional products from the affected areas and products created by organizations involved in support activities. Notably, the company has launched an online marché this fiscal year in addition to its workplace marché to create a structure that also enables it to support businesses and organizations that have experienced a sharp decrease in business due to the spread of the new coronavirus (COVID-19) outbreak. In order to respond to local needs that change over time, Takeda is taking a step

further by expanding its approach to a wide variety of support schemes in addition to monetary donations and other traditional forms of support.

Sources (Listed in other case studies, etc.):

- 武田薬品工業株式会社 「2019 SUSTAINABLE VALUE REPORT」 (2020年3月)
https://www.takeda.com/4ab36a/siteassets/jp/home/csr/sustainable-value-report/report_svr2019_jp.pdf
- Takeda Pharmaceutical Company Limited 「2020 SUSTAINABLE VALUE REPORT」 (2020年11月)
https://www.takeda.com/4af2e0/siteassets/jp/home/corporate-responsibility/sustainable-value-report/takeda2020sustainabilityreport_en.pdf
- 武田薬品工業株式会社 グローバルサイト 「人々の思いをつなぎ、新たな暮らしの基盤作りをサポート」
<https://www.takeda.com/jp/corporate-responsibility/programs-in-action/supporting-recovery-in-tohoku/>
- 武田薬品工業株式会社 日本国内向け website 企業市民活動 「被災者・被災地支援」
<https://www.takeda.com/ja-jp/CSR/activities/earthquake/>

Systems and mechanisms applied:

Project cost:

* See list of recipients of assistance by the "Energize Japan Reconstruction Assistance" project

60-1 Collaboration and Posterity (Securing support staff, and other associated tasks [Initiatives by local authorities receiving support]))

Case study	Dispatch of staff from friendship cities (Tagajo City)
Location	Tagajo City, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Support recipient: Tagajo City, Miyagi Prefecture Support providers: Dazaifu City, Fukuoka Prefecture; Tendo City, Yamagata Prefecture; Nara City, Nara Prefecture

Activity overview:

For Tagajo City, Miyagi Prefecture, its friendship city agreements and the "face-to-face relationships" in the context of these agreements during normal times were instrumental in the support it received for restoration and reconstruction, and proved to be particularly effective in securing technical staff who were in short supply. The city received support in various forms from other local authorities not only in neighboring areas but also those in distant areas, and this actually had the effect of improving the disaster preparedness of local authorities providing support.

Activity details:

■ Damage

In Tagajo City, 156 residents lost their lives (including disaster-related deaths). A total of 11,859 homes were damaged, including 1,746 totally destroyed, 1,634 severely damaged, and 2,096 partially destroyed homes. While schools, government buildings, and agricultural, marine, commercial, industrial facilities, and other city facilities were damaged, its sewerage-related facilities were the hardest hit. Notably, the tsunami inundated the Miyagi Prefecture-managed Sen-en Sewage Treatment Center, shutting down all of its functions. Of the approximately JPY 6.4 billion in damage incurred by the city, approximately 58%, or JPY 3.76 billion, was related to the sewerage system. The magnitude of damage to homes and sewerage systems increased the demand for personnel with expertise in damage assessment, and water supply and sewerage system maintenance.

■ Support for Tagajo City from friendship cities

Tagajo City in Miyagi Prefecture has friendship city affiliations with Dazaifu City in Fukuoka Prefecture (since November 2005), Tendo City in Yamagata Prefecture (since April 2006), and Nara City in Nara Prefecture (since February 2010), and exchanges had been taking place since before the earthquake. These relationships were put to good use in the aftermath of the disaster.

Dazaifu City dispatched technical staff to Tagajo City's General Affairs Department (to work in operations for receiving of disaster relief funds and condolence money), the Water Supply and Sewerage Department, and the Construction Department. To date, the city has dispatched a total of 37 employees on both short-term and mid- to long-term assignments. Nineteen of these employees were

dispatched on a mid- to long-term basis: 8 for disaster recovery work on sewerage systems and other public facilities, 6 technical staff related to zoning adjustments, and 5 clerical staff. A characteristic of Dazaifu City's support was that it dispatched 5 staff members who worked in the area of cultural properties on short-term assignments. Dazaifu City provided its expertise in preserving historic sites and cultural assets, partially owing to the fact that the friendship city affiliation between Tagajo and Dazaifu originally stemmed from the fact that the two cities shared a commonality in that they were home to special national historic sites.

Tendo City dispatched a total of 131 employees, who were mainly technical staff from its Water Supply and Sewerage Department, and Construction Department. In the immediate aftermath of the disaster, five teams of three staff were dispatched in rotation to perform emergency water supply work. After this period, Tendo City continued to play a role in filling the shortage of technical staff needed for disaster recovery such as by dispatching sewerage surveys teams. Each with a population of roughly 60,000, Tendo City and Tagajo City were similar in scale, and had similar operational procedures and systems. As such, these support efforts provided by Tendo City also proved to be opportunities for it to gain disaster response know-how.

Nara City dispatched a total of 155 employees from its Construction Department to support the construction of emergency temporary housing and sewerage systems, and to assist in evacuation shelter operations. The day after the earthquake, Nara Prefecture received an e-mail from Tagajo City asking for assistance and decided to send supplies and dispatch staff based on the list of needed supplies that they received. Staff were on site on the same day, and supplies arrived so quickly that it prompted Tagajo City to remark that relief supplies from Nara City were the very first to arrive. This rapid provision of supplies was made possible in part by the fact that Nara City Hall had employees on loan from the Nara Prefectural Police, who were able to take advantage of the information sharing network of police officers. Specifically, these personnel were asked to ride along in vehicles transporting disaster relief supplies and were able to help secure accessible routes to their destinations by sharing traffic information with police officers on patrol duty in the affected areas.



(Photo: Exchange event between Tagajo City and Dazaifu City, Tagajo City Children's Goodwill Delegation, Source: Dazaifu City website)

Sources (Listed in other case studies, etc.):

- 多賀城市「多賀城市における東日本大震災の被害状況概要」(2018年8月)
<http://www.city.tagajo.miyagi.jp/bosai/kurashi/daishinsai/documents/h3008higaigaiyou.pdf>
- 多賀城市HP「友好都市 福岡県太宰府市」(2020年2月)
<http://www.city.tagajo.miyagi.jp/shimin-power/shise/gaiyo/profile/yuko/dazaifu.html>
- 多賀城市HP「友好都市 山形県天童市」(2020年2月)
<http://www.city.tagajo.miyagi.jp/shimin-power/shise/gaiyo/profile/yuko/tendo.html>
- 多賀城市HP「友好都市 奈良県奈良市」(2020年1月)
<http://www.city.tagajo.miyagi.jp/shimin-power/shise/gaiyo/profile/yuko/nara.html>
- 宮城県広報誌「NOW IS. 多賀城市への応援職員(山形県天童市から)」
<https://www.pref.miyagi.jp/uploaded/attachment/605559.pdf> p3
<https://www.fukkomiyaagi.jp/>
- 史都・多賀城 防災・減災アーカイブズ たがじょう見聞憶「防災・減災への指針 一人一話」
<http://tagajo.irides.tohoku.ac.jp/index>
 「応援自治体職員の声——太宰府市①——」(2013年10月)
 「応援自治体職員の声——太宰府市②——」(2013年10月)
 「応援自治体職員の声——天童市——」(2014年1月)
 「応援自治体職員の声——奈良市——」(2013年11月)
- 太宰府市ウェブサイト「東日本大震災(東北地方太平洋沖地震)に係る支援」(2020年3月)
<http://www.city.dazaifu.lg.jp/admin/boshu/2004/11417.html>
- 奈良市ウェブサイト「東日本大震災支援状況について」(2018年4月)
<https://www.city.nara.lg.jp/soshiki/2/5871.html>

Systems and mechanisms applied:

Project cost:

60-2 Collaboration and Posterity (Securing support staff, and other associated tasks [Initiatives by local authorities receiving support])

Case study	Dispatch of staff based on mutual disaster support agreements				
Location	Kamaishi City, Iwate Prefecture				
Phases	<table border="1"> <tr> <td>Emergency response phase</td> <td>Recovery phase</td> </tr> <tr> <td>Early reconstruction phase</td> <td>Late reconstruction phase</td> </tr> </table>	Emergency response phase	Recovery phase	Early reconstruction phase	Late reconstruction phase
Emergency response phase	Recovery phase				
Early reconstruction phase	Late reconstruction phase				
Members	Support recipient: Kamaishi City, Iwate Prefecture Support provider: Tokai City, Aichi Prefecture				

Activity overview:

Since before the earthquake, Kamaishi City in Iwate Prefecture had already entered mutual disaster support agreements with municipalities in Iwate Prefecture as well as with distant municipalities including Tokai City in Aichi Prefecture and Arakawa Ward in Tokyo. This enabled the city to receive prompt support in the form of support staff dispatches and emergency supplies immediately after the disaster struck.

After the earthquake, the city has been expanding the scope of organizations with which it enters mutual disaster support agreements, based on the criterion of whether or not the city itself, if placed in the position of support-providing local authority, would be able to provide appropriate support to the counterpart local authority considering its size.

Activity details:

■ Mutual disaster support agreement signed with Tokai City, Aichi Prefecture

Before the earthquake, Kamaishi City had already signed disaster support agreements with municipalities in Iwate Prefecture in 1996, and with Tokyo's Arakawa Ward in 1999. When a steel mill located in Kamaishi City downsized its operations in the mid-1960s through the mid-1970s, many of its employees were transferred to a steel mill in Tokai City. All in all, 3,000 of its employees and family members relocated to the city. This became the impetus for the city to sign a mutual disaster support agreement with Tokai City in Aichi Prefecture in 2003.

Thanks to the progress made in exchanges at the citizen level with Tokai City, the two cities decided to mutually help each other in the event of a disaster by providing supplies and dispatching staff. After the agreement was signed, the cities conducted communication drills in conjunction with disaster drills. In 2007, they established a sister city affiliation and personnel exchanges were carried out between the two cities.

■ Dispatch of staff from Tokai City based on the agreement

Kamaishi City suffered damage from the Great East Japan Earthquake, with 1,040 people killed or missing and 3,656 houses destroyed. In a headquarters staff meeting held immediately after the disaster, Tokai City decided to dispatch staff to Kamaishi City based on their disaster support agreement. Specifically, four firefighters were dispatched to Kamaishi City as an advance team from

March 11 to 15 to assess the damage and needs.

After March 13, staff members were dispatched on a weekly basis to transport relief supplies and assist in the operation of evacuation shelters. From October, staff including public health nurses, and staff engaged in civil engineering work or site negotiations related to reconstruction city development were dispatched on three-month to one-year terms. Tokai City dispatched a total of 43 support staff through the end of March 2015.

Because it had this agreement with Kamaishi City, Tokai City was able to quickly decide on a policy for dispatching staff to Kamaishi City despite the fact that schemes for dispatching staff in the aftermath of the Great East Japan Earthquake varied widely between the national government, prefectural government, and mayors' associations. In addition, as the need for support continued to stretch out in time, it was the strong ties between the citizens of Tokai and Kamaishi that made it easier to gain the public's understanding on staff dispatches over long periods of time. The dispatch of staff went smoothly since the agreement stipulated that the cost of dispatching staff was to be borne by the supporting party. As for housing for support staff, there were few apartments or condominiums in Kamaishi City, and emergency temporary housing was far from the city center, so Tokai City rented a hotel to secure accommodation.

■ The significance of mutual disaster support agreements

Kamaishi City believes that it was significant that Tokai City dispatched its staff on the basis of the agreement, because it would have been difficult for affected local authorities to request support in the event of a large-scale disaster such as the Great East Japan Earthquake. Since the earthquake, Kamaishi City has been entering agreements with supporting local authorities, some of which are agreements on collaboration in disaster education where other municipalities seek to learn from Kamaishi City's disaster education.

However, Kamaishi City's aim is not about entering agreements with as many local authorities as it can, but to enter these agreements based on the criterion of whether or not the city itself, if placed in the position of support-providing local authority, would be able to provide appropriate support to the counterpart local authority considering its size.

Starting with Minami-Satsuma City in Kagoshima Prefecture in October 2012 and Settsu City in Osaka Prefecture in March 2013, the city has been entering disaster support agreements with local authorities in distant regions, the number of its counterparts reaching 14 prefectures and 25 wards and cities as of March 2015.

Case Studies of Reconstruction from Great East Japan Earthquake

<Destination municipalities>	Dispatched staff (employees)	Number of personnel	Time period	Type	Job description	Party requesting dispatch
Kamaishi City, Iwate Prefecture	Firefighting positions	4	Mar 11, 2011 - Mar 15, 2011	Short-term dispatch	Advance team	Kamaishi City (dispatch based on disaster agreement)
	Clerical and firefighting positions	3	Mar 13, 2011 - Mar 15, 2011	Short-term dispatch	Transport of relief supplies	
	Clerical and firefighting positions	3	Mar 18, 2011 - Mar 20, 2011	Short-term dispatch	Transport of relief supplies	
	Deputy Mayor, clerical and firefighting positions	4	Mar 25, 2011 - Mar 27, 2011	Short-term dispatch	Transport of relief supplies	
	Public health nurses and clerical positions	4	Apr 6, 2011 - Apr 11, 2011	Short-term dispatch	Shelter assistance services	
	Clerical positions	4	Apr 9, 2011 - Apr 14, 2011	Short-term dispatch	Shelter assistance services	
	Clerical positions	4	Apr 12, 2011 - Apr 17, 2011	Short-term dispatch	Shelter assistance services	
	Clerical positions	4	Apr 15, 2011 - Apr 20, 2011	Short-term dispatch	Shelter assistance services	
	Public health nurses	1	Oct 11, 2011 - Mar 23, 2012	Long-term dispatch	Public health nurse positions	
	Technicians	1	Oct 11, 2011 - Dec 31, 2011	Long-term dispatch	Civil engineering work related to reconstruction and city development	
	Technicians	1	Jan 1, 2012 - Mar 23, 2012	Long-term dispatch	Civil engineering work related to reconstruction and city development	
	Public health nurses	1	Apr 1, 2012 - Mar 31, 2013	Long-term dispatch	Public health nurse positions	
	Technicians	1	Apr 1, 2012 - May 31, 2013	Long-term dispatch	Civil engineering work related to reconstruction and city development	
	Public health nurses	1	Apr 1, 2013 - Mar 31, 2014	Long-term dispatch	Public health nurse positions	
	Technicians	1	Apr 1, 2013 - Mar 31, 2014	Long-term dispatch	Urban planning work related to reconstruction and city development	
	Technicians (fixed term)	1	Apr 1, 2013 - Mar 31, 2014	Long-term dispatch	Site negotiation services	
	Technicians (fixed term)	1	Apr 1, 2014 - Sep 30, 2015	Long-term dispatch	Site negotiation services	
	Public health nurses	1	Apr 1, 2014 - Mar 31, 2015	Long-term dispatch	Public health nurse positions	
	Technicians	1	Apr 1, 2014 - Mar 31, 2015	Long-term dispatch	Civil engineering work related to reconstruction and city development	
	Technicians	1	Apr 1, 2015 - Mar 31, 2016	Long-term dispatch	Civil engineering work related to reconstruction and city development	
Clerical positions	1	Apr 1, 2015 - Mar 31, 2016	Long-term dispatch	Site negotiation services		
Total	43					

(Table: Status of Staff Dispatch from Tokai City through FY2015. Source: Cabinet Office, Disaster Recovery Measures Casebook)

Case Studies of Reconstruction from Great East Japan Earthquake

Agreement entered with	Date of agreement	Agreement
Municipalities in Iwate Prefecture	Oct 7, 1996	Agreement on Mutual Assistance among Municipalities in Iwate Prefecture in the Event of a Major Disaster
Iwate Prefecture, municipalities in Iwate Prefecture, and a number of fire department administrative associations	Oct 1, 1996	Iwate Prefecture Disaster Response Helicopter Support Agreement
Arakawa Ward, Tokyo	Mar 25, 1999	Agreement on Mutual Support in the Event of Disaster
Tokai City, Aichi Prefecture	Feb 21, 2003	Agreement on Mutual Support in the Event of Disaster
Toyofuji Shipping Co., Ltd., Tokai City	Jun 30, 2006	Agreement on Emergency Transportation of Goods Needed for Disaster Relief by Marine Vessel
Minami-Satsuma City, Kagoshima Prefecture	Oct 11, 2012	Agreement on Mutual Support in the Event of Disaster
Settsu City, Osaka	Mar 22, 2013	Agreement on the Mutual Agreement on Mutual Support and Disaster Prevention in the Event of Disaster
Iwate Prefecture (Ofunato City, Hanamaki City, Kitakami City, Tono City, Oshu City), Akita Prefecture (Yokote City, Yuzawa City, Yurihonjo City, Daisen City), and member cities of the North Tohoku Regional Collaboration Axis Initiative Promotion Council	May 20, 2013	Agreement on Mutual Support in the Event of Disaster
Oumei Council member municipalities of the that agreed to entering the agreement (Ena City, Gifu Prefecture; Ohno Town, Gifu Prefecture; Okinawa City, Okinawa Prefecture; Odawara City, Kanagawa Prefecture; Kiso Town, Nagano Prefecture; Taku City, Saga Prefecture; Taketa City, Oita Prefecture; Hita City, Oita Prefecture; Tahara City, Aichi Prefecture; Tokai City, Aichi Prefecture; Yabu City, Hyogo Prefecture).	Jun 4, 2013	Agreement on Mutual Support in the Event of Disaster
Owase City, Mie Prefecture	Aug 22, 2013	Agreement on the Mutual Agreement on Mutual Support and Disaster Prevention in the Event of Disaster

(Table: Support agreements entered by Kamaishi City.

Source: Cabinet Office, Disaster Recovery Measures Casebook)

Source (Listed in other case studies, etc.)

- いわて震災津波アーカイブ「東日本大震災津波による岩手県の被害状況（釜石市）」
<http://iwate-archive.pref.iwate.jp/higai/>
- 内閣府「災害復興対策事例集」（2019年3月）
<http://www.bousai.go.jp/kaigirep/houkokusho/hukkousesaku/saigaitaiou/index.html>
- 釜石市「東日本大震災検証報告書【災害対策本部編】（平成26年度版）」（2015年3月）
<https://www.city.kamaishi.iwate.jp/docs/2015100900097/>

Systems and mechanisms applied:

Project cost:

60-3 Collaboration and Posterity (Securing support staff, and other associated tasks [Initiatives by local authorities receiving support])

Case study	Establishment of Disaster Relief Intake Plans at Kobe City and Iwate Prefecture
Location	Kobe City, and Iwate Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Kobe City, and Iwate Prefecture
<p>Activity overview:</p> <p>In the Great East Japan Earthquake, a large number of support staff were dispatched from local authorities across Japan to the affected areas. However, there were issues such as a lack of clarity regarding the support staff intake desk and the operations to which these staff were to be assigned, as well as confusion regarding chains of command for these support staff.</p> <p>In preparation for large-scale disasters, the City of Kobe and Iwate Prefecture have established disaster relief intake plans which prescribe that an organization responsible for support staff intake is to be set up at Disaster Response Headquarters to ensure that support staff dispatched from supporting local authorities can be taken in in an effective manner, and that the operations to which these support staff are to be assigned are to be clearly defined. The plans also clarify the positions of persons in charge of support intake who will be giving instructions to support staff.</p>	
<p>Activity details:</p> <p>1. Formulation of the Kobe City Disaster Relief Intake Plan</p> <p>■ Objectives of the plan</p> <p>From interviews that the City of Kobe conducted with employees it dispatched to areas affected by the Great East Japan Earthquake, it came to the conclusion that the people providing support must be careful not to burden the affected local authorities, that the organizations receiving support must establish a smooth system that enables support personnel to operate effectively and efficiently, and that the providing and receiving of support must be viewed as an integral part of one another.</p> <p>To this end, the City of Kobe, based on its experiences in both receiving and providing aid in the Great Hanshin-Awaji Earthquake and the Great East Japan Earthquake, respectively, formulated in March 2013 the Kobe City Disaster Relief Intake Plan, the first such plan in Japan, in preparation for potential large-scale disasters such as the Nankai Trough Earthquake.</p> <p>■ The positioning of the disaster relief intake plan and the period covered therein</p> <p>The disaster relief intake plan is positioned as subordinate to the regional disaster prevention plan and specifically defines procedures for requesting and receiving support for operations that require support.</p> <p>A Support Intake Headquarters, which serves as the general contact point for receiving support, is to be established as an organization under Disaster Response Headquarters.</p>	

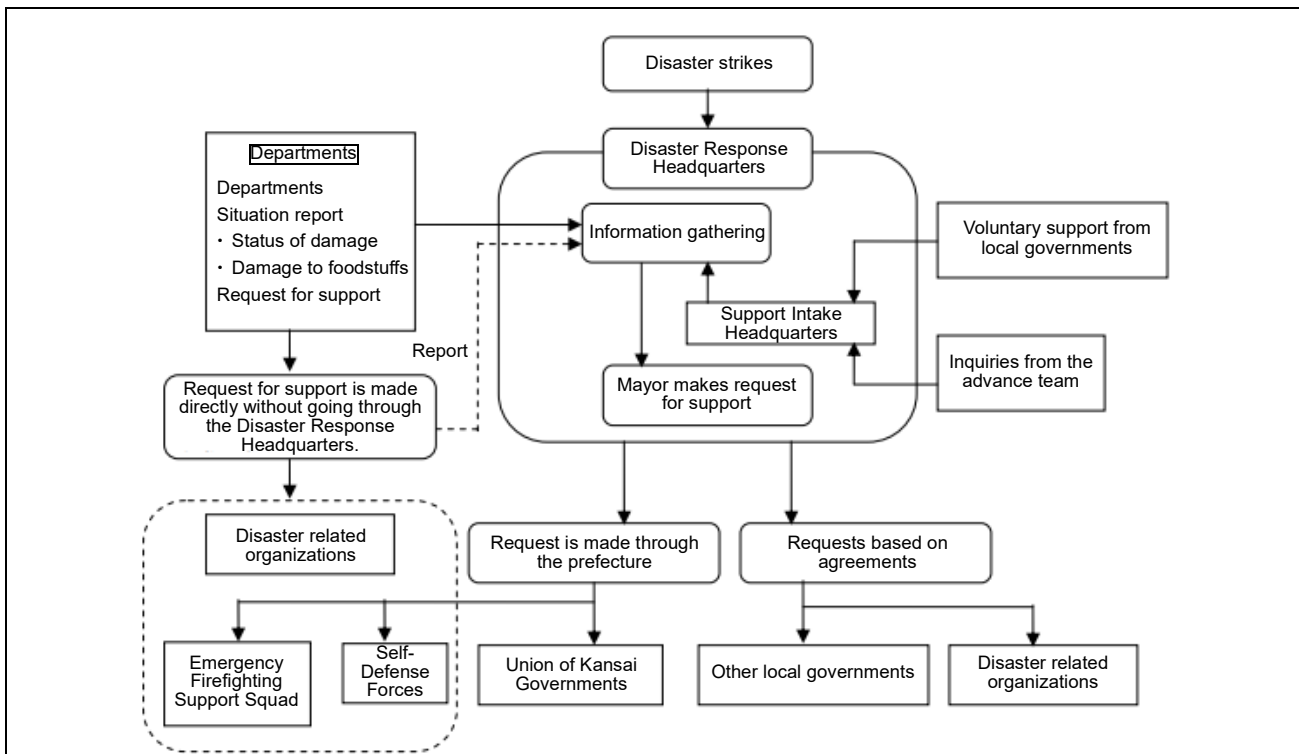
The plan should generally cover the one-month period following a disaster when disruptions are most expected. However, the plan should also include operations such as support for emergency temporary housing and for rebuilding the lives of disaster victims.

■ Selecting operations to be supported

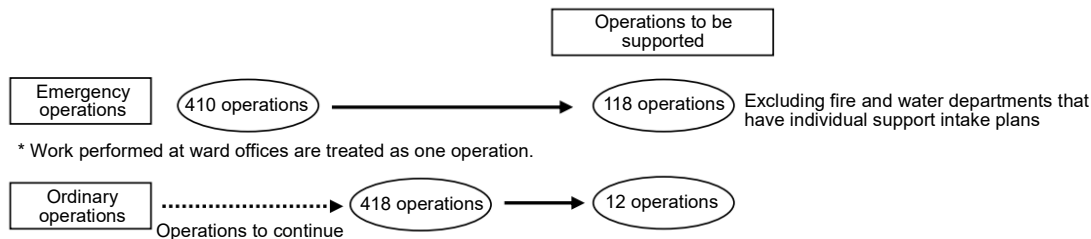
When a disaster occurs, a large amount of work will arise in addition to normal routine operations, and it will be difficult to handle all of these tasks. Therefore, in order to reduce the workload of staff, a clear distinction must be made between tasks that must be undertaken and those that should not be under disaster conditions. Specifically, operations performed during normal times are categorized as ordinary operations, and those that need to be performed in times of disaster are categorized as emergency operations. Of these operations, those that need to be performed by support staff have been narrowed down to 130 operations (12 ordinary and 118 emergency operations). This helps to speed up the process of assigning work to support staff.

■ Four perspectives of a relief intake plan

- (1) Information processing: Establish a system for rapid information sharing between support providers and receivers, including prompt reporting from each department to the Disaster Response Headquarters in a prescribed format, and provision of information from Headquarters to relevant local authorities and advance teams.
- (2) Command coordination: Designate at least two primary and two deputy commanders for each operation, and at least two primary and two deputy support intake managers to instruct and communicate with support personnel and coordinate with Support Intake Headquarters.
- (3) On-site response environment: Develop manuals to facilitate activities carried out by support staff and establish a system where support staff are paired with city staff in performing their activities. Centrally manage facilities that are under the jurisdiction of different departments to determine if they can be used for lodging purposes.
- (4) Creating cooperative relationships with the private sector: In order for government agencies and the private sector to provide effective support to disaster victims by leveraging each other's areas of expertise, enter agreements with NPOs, volunteers, businesses, etc. from normal times, and commission operations to these parties. In addition, prepare several types of support sheets describing the details of support activities, and flow charts describing the flow and description of operations according to the experience of these supporters in these activities.



(Fig: Flow of initial request for support Source: "Kobe City Disaster Relief Intake Plan: Outline Version")



(Fig: Types of tasks to be and not to be performed in an emergency, and tasks to be assigned to support staff) Source: "Kobe City Disaster Relief Intake Plan — Overview Version")

2. Formulation of the Iwate Prefecture Disaster Relief Intake and Provision Plan

■ Objectives of the plan

Iwate Prefecture, which was hit by the Great East Japan Earthquake, has been working on recovery and reconstruction from the disaster with the support of a large number of support personnel from local authorities across Japan. However, because the section responsible for support staff intake and tasks that required the assistance of support staff had not been clearly defined for the contingency of a major disaster occurring, this resulted in problems, including a lack of coordination between the departments in charge and the inability to provide a consistent chain of command.

To address this issue, in March 2014, Iwate Prefecture formulated the Iwate Prefecture Disaster Relief Intake and Provision Plan in order to accurately respond to offers of human support in the event of a future disaster. The plan also provides a support plan for dispatching staff from Iwate Prefecture to other prefectures and within the prefecture.

■ Establishing a Support Intake Team as an organization under the Disaster Response Headquarters

If a Disaster Response Headquarters is established and all personnel are deployed to carry out its activities, a Support Intake Team is to be established as an organization under the Headquarters. The plan provides that the Support Intake Team is centrally responsible for sending out requests for human and material support to other prefectures, accepting offers of assistance, and coordinating with relevant departments. Having a single point of contact for the intake of support staff will allow for smoother intake of support from other local authorities.

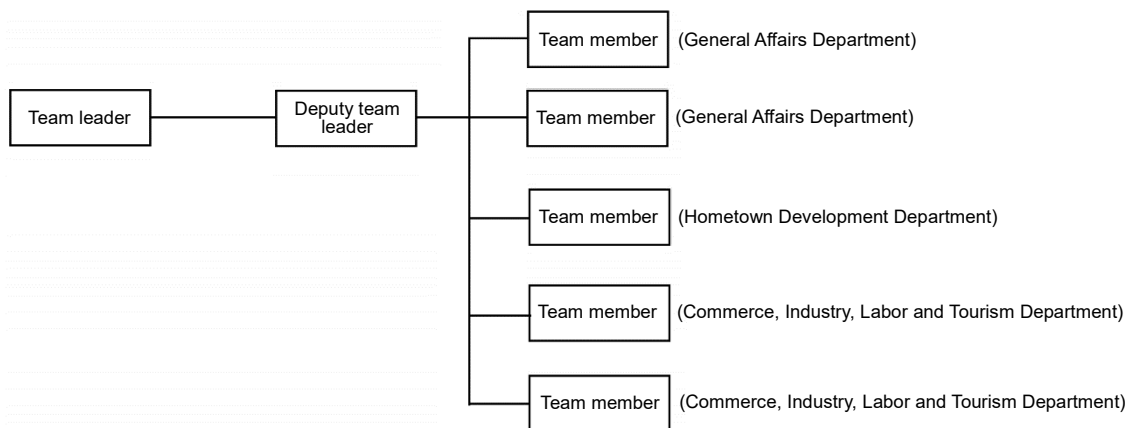
The Support Intake Team consists of team leader and deputy leader positions that are filled by section chief-level officials from the General Affairs Department, and team members as their subordinates who specialize in coordinating with the General Affairs Department, Hometown Development Department, and other departments.

■ Specifying the duties to be performed by the support staff and the section to which they will be assigned

The plan defines the operations to be supported by support staff from other prefectures and municipalities in the event of a major disaster, such as assistance in restoring the administrative functions of municipalities, identifying evacuees, assisting in the operation of evacuation shelters, supporting the health care of disaster victims, and constructing emergency temporary housing. The plan also defines the divisions that have jurisdiction over these operations.

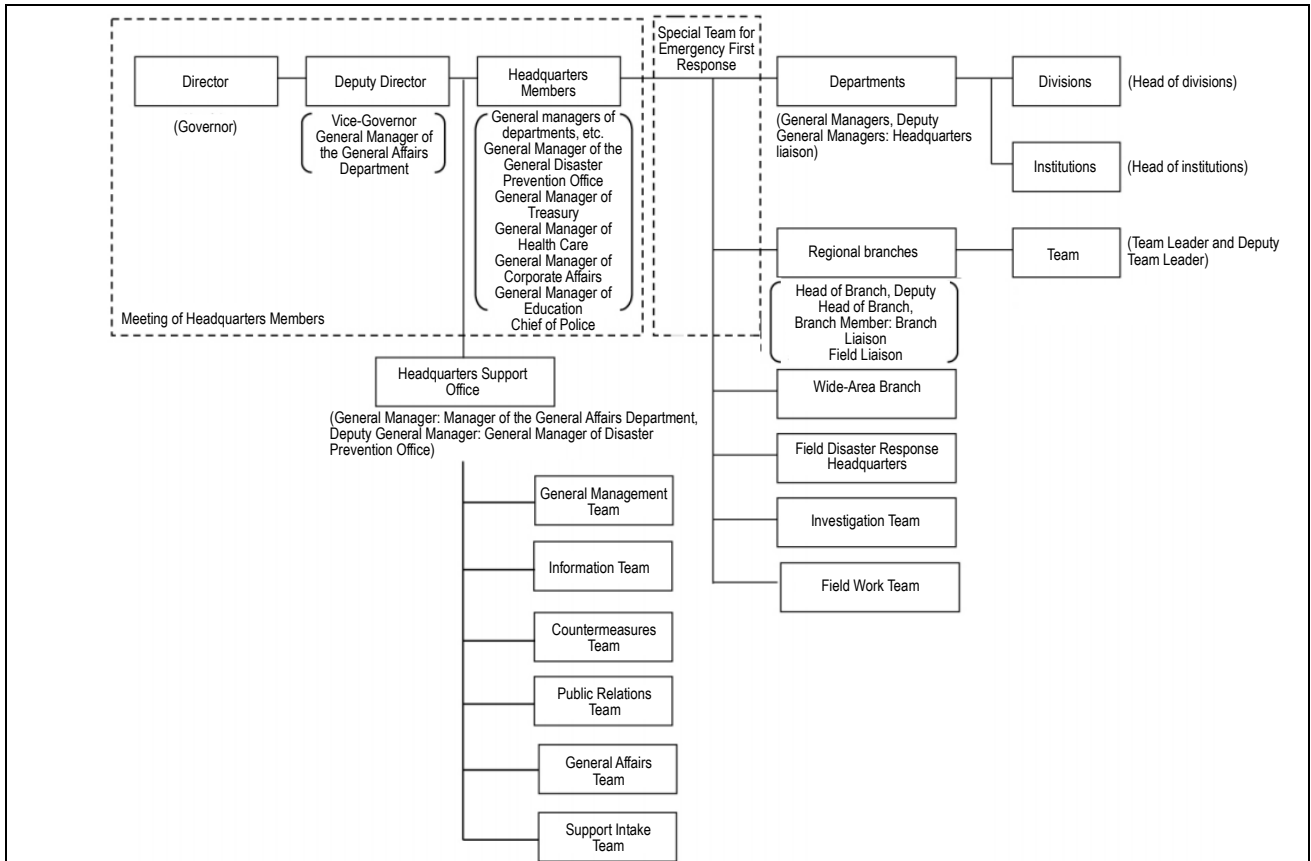
■ Requests for prefectures

The plan asks prefectures that dispatch support staff to conduct their activities in a self-contained manner so as not to be a burden on the affected areas, and to ensure that support staff have the necessary accommodations for carry out their activities (Iwate Prefecture will assist in arranging for accommodations).

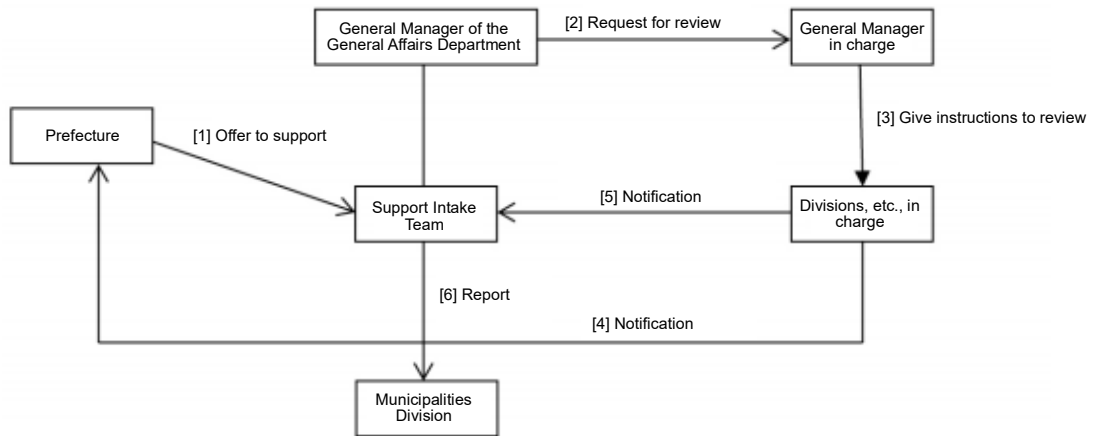


(Fig: Organizational Setup of the Support Intake Team. Source: "Iwate Prefecture Disaster Relief Intake and Provision Plan" partially revised)

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(Fig: Organizational Setup of the Disaster Response Headquarters. Source: "Iwate Prefecture Disaster Relief Intake and Provision Plan")



(Fig: Flow chart of support from prefectures. Source: "Iwate Prefecture Disaster Relief Intake and Provision Plan")

Sources (Listed in other case studies, etc.):

- 神戸市「神戸市災害受援計画 概要版」(2013年3月)
<https://www.city.kobe.lg.jp/documents/7498/250522saigaijuennkeikakugaiyouban.pdf>
- 神戸市「神戸市災害受援計画 総則」(201年3月)
https://www.city.kobe.lg.jp/documents/7498/sousoku_1.pdf
岩手県総務部「岩手県災害時受援応援計画」(2014年3月)
<http://iwate-archive.pref.iwate.jp/infolib/cont/01/G0000002IWA/000/484/000484496.pdf>
- 岩手県「東日本大震災津波からの復興 岩手からの提言」(2020年3月)
https://www.pref.iwate.jp/_res/projects/default_project/_page_/001/027/741/fukkou_teigen_i_all.pdf

Systems and mechanisms applied:

Project cost:

* In August 2021, Kobe City formulated the "Support Intake Plan for Operations Continuity during Disaster," which integrates the "Operations Continuity Plan" and the "Disaster Support Intake Plan," becoming the first city in Japan to centrally manage operations by systemizing individual operation data.

61-1 Collaboration and Posterity (Dispatching support staff [Initiatives by supportive local authorities])

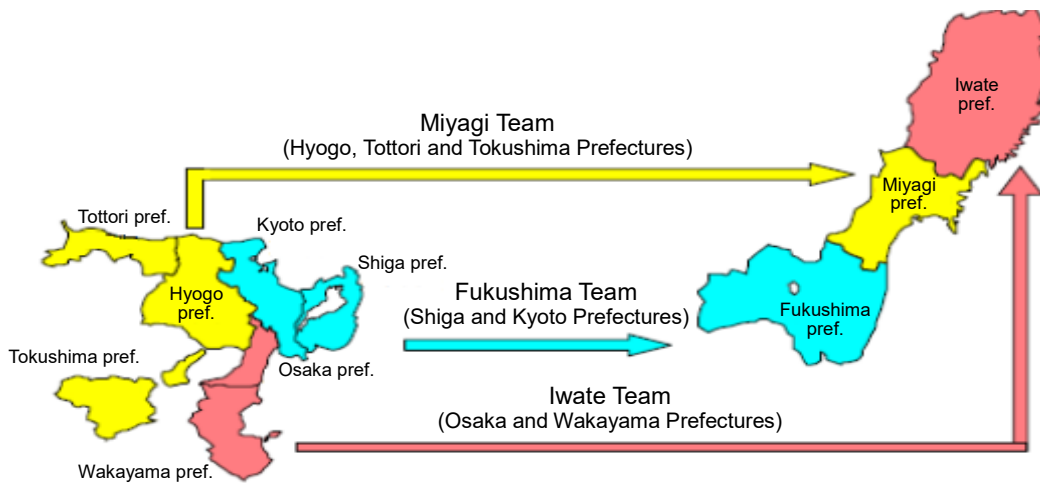
Case study	Dispatch of staff by the Union of Kansai Governments
Location	Three affected prefectures
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Union of Kansai Governments
<p>Activity overview:</p> <p>Immediately after the Great East Japan Earthquake struck, the Union of Kansai Governments dispatched employees for a cumulative total of approximately 586,000 employee-days to the affected areas through December 2020, using the "counterpart method" in which each of its member prefectures was assigned to provide support to one of the three affected prefectures. This method made it possible to coordinate support systems between supporting local authorities and provide ongoing support.</p>	
<p>Activity details:</p> <p>■ Dispatching of staff using the counterpart method</p> <p>The Union of Kansai Governments is an inter-prefectural wide-area administrative implementation organization established in December 2010 by seven prefectures in the Kansai region (joined by four ordinance-designated cities in 2012 and Nara Prefecture in 2015). After the Great East Japan Earthquake struck, a counterpart method — modeled after the “taiko” support system employed in the aftermath of the Taiwan Earthquake and Sichuan Earthquake — was introduced, under which member prefectures formed teams to cover three of the affected prefectures (see attached figure, Inatsugu 2015). Under this method, each of the member prefectures was put in charge of supporting a specific affected prefecture, making it an effective method for resolving the three issues which had been difficult to address adequately through previous cooperation between local authorities, namely, information gathering, coordination of support systems, and sustained support (Onishi 2017).</p> <p>The number of personnel dispatched from member organizations averaged approximately 6,000 per month, bringing the total number of personnel dispatched as of July 29, 2016 to 358,400. Before it sent personnel, the Union of Kansai Governments dispatched an advance team to assess the situation at the affected local authorities and determined the personnel to be dispatched based on the team’s findings. Later, a local liaison office was set up to conduct assessments on the needs in the affected areas.</p> <p>A characteristic of the dispatching of staff conducted by the Union of Kansai Governments was that it is a push method, i.e., a method where supporting organizations dispatch their staff after assessing the needs of the affected areas on behalf of the affected local authorities, which would be too occupied with dealing with the disaster and do not have the capacity to provide the necessary staff (Yamanaka 2013).</p> <p>In addition to assessing needs, the supporting team also took charge of the chain of command so</p>	

that the local authorities receiving support would not have to devote much effort to command and order. Since the supporting staff would exercise control and take over within the scope of human resources available to the supporting party, supporting organizations were able to provide a unified response while reducing the burden on the local authority who were receiving the support.

■ Selecting support staff

Each of the prefectures took diverse approaches according to their own experience and expertise. For example, Hyogo Prefecture's experience from the Great Hanshin-Awaji Earthquake enabled it to quickly prepare a list of its staff with descriptions of their backgrounds and expertise, and this enabled them to quickly decide on a policy to provide rapid dispatch and subsequent long-term dispatch. The list included the names and affiliations of approximately 3,500 staff and former employees with experience in recovery and reconstruction operations. In addition, in order to avoid overburdening the affected local authorities, they brought their own food, large buses for transportation and lodging, electronic devices with satellite communications, etc., to reduce the burden on the affected local authorities.

Kyoto Prefecture, which neighbors Fukui Prefecture where a nuclear power plant is located, took steps with an eye on its own response to similar potential disasters in the future, such as by supporting Fukushima Prefecture, and in doing so, learn about responses and know-how that can be applied in the event of a nuclear accident.



(Fig: Division of roles in the counterpart method)

Reference: Basic data pertaining to the Union of Kansai Governments

- Date of establishment: December 1, 2010
- Member organizations: Shiga, Kyoto, Osaka, Hyogo, Nara, Wakayama, Tottori, and Tokushima Prefectures, and the cities of Kyoto, Osaka, Sakai, and Kobe (as of December 4, 2015)
- Main administrative tasks
 - Administrative tasks that should be handled by administrative bodies of a wider area than

prefectural governments.

- Administrative tasks in seven fields, namely, wide-area disaster prevention; wide-area tourism, culture and sports promotion; wide-area advancement of industry; wide-area medical care; wide-area environmental preservation; qualifications exams and licenses; and training for personnel engaged in wide-area tasks.

Source (Listed in other case studies, etc.)

- 五百旗頭真 [監修]、大西裕 [編]「災害に立ち向かう自治体間連携—東日本大震災に見る協力的ガバナンスの実態」ミネルヴァ書房 (2017年5月)
- 稲継裕昭「広域災害時における遠隔自治体からの人的支援」小原隆治ほか編「大震災に学ぶ社会科学第2巻—震災後の自治体ガバナンス」東洋経済新報社 (2015年11月)
- 三好佑亮「最近の災害における自治体間支援の現状及び課題を踏えた、徳島県における今後の支援、受援体制に関する研究」兵庫県立大学減災復興研究科修士論文 (2018年)
- 山中茂樹「平成24年度市町村トップセミナー 東日本大震災と対口支援～高めよう受援力、巨大災害に備えて～」(2013年)
- 関西広域連合 HP「東日本大震災に係る報道発表 平成24～28年度」
<https://www.kouiki-kansai.jp/koikirengo/jisijimu/bosai/taio/213.html>

Systems and mechanisms applied:

Project cost:

62-1 Collaboration and Posterity (Continuation of long-term dispatching of staff)

Case study	Dispatch of staff to disaster-affected areas through the fixed-term staff system (Tokyo Metropolitan Government)
Location	Tokyo
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Support provider: Tokyo Metropolitan Government Support recipients: Affected municipalities, etc., in Fukushima, Miyagi and Iwate prefectures

Activity overview:

In order to dispatch staff to work in the affected areas over the mid- to long-term, the Tokyo Metropolitan Government (TGM) has introduced a new scheme, ahead of any other municipality in Japan, to hire general fixed-term employees and dispatch them to the affected municipalities.

Activity details:

■ Tokyo Metropolitan Government's efforts to recruit and dispatch fixed-term employees

In response to the shortage of technical staff in the affected areas, the TMG introduced and implemented a new scheme under a fixed-term employee program in which the TMG, in addition to dispatching active TMG employees, recruits people with experience in government administrative agencies or the private sector as general fixed-term employees, and dispatches them to affected municipalities in accordance with the Local Autonomy Law.

(Overview of fixed-term employee recruitment and dispatch)

- Type of work: civil engineering and construction
- Duties: Qualifying employees are dispatched to the affected municipalities in Fukushima, Miyagi, and Iwate Prefectures to work in order placement, design, cost estimation, construction supervision, and zoning adjustment projects related to civil engineering and construction works in the municipalities.
- Term: September 1, 2012 to August 31, 2013 (one year)
(*Terms are renewable up to 5 years from the time of their employment.)
- Number of dispatched staff: 47 employees were hired and dispatched in September 2012. Their terms were renewed once a year, with a cumulative total of 182 employees dispatched through August 2017.

■ Background of dispatch operations and process of staff employment

As recovery and reconstruction progressed in the affected municipalities, shortages in technical staff became a major issue, and securing work-ready personnel became an urgent challenge. To address this issue, the TMG decided to widely seek human resources outside of its organization, and developed and introduced a new scheme in which fixed-term, work-ready employees with abundant

knowledge and experience, such as former employees of government agencies and private companies, are hired and dispatched to the affected areas in the form of Local Autonomy Law-based dispatch.

In the preliminary stage of recruitment, a survey of the affected municipalities was conducted to determine the number of job descriptions and positions needed. As for deciding where to dispatch staff, they were dispatched by matching them with specific needs that municipalities had.

■ Specific results of TMG's efforts

With their experience in government agencies or the private sector, these fixed-term employees were immediately ready to work on the frontlines of the recovery effort. Specifically, in zoning adjustment operations, they utilized their experience in government and produced results in the formulation of project plans and negotiations with landowners. In a project on promoting group relocation for disaster prevention that promotes the relocation of residents from tsunami-inundated areas to higher ground, a team of TMG's dispatched fixed-term employees contributed to speeding up the project by sharing their wisdom and experience.

<Destination municipalities>

Iwate Prefecture: Ofunato City, Otsuchi Town, Noda Village

Miyagi Prefecture: Kesenuma City, Minamisanriku Town, Yamamoto Town, etc.

Fukushima Prefecture: Iwaki City, Kagamiishi Town, Furudono Town, Hirono Town, Naraha Town, Namie Town, Iitate Village

* In addition to the above, employees were also dispatched to the Iwate Prefectural Office.

<Primary activities>

Projects on promoting group relocation for disaster prevention, zoning readjustment projects, disaster public housing development projects, farmland decontamination, school disaster recovery work, etc.

■ Issues in implementing dispatch

Because the fixed-term staff with experience in government or the private sector were relatively advanced in age at an average age of 57.1 years (at the time of their hiring), special attention had to be paid to their health care. TMG took steps to check on the health status of fixed-term employees by holding periodic interviews at local offices set up in the prefectural capitals of the three affected prefectures, and also recommended that they undergo full physical exams to help detect and treat any illnesses early.

Reference) Ministry of Internal Affairs and Communications: Financial measure for disaster-affected local authorities for the intake of staff dispatched over the mid- to long-term.

- Where the intake of mid- to long-term dispatched staff is conducted by an affected local authority in accordance with the provisions of the Local Autonomy Law, the Ministry of Internal Affairs and Communications (MIC) provides a financial measure based on a special subsidy tax that covers 80%

of the expenses incurred by the affected local government (salaries, allowances, travel expenses including for travelling to and returning home from the affected municipality, mutual aid contributions, accommodation rental expenses, and other expenses required for taking in dispatched staff). Where local authorities affected by the Great East Japan Earthquake takes in staff dispatched over the mid- to long-term in accordance with the provisions of the Local Autonomy Law, all expenses are covered by the special reconstruction subsidy tax.

	“Mid- to long-term dispatch”	Disaster support
Applicable expenses	Expenses incurred in taking in dispatched staff in accordance with the Local Autonomy Law	Expenses incurred for supporting disaster-affected areas
Party eligible for financial measures	Destination municipality	Support-providing municipality
Calculation	80% of the amount determined in a survey by the Minister of Internal Affairs and Communications (actual amount)	
Calculation period	December and March	
Remarks	<ul style="list-style-type: none"> Dispatch in accordance with Article 252-17 of the Local Autonomy Law In reality, no term has been set, and short-term dispatches are also being conducted. 	Dispatches not in accordance with the Local Autonomy Law

Regarding the dispatch of staff members related to the Great East Japan Earthquake, the dispatch of staff in accordance with the Local Autonomy Law is covered by the special reconstruction subsidy tax (full amount), while the dispatch of staff not in accordance with the Local Autonomy Law is covered by the regular special subsidy tax (full amount for affected organizations and 80% of the actual amount for non-affected organizations).

(Fig: Dispatch of staff in response to disasters, etc. Ministry of Internal Affairs and Communications)

Source (Listed in other case studies, etc.)

- 東京都「東日本大震災等における平成 29 年度東京都支援活動報告書～ 7 年目の記録～第 3 部任期付き職員派遣」(2018 年 3 月)
https://www.soumu.metro.tokyo.lg.jp/17hisaichi/hp/30kirokushi_03ninkituki.pdf
- 東京都「東日本大震災 東京都復興支援 総合記録誌 第 4 章 人的支援」(2015 年 3 月)
https://www.soumu.metro.tokyo.lg.jp/17hisaichi/hp/sougoukirokushi_04.pdf
- 総務省公務員課「被災地方公共団体のマンパワー確保に向けた支援について」(2012 年 6 月)
<https://www.pref.miyagi.jp/uploaded/attachment/60052.pdf>

Systems and mechanisms applied:

Project cost:

63-1 Collaboration and Posterity (Ongoing support for administrative functions)

Case study	Support for ensuring the relocation of administrative functions of relocating local authorities at their destination
Location	Saitama and Kazo Cities, Saitama Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	Evacuating local authority: Futaba Town, Fukushima Prefecture Supporting local authority: Kazo City, Saitama Prefecture

Activity overview:

Due to the Great East Japan Earthquake and the accident at the Fukushima Daiichi Nuclear Power Plant that occurred on March 11, Futaba Town in Fukushima Prefecture was forced to relocate its town hall functions along with its residents to Kawamata Town in Fukushima Prefecture on March 12, and then again to Saitama Super Arena in Saitama Prefecture, a local authority outside the prefecture. Saitama Prefecture subsequently made the decision to accept approximately 1,200 evacuees and all of Futaba Town's town hall functions at the then-defunct former Saitama Prefectural Kisai High School (Kazo City), to renovate and improve the school's facilities and equipment, and to work with Kazo City to provide support for the evacuees.

By April 1, evacuees and town hall functions were relocated to the high school, and the Futaba Town Saitama Branch Office was established, ensuring the continuation of its administrative functions. The high school evacuation shelter was closed in December 2013 and returned to the prefecture in March 2014. Since then, Kazo City has deepened its interactions with evacuees through door-to-door visits and other support. In November 2016, Kazo City and Futaba Town signed a friendship city pact. As of February 2020, Kazo City continues to provide support for evacuees from wide areas including Futaba Town and other areas.

Activity details:

■ Relocation of evacuees and town hall functions from Futaba Town to Saitama Prefecture

Due to the Fukushima Daiichi Nuclear Power Plant accident on March 12, 2011, the national government issued evacuation orders to residents living within a 10-km radius of the power plant. At 14:00 the same day, Futaba Town in Fukushima Prefecture closed its town hall and evacuated to Kawamata Town together with its residents. Furthermore, because conditions remained serious due to the steam explosions that occurred on March 14 and 15 in the reactor buildings of Units 3 and 4, on March 19, approximately 1,200 town residents, along with the town's administrative functions, evacuated to Saitama Super Arena in Saitama City, Saitama Prefecture.

On March 20, Saitama Prefecture decided to take in evacuees from Futaba Town and all of the town's administrative functions at the then-defunct former Saitama Prefectural Kisai High School (Kazo City), and on March 21, Kazo City established the Kazo City Futaba Town Support Task Force to support Futaba Town. The move to former Kisai High School was carried out on March 30 and 31, and

the use of Saitama Super Arena ended on March 31. By April 1, evacuees began to use the former Kisai High School, and the Futaba Town Saitama Branch Office was established in the former school, ensuring the continuation of its town hall functions.

■ Support efforts by Saitama Prefecture and Kazo City take in all of Futaba Town

Saitama Prefecture allocated JPY 353 million in its initial budget for FY2012 to install temporary bathing and laundry facilities at the former Kisai High School, repair its facilities and equipment, and provide food and bedding for the evacuees. Kazo City provided support for evacuees with the cooperation of citizens and related organizations.

On June 17, 2013, Futaba Town opened its Futaba Town Iwaki Office in Iwaki City, Fukushima Prefecture, relocating the main functions of the town office from Kazo City. However, in order to support evacuees in the Kanto area centering around Kazo City, the town relocated its branch office to Kazo City's Kisai General Branch Office on October 1, 2013 and this office continues to operate as the Saitama Branch Office. All evacuees left the shelter at the former Kisai High School by December 27 the same year, and on March 27, 2014, the following year, the former Kisai High School shelter was closed and returned to Saitama Prefecture.

Kazo City and Futaba Town signed a friendship city pact on November 3, 2016. As of February 2020, approximately 470 wide-area evacuees from Futaba Town and other locations are still evacuated in Kazo City. Kazo City continues to provide its own consultation and information services, in addition to special administrative services such as "certification of long-term care need" based on the Special Law for Evacuees from the Nuclear Power Plant, and also provides support such as door-to-door visits in cooperation with Fukushima Prefecture and Futaba Town.

On March 4, 2020, evacuation orders for Evacuation Order Cancellation Preparation Zones, etc., was lifted in some areas of Futaba Town, and a community center liaison office was opened adjacent to Futaba Station, bringing back some of the town's administrative functions to Futaba Town for the first time in nine years.



(View of the Futaba Town Saitama Branch Office in the former Kisai High School Source: Courtesy of the Secretarial and Public Relations Division of Futaba-Town, Fukushima Prefecture)

Sources (Listed in other case studies, etc.):

- 双葉町 HP「これまでの町の動き」(2020年12月)
<https://www.futaba-fukkou.jp/archives/770>, 最終閲覧日: 2020年8月24日
- 福島県双葉町「原発事故と復興支援」(2015年5月)
<http://www.jca.apc.org/labornow/jichirokifukoza/20150519.pdf>
- 埼玉県 HP「平成24年度当初予算 危機管理防災部記者発表資料」,
<https://www.pref.saitama.lg.jp/a0103/documents/488264.pdf>
- 加須市 HP「県外避難者への支援について」(2020年2月)
<https://www.city.kazo.lg.jp/soshiki/soumu/kenngaihinannsyashien/5018.html>
- 特定非営利活動法人ヒューマンライツ・ナウ「福島県 双葉町役場 埼玉支所・双葉町民避難所調査報告書」(2013年2月) <https://hrn.or.jp/activity/1860/>

Systems and mechanisms applied:

- Disaster Relief Act

Project cost:

(Figures are based on budget, and only those related to support for evacuees at the former Kisai High School are shown)

- FY 2012: JPY 353,346 thousand (provision of food and daily necessities, operation of the former Kisai High School and servicing of facilities)
- FY 2013: JPY 91,605 thousand (provision of food and daily necessities, operation of the former Kisai High School and servicing of facilities)
- FY 2014: JPY 28,356 thousand (repair of facilities at the former Kisai High School)

64-1 Collaboration and Posterity (Preservation of earthquake records and dissemination of lessons learned)

Case study	National Diet Library Great East Japan Earthquake Archive, Hinagaiku
Location	—
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase
Members	National Diet Library, etc.

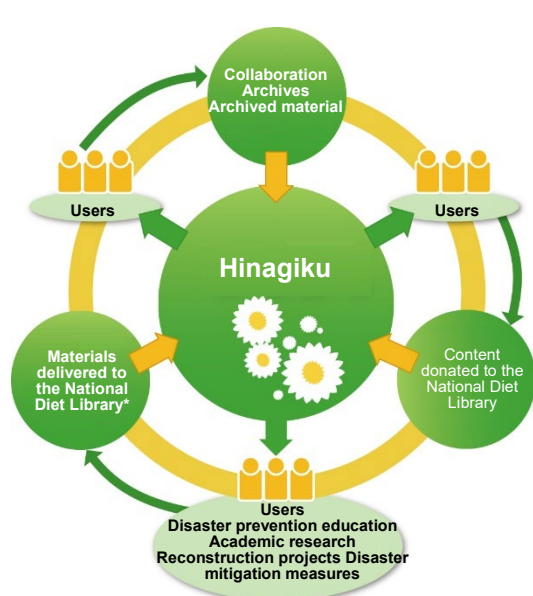
Activity overview:

The National Diet Library has built its National Diet Library Great East Japan Earthquake Archive (nicknamed Hinagiku), a portal site for collecting, preserving, and releasing records of the Great East Japan Earthquake nationwide. In collaboration with archives owned by local authorities, private organizations, media organizations, research institutes, and other organizations, the library is working to pass on the lessons learned from the earthquake to the next generation.

Activity details:

■Creating Hinagaiku, the National Diet Library Great East Japan Earthquake Archive

The need for a system for collecting, preserving, and publishing records and lessons learned from the Great East Japan Earthquake, and the need to build a system that was accessible to everyone and can be applied in a centralized manner had been stated in the Seven Principles for Reconstruction listed at the beginning of "Towards Reconstruction -- Hope beyond the Disaster --" that was compiled in June 2011 by the Reconstruction Design Council in response to the Great East Japan Earthquake, as well as in the Basic Guidelines for Reconstruction in Response to the Great East Japan Earthquake determined by the Reconstruction Headquarters in Response to the Great East Japan Earthquake in July the same year. The National Diet Library, in cooperation with the Ministry of Internal Affairs and



Communications (MIC), has developed the National Diet Library Great East Japan Earthquake Archive (nicknamed Hinagiku), a portal site for collecting, preserving, and releasing records of the Great East Japan Earthquake nationwide. This has been available since March 2013.

The nickname Hinagiku is an acronym for Hybrid Infrastructure for the National Archive of the Great East Japan Earthquake and Innovative Knowledge Utilization. The flower *hinagiku* (daisy), in flower language, represents "future," "hope," and "I feel the same way as you do," embodying the purpose of the project, which is to support reconstruction efforts.

(Left figure: From the National Diet Library Great East Japan Earthquake Archive Hinagiku brochure [March 2019])

■Major content and archives that can be searched on Hinagiku

Hinagiku is linked to databases owned by other organizations in addition to content collected by the National Diet Library, and as of the end of November 2020, gives users access to 53 databases, including those of the National Diet Library, allowing them to search and view approximately 4.45 million documents, websites, photos, audio and video files, etc. (including materials available only within the National Diet Library).

Notable archives searchable on Hinagiku

Archives by municipalities	Archives by online services and video services
<ul style="list-style-type: none"> · Aomori Earthquake Archive (Hachinohe City, Misawa City, Oirase Town, Hashikami Town) · Iwate Earthquake Tsunami Archive -- Hope -- (Iwate Prefecture) · Kuji, Noda, Fudai Earthquake Archive (Kuji City, Noda Village, Fudai Village) · Great East Japan Earthquake Archive Miyagi (Miyagi Prefecture and municipalities in Miyagi Prefecture) · Koriyama Earthquake Archive (Koriyama City, Tomioka Town, Futaba Town, Kawauchi Village) · Urayasu Earthquake Archive (Urayasu City) 	<ul style="list-style-type: none"> · Niconico (Dwango) · Great East Japan Earthquake Photo Preservation Project (Yahoo! Japan) · Remembrance for the Future (Google)
	Other archives by private organizations
	<ul style="list-style-type: none"> · NWECC Disaster Recovery Support Women's Archive · Center for Remembering 3.11 (Sendai Media Work) · 3.11 Iwate NPO Flyer Archive (Iwate Fukko Collaboration Center)
Archives by universities and educational institutions	Archives on earthquakes other than the Great East Japan Earthquake
<ul style="list-style-type: none"> · Michinoku Shinroku-den (International Research Institute of Disaster Science, Tohoku University) · Japan Disasters Digital Archive (Edwin O. Reischauer Institute of Japanese Studies, Harvard University) · Hamadori no Kioku - Earthquake Archive for the Future (Iryo Sosei University) · Record of the Great East Japan Earthquake (Tohoku Gakuin) 	<ul style="list-style-type: none"> · Great Hanshin-Awaji Earthquake Disaster Materials Collection (Kobe University Library) · Nagaoka City Disaster Reconstruction Collection (Documentation Room, Nagaoka City Central Library) · Mie Disaster Prevention and Mitigation Archive (Mie Prefecture, Mie University Mie Disaster Prevention and Mitigation Center) · Digital Archives of the 2016 Kumamoto Earthquake (Kumamoto Prefecture)
Archives by media organizations	
<ul style="list-style-type: none"> · NHK Great East Japan Earthquake Archives (Japan Broadcasting Corporation) · Kahoku Shimpō Earthquake Archive (Kahoku Shimpō Co.) · 3.11 Never Forget FNN Great East Japan Earthquake Archive (Fuji Television Network, FNN) 	

(Table above: Prepared by referencing "About the National Diet Library Great East Japan Earthquake Archive (Hinagiku)," Electronic Information Department, National Diet Library)

Major contents include live broadcast videos of Diet deliberations and government Internet TV videos related to the response to the Great East Japan Earthquake, aerial photos of the affected areas taken by the Geospatial Information Authority of Japan (GSI), testimonial videos and photos held by libraries in the affected regions, newspaper articles, aerial photos of the affected areas held by businesses and various organizations, records of support activities in the affected areas, and more. Linked archives include those of various organizations, such as local authorities, universities, educational institutions, media organizations, private organizations, and libraries, allowing users to search for material not only on the Great East Japan Earthquake, but also on the Great Hanshin-Awaji Earthquake, the Kumamoto Earthquake, and other earthquakes.

■Making useful use of "Hinagiku"

The portal site has a page titled "Let's try using Hinagiku," which provides examples of how to use

Hinagiku even if the user is not able to think of a search term. Furthermore, the National Diet Library promotes various uses of Hinagiku. For example, at Tagajo High School in Miyagi Prefecture which has a Disaster Science Department, it gives Special Classes on the Use of Earthquake Disaster Archives using Hinagiku with National Diet Library staff serving as instructors, and also posts a manual on how to use Hinagiku in disaster education for junior and senior high school students.

Hinagiku is a portal site (a window for searching) where users can research vast amounts of records related to the Great East Japan Earthquake all at once. Please use this for your disaster prevention and research studies.



Disaster education manual for junior and senior high school students:
Using Hinagiku

We have prepared a disaster prevention manual for junior high and high school students that outlines how to use Hinagiku. Please download this to use.



Main contents

- Examples of searchable digital archives
- Search: Entering search keywords
- Search Tip [1]
- Trying different search terms
- Search Tip [2]
- If you can't find what you're looking for
 - View: View in the provider's archive (external site)
 - Use: Check the Terms of Use

(Above figure: From the National Diet Library Great East Japan Earthquake Archive Hinagiku Disaster Prevention Flier)

■ Providing an application programming interface (API)

Hinagiku provides two types of APIs: one for searching and one for harvesting. By incorporating the API for searching, users are able to create search windows, etc., for Hinagiku. The harvesting API allows users to download metadata from Hinagiku and import it into other systems. The Regional Disaster Prevention Web of the National Research Institute for Earth Science and Disaster Prevention utilizes the Hinagiku API, allowing users to specify a local authority and view various disaster material searchable on Hinagiku that include the name of said local authority. The Hinagiku API is also used in the Japan Atomic Energy Agency's Fukushima Nuclear Accident Archive (FNAA), an system for searching information related to the Fukushima Daiichi Nuclear Power Plant accident, extending the scope of information dissemination through database collaboration.

■ Inheriting archives from other institutions

Steps are also in place for Hinagiku to take over records, etc., of archives compiled by other organizations in the event that any of these organizations find it difficult to continue their archiving activities, and they are unable to find a suitable successor organization, thereby playing a key role in preserving the records of the disaster and passing them on to future generations.

Sources (Listed in other case studies, etc.):

- 国立国会図書館東日本大震災アーカイブ
<https://kn.ndl.go.jp/>
- 中川透（国立国会図書館電子情報部）「国立国会図書館東日本大震災アーカイブ（ひなぎく）について」令和元年度東日本大震災アーカイブ国際シンポジウム－震災伝承施設と震災アーカイブ－（2020年1月）
<https://kn.ndl.go.jp/static/2019/11/07>
- 国立研究開発法人防災科学技術研究所 「地域防災 Web と国立国会図書館東日本大震災アーカイブ（愛称：ひなぎく）の情報連携が始まりました」（2019年4月）
<https://chiiki-bosai.jp/?module=blog&eid=11019&aid=76070>
- 独立行政法人日本原子力研究開発機構 「東京電力福島第一原子力発電所事故関連情報アーカイブ化への取組みの本格化－国立国会図書館、国際原子力機関との連携による情報発信の拡大－」（2014年1月）
<https://www.jaea.go.jp/02/press2013/p14012401/index.html>

Systems and mechanisms applied:

Project cost:

65-1 Collaboration and Posterity (Preservation of disaster heritage sites and development of disaster legacy centers)

Case study	Preservation of the Kadonowaki Elementary School Building and Okawa Elementary School Building
Location	Ishinomaki City, Miyagi Prefecture
Phases	Emergency response phase <u>Recovery phase</u> <u>Early reconstruction phase</u> <u>Late reconstruction phase</u>
Members	Earthquake Disaster Legacy Promotion Office, Reconstruction Policy Department, Ishinomaki City, etc.

Activity overview:

After a review process to gather and organize a wide range of opinions, which included setting up an organization to review the matter of disaster heritage sites with the participation of local residents, experts, and NPOs, and conducting a questionnaire survey of citizens, Ishinomaki City, Miyagi Prefecture, decided to overhaul the two earthquake-affected buildings of Kadonowaki Elementary School and Okawa Elementary School.

Activity details:

The city established the Ishinomaki City Earthquake Legacy Review Committee (November 2013-December 2014) to review various measures for passing on the memories and lessons from the earthquake to future generations, and to obtain recommendations based on expert perspectives. The committee's "Recommendations regarding the passing down of memories and lessons from the earthquake, and the selection and preservation of disaster heritage sites" submitted by the committee chair to city mayor in December 2014 indicated the importance of preserving and utilizing the Kadonowaki Elementary School building as a disaster heritage site, while giving due consideration to the sentiments of residents in surrounding areas.

However, the New Kadonowaki Area Reconstruction City Development Council had already submitted a request to the city to have the Kadonowaki Elementary School demolished because detached houses and disaster public housing were to be located in the areas surrounding the school. With regard to the Okawa Elementary School building where 84 children and teachers were killed in the tsunami, the Okawa Area Reconstruction Council submitted a request in May 2015 to have the entire building preserved and to have the surrounding area developed as a forest for the repose of departed souls.

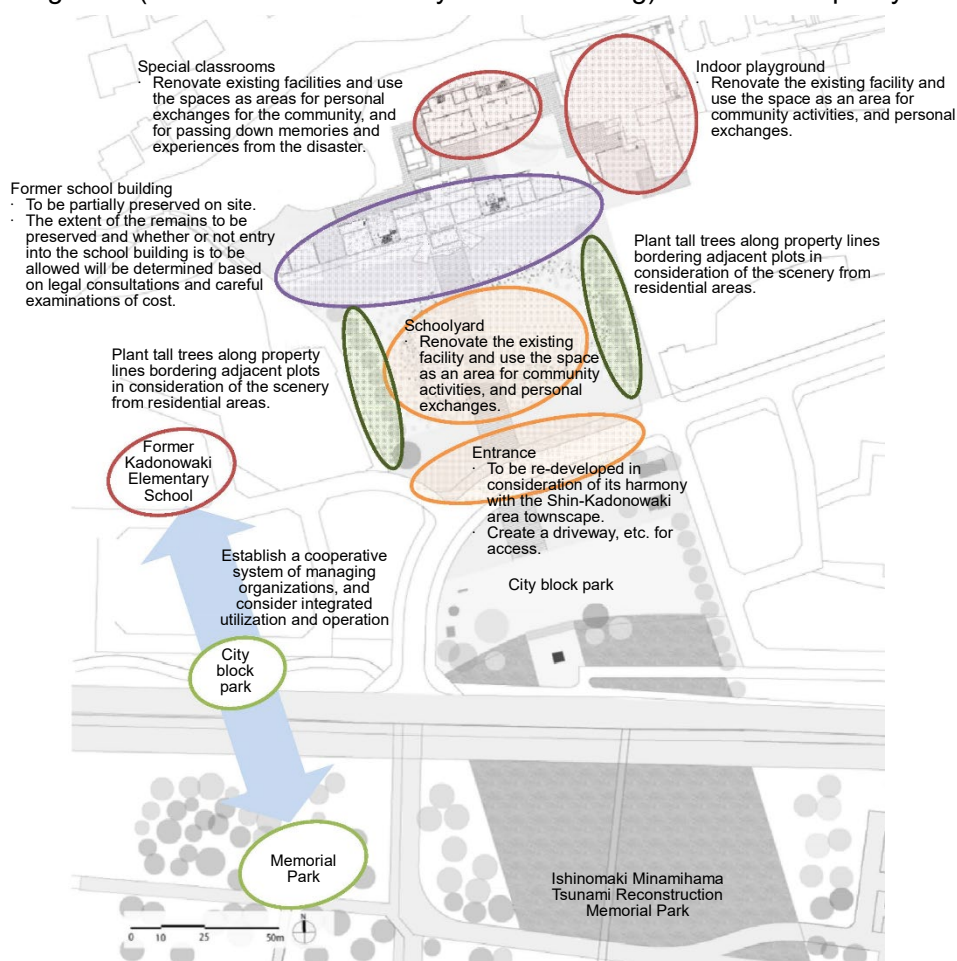
The city established the Ishinomaki City Disaster Heritage Sites Coordinating Council (June-December 2015) to deliberate on issues, repair costs, and maintenance costs that would arise if the Kadonowaki Elementary School building and Okawa Elementary School building that were damaged in the disaster were to be preserved as disaster heritage sites as recommended or requested. In addition, a questionnaire was conducted for city residents, views were exchanged with two councils that had submitted requests, and public hearings were held on the matter of disaster remnant sites, after which

the decision was made in March 2016 to partially preserve the Kadonowaki Elementary School building and preserve the Okawa Elementary School building in its entirety, both as disaster heritage sites.

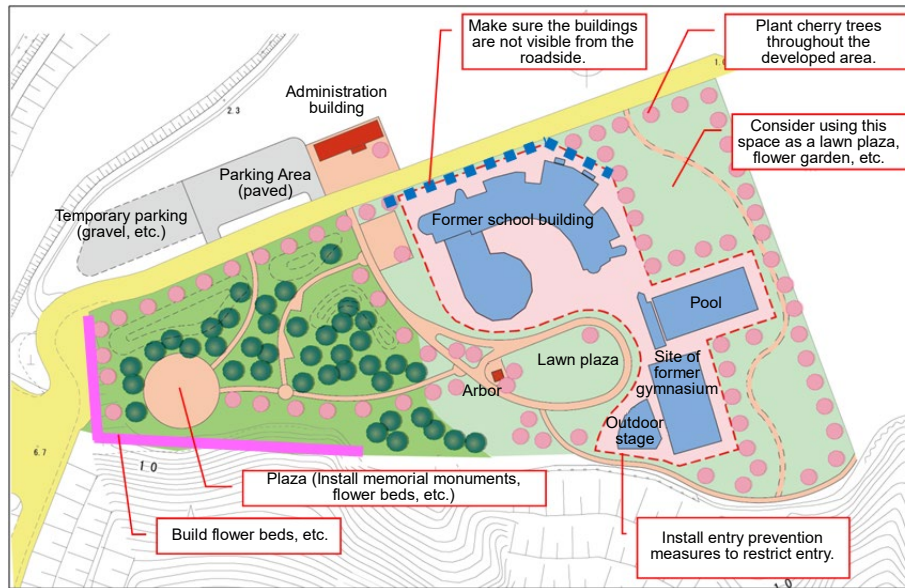
Subsequently, in order to reflect a wide range of opinions regarding the development of the Kadonowaki Elementary School building, the Disaster Heritage Site Study Council (former Kadonowaki Elementary School building) (July 2016 - March 2017) was established, which consisted of experts, local residents (more than half of whom were opposed to preservation), NPOs, and government agencies. During a total of five meetings, a maintenance policy was formulated based on listening to opinions on how to preserve the school building, how to utilize the remains, how to utilize the school building and its surrounding environment, and operation and maintenance management.

Likewise, the Disaster Heritage Site Study Council (former Okawa Elementary School building) (July 2016 - March 2017) was established for the Okawa Elementary School building, and during a total of five meetings, a maintenance policy was formulated based on listening to opinions on peripheral facilities to be maintained, management systems, maintenance and management methods, and points to be considered, including consideration for bereaved families, methods of passing down memories and experiences, and education.

■ Disaster heritage site (Kadonowaki Elementary School building) maintenance policy



■ Disaster heritage site (Okawa Elementary School building) maintenance policy



Sources (Listed in other case studies, etc.):

- 石巻市「震災遺構検討会議（大川小学校旧校舎）」（2018年3月）
<https://www.city.ishinomaki.lg.jp/cont/10051100/9005/20170608181730.html>
- 石巻市「震災遺構検討会議（旧門脇小学校校舎）」（2018年3月）
<https://www.city.ishinomaki.lg.jp/cont/10051100/9004/20170608180312.html>
- 石巻市「石巻市震災伝承検討委員会」（2018年3月）
<https://www.city.ishinomaki.lg.jp/cont/10051100/0080/20140811091301.html>
- 石巻市「石巻市震災遺構調整会議」（2018年3月）
<https://www.city.ishinomaki.lg.jp/cont/10051100/9001/20160113092649.html>
- 石巻市「震災伝承検討会議」（2018年3月）
<https://www.city.ishinomaki.lg.jp/cont/10051100/9003/20170608155535.html>
- 佐藤翔輔, 今村文彦「石巻市における震災伝承・震災遺構に関する3つの検討会議の事例分析：会議手法に対する有効性の検証と配慮すべき点」自然災害科学 37(2018年)p47-71
https://doi.org/10.24762/jnds.j.37.S05_47

Systems and mechanisms applied:

- Reconstruction Agency: Reconstruction grant program

Project cost:

65-2 Collaboration and Posterity (Preservation of disaster heritage sites and development of disaster legacy centers)

Case study	3.11 Densho Road
Location	Aomori, Iwate, Miyagi, and Fukushima prefectures
Phases	Emergency response phase Recovery phase Early reconstruction phase <u>Late reconstruction phase</u>
Members	The Disaster Memorial Network Council (Tohoku Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism; Aomori, Iwate, Miyagi and Fukushima prefectures; Sendai City) 3.11 Densho Road (Disaster Memorial Road) Promotion Organization

Activity overview:

By registering and publicizing disaster memorial facilities in the disaster-stricken areas based on standardized criteria, the organization aims to spread and extend the passing down of memories and experiences from the earthquake by publicizing these facilities in an easy-to-understand manner.

Activity details:

■ Establishment of the Disaster Memorial Network Council

The Disaster Memorial Network Council was established by the Tohoku Regional Development Bureau of the Ministry of Land, Infrastructure, Transport and Tourism, four prefectures, and one city in July 2018 for the purpose of promoting collaboration among organizations including Reconstruction Memorial Parks to be built in the prefectures of Iwate, Miyagi, and Fukushima, and disaster memorial facilities that have been developed or are being considered for future development in the prefectures of Aomori, Iwate, Miyagi, and Fukushima, and the city of Sendai with the aim of networking these organizations so that memories and experiences from the disaster can be passed down more effectively and efficiently, in addition to promoting personal exchanges, regional creation, and contributing to enhancing disaster response capabilities in these regions. In addition to proposing the 3.11 Densho Road concept, the council established a registration system for disaster memorial facilities and released a list of 192 facilities in March 2019 as the results of the first round of applications.

Subsequently, in August 2019, the 3.11 Densho Road (Disaster Memorial Road) Promotion Organization was established as an organization to continuously support the construction and operation of the 3.11 Densho Road, consisting of universities, tourism promotion organizations, and affected local authorities.

■ Formation of the 3.11 Densho Road that connects disaster memorial facilities

The 3.11 Densho Road is a network of facilities that have been registered as disaster memorial facilities, and is being developed through the creation of maps and guide signs for these facilities. There are five criteria for registration as a disaster memorial facility, and those that meet at least one of

these criteria are classified as Category 1 facilities.

- Facilities where visitors are able to understand the lessons learned from the disaster
- Facilities that contribute to disaster response in the event of a disaster
- Facilities where visitors are able to understand the horrors of disasters and the awe-inspiring power of nature
- Facilities that have historical and academic value in the context of disasters
- Other: Facilities that are deemed to be passing down the reality of the disaster and lessons learned.

Of those that meet at least one Category 1 criterion, those that are easily accessible due to their convenient access to public transportation, parking, etc., are classified as Category 2 facilities. Furthermore, facilities that give attention to furthering their visitors' understanding by providing guides or storytelling activities are classified as Category 3 facilities. Facilities registered in Categories 2 and 3 may use exclusive pictograms to disseminate information, and Category 3 facilities may use these pictograms on information signage in their facilities. As of October 12, 2020, 46 facilities were registered in Category 3, 66 in Category 2, and 128 in Category 1.



Pictograms (Source: The Disaster Memorial Network Council)

■ 3.11 Densho Road Workshops

The 3.11 Densho Road (Disaster Memorial Road) Promotion Organization conducts 3.11 Densho Road Workshops as an opportunity for people to learn about post-disaster restoration and recovery, and disaster readiness at disaster heritage sites and disaster memorial facilities throughout the Tohoku region.

Model tour courses include a tour of Seapal-Pier Onagawa in Onagawa Town and the former Kitakami River embankment site in Ishinomaki City, Miyagi Prefecture to learn about "creating liveliness," a tour of the Tsunami Memorial Hall in Kamaishi City and Taro Kanko Hotel in Miyako City, both in Iwate Prefecture to learn about the "wisdom gleaned by people living in tsunami-vulnerable areas and their fight against tsunami," as well as tours where participants can learn about the creation of new industries, and the "creation of livelihoods" in communities based on Fukushima prefecture's Innovation Coast initiative.

Sources (Listed in other case studies, etc.):

- 一般財団法人 3.11 伝承ロード推進機構 「3.11 伝承ロード推進機構ホームページ」
<https://www.311densho.or.jp/>
- 震災伝承ネットワーク協議会事務局 「震災伝承ネットワーク協議会ホームページ」
<http://www.thr.mlit.go.jp/sinsaidensyou/index.html>
- 一般社団法人東北経済連合会, 一般社団法人東北地域づくり協会 「「3.11 伝承ロード」が動き出します」 (2019年8月)
<https://www.tohokuck.jp/notice/20190801/20190801.pdf>

Systems and mechanisms applied:

Project cost:

66-1 Collaboration and Posterity (Passing down memories, records, and experiences from disasters)

Case study	Activities for passing on memories by the young generation - Onagawa Association for Saving Lives a Millennium from Now
Location	Onagawa Town, Miyagi Prefecture
Phases	Emergency response phase Recovery phase Early reconstruction phase Late reconstruction phase (from April 2011 onward)
Members	Onagawa Town Onagawa Junior High School, Onagawa Association for Saving Lives a Millennium from Now

Activity overview:

In Onagawa Town, 64 students who enrolled in Onagawa Daiichi Junior High School in April 2011 came up with three tsunami countermeasure proposals under their slogan "Saving Lives a Millennium from Now": Create bonds, Build a town where people can evacuate to higher ground, and Keep records. As representatives of the affected areas, the students presented these three tsunami countermeasure proposals to representatives from about 100 countries around the world at the World Ministerial Conference on Disaster Reduction in July 2012. The students raised funds through fundraising activities to realize their proposal, which included the Onagawa Stone Monuments for Life Project, whose aim was to erect Onagawa Stone Monuments for Life at elevations higher than tsunami wave heights at all of the town's 21 beaches. After graduating from junior high school, the students founded the Onagawa Association for Saving Lives a Millennium from Now, and have been engaged in the creation of the "Onagawa Textbook of Life" and other projects to spread the lessons learned from the disaster nationwide.

Activity details:

■"Onagawa Stone Monuments for Life Project"

Inspired by class discussions in April 2011 on what their hometown Onagawa can do, first graders from Onagawa Junior High School launched the Onagawa Stone Monuments for Life Project as one of the specific activities derived from their three tsunami countermeasure proposals. Parents, local residents, and volunteers from all over Japan and abroad joined the project to raise funds with the aim of erecting stone monuments at elevations higher than the wave heights that the tsunami reached at all 21 beaches in Onagawa Town and raised their target amount of JPY 10 million in about six months starting in February 2013.

In November 2013, the unveiling ceremonies of the first monument erected on Onagawa Junior High School premises, and a second monument erected in Takeura were held in the presence of many people concerned. Engraved on the stone monuments are inscriptions such as "If a big earthquake hits, please run to somewhere higher than this monument," "Please do not move this monument," "If someone refuses to run away, use force if you have to and take them with you," etc. Also inscribed on the monuments were Haiku poems written by students in May 2011, including "My dreams were the only things the great earthquake could not destroy," and "That voice 'I'm home!' that I so long to hear, I

no longer hear."

Onagawa Junior High School received the Grand Prix in the 2013 Bousai Koshien* for its "Onagawa Stone Monuments for Life Project."

(*The 1.17 Disaster Prevention Future Prize, Bousai Koshien is a program that recognizes progressive activities in disaster prevention education in which children and students take the initiative in their schools and communities to promote disaster readiness education that is mindful of potential natural threats, the preciousness of life and the importance of coexistence, and also to create safe and secure future societies by building on lessons learned from the experience of the Great Hanshin-Awaji Earthquake and other natural disasters in later years.)

■"Onagawa Association for Saving Lives a Millennium from Now"

After graduating from junior high school in March 2014, the students established the Onagawa Association for Saving Lives a Millennium from Now and have been conducting disaster prevention activities throughout Japan, including the erection of the Onagawa Stone Monuments for Life, tsunami evacuation drills, and making a presentation at the UN World Conference on Disaster Reduction in March 2015. The Onagawa Stone Monuments for Life are being included on GSI maps, and the group is also working to create a "Onagawa Textbook of Life" to compile the experiences gained from the disaster and the knowledge gained from subsequent studies, so that students at schools around Japan can deepen their learning. For a year starting in July 2015, the Advertising Council Japan featured these monuments on its in disaster prevention campaign ads on TV, radio, and newspapers. The student's efforts also received numerous awards, including the 2015 Social Contributor Award from the Foundation for Social Contribution in November 2015, and a letter of appreciation from the Minister of Reconstruction in August 2018.



Source: Stone Monument for Life in Takeura district, Onagawa Town
(Onagawa Association for Saving Lives a Millennium from Now <http://www.inotinosekihi.com>)

Sources (Listed in other case studies, etc.):

- 女川1000年後のいのちを守る会「いのちの石碑プロジェクト」
<http://www.inotinosekihi.com/>
- 内閣府「広報誌ぼうさい第77号（平成26年度冬号）防災リーダーと地域の輪第21回」（2014年）
<http://www.bousai.go.jp/kohou/kouhoubousai/h26.html>
- 国土交通省国土地理院「国土地理院HP 防災・災害対応 自然災害伝承碑」
<https://www.gsi.go.jp/bosaichiri/denshouhi.html>
- 公益財団法人社会貢献支援財団「平成27年度 社会貢献者表彰 受賞者一覧」（2015年）
<https://www.fesco.or.jp/winner/h27>
- 兵庫県「1.17防災未来賞「ぼうさい甲子園」」（2013年度結果）
<https://web.pref.hyogo.lg.jp/kk41/bousaikousien25kekka.html>

Systems and mechanisms applied:

Project cost:

66-2 Collaboration and Posterity (Passing down memories records and experiences from disasters)

Case study	3.11 Memorial Network
Location	Iwate, Miyagi, and Fukushima prefectures
Phases	Emergency response phase Recovery phase Early reconstruction phase <u>Late reconstruction phase</u>
Members	Individual members (storytellers, supporters, and others involved in passing down memories and experiences): 500, Registered groups (organizations involved in passing down memories and experiences): 70 Advisors: 12 organizations from government and research institutions, including the Miyagi and Iwate Reconstruction Bureau of the Reconstruction Agency (as of December 2020)
<p>Activity overview:</p> <p>The group has built a network of individuals and organizations involved in activities to pass down the memories and experiences from the disaster, and collaborates with government, private companies, research institutions, media, and other organizations to carry out a variety of projects, including training people who engage in passing down the memories and experiences from the disaster and fundraising for the 3.11 Memorial Network Fund, with the aim of enabling sustainable activities for passing on the lessons from the disaster.</p>	
<p>Activity details:</p> <p>■Establishment of the 3.11 Memorial Network</p> <p>The 3.11 Memorial Network is an organization that was established on November 17, 2017 in a development-oriented dissolution of the Ishinomaki Visitors Industry Network's Legacy Subcommittee which had been holding discussions on the passing down of memories and experiences in the Ishinomaki area since one year after the disaster. With their experience of the Great East Japan Earthquake as a foundation, individuals, groups, and core institutions involved in passing on the lessons of the disaster are connected in a network that transcends regions and generations, sharing the awareness of facing the past and preparing for the future with the rest of the country and the world, working toward realizing societies "in which no lives are lost in disasters," and "that can alleviate the suffering of victims and affected regions, and move toward recovery."</p> <p>Based on the three pillars of their efforts to pass on the memories and experiences from the disaster, disaster prevention and mitigation activities, namely, "collaboration," "planning," and "fostering," the network has been carrying out activities mainly in Iwate, Miyagi, and Fukushima prefectures, with 500 individual members and 70 registered organizations as of December 2020.</p> <p>■Supporting activities to pass on memories and experiences in the disaster-affected areas</p> <p>The 3.11 Memorial Network undertakes the following projects, recognizing that their challenges lie in</p>	

how they can create a mechanism to connect the various local centers engaged in passing on the lessons beyond the boundaries of local governments, and secure funds so that they can continuously implement soft projects with a view to passing them on to the next generation.

1) Promoting collaboration by sharing and disseminating information on activities in Tohoku to pass down the memories and experiences from the earthquake

In addition to sharing information on activities in Tohoku that pass down the memories and experiences from the earthquake on a mailing list for registered members, enabling the shared use of media databases, and fostering understanding of activities across prefectures through plenary sessions, the network has set up a website and distributes brochures to disseminate information on member activities, recruit members, and carry out fundraising.

In addition to making visits to government agencies, and facilities and organizations that pass on memories and experiences from the earthquake, the network stays up to date on issues facing its members and their activities for passing on experiences from the earthquake in the field and reflects its findings in its activities. In 2020, the organization conducted two emergency questionnaires regarding the Covid outbreak. The outbreak had an immense impact on the number of new members signing up which declined from 35,017 to 1,791 in the three months from March to May 2020, a 95% decline compared to the same period in 2019. The organization quickly presented these results in visual form, which were covered by numerous media outlets.

The organization responded flexibly to the Covid outbreak, such as by switching debriefing sessions for disseminating information outside Tohoku to an online format and is developing the infrastructure into a network that presents information on both the difficult environment faced by people and organizations in Tohoku involved in passing on the lessons, and the positive efforts that they are making.

2) Collaboration across prefecture lines in mutual learning and projects

The project provides opportunities for members and others involved in passing down earthquake legacies to visit and interact with people in different parts of Tohoku. Activities that originated in Miyagi Prefecture are now expanding to Iwate and Fukushima prefectures through the Mutual Learning and Exchange Project, study tours, and exchange meetings.

Since its inception, voluntary projects initiated by members including symposiums, and mutual learning and exchange meetings have been promoted in the three prefectures. In addition, an event subtitled “fostering our inheritors” which featured speakers invited from Hiroshima was also held with a view of passing on the tradition to the next generation.

In 2020, the 3.11 Course for Upgrading Skills in Passing on the Legacy was held four times, providing an opportunity for those involved or interested in activities to pass down memories and experiences to learn about different case studies in other regions, and the capabilities they will need to continue their activities, including the organizational infrastructure that supports their activities.

3) Developing human resource who engage in passing down the memories and experience from the earthquake

The Youth Talk program, which has been held since March 2018, provides a venue where young people can disseminate information, such as by taking part as speakers (storytellers) and listeners to share their experiences of the disaster and share information on their activities for passing on their memories and experiences, and also through exchanges of opinions on how lessons from the disaster should be passed on to the next generation.

In the Media Collaboration project, lectures by media representatives and group discussions with young people were held to provide an opportunity for the mass media and storytellers — both of whose role is to communicate the facts and lessons from the disaster — to put their minds together, and also to contribute to improving the way this information is passed on by the next generation and media literacy on the part of the recipients of information.

4) Supporting organizations who pass on lessons from the disaster through the 3.11 Memorial Network Fund

Beyond promoting networking among members, the establishment of the 3.11 Memorial Network Fund was proposed to support activities for passing on the lessons from the disaster, and with a two-year grant from companies and funds to strengthen its organizational foundation, a mechanism was launched that could financially support the activities of passing on the memories and experiences from the disaster with donations from private companies and individuals.

The 3.11 Memorial Network Fund provides grants to organizations selected by an external committee for planning and implementing outstanding projects to pass on the legacy from the perspectives of "collaboration," "planning," and "fostering," thereby supporting the continuation of such activities.

In May 2020, the Fund proposed an emergency grant to address the Covid outbreak to support activities that pass down information about the Great East Japan Earthquake that were unable to operate as the Covid outbreak spread, and grants were provided to 11 organizations for their projects, including online projects for passing down information about the earthquake, disaster prevention, and disaster mitigation activities.

■ Innovations and factors that led to successful results

1) Public-private partnership and mutual understanding that had been built up since the time of the Ishinomaki Visitors Industry Network

Discussions began one year after the disaster with the establishment of the Ishinomaki Visitors Industry Network to discuss how to have more people engage in personal interactions with others and to address the important but difficult-to-voice issue of passing on lessons learned from the disaster in the affected areas. Ishinomaki had the largest number of victims, and more groups and individuals in this region than in any other region were engaged in activities to pass on their memories

and experiences. Collaboration began as the need for coordinated activities and mutual understanding grew in the region.

In a bottom-up approach to the government from those involved in passing on the memories and experiences from the disaster, the 3.11 Memorial Network was established as an evolving regional collaboration that extends the issues and possibilities of passing on the memories and lessons from the disaster from a single city to the entire disaster area.

2) Learning from case studies of the Niigata Chuetsu Earthquake and the Great Hanshin-Awaji Earthquake

Even before the 3.11 Memorial Network was established, the parties involved in passing on the legacy organized approximately 1,000 sheets from their three visits to Kobe, Chuetsu, Hiroshima, and other locations, and after 14 discussions regarding intermediary organizations, summarized the required functions into three categories: "collaboration," "planning," and "fostering." This marked the birth of Japan's first resident-led wide-area organization for passing on memories and experiences of disasters.

3) Participation mechanisms, system for nominating representatives to be voted on, and open governance

Anyone can participate in the 3.11 Memorial Network. As decided at its founding meeting, there are two types of memberships available: individual membership at JPY 1,000/year and registered group membership at JPY 5,000/year, and participation by "advisors" from administrative agencies who may find it inappropriate to have its employees paying for membership as an individual.

Because of the weight of the lives that were lost and the difficulty of determining "representatives" of the bearers of the legacy and stories of these individuals, the Okawa Densho Society proposed a system for nominating officers to be voted on that was open to all members. As a result, officers were elected in an open manner with all members having the right to vote and be voted on. Due to the circumstances of its establishment, the initial board largely consisted of directors from Ishinomaki, but two years later, a second nomination ballot was held in which sponsors were asked to submit nominees from Iwate, Miyagi, and Fukushima. This led to the integration of the project's objectives, its activities, and organizational structure with directors being elected evenly from the three prefectures.

In addition, monthly board meetings were open to all members and advisors, and the board operated with a grounding in governance that was more transparent so that the organization could connect diverse actors in the wider region.

4) Understanding members' intentions through visits, questionnaires, workshops, plenary sessions, etc.

In addition to making visits to government offices, and facilities and organizations that pass on lessons from the earthquake, the network is set up in such a way that it stays up to date on issues

facing its members and activities for passing on experiences from the earthquake in the field and reflects its findings in its activities.

5) Questionnaire on the impact of the Covid outbreak, and online debriefing

The network investigated the impact of the Covid outbreak in two separate questionnaires, and the impact on the three prefectures as a whole was quickly presented in visual form and covered by numerous media outlets. Among all 24 organizations, 44,000 persons had cancelled their participation in programs for passing down the memories and experiences from the disaster, and new participants in these programs from March to May were down 95% compared to the same period the previous year. The organization responded flexibly, such as by switching debriefing sessions for disseminating information outside Tohoku to an online format and is developing the infrastructure into a network that presents information on both the difficult environment faced by people and organizations in Tohoku involved in passing on the lessons, and the positive efforts that they are making.

6) Supporting organizations who pass on memories and experiences from the disaster through the 3.11 Memorial Network Fund

In addition to and in parallel with promoting networking among members, the establishment of the 3.11 Memorial Network Fund was proposed to support activities for passing on the lessons from the disaster, and with a two-year grant from companies and funds to strengthen its organizational foundation, a mechanism was launched that could financially support the activities of passing on the memories and experiences from the disaster with donations from private companies and individuals.

■Reflections and case studies of failures to prepare for the next disaster (content of interviews with primary actors)

1) Insufficient commitment on the part of the government

Even as we approach the 10th anniversary of the earthquake, there is no system (or budget) to comprehensively support community-based activities to pass on the legacy of the disaster, and the formats of public-private partnerships in Tohoku vary from facility to facility, heritage site to heritage site, and memorial part to memorial park.

Because the network is led by those who have been involved in passing down the memories and experiences from the disaster, it is difficult to obtain participation and commitment from organizations that are represented by advisors. The departure of advisors and the non-renewal of sponsorship for symposiums point to the difficulty in continuing public-private partnerships.

2) The departure of first term directors, and officers who would like to focus on their local communities

The board of directors largely consisted of individuals from Ishinomaki when the network was first established, and departing directors have been setting up independent organizations to carry out

their activities in their hometown of Ishinomaki after leaving the board, highlighting the difficulty of balancing local operations in the field and the Tohoku-wide network.

3) Difficulties arising from administrative litigation

The Great East Japan Earthquake differs from past disasters in that many administrative lawsuits have been filed, and perhaps because it is difficult for the government agencies to comment on matters under litigation, it is difficult to discuss and make progress in projects regarding the actors, contents, and subjects associated with passing down memories and experiences from the disaster.

■ Recommendations for future policies, etc. (content of interviews with primary actors)

1) Establish an official positioning and budgetary availability for initiatives that pass on memories, experiences, and lessons learned from disasters.

The first principle of the reconstruction concept is to "pass on lessons learned," and the second principle is "local community-led reconstruction." In this context, the storytelling activities and disaster prevention education that are based on the perspectives of people affected by the disaster and were initiated by these individuals immediately after the Great East Japan Earthquake are important.

The Basic Idea of the Reconstruction Agency's FY2021 budget request is to "pass on memories and lessons to future generations," but there are no budgetary measures for soft measures that directly promote efforts to pass on lessons learned. One reason for this may be that there are no ministries or departments that are responsible for making requests for these budgets. However, in order to promote victim- and community-led efforts for reconstruction, for passing down the lessons learned, and for disaster prevention, it is necessary to present concrete measures and work to achieve the budgeting and institutionalization of such measures for the future, taking into consideration the lessons learned from the Great East Japan Earthquake, rather than simply listing them in plans and policies.

Sources (Listed in other case studies, etc.):

- ・ 復興庁「東日本大震災から7年 事例に学ぶ生活復興」(2018年4月)
<https://www.reconstruction.go.jp/topics/m18/04/20180409160607.html>
- ・ 3.11メモリアルネットワーク「新型コロナウイルス影響アンケート(第2弾)」(2020年5月)
<https://311mn.org/repo10>
- ・ 3.11メモリアルネットワークホームページ <https://311mn.org/>

Systems and mechanisms applied:

- ・ The secretariat corporation provides indirect support through the Support Coordination Project for Disaster Victims (Reconstruction Agency).

Project cost:

- ・ FY2017: approx. JPY 460,000; FY2018: JPY 710,000; FY2019: JPY 21.85 million