

2015/March

Cabinet Office (Disaster Management Office)

Executive Committee for Disaster Management Education Challenge Plan

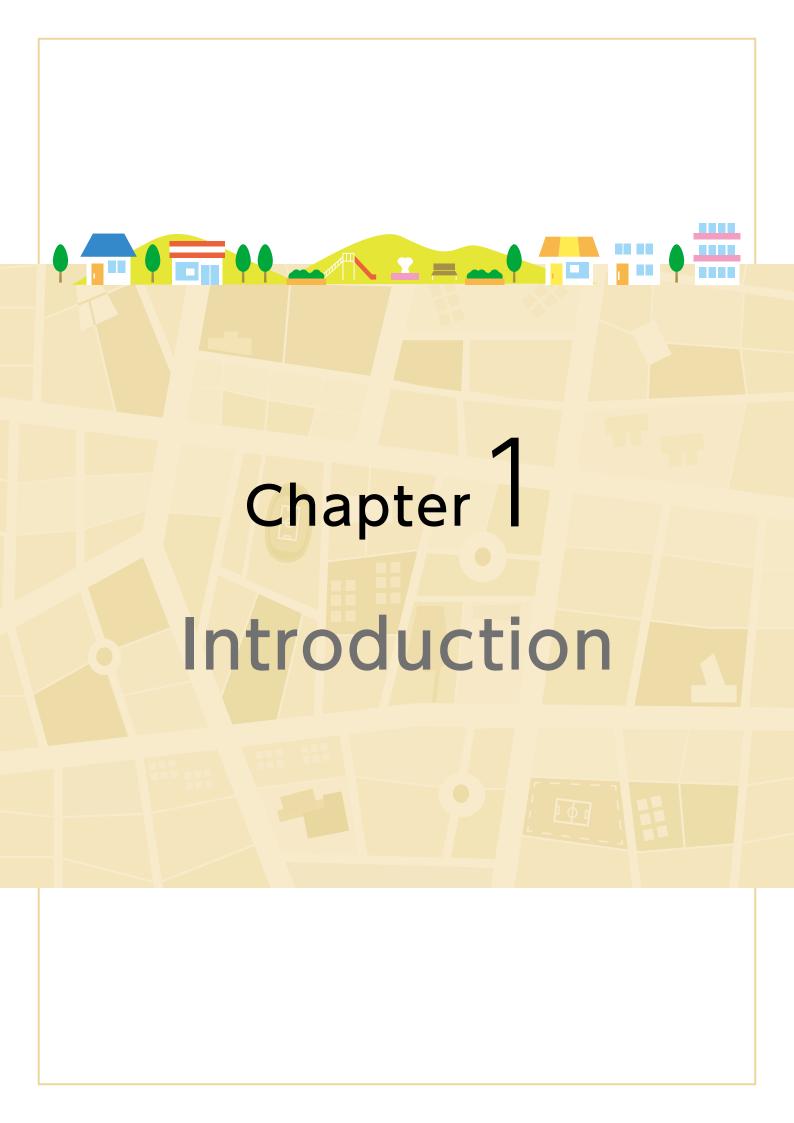
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The background and aims behind creating this handbook

Every year, Japan is afflicted by extraordinary natural calamities including earthquakes, tsunamis, storms and floods. To ensure that damage from these natural disasters is kept to a minimum, the three initiatives of self-help, mutual help, and public help* are important.

In the Great East Japan Earthquake of March 11, 2011, "public help" showed its limitations against such a large-scale wide area disaster. On the other hand, people saw the importance of "self-help" and "mutual help" in a fresh light. It made "Disaster Resilience Education" receive a great deal of public attention, as an initiative to strengthen both self-help and mutual help.

However, there are instances where these initiatives have not gained motion due to a lack of funds and know-how, or indeed from people having no idea how to start. In light of this, this handbook lays out know-how gathered from outstanding and progressive initiatives, with the aim of promoting disaster resilience education. It also provides valuable hints for resolving various matters of concern that arise when trying to implement disaster resilience education.

Scope of this handbook

Not limited to organizations related to education/welfare (schools, pre-schools, child-care facilities), this handbook is intended for use by anyone who is interested in disaster resilience education initiatives within local residents organizations, volunteer groups or local public authorities.

* "Self-help" refers to safeguarding one's own life, examples of which include stocking up supplies in anticipation of disasters, and being able to judge one's circumstances by oneself and taking the appropriate action for evacuation.

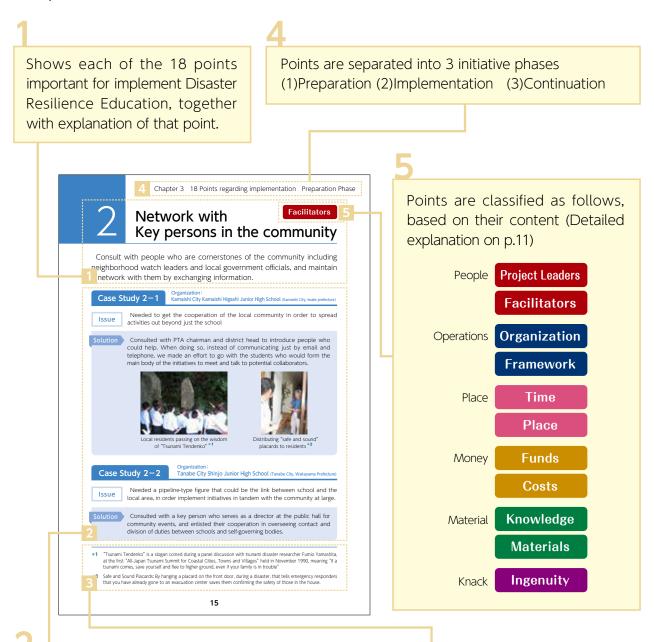
"Mutual help" refers to helping each other and protecting their community, examples of which are rescue activities to save people buried alive, supervising the evacuation of children and people with special needs, or other kinds of mutual assistance within a regional community.

"Public help" refers to public support at the hands of administrative bodies, as seen in education, preparation and maintenance in anticipation of a disaster occurring, as well as disaster response measures such as information provision and operating evacuation centers.

How to use this handbook

This handbook can be used in the following ways:

- Understanding the objectives and basic flow of disaster resilience education.
- Gaining valuable hints for resolving matters of concern that arise when trying to implement disaster resilience education.



To concretely explain each point, this handbook introduces 20 organizations and 44 case examples.

The name and location of the organizations are displayed on the upper right.

"Issues" and "Solutions" for each task are displayed, along with reference maps and photos

The following is also displayed as supplementary information:

- Expert's column
- Message from practicing organization
- Reference information

Examples of initiatives referenced for creating this handbook

Examples of initiatives in this handbook are selected from the following 3 projects supporting disaster resilience education initiatives. Examples of initiatives are selected by taking into consideration awards/results, how long the initiatives have continued, the type of organizer (whether they are schools, self-governing bodies or NPOs), and regional balance.

■ Disaster Management Education Challenge Plan

(URL) http://www.bosai-study.net/top.html

(Outline) Set up with the objective of creating a common asset pursuant to expanding and improving the disaster resilience education field that currently exists across the country. This initiative supports new ventures and challenges, as well as supporting the initial planning and preparation and helping to secure funds, This initiative provides advisors for consultations about the challenge plan for disaster resilience. Case studies were selected from nearly 200 initiatives from 2004-2013.

■1.17 Disaster Reduction Future Award "Bousai Koshien"

(URL) http://npo-sakura.net/bousai-koushien/

(Outline) Using the experiences of the Great Hanshin-Awaji Earthquake and the lessons learned from other natural disasters, this award promotes "disaster resilience education" that teaches the threats posed by nature and the preciousness of life - and the importance of coexisting together with these elements. Bousai Koshien recognizes progressive activities for disaster resilience education that are proactively implemented by children and students at schools and in the community in order to ensure a safe and secure society for the future.

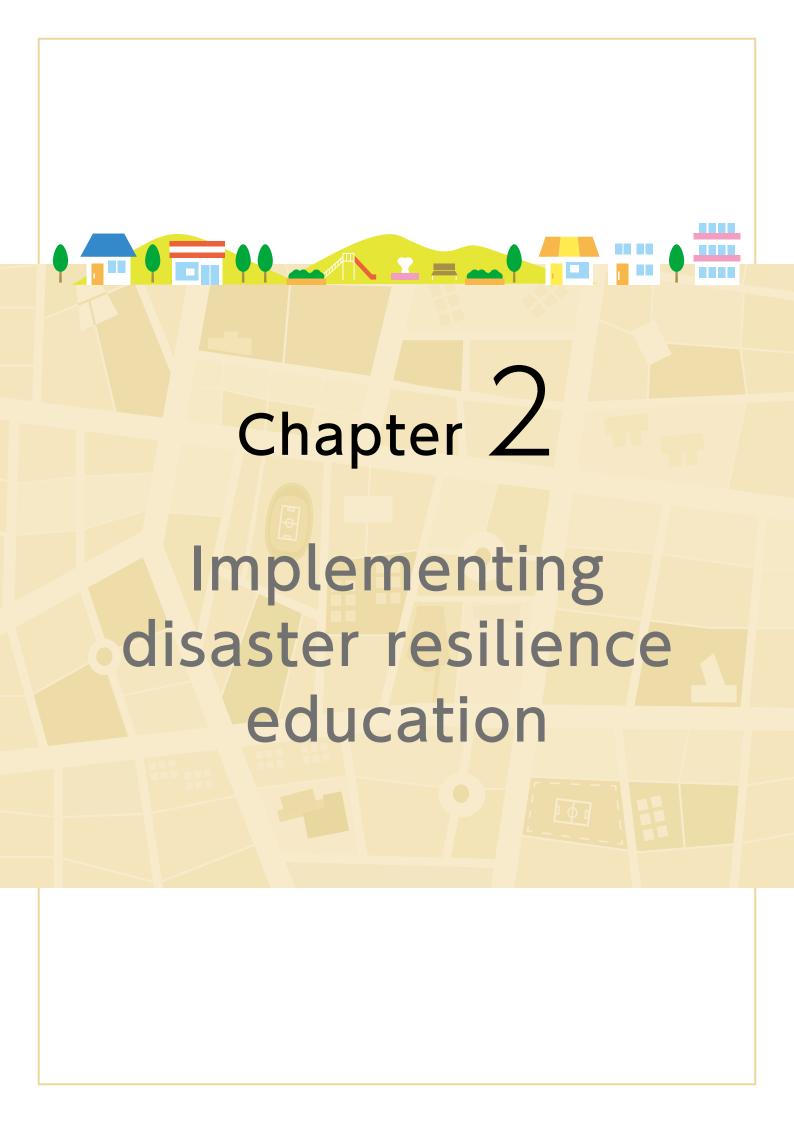
■ Map contest of "Exploration for Disaster Prevention" for elementary school children

(URL) http://www.sonpo.or.jp/

(Outline) Children have fun walking around the town identifying facilities and equipment related to disaster prevention, crime prevention and road safety, which they then use to create a map that fosters awareness of their own safety and security in their community resulting in a practical safety education program. Examples were selected from over 130 award-winning initiatives from 2004-2013.

List of organizations with featured initiatives

NI-	Name of Organization	Location		
No.	(URL for activity reports and other materials)	Prefecture	City/Town	
1	Iwate Prefectural Miyako Technical High School (https://web.pref.hyogo.lg.jp/kk41/documents/kirokushi23_2.pdf)	lwate	Miyako	
2	Kamaishi city Kamaishi Higashi Junior High School (http://www.bosai-study.net/2010houkoku/plan.php?no=1)	lwate	Kamaishi	
3	Kesennuma City Hashikami Junior High School (http://www.bosai-study.net/2013houkoku/plan.php?type=1&no=9)	Miyagi	Kesennuma	
4	Chiba Prefectural Togane Special Support School (http://www.bosai-study.net/2012houkoku/plan.php?type=1&no=4)	Chiba	Togane	
5	Kunitachi Local Foreigners' Disaster Resilience Network (http://www.bosai-study.net/2013houkoku/plan.php?type=1&no=1)	Tokyo	Kunitachi	
6	Nadeshiko Resilience Network (http://www.bosai-study.net/2010houkoku/plan.php?no=9)	Kanagawa	Hadano	
7	Itoigawa City Nechi Elementary School (http://www.bosai-study.net/2011houkoku/plan.php?no=7)	Niigata	Itoigawa	
8	lida City Red Cross Outreach Movement (http://www.bosai-study.net/2013houkoku/plan.php?type=1&no=4)	Nagano	lida	
9	Nagoya University Disaster Management Office (http://www.bosai-study.net/2008houkoku/plan.php?no=5)	Aichi	Nagoya	
10	Aichi Prefectural Handa Commercial High School (http://www.bosai-study.net/2011houkoku/plan.php?no=6)	Aichi	Handa	
11	Toba City Arashima Children's Club (http://www.sonpo.or.jp/protection/bousai/pdf/archive/sakuhin_10.pdf)	Mie	Toba	
12	Shiga Prefectural Hikone Technical High School (http://www.bosai-study.net/2010houkoku/plan.php?no=8)	Shiga	Hikone	
13	Yasashii Nihongo Volunteer Association (http://www.bosai-study.net/2011houkoku/plan.php?no=11)	Kyoto	Kyoto	
14	NPO Himawari no yume project (http://www.bosai-study.net/2008houkoku/plan.php?no=6)	Hyogo	Kobe	
15	Kobe Gakuin University Disaster prevention Social contribution Unit (http://www.bosai-study.net/2006houkoku/plan10/index.html)	Hyogo	Kobe	
16	Hyogo prefectural Maiko High School Environment and Disaster Mitigation Course (http://www.bosai-study.net/houkoku/plan20/index.html)	Hyogo	Kobe	
17	Sakuragaoka 2 chōme self-governing bodies (Nishi Yamato 6 Neighborhood Council Liaison Group) (http://www.bosai-study.net/2010houkoku/plan.php?no=3)	Nara	Kanmaki	
18	Tanabe City Shinjo Junior High School (http://www.bosai-study.net/houkoku/plan16/index.html)	Wakayama	Tanabe	
19	Mizu no Jiyujin Shinsui Sentai Akazatai (http://web.pref.hyogo.lg.jp/pa17/documents/000153803.pdf)	Yamaguchi	Hofu	
20	Tokushima City Tsuda Junior High School (http://web.pref.hyogo.lg.jp/kk41/documents/kirokushi23_1.pdf)	Tokushima	Tokushima	



What is Disaster Resilience Education?

▶ The Aims of Disaster Resilience Education

The primary objective of disaster resilience education is to bolster the disaster resilience (the capability to proactively prevent disasters and in the event of weathering a disaster, the capabilities to prevent the damage from worsening and to enact restoration measures) of communities, by heightening the disaster resilience awareness of each individual belonging to a community and by forging strong links within the community.

In order to do this, it is vital to create an educational climate that fosters equilibrium of the three elements of knowledge of the disaster history of a particular community, the attitude required to work together in standing strongly against disasters, and the skills necessary for safe evacuation and precise live saving and emergency aid.

▶ The Significance of Disaster Resilience Education

In the Great East Japan Earthquake of March 11, 2011, disaster resilience education initiatives bore fruit, exemplified by the case of Kamaishi city Kamaishi Higashi Junior High School in Iwate Prefecture, where the lives of many school children and students who were at school were saved from the tsunami.

Case Study from the Great East Japan Earthquake

The effectiveness of disaster resilience education at Kamaishi Higashi Junior High School (Kamaishi City, Iwate Prefecture)

Kamaishi Higashi Junior High School is located approximately 500m from the coastline, and has long been identified as somewhere vulnerable to tsunami.

Furthermore, in the Unosumai District where Kamaishi Higashi Junior High School is located, depopulation has led to the high school being abolished, meaning that the Junior High School students have to take the lead in propelling initiatives in the community.

Given this, Kamaishi Higashi Junior High School has implemented a disaster resilience education program on an ongoing basis with the following three aims, from the desire for each student to become project leader in the community's disaster prevention in their capacity as members of the regional community.

- 1. Be responsible for protecting your own life.
- 2. From rescued to rescuer
- 3. Passing on the culture of disaster resilience

The disaster resilience education program was implemented with the aim of cultivating the ability of students to judge circumstances by themselves and to proactively take the initiative in reacting. The program encompassed collaborative initiatives with the region including joint evacuation exercises with the neighboring Unosumai Elementary School and a disaster resilience learning program involving all school members called "EAST Rescue", which also involved local households and people throughout the community.

When the Great East Japan Earthquake struck, the 570 students of Kamaishi Higashi Junior High School and Unosumai Elementary School follow what they had been trained to do over and over again, and all begun to evacuate toward higher ground as soon as the earthquake began. Thanks to their ability to calmly judge their situation as it unfolded around them and to respond swiftly, they were able to protect their own lives from the surging tsunami.



The Junior High School students held hands with the Elementary school children during the evacuation



The tsunami came right up close to where they evacuated to

Action for Disaster Resilience Education in Japan

With the objective of improving the resilience of communities to disasters, related government ministries have set out and revised laws such as the following.

Name of Agency	Revision to Law	Phase	Summary
Cabinet Office	Revision to Disaster Countermeasures Basic Act	June 27, 2012 (Act number 41)	 Specifies the obligation of residents to hand down to younger generations the lessons of disaster resilience. Specifies that each disaster prevention organization including regional public bodies, private business etc. must endeavor to implement disaster resilience education, and pursuant to this are permitted to seek the cooperation of education bodies and public/private organizations.
Ministry of Education, Culture, Sports, Science and Technology (MEXT)	Guidelines for school disaster resilience education that nurtures "Zest for life"	March, 2013	 Created as reference materials outlining the ideal state of school disaster resilience education and disaster prevention management, reflecting new items of concern emanating from schools in the wake of recent natural disasters including the Great East Japan Earthquake (Update of materials drafted in 1998). In drafting the guidelines, a new frame of reference was added to the definition of safety in the existing government curriculum guidelines: this included nurturing "the attitude of acting with an independent mind" and "the awareness of contributing to creating a safe and secure society" in consideration of the report issued by the "Council of advisors related to disaster resilience education and disaster prevention management post 3-11" (July 2012). In particular, based on "School Health and Safety Act" and "School Safety Promotion Plan" (Cabinet decision in April 2012), the guidelines made it clear to schools that they must set aside time for teaching disaster resilience, and in order to bolster their instruction, should organize structured and systemic contents."
Fire and Disaster Management Agency (FDMA)	Law on strengthening regional disaster resilience with volunteer firefighting at the core	December 13, 2013 (Act Number 110)	 Specifies that national and local public bodies shall enact measures necessary to promotion learning regarding disaster resilience in education at both the school and societal level. Specifies that fire brigades shall assume a leadership role in the education and training for autonomous voluntary disaster management organization women fire safety clubs, junior fire resilience clubs, and public entities within the boundaries of municipalities and any other organizations related to disaster reduction. Specifies that pursuant to this, municipalities shall enact any necessary measures.

Five basic principles for successful Disaster Resilience Education

Below are five basic principles to remain mindful of when implementing disaster resilience education.

1

Learn about the problems and peculiarities of a community, as well as its past experiences in suffering disasters

It is important to precisely gauge the envisaged disaster risk of a community by using materials and site visits to understand its vulnerabilities.

Message from Organization with Featured Initiatives

When it comes to creating resilient communities, the disasters that each community faces are different. Thus, it is first and foremost important to understand the kinds of disasters that each community faces, and then to respond to the needs of the local people, with a view to making them more resilient to disasters.

[Aichi Prefectural Handa Commercial High School]

When we created the picture story shows, we took extra care to interview people who actually experienced these disasters in order to ensure a correct depiction of events. We also double-checked historical resources to ensure accuracy.

[lida City Red Cross Outreach Movement]

2

Act on your own initiative, witness everything firsthand

Get active, experience everything yourself.

It is important to start by taking action yourself, setting an example to others.

Message from Organization with Featured Initiatives

Don't start out setting yourself limits; it is a key that you take the first step, reaching out to the authorities, corporations and other entities. Adopt the mindset that it may not even work out, but get going anyway with something, no matter how small.

[Shiga Prefectural Hikone Technical High School]

There are some things that only make sense once you begin. If indeed you aren't successful in your aims then take the chance to reflect on what the issues are.

[Itoigawa City Nechi Elementary School]

Set Smart, Realistic Goals

While it is fine to set ideals and goals, it is important to confirm the resources necessary for your programs, and to go about implementing them within realistic boundaries in a reasonable manner without being greedy in one's objectives.

Message from Organization with Featured Initiatives

It is most important to keep your activities going, however small, as you will reap the benefits in areas where you were not expecting to.

[Yasashii Nihongo Volunteer Association]

Although we started out just wanting to make a good map, the more we did the more we realized that the aims of disaster resilience education can be met just by "walking around the area, getting to know the area"

[Toba City Arashima Children's Club]

4

Be proactive in mingling with key people in various fields and disciplines

It is important to take onboard new insights and know-how by networking and cooperating with key persons in the field, always looking to reinforce the framework of your initiatives.

Message from Organization with Featured Initiatives

Members have various qualifications and because they are affiliated to all sorts of organizations they can use their network to create new links with experts and other bodies. We have a cooperative spirit whereby we aim to make out other's deficiencies. which empowers us to do activities that we wouldn't have expected to be able to do.

[Nadeshiko Resilience Network]

First and foremost is finding like-minded people. Without like-minded cohorts, your initiatives won't catch on, and your network will be limited. **[Yasashii Japanese Volunteer Association]**

5

Keep your approach positive, fun and lighthearted

Connect disaster resilience with having fun, and ensure that your initiatives and programs can be comfortably accommodated within daily life on an ongoing basis. Also, develop initiatives that provide people with knowledge of the beneficence of nature, rather than focusing exclusively on seismic and wind/water disasters, and in doing so engender a sense of pride in living in that particular community.

Message from Organization with Featured Initiatives

By interweaving resilience into common local events (festivals/rice-cake making events) people can get to know each other, providing opportunities to encounter disaster resilience in a fun manner which in turn makes the community more resilient and in tune with nature.

[Sakuragaoka 2 chōme self-governing bodies (Nishi Yamato 6 Neighborhood Council Liaison Group)]

The Flow of Disaster Resilience Education (Preparation, Implementation, Continuation)

Disaster resilience education occurs through the following 3 phases:

Preparation Phase

Do the necessary preparations for commencing disaster resilience education

Who? Choose leaders to take the initiative in disaster resilience education

To what end? Set aims and objectives for disaster resilience education

Who will benefit? Determine the scope of your disaster resilience education

What? Think about the activities you need to do to fulfill your aims

When?

Put together a schedule

Where?

Establish venues

How?

Discuss methods and approaches

Collate materials that conform your aims, prepare and set up necessary venues, secure funds, put together a program.

Implementation Phase

Actually commence disaster resilience education

Following the program laid out in the preparation phase, begin specific initiatives.

Continuation Phase

Enact disaster resilience education that is ongoing and sustainable

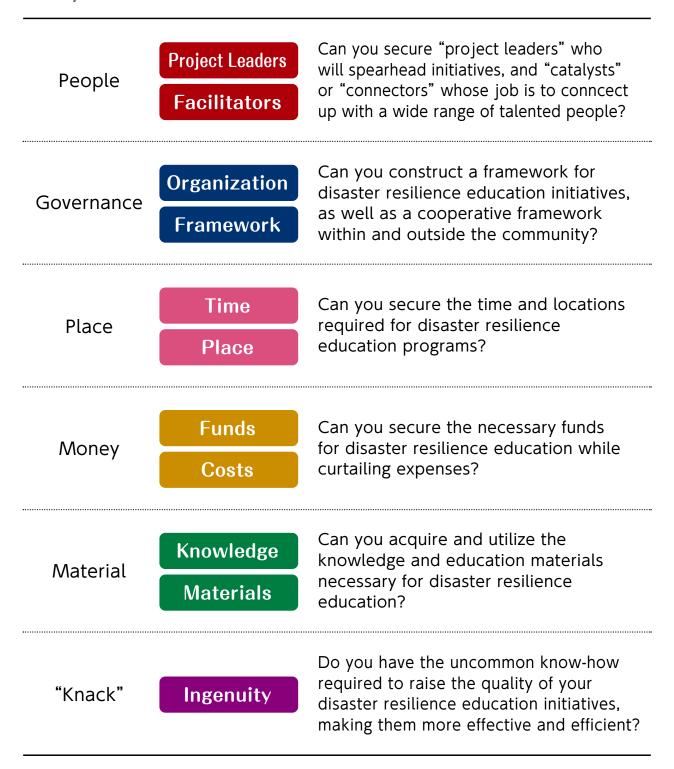
Announce your initiatives widely among the community, widen the circle of activities.

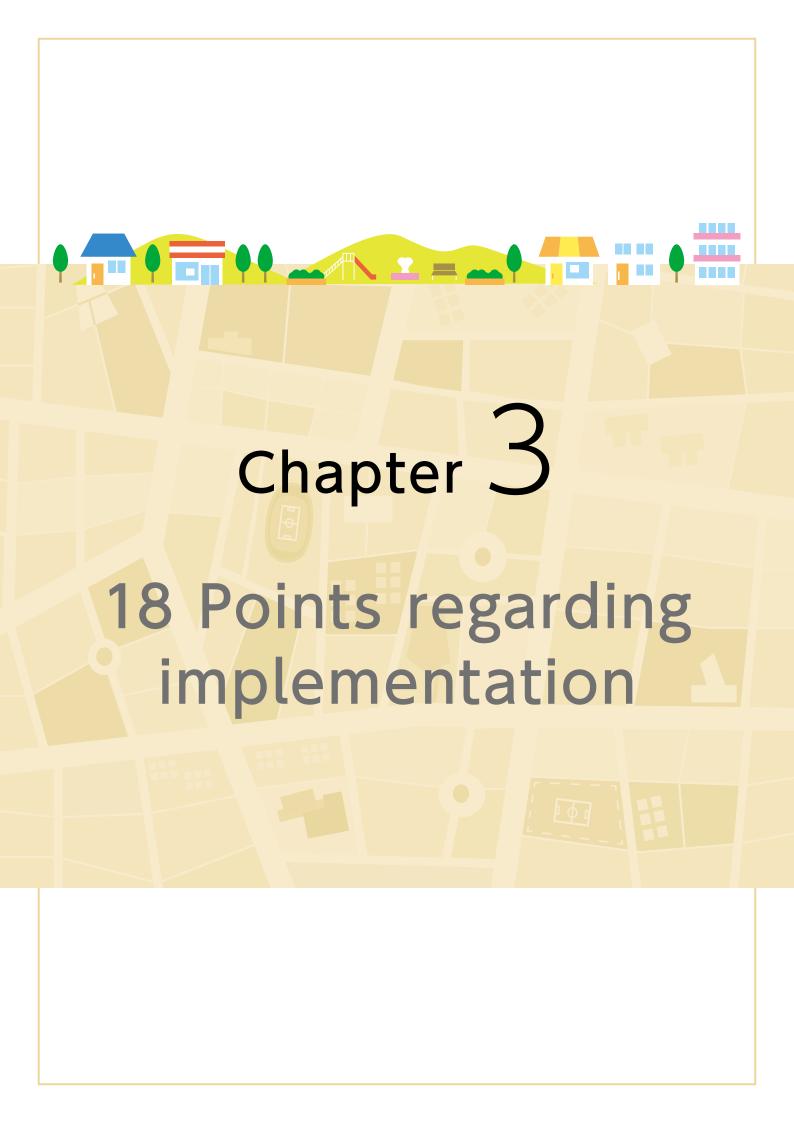
Continue initiatives, constantly improving contents.

Nurture successors, pass on initiatives to them.

Furthermore, from the viewpoint of putting disaster resilience education into action, for each phase you will need to resolve issues related to the following six elements.

6 Key Elements for Successful Disaster Resilience Education





Preparation Phase

Issues in the preparation phase and how to resolve them

In the first phase (Preparation) of disaster resilience education, you need to think about who is doing what, for whom, where, and how it will take place.

You then need to put together your program with materials that fit your goals, secure the necessary time slots and venues, and of course, funding.

Appoint project leaders

Consensus must be reached with all stakeholders when selecting project leaders and frontrunners, taking into consideration their individuality and functional capabilities.

Case Study 1-1

Organization:

Toba City Arashima Childrens' Club (Toba City, Mie Prefecture)

Project Leaders

Issue

We were implementing disaster resilience education as part of our activities at the Children's Club. However, rotation of staff threatened to alter our approach to disaster resilience education activities. To ensure disaster resilience education that is continuous, you need to appoint project leaders who won't be impacted by staff alternation.

Solution

A graduate of the children's club who is also a local mentor type figure, took up the reins as project leader for disaster resilience education during his spare time. By adopting a system different to the one of the children's club, which involved regular rotation of staff, it became possible to implement ongoing initiatives.



Under the guidance of the project leader, children carry out a community patrol



Checking out goods in the local supermarket that you need when disaster strikes

Network with Key persons in the community

Consult with people who are cornerstones of the community including neighborhood watch leaders and local government officials, and maintain a network with them by exchanging information.

Case Study 2-1

Organization:

Kamaishi City Kamaishi Higashi Junior High School (Kamaishi City, Iwate prefecture)

Issue

Needed to get the cooperation of the local community in order to spread activities out beyond just the school

Solution

Consulted with PTA chairman and district head to introduce people who could help. When doing so, instead of communicating just by email and telephone, we made an effort to go with the students who would form the main body of the initiatives to meet and talk to potential collaborators.



Local residents passing on the wisdom of "Tsunami Tendenko" *1



Distributing "safe and sound" placards to residents *2

Case Study 2-2

Organization:

Tanabe City Shinjo Junior High School (Tanabe City, Wakayama Prefecture)

Issue

Needed a pipeline-type figure that could be the link between school and the local area, in order implement initiatives in tandem with the community at large.

Solution

Consulted with a key person who serves as a director at the public hall for community events, and enlisted their cooperation in overseeing contact and division of duties between schools and self-governing bodies.

- *1 "Tsunami Tendenko" is a slogan coined during a panel discussion with tsunami disaster researcher Fumio Yamashita, at the first "All-Japan Tsunami Summit for Coastal Cities, Towns and Villages" held in November 1990, meaning "if a tsunami comes, save yourself and flee to higher ground, even if your family is in trouble"
- *2 Safe and Sound Placards: By hanging a placard on the front door, during a disaster, that tells emergency responders that you have already gone to an evacuation center saves them confirming the safety of those in the house.

Systematize Organization the core of your initiatives

Deliberate with all relevant parties to determine the name of your organization, persons in charge, allocation of responsibilities, and methods for sharing information. Having designed your activities plan, you can systematically enact disaster resilience education. When systematizing the body of your initiatives, consider using existing organizations where necessary.

Case Study 3-1

Organization:

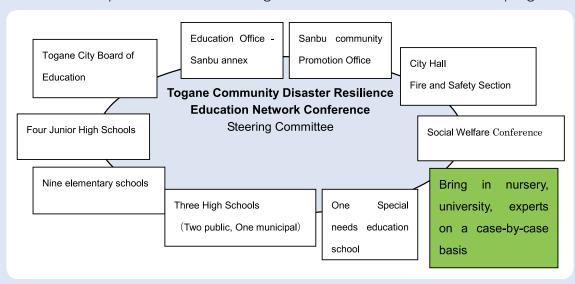
Chiba Prefectural Togane Special Support School (Togane City, Chiba Prefecture)

Issue

Pursuant to raising the level of disaster resilience education for the community as a whole, various stakeholders involved in the community's resilience and welfare needed to get together and share information, to better understand their respective roles.

Solution

Set up "Sanbu Resilience Universal Network" * comprising various organizations involved in disaster resilience/welfare/education within the Sanbu Community, and scheduled regular information and opinion exchanging sessions between the persons in charge of disaster resilience in each. This was conducive to a coordinated, aligned approach across the community and the implementation of an integrated disaster resilience education program.



Through the "Togane communityl Disaster Resilience Education Network Conference", which is one of the constituent elements of "Sanbu Resilience Universal Network", disaster resilience officers get together to swap notes and work on raising the overall level of resilience education for the region.

* "Sanbu Resilience Universal Network" was established with aims including: (1) Raise the level of disaster resilience education in the community through regular information sharing between disaster resilience officers in relevant organizations; (2) Build a network to support persons requiring special assistance in times of disasters. Participants in the network include Sanbu Regional Promotion Office, the 3 cities and 3 towns within the Sanbu community, schools (elementary, junior high, universities, special needs schools), pre-schools, Conference for Self-Reliance Support, Council of Social Welfare, and others. Togane Special Support School, as the nucleus of the Sanbu Resilience Universal Network, proactively transmits information.

Case Study 3-2

Organization: Sakuragaoka 2 chōme self-governing bodies
(Nishi Yamato 6 Council Liaison Group) (Kanmaki, Nara Prefecture)

Issue

Because self-governing bodies officers change every year, the group needed to deploy a structure that would be conducive to maintain disaster resilience education.

Solution

As a separate entity to officers of self-governing bodies, Sakuragaoka 2 chōme self-governing bodies appointed special members to assist them, fulfilling the function of head office for disaster resilience education activities. The fact that these special members do not rotate every year and are in the first place experienced officers of self-governing bodies with a high awareness of disaster resilience education has translated into being able to maintain sustainable disaster resilience education measures.

FY2014 Sakuragaoka 2 chôme self-governing bodies Annual Planner for Disaster Resilience Activities

No	Contents	Scheduled
1	Training for running an evacuation center/kids survival camp (from this year, in collaboration with other associations within school catchment area)	August
2	Field visits to residents needing assistance in evacuation activities	October
3	All residents' evacuation drill for when disaster strikes/drill for looking after people who need special care	November
4	Emergency rescue lecture	February
5	Tour of disaster reduction center	May
6	Meeting for crime/disaster prevention	May
7	Study session for disaster reduction manual	June
8	Fire extinguisher drill	November

^{*} Also inputting other relevant date into this activities plan on an ongoing basis

An initiatives plan is laid out for each year, with disaster resilience education throughout the year

Case Study 3-3

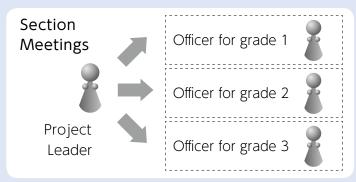
Organization:

Tanabe City Shinjo Junior High School (Tanabe City, Wakayama Prefecture)

Issue

Because the whole school was starting disaster resilience education, it was necessary to create activity goals and activity policies for each instructor.

Solution



For several consecutive years at a time, project leaders coordinate the disaster resilience education officers for each school year. Selected an officer in charge of disaster resilience education from each school grade (three members totally), and organized section meetings for these officers. These meetings are held once a week, during which project leaders can confirm the direction of disaster resilience education with each officer and discuss other matters. This has paved the way for a singular coordinated approach to disaster resilience education across the school year groups.

Do not over-extend the range of your activities

Make the proglam gradually wider, rather than act widely from the beginning of the activities but act as possible as you can.

Case Study 4-1

Organization:

Tokushima City Tsuda Junior High School (Tokushima City, Tokushima Prefecture)

Issue

It was expected that it would be hard to implement a smooth program that involved all students in the school, because some children lack motivation to participate, clash with extracurricular activities, and sometimes it's hard getting the approval of parents to attend programs during long school holidays.

Solution

Started out with small numbers (1 class in each year group) who presented what they had learned to other children during school assemblies.

Case Study 4-2

Organization:

Toba City Arashima Children's Club (Toba City, Mie Prefecture)

Issue

As project leaders all had full-time jobs, they needed a realistic and sustainable way to implement activities that was compatible with their work.

Solution

Toba City Arashima Children's Club established a principle dictating that leaders would be active within their spare tine, and that they would not exhaust themselves trying to broaden networks with government agencies and schools. They were able to continue the program by avoiding labor and cost-heavy tasks such as printing out and distributing the results or spending hours standardizing the details of the maps.

Y€	ear	Title of Arashima Resilience Map
20	05	Protect your life from earthquakes and tsunamis!
20	06	Did you hear the emergency warning speaker? Survey
20	07	Where do you run to when the tsunami alert goes off?
20	80	Will our town be OK in a fire?
20	09	The Ise-wan Typhoon of 1959 and Typhoon 18 of 2009
20)10	Before and After
20)11	Inspecting the route to school
20)12	How long will it take grandma and granddad to get somewhere safe?
20)13	The disaster speaker system is also a life-line at sea





Map freely created by children

Time

Set aside time for preparation

Coordinate with persons in charge regarding what they can offer and when they are available, how to play to their strengths, in a manner that will not over-burden them.

Case Study 5-1

Organization:

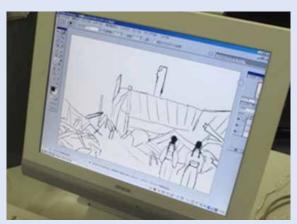
Aichi Prefectural Handa Commercial High School (Handa City, Aichi Prefecuture)

Issue

When creating picture story shows that would be used as learning materials, students only had a limited amount of time. They needed preparation time and various measures to use their time as efficiently as possible, and indeed to reduce the amount of time they spent making these picture story shows.

Solution

Tasks were allotted in a way that leveraged student's strong points, for example having the computer graphics art club design the base pictures while entrusting the narration to the drama club. Also, final editing was outsourced to a specialist. This allowed them to curtail the amount of time spent on creating the picture shows.



Using computer graphics to design the base pictures



Creating picture story shows panels by painting acrylic onto the base pictures

Place

6

Secure a place for activities

Ensure a place for activities that is a good match for your activities.

Case Study 6-1

Organization:

Kunitachi Local Foreigners' Disaster Resilience Network (Tokyo Metropolis)

Issue

Although there are several volunteer organizations supporting foreigners in Kunitachi City, each organization implements activities independent of each other. Coupled with this, there were no organizations carrying out resilience initiatives specifically designed for foreigners, and there was no forum for the many foreigners resident in the city to get together and discuss how to take a coordinated approach to disaster resilience education.

Solution

The city had designated the local public hall as a hub for disaster prevention information for foreigners in its disaster resilience plan. Thus it was considered appropriate to make use of the public hall to hold lectures on disaster resilience every two months. This hall was already in use as a community hub for foreigners, including for Japanese lessons. It provided foreign residents with the opportunity to network, and as such was the ideal place to bring people together for implementing disaster resilience education.



A disaster resilience workshop convened in the local community center hall.

Case Study 6-2

Organization:

Toba City Arashima Children's Club (Toba City, Mie Prefecture)

Issue

A spacious place was needed in order for participants to lay out their large maps on the floor.

Solution

Used the public assembly space in the public hall for free, located in the middle of the community.



The spacious assembly space in the public hall became the place for activities



Using the large space children could lay out and create their maps with ease

Funds

Secure funding for your activities

- 1. Make use of public systems such as * subsidiary aid and grants.
- 2. Secure sponsors who can provide fiscal support as well as materials, supplies and equipment.
- 3. Make applications to "model schools" that are promoting disaster resilience education.
- 4. Think about making your initiatives into a commercial venture.

Case Study 7-1

Organization:

Aichi Prefectural Handa Commercial High School (Handa City, Aichi Prefecuture)

Issue

Although the school could budget for a minimum level of activity funds, much more funding was needed to implement a satisfactory activities program.

Solution

For making PR leaflets, utilized activity support funds from "Disaster Management Education Challenge Plan", and also solicited donations for activities funds through alumni reunions.

Case Study 7-2

Organization:

Tanabe City Shinjo Junior High School (Tanabe City, Wakayama Prefecture)

Issue

Tanabe City Shinjo Junior High School needed to procure funds to develop disaster resilience education throughout the community, not just confined to the school.

Solution

At the outset, the organizer personally took the task of implementing activities in tandem with the local region. Subsequently, however, local bodies who were sympathetic to the cause lent their support in the form of contributing travel and materials expenses.

Case Study 7–3

Organization:

lida City Red Cross Outreach Movement (Iida City, Nagano Prefecuture)

Issue

Iida City Red Cross Outreach Movement had to secure funding for activities, due to the increasing personal burden on participants.

Solution

The picture stories that participants had created as an initiative for disaster resilience education, were published as picture books with the support of the prefecture, and then adopted by schools to be used as side reading. They printed a large number of these picture books as they expected demand from outside of the school, and some of the income acquired from distributing these books was re-routed into activities funds.

Reference materials at end of this guide

Main subsidization schemes, awards systems.

* Prefectural Boards of Education are involved in support initiatives through the MEXT-affiliated "Comprehensive support project for practical disaster resilience education". Name of project may differ by prefecture.

Gather information and knowledge

Knowledge

- 1. Link up with disaster resilience specialists and researchers, local administrative bodies, NPOs and others.
- 2. Team up with educational experts (including school teachers, boads of education, researchers) to learn how to teach, also make use of existing handbooks and other such materials relevant to disaster resilience education methods.
- 3. Refer to materials regarding disasters that have struck the community in the past. Learn local topography, history and customs/manners by consulting with experts/researchers, and persons well versed in the area's archeology, priests/monks, and people who have lived through disasters

Case Study 8-1

Organization: Sakuragaoka 2 chōme self-governing bodies
(Nishi Yamato 6 Council Liaison Group) (Kanmaki, Nara Prefecture)

Issue

Sakuragaoka 2 chōme self-governing body needed to acquire specialist knowledge about disaster resilience in order to commence disaster resilience education.

Solution

Those involved deepened their knowledge in ways including acquiring qualifications in disaster resilience, and through general self-improvement. Efforts were also made through the group's regular activities to find people in the area with specialist knowledge (such as firefighters, volunteer firefighters, doctors, nurses, disaster management specialists, architects etc.) and to enlist their cooperation.

Could you become a registered helper during disasters?

When a major earthquake or fire strikes and Sakuragaoka 2 Chōme is in pinch, help others in the community using your specialist knowledge, qualifications or skills. We call such people "helpers during disasters" . Sakuragaoka 2 chōme self-governing bodies wants people to register their capabilities with us which we can then utilize when disaster strikes.

O About "Helpers during disasters":

- ◆ Are volunteers during times of disaster.
- ◆ Registered persons are not obligated to help, in any way.
- ♦ In a disaster, please help out once you have secured your own family's safety.
- ◆ Please cooperate in events such as evacuation drills involving persons with special requirements, and disaster resilience training.
- ◆ There is no age limit. Junior high, high school and university students are also welcome.
- ☆ Specialist Knowledge/Qualifications: 1. Doctor 2. Nurse. 3.Acupuncturist 4.Massage therapist 5. Firefighter 6. Architect 7.Electrician 8. Expert on buildings/facilities 9. Heavy machinery operator
- $\frac{1}{2}$ Hobby/Talent/Other: 10. DIY enthusiast 11. Computer-related 12. Babysitter 13. High place worker 13. Cooking (outdoor preparation)

Leaflet calling for people to register as "helpers during disasters" (extract)

Reference materials at end of this guide

Main sources of information for disaster resilience know-how.

* Community disater resilience plan, Hazardmap and Community historical records made by autonomy, and materials made by Regional Development Bureau, Meteorological Observatory and son on.

Case Study 8-2

Organization:

Kamaishi City Kamaishi Higashi Junior High School (Kamaishi City, Iwate Prefecture)

Issue

Not sure of how/what to teach when starting disaster resilience education during school class time.

Solution

By utilizing the "Manual of Tsunami Disaster Education" *, it was possible to efficiently incorporate disaster resilience education into various subjects. Furthermore, by helping to draft a section of the "Manual of Tsunami Disaster Education", the project leaders were able to acquire information from other experts involved in producing the handbook, regarding how to go about disaster resilience education.

Reference materials at end of this guide

Main examples of guides/handbooks issued by local public bodies.

* Created by Kamaishi City Board of Education, Kamaishi City and Gunma University Disaster Social Engineering Laboratory in 2010, the fruits of promoting disaster resilience education. Revised in 2012 based on lessons learned from the March 2011 Great East Japan Earthquake.

(Kamaishi City Board of Education HP http://www.city.kamaishi.iwate.jp/index.cfm/10.0.109.445.html))

Case Study 8-3

Organization:

lida City Red Cross Outreach Movement (lida City, Nagano Prefecuture)

Issue

lida City Red Cross Outreach Movement Needed to carry out a survey to get a detailed picture of disasters that struck in the past.

Solution

As well as interviewing local residents who had experienced past disasters, we also received materials and guidance from local librarians and museum staff in order to create an accurate picture of what happened in past disasters. Finally, we complied all of these sources of information to create picture story shows depicting various disasters.







Example of picture story shows

Case Study 8-4

Organization:

Iwate Prefectural Miyako Technical High School (Miyako City, Iwate Prefecture)

Issue

Needed information regarding past earthquakes and tsunami damage to make tsunami simulation experience more realistic.

Solution

Went to hear the story from people who had experienced the Showa Sanriku Tsunami of 1933 to learn the details of what happened on that day. Also received photos from local photographers and coast guard of the damage sustained in that tsunami disaster, which were displayed in an exhibition of past tsunami damage held alongside the tsunami simulation experiment.

Reference 8-1

Ministry of Education, Culture, Sports, Science and Technology (MEXT) New Course Curriculum Guidelines

The course curriculum guidelines issued by MEXT were revised in order to provide the next generation of children with the intellectual and physical capabilities and characteristics to help them live better lives ("Zest for life"), and which are necessary for the future of society. These new guidelines were implemented sequentially from 2009.

For example, under these new guidelines, volcanoes and earthquakes became compulsory science subjects for elementary school 6th graders, creating an academic climate conducive to incorporating disaster resilience.

Furthermore, care shall be taken to ensure that instruction is weighted towards a systematic understanding of the basic scientific premises and concepts of "life" and "the earth".

In doing so, for example, instruction will include observation of nature, the human body and exercise, the sun and the moon. Furthermore, instruction <u>must also cover the topic of</u> growth inside eggs, growth within the mother's body, as well as earthquakes and volcanoes.

Source: New Course Curriculum Guidelines: "Zest for life" Explanation for Elementary School Course Curriculum Guidelines (Science)

Reference 8-2

Reference Material: Regarding the Leveraging of Education for Disaster Resilience Education which nurtures "Zest for life" (physical and intellectual aptitudes for life)

"Reference Materials for Disaster Resilience Education in Schools: Leveraging Education for Disaster Resilience which nurtures "Zest for life" (physical and intellectual aptitudes for life)" - which were originally drafted in 1998, have been revised to reflect concerns and issues identified by school professionals on the front line since the 2011 Great East Japan Earthquake and other recent natural disasters, in order to function as reference materials providing direction for disaster resilience education and crisis management in schools.

Main points

Chapter 1: The Significance and Aims of Disaster Resilience in Schools

Based on the lessons from the Great East Japan Earthquake, this chapter proposes the basic premise that safety from disasters should be promoted at schools through organizational activities focused on disaster resilience education/crisis management/resilience.

Chapter 2: Disaster Resilience Education in Schools

This chapter indicates the objectives of disaster resilience education from the perspective of children's developmental stages from nursery all the way through to high school, as well as providing matters to keep in mind from a teaching point of view in order to carry out integrated and structured disaster resilience education that straddles different subjects.

Chapter 3: Disaster Prevention Management in Schools

With regard to the disaster prevention management in schools, this chapter provides matters to be kept in mind for each of the following stages: 1) Safety management in preparation for disasters (preemptive crisis management), 2) Responding when disasters strike (crisis management during disasters), 3) Recovery from a disaster(post crisis management).

Chapter 4: Examples of Organizational Activities Pertaining to Education and Management for Disaster Resilience

This chapter outlines the importance organizational activities and other matters of concern pursuant to implementing effective of disaster resilience education and management including: 1) Maintaining a structure for implementation within schools, 2) Better organization training for teachers 3) Close links with households and local communities.

Chapter 5: Examples of Leveraging Disaster Resilience Education in Schools

Pursuant to encouraging the implementation of systematic disaster resilience education in each school, this chapter provides (for each school stage) examples of annual teaching plans for disaster resilience education and examples of specific classroom scenarios.

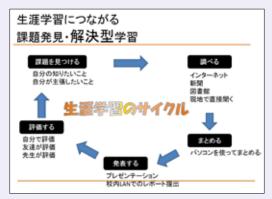
- ·Kindergarten (teaching for everyday life, dropping-off training etc.)
- •Elementary School (learning about disasters in regional communities, training using emergency earthquake alerts)
- •Junior High School (learning about the bounty of nature and disasters, responding to tornados)
- High School (safe and secure ways of living, evacuation training in tandem with the community)
- •Special Needs Support Schools (anticipated problems faced by children with disabilities during disasters, examples of how to assist them)

Expert's Column

Unique Examples for Specialist Training for Disaster Resilience Education

Hyogo prefecutural Maiko High School(hereinafter Maiko High School)is renowned as the only school providing specialist training for disaster resilience education in Japan. Taking advantage of being able to leverage diverse resilience education through its specialist subjects, Maiko High School is implementing the following distinctive education programs for raising resilience to disasters.

- 1) Considering resilience from the two standpoints of the natural environment and social environment.
- 2) Emphasizing learning that involves identifying problems/solving problems. (For example, "Future dreams and engaging with disaster resilience", "Disaster resilience for city planning", "Handing down the experiences of others", "Designing teaching materials for disaster resilience education", and others.)



Identifying/solving challenges

3) Carrying out learning that emphasizes interests outside of school and international exchange. (For example, "International exchange (disaster resilience in developing nations"), "Disaster volunteer activities", "Exchange with schools in afflicted areas and ongoing support", "Disaster resilience workshops at junior and senior high school level", "Disaster resilience workshops at junior and senior high school level", "Disaster resilience exchange programs with special needs schools" etc.)



Resilience exchange with children in Nepal



Volunteer activities in areas afflicted by the Great East Japan Earthquake



Teaching children about disasters at a resilience camp

Maiko High School's official website* also introduces many examples of activities implemented at the school conducive to getting pupils engaged in disaster resilience education, tailored towards the characteristics of the school and the community, as well as the learners' developmental stages.

^{*} Maiko High School HP Collection of ideas for disaster resilience education (http://www.hyogo-c.ed.jp/~maiko-hs/bosai_edu/idea/idea_top.htm)

Create teaching materials (program) that reflect your aims

Materials

- 1. Get teaching materials from websites of organizations involved in disaster resilience education and from disaster resilience-related events. Use the information available in these resources as hints to develop and improve initiatives that reflect your objectives.
- 2. Carefully consider scenarios that reflect the objectives and scope of disaster resilience education in order to creatively shape a program that appropriately allocates teaching materials, venues, time slots, staff and expenses.
- 3. Craft a varied and colorful program that is close to home, and which incorporates an element of play. Program contents should be firmly rooted in the community, with plenty of possible variations/versions. Devise programs that bring a sense of achievement and merit to participants, engaging them and engendering a feeling of enthusiasm.

Case Study 9-1

Organization:

Toba City Arashima Children's Club (Toba City, Mie Prefecuture)

Issue

Had the preoccupation that "disaster resilience education activities are costly".

Solution

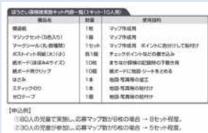
At no cost, received basic set of tools from head office of map contest of "Exploration for Disaster Prevention" for elementary school children and topographical maps that would be the base of the activities from the city. In this way, obtained whatever materials on past disasters that they could from the local area without needing hardly any budget at all.

Materials provided for free by map contest of "Exploration for Disaster Prevention" for elementary school children head office

(Source) " Elementary School Resilience Expedition Team Map Contest"



まちなか探検やマップ作成の際に



Case Study 9-2

Organization:

Shiga Prefectural Hikone Technical High School (Hikone City, Shiga Prefecture)

Issue

When it came to implementing disaster resilience education as part of industrial high school classes, there was a need to deliberate initiatives themed on "creating something tangible and lasting".

Solution

Students were able to get inspiration about initiatives that they could carry out themselves from disaster resilience equipment exhibited at a disaster resilience exhibition.



Normally used as a



During disasters, doubles up as a cooking stove

Organization: Kobe Gakuin University Disaster prevention Social contribution Unit (Kobe City, Hyogo Prefecture)

Issue

In order to ensure broad disaster resilience education, this unit needed teaching materials that could integrate resilience education into general classes and not just composite classes.

Solution

For elementary school 5th graders, created teaching materials that incorporated disaster resilience elements into general subjects (8 subjects). Each of these materials is created in compliance with the aims and contents of the government curriculum guidelines *1 for 5th graders, with volume that fits 1-hour lesson periods. Also, by creating an instruction manual for each teaching material, even teachers with no experience whatsoever in disaster resilience education can use them with ease.

In addition to being made public online,*2 these teaching materials are used by students affiliated to the university for outreach class that they offer.

Aim

Have kids find out what facilities, disaster resilience equipment there is in Doraemon's town.

Then, find out about their own town.

Objectives

- ①Learn meaning of map symbols, how to use maps.
- ②Know how to evacuate during a disaster, learn about the disaster resilience of their town.

Process

1. Give out worksheets. Explain important points about maps.

Points to note:

- This is Doraemon's town
- Can't use secret tools (Doraemon is on a business trip to the future)
- · Only specified questions will be answered.

Instruction manual outlining how to teach,
created alongside teaching materials
(extract from instruction manual related to teaching materials)



Using teaching materials to implement "outreach" classes

Reference materials at end of this guide

examples of disaster resilience education contents with ingenuity

- *1 Used curriculum guidelines available at the time of drafting these materials (2006)
- *2 Refer to activities outline page of Kobe Gakuin University Disaster prevention Social contribution Unit

(URL: http://www.kobegakuin.ac.jp/~gakusai/bosai/html/katudo.html)

Organization: Nagoya University Disaster Management Office (Project to pass on lessons from historical disasters ~1944 Tonankai • 1945 Mikawa Earthquake) (Nagoya City, Aichi Prefeture)

Issue

Lacked an integrated program conducive to implementing disaster resilience education over the course of a year.

Solution

Regarding the process of unearthing the disaster history of the land, organizing these findings, and putting them into teaching materials to pass on to future generations, the unit devised a 4-step program of 1) Identify problems 2) Carry out a thorough investigation 3) Express findings 4) Develop self-awareness.

This is a highly versatile program that can be applied to all disasters, not exclusively to earthquakes.



Step	Contents implemented
① Identify problems	Listen to experiences of people who have been in disasters, comprehend how frightening an earthquake is.
② Carry out a thorough investigation	Fully understand dangers around you, investigate what you need to do to protect your life, discuss with others.
③ Express fidings	Spread the word about what you have learned (lessons from Mikawa Earthquake(1945)) to family and the community at school plays.
Develop self-awareness	Decide how you act when a disaster does strike.

Outline of program, and the contents implemented under this initiative.

Organization:

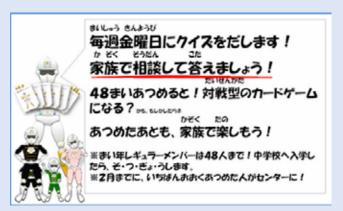
Itoigawa City Nechi Elementary School (Itoigawa City, Niigata Prefecture)

Issue

In order to ensure the safety of children outside of the schools, it was necessary to raise awareness in each household, in addition to the disaster resilience education carried out within the school.

Solution

Set children difficult resilience-related tasks (disaster resilience missions), with instructions that they are allowed to ask their parents for help solving these tasks. This ensured that parents also gave thought to resilience, creating new awareness within family homes.



Based on the tasks set for homework, children and parents put their heads together to think about resilience

Case Study 9-6

Organization:

Aichi Prefectural Handa Commercial High School (Aichi Prefecture, Handa City)

Issue

To ensure that students properly absorb disaster resilience education initiatives, they needed to become the proponents of initiatives rather than merely being a passive receptacle.

Solution

Through the outreach classes run by the students themselves, they had to switch their frame of mind from "learner" to "high school teacher", and in the process had to take the initiative. Also, on each occasion they divided into two groups, one in charge of "instructor role" and one in charge of "student role". The alternated these roles each time and in doing so were able to experience both sides of the process.



Nervously carrying out outreach class in front of a many junior high school students



Elementary school students enjoy participating, as the instructors teach naturally, with ease

Organization:

Kamaishi City Kamaishi Higashi Junior High School (Kamaishi City, Iwate Prefecture)

Issue

Students needed to quantitatively ascertain the results of the disaster resilience education they had received; to do this, they had to find a way to approach initiatives with a specific target in mind.

Solution

Through the EAST Rescue* volunteer activities that students carried out as part of disaster resilience education, introducing a points system and establishing a grade system to acknowledge their level of achievement, it was possible to heighten students' interest in disaster resilience education and to further motivate them to learn more.

認定証

EAST レスキュー隊員1級 第20号 (平成23年-5号) 3年B組19番

あなたは、釜石東中学校において、津波 防災について学び、助けられる人から助 ける人に成長しました。ここにその功績 を認め、EAST レスキュー隊員 1級を認 定します。スペシャリストの隊員として 今後もぬくもりのある活動を継続する ことを期待します。

平成23年12月2日

釜石市立釜石東中学校 校長 平 野 憲

Certificate for EAST Rescue Squad Members

* At Kamaishi Higashi Junior High School, school-wide disaster resilience learning programs (including volunteer activities) are collectively labeled "EAST Rescue" = East("higashi"), Assist, Study, Tsunami. Points are awarded in recognition of volunteer activities, and every year students are awarded a level from 1°5 as an EAST Rescue Squad Member. 5 points in a year receives level 2, while 10 points receives level 1. These levels are presented during all-school assembly.

Expert's Column

We can basically separate disaster resilience education programs into 3 types based on their objectives; from the conceptual phase, it is important to consider which of these 3 types you are aiming for in carrying out your activities.

Types of Disaster Resilience Education Programs

Integrated Learning-type

Initiatives designed to raise disaster resilience awareness and knowledge, centered on school classes and events.

Community Event-type

Schools, the community and large and households come together to carry out initiatives as a community event.

One-off type

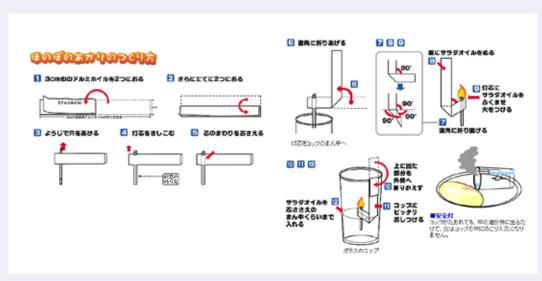
Stand-alone initiatives, centered on specifically designed to develop new teaching materials for a particular purpose.



Example of a one-off initiative

The "one cherry-tree life project" — All 396 Pupils from Kesennuma City Omose Elementary

School. (Atrie Children of the Sun)



Example of a one-off initiative

How to make a cozy candle from salad oil and tissue papers

(Public Interest Incorporated Foundation - SBK)

Implementation Phase Issues in the Implementation Phase and How to Resolve Them In the implementation phase of disaster resilience education, you need to put into action plans laid down in the preparation phase, getting as many people involved as possible.

Appoint advisors With a wealth of experience

Utilize advisor systems organized by public bodies to receive advice for resolving problems that arise in the course of carrying out activities.

Case Study 10-1

Organization: Itoigawa City Nechi Elementary School (Itoigawa City, Niigata Prefecture)

Issue

Needed an advisor, to help bridge knowledge gap in how to enlist cooperation of volunteer organizations to support disaster resilience education.

Solution

We received advice from the community coordinator of the "Regional Head Office Project for Supporting Schools" * about how to utilize school support volunteers. We were able to receive solid cooperation from the surrounding area thanks to having former teachers, who are familiar with the needs of the school, acting as local coordinators and bridging the gap between schools and local volunteers.

Schematic image of Itoigawa City's "Regional Head Office Project for Supporting Schools"

Source: Itoigawa City HP (http://www.city.itoigawa.lg.jp/dd.aspx?menuid=5714)

Regional HQ supporting schools Schools Regional Education Conference Regional Coordinat Teachers School's local volunteers Carry out Project [Example of Activities] School Support Support community learning/recap Guiding club activities. →Guiding/supporting club activities.
○Improve Environment ⇒Establish library rooms and OEnsuring safety of children Watching over kids on way to and from school Supporting school events

Setting up/managing venues

Reference materials at end of this guide Examples of consultation services regarding advisor systems

* A project spearheaded by the Ministry of Education, Culture, Sports, Science and Technology from 2008, at the request of schools, with the aim of building a framework through which local volunteers can provide necessary support; this came from common understanding of the need for close cooperation between schools, households and local residents.

Get the community on board, and link up with relevant local organizations

Framework

- 1. Gain the understanding of the community for your initiatives, build an environment conducive to linking up with relevant organizations in the community.
- 2. Team up with self-governing bodies, voluntary disaster management organization firefighters, schools, community halls, children's clubs, old people's associations and form a network within the community that allows for easy face-to-face communication.

Case Study 11 – 1

Organization:

Tokushima City Tsuda Junior High School (Tokushima City, Tokushima Prefecture)

Issue

In order to carry out effective disaster resilience education as a community and centered on the school, it was necessary to gain the understanding and approval of local residents in the community regarding disaster resilience education.

Solution

Tsunami evacuation support maps created collaboratively between neighborhood community groups, universities and the city were placed throughout the area. Thanks to disaster resilience initiatives becoming a tangible entity that was returned to the community, the school was able to gain a high level of understanding from the community towards disaster resilience education.



Tsunami evacuation support maps put up at road crossings

Case Study 11-2

Organization:

Kesennuma City Hashikami Junior High School (Kesennuma City, Miyagi Prefecture)

Issue

To improve the disaster resilience of the local community, the school needed to use disaster resilience education to communicate to the community issues that arise during a disaster, that they had identified in the course of their initiatives.

Solution

Having residents of the community also participate in resilience learning presentation meetings led to substantive links between the school and the community and brought everybody up to speed about how to act in the event of a disaster.

Many local citizens participate in school-organized community citizen resilience learning sessions



Case Study 11-3

Organization:

Tanabe City Shinjo Junior High School (Tanabe City, Wakayama Prefecture)

Issue

To improve the disaster resilience of the local community, it was necessary to implement disaster resilience education for the area as a whole rather than solely at the junior high school.

Solution

We made links with the kindergartens and primary schools through the local public hall. By participating in the community organization committee, we were able to forge links throughout the region. We also made disaster resilience connections in the region through a government (MEXT) sponsored enterprise, known as "Shinjo Regional Joint Educational Committee" *.



Visiting an elementary school to perform a disaster resilience picture story shows



Explaining "safe and sound" placards at a respect the elderly event

* A "Regional Head Office Project for Supporting Schools" implemented between 2011-2013 as a subsidiary enterprise of Tanabe City in Wakayama Prefecture in tandem with MEXT. Schools, households and the community come together as one to promote a community-wide effort for children's healthy and sound upbringing as well as community building.

Case Study 11-4

Organization:

Yasashii Nihongo Volunteer Association (Kyoto City)

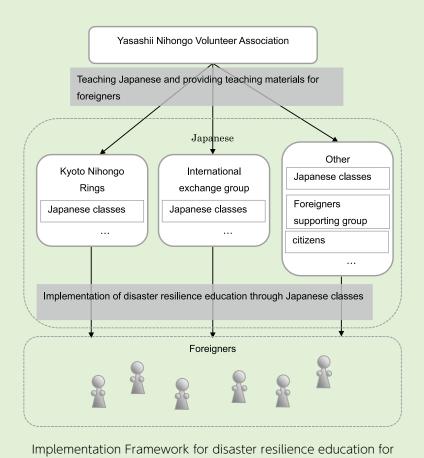
Issue

To provide effective disaster resilience education for foreign residents, it was necessary to communicate with foreign residents on a daily basis, to understand their situations, and to provide disaster resilience education in a method that is easy for them to understand.

Solution

We created an open and accessible system for implementing disaster resilience education for foreigners, including classes held by various communities that are familiar with the needs of foreign residents. We also reached out to Japanese classes belonging to "Kyoto Nihongo Rings" *.

On top of these efforts, we also created "Disaster Resilience Goods Cards". These cards express disaster resilience goods with simple illustrations and easy to understand Japanese.



* "Kyoto Nihongo Rings:

A volunteer network active in Kyoto area providing Japanese classes.

foreigners through Japanese classes

Time

Create time for activities

Set aside time slots for activities, including interdisciplinary learning at school/allied subjects/extra-curricular activities/after hours learning, weekday evenings and holidays in the community, as well as during disaster prevention related events.

Case Study 12-1

Organization:

Kesennuma City Hashikami Junior High School (Kesennuma City, Miyagi Prefecture)

Issue

The school needed to allot time to disaster resilience education within the classes scheduled for the whole academic year.

Solution

Out of the 70 hours designated for cross-sectional/integrated learning classes, the school allotted 35 hours to disaster resilience education. However, as even this would not be sufficient to fulfill the needs, teachers in charge of other subjects adopted the approach of consciously integrating disaster resilience into other classes such as science and Japanese language classes.

Case Study 12-2

Organization:

lida City Red Cross Outreach Movement (lida City, Nagano Prefecuture)

Issue

With only limited amount of time for cross-sectional/integrated learning, Iida City Red Cross needed to devise a way to effectively implement disaster resilience education in a short amount of time.

Solution

Picture story shows can be performed in just 20 minutes. Using school morning assemblies, it was possible to carry out disaster resilience education in an effective manner and in a short space of time.



Performing picture story shows at the allschool morning assembly



A performance of picture story show with human voice, in a short time but left a deep impression

Costs

Cut costs

Reduce direct expenditure in every way possible, including by developing existing initiatives, using available teaching resources, enlisting the cooperation of unpaid volunteers and requesting that people cover their own expenses.

Case Study 13-1

Organization:

Mizu no Jiyujin Shinsui Sentai Akazatai (Hofu City, Yamaguchi Prefecture)

Issue

This organization only had limited funds, and so needed to find a way of cutting costs associated with disaster resilience education.

Solution

Organizer was able to organize with various related bodies to organize teaching materials and venues free of charge. For example, for the rainfall experience event, they utilized the outreach class to have the Ministry of Land, Infrastructure, Transport and Tourism provide a booth, with staff dispatched from a local observatory of the Japan Meteorological Agency.

For the event itself, they used city facilities and negotiated a subsidy for water costs, greatly curtailing overall expenses.



Experiencing torrential rain with a rain experience simulation, at a disaster resilience event.

Case Study 13-2

Organization:

NPO Himawari no yume project (Kobe City, Hyogo Prefecture)

Issue

This organization need funding to cover the cost of their initiatives, including transport expenses required for implementing outreach classes.

Solution

To cover a basic level expenses, we asked organizations who requested outreached classes to cover transport expenses (including for equipment such as materials for the disaster maze). If organizations could not meet basic transport expenses, they also had the option of dispatching a staff member from their side, to save money.

Collaborate with other active organizations

- 1. Collaborate with other organizations and implement initiatives together—this will allow you to broaden your network while building synergies.
- 2. Deepening ties active organizations on a regular basis can build a mutually cooperative and supportive relationship which will bolster your framework.

Case Study 14-1

Organization:

Tanabe City Shinjo Junior High School (Tanabe City, Wakayama Prefecture)

Issue

Wanted to join forces with other schools which had the same aims in order to implement an efficient disaster resilience education program.

Solution

Attended events such as "Junior High/High School Students' All-Japan Resilience Conference" *1, and "The Tsunami Resilience Symposium" *2. At these events, schools engaged in disaster resilience education gather together and exchange information, insights and know-how. This leads to more effective disaster resilience education initiatives as well as providing opportunities for cross-pollination.



At the Tanabe City Tsunami Resilience Symposium



At the Junior High/High School Students' All-Japan Resilience Conference

- *1 Held under the auspices of Tanebe City and Tanebe boad of education in November, 2013 by exchanging and publishing the initiatives of schools and community, in order to develop the disaster resilience education in Tanabe City with the aim of maiking a opportunity of improving disaster resilience education.
- *2 Shinsai Mirai School Exchange: A residential disaster resilience learning exchange meeting for junior high to high school students from all over Japan, held over three days from August 10th 2014, organized by Miyagi Prefectural Ishinomaki Nishi High School.

Case Study 14-2

Organization:

Nadeshiko Resilience Network (Hadano City, Kanagawa Prefecture)

Issue

Because of limited staff numbers in organizations spearheading disaster resilience education, Nadeshiko Resilience Network needed to secure necessary staff numbers to help running events and other activities.

Solution

We regularly carried out activities jointly with volunteer bodies in various areas. For events, we adopted a system under which staff could be dispatched to help each other out when necessary. When cooperating with school pupils, we always issued a results report to the school after the event, which built good working relationships with schools and paved the way for future cooperation.



Local junior high school students voluntarily participated in making and deploying signs for the "disaster water well project".

Case Study 14-3

Organization:

Mizu no Jiyujin Shinsui Sentai Akazatai (Hofu City, Yamaguchi Prefecture)

Issue

The organization leading disaster resilience education only had limited staff. During events, needed to find more staff to help out.

Solution

For small-scale events held within the local area, we asked parents of children participating in the events to volunteer their time to accompany the children for these events. For large-scale events involving other organizations and other communities, we were able to secure large numbers of staff by reaching out to organizations whom we work with on a regular basis.



Linking with parents and volunteers for river-based fun activities

Continuation Phase Issues in the continuation phase and how to resolve them In the continuation phase, it is key to publicly announce the results of your initiatives across a broad range, and to continue them with improvements.

Educate and rear future successors

Project Leaders

- 1. Nominate successors ahead of time, and pass on the role of project leader/frontrunner to the next generation, through measures including strategic OJT*.
- 2. Hand down initiatives wherever possible, while nurturing successors.
- 3. Find successors by proactively engaging and communicating with organizations implementing similar projects, academic and research institutions in similar fields, NPOs, specialists/researchers and other veterans.

Case Study 15-1

Organization:

Tokushima City Tsuda Junior High School (Tokushima City, Tokushima Prefecture,)

Issue

If activities are dependent on one single project leader, there is the danger that activities will stagnate if he/she is transferred off somewhere else.

Solution

Project leader appointed and mentored a sub-leader whom he entrusted with specific roles, involving this sub-leader in all aspects of disaster resilience education ranging from convening lectures on resilience to mingling with local residents. Currently, while the project leader of the school's activities has since been transferred to another school, the incumbent sub-leader has taken up the reigns from his predecessor and is continuing to implement disaster resilience education at the school.

Case Study 15-2

Organization:

lida City Red Cross Outreach Movement (lida City, Nagano Prefecuture)

Issue

Creating picture story shows, as a form of disaster resilience education requires various skills such as composition, scripting, and illustration, making it difficult to nurture successors.

Solution

As the performing of picture shows can be done with relative ease by anybody, the staff decided to separate the creation and performance of picture story shows into separate entities. They organized joint performances with elementary schools in the city (puppet play club) and also taught performances to other Red Cross chapters. In this way, they decided to broaden their initiatives by cultivating successors who could perform the picture story shows.



Making picture story shows



Teaching Japanese Red Cross Society Nagano Chapter how to perform picture story shows

^{* (}Refers to the process in the workplace whereby staff members, through the execution of specific duties, intentionally and systematically educate and provide their junior colleagues with the knowledge, skills, and approach to initiatives, on an ongoing basis.)

Case Study 15-3

Organization:

NPO Himawari no yume project (Kobe City, Hyogo Prefecture)

Issue

There was a limit to having just one person offering outreach classes throughout the country, so this NPO needed to find collaborators to help spread its disaster resilience education initiatives.

Solution

By leasing the "Disaster Resilience Fun Maze" *1, which was developed as a teaching material for disaster resilience education, as a disaster resilience training facility to exhibition facilities countrywide (such as the famous "Disaster Reduction and Human Renovation Institution" *2), the NPO was able to introduce its teaching materials to various organizations and to spread forth its initiatives.



Exhibiting teaching materials in the guidance room of the Disaster Reduction and Human Renovation Institution



Exhibited at resilience event in Hyogo Prefecture

- *1 "Disaster Resilience Fun Maze" was developed as a teaching material conducive to enjoyable resilience education. Using a 4-way 10 meter wooden maze, and based on the scenario that your house has collapsed during a disaster and has ended up like a maze, participants enjoy games including looking for hidden picture cards, and making disaster resilience maps through assembling the maze to look like a small town.
- *2 DRI was established with the aim of passing on the experiences of the Great Hanshin-Awaji Earthquake and then putting these lessons into practice in order to create a disaster-aware culture, to improve regional disaster resilience capabilities, and to support the development of disaster prevention policies. Through this, it will be possible to create a safe and secure civic collaborative society capable of mitigating disasters. (URL: http://www.dri.ne.jp/wordpress/index.php)

Render know-how and experience into explicit knowledge

Document the processes and key points of initiatives into manuals and/or handbooks, in order to hand down knowledge and know-how.

Case Study 16-1

Organization:

Shiga Prefectural Hikone Technical High School (Hikone City, Shiga Prefecture)

Issue

Needed concise materials with well-organized aims, processes and key points for initiatives in order to further disseminate disaster resilience education initiatives.

Solution

We created the "Activities Handbook" and "Manual for Building Cookingstove Bench" using financial aid received from the "Disaster Management Education Challenge Plan". In doing so, the school was able to put their know-how into written form and share it with others, ensuring that their initiatives were passed on. (However, the manual is not simply passed on, and the integral parts of disaster resilience education need to be explained directly).



Main Contents of Handbook

- I. Introduction explanation of Cooking-stove Bench, significance and possibilities of making it.
- II. Contents of activities Protocol/sequence for making Cooking-stove Bench
- III. Other activities Prior learning/ideas for exchange programs centered on making a Cooking-stove Bench, how to cultivate successors, etc.
- IV. Suggestions for gaining knowledge and for developing activities about suggestions for spreading activities for disaster resilience and mitigation
- V. Reference mingling with other bodies and collaborators
- VI. Conclusion

The "Cooking-stove Bench Activities Handbook" details how to make the benches as well as ideas for using the benches for community activities.

Case Study 16-2

Organization:

NPO Himawari no yume project (Kobe City, Hyogo Prefecture)

Issue

Once the initiatives of this organization began to spread out, measures were needed so that the original aims and concepts of initiatives were passed on in the organization's original intended manner. As this NPO's initiatives began to spread far and wide, they needed a strategy to guarantee a standardized style in order to maintain and correctly communicate the original aims and concepts of the initiatives.

Solution

For the disaster resilience education teaching materials developed by this NPO, a patent was acquired and a level of standards were applied to the method of usage, to ensure that the aims and intentions of the teaching materials were not wrongly interpreted or misconceived.

Share your results and successes with external parties

By returning initiatives and successes to the community, amplify their effects.

Case Study 17-1

Organization:

Iwate Prefectural Miyako Technical High School (Miyako City, Iwate Prefecture)

Issue

This industrial high school used its equipment and technological expertise to create a highly realistic model. The school was keen to use this as a teaching material to carry out awareness-raising activities about tsunami damage throughout the community.

Solution

Every year, the school notified other schools in the community included in the tsunami simulation model, that they would be performing a tsunami simulation demonstration session, which they then did through outreach classes. As well as responding to requests for demonstrations from other resilience-related events, they presented their model at the "1.17 Disaster Reduction Future Award "Bousai Koshien" and at the "Junior High/High School Students' All-Japan Disaster Resilience Conference" * attracting the attention of the mass media. They also did outreach classes for other communities.

The tsunami simulation uses a sophisticated 3-D model with flowing water to allow people to experience how tsunamis move and the range of inundation. It is accessible to everyone from children to the elderly and has a high impact.



Tsunami simulation at a resilience event

Tsunami simulation event -		
number of times performed		
(From 2005-2013)		

Venue	Number
Elementary School	29
Junior High School	6
High School	6
University	4
Event/Presentation	52
Total	97

The tsunami simulation has been carried out nearly 100 times

* Held in Tokyo in January 2014 with the aim of sharing the collective disaster resilience know-how accrued around the world, to nurture "the future frontline of disaster resilience", and to further raise disaster resilience awareness as well as awareness of social participation.

Regularly review contents of activities



Revise programs/content based on self-appraisal and external appraisal.

Case Study 18-1

Organization:

Kesennuma City Hashikami Junior High School (Kesennuma City, Miyagi Prefecture)

Issue

In order to improve existing disaster resilience education initiatives further and to ensure that they continue, it was necessary to gain external feedback on the fruits of these initiatives as well as learning and implementing new insights and perspectives from initiatives of other organizations.

Solution

On the advice of Kessenuma City, we applied to programs including the "Disaster Management Education Challenge Plan", "1.17 Disaster Reduction Future Award "Bousai Koshien"". The aim of this was to receive objective feedback from external parties.

At the same time, they could gain all sorts of new ideas from the initiatives of other schools and participating organizations.



Receiving award certificates for the "Disaster Management Education Challenge Plan"



At the ceremony of the "1.17 Disaster Reduction Future Award "Bousai Koshien""

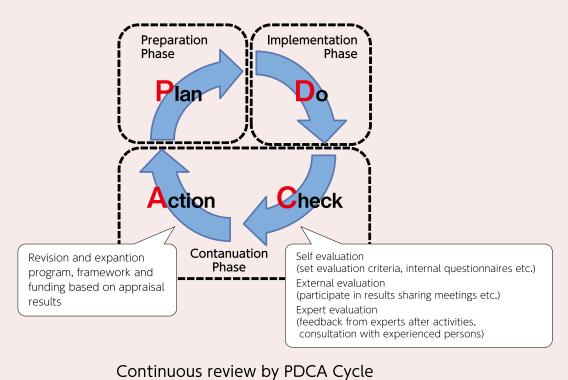
Reference 18-1

Regarding review/revision of the contents of activities for disaster resilience education.

Using the PDCA Cycle* (which is widely used in operations management) allows organizations to evaluate and re-think their initiatives on an ongoing basis. This helps organizations to maintain effective and efficient activities.

Example of a re-think/review

- ORegarding Program
- : Increase target group.
- : Incorporate new options, etc.
- ORegarding Framework
- : Link-up with other organizations, look into collaborations, etc.
- ORegarding Funds
- : Regularly examine methods for ensuring routine income, in order to increase activities funds, etc.



continuous review by 1 b c/ (c/el

* PDCA Cycle Repeating the 4 stages of Plan→Do→Check→Action to continually improve operations us a valuable concept for carrying on disaster resilience education.



Reference – 1: List of principal organizations providing information relating to disaster resilience

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Microscopy Mic		MLIT Disaster Prevent Information Center	http://www.mlit.go.jp/saigai/bosaijoho/
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(Umashi-kuni-okoshi Mie Sakimori Jyuku), Mie University		National Research Institute for Earth Science and Disaster Prevention	http://www.bosai.go.jp/index.html
Center for Research and Education of Disaster Reduction, Wakayama University http://www.wakayama-u.ac.jp/bousai/			http://www.sakimori.eng.mie-u.ac.jp/
		Center for Research and Education of Disaster Reduction, Wakayama University	http://www.wakayama-u.ac.jp/bousai/

(Source: Cabinet Office Disaster Resilience Information Page (information links that can be used as references for promoting civil movements)

^{*} As well as these, it is possible to gain expert know-how related to disaster resilience from relevant departments in local public bodies.

Reference – 2: Examples of guides issued by prominent local public bodies

Name of Materials	Issuing Organization	URL
Promotion of the disaster resilience education (The meeting material of the Working Group 1, Association of Prefectural Board of Education Superintendents)	National Council of Prefectural Boards of Education	http://www.kyoi-ren.gr.jp/report/ H24bukai/h24itibukai.pdf
Case studies/examples of implementing disaster resilience education	Hokkaido Government Board of Education	http://www.dokyoi.pref.hokkaido.lg.jp/ hk/ssa/bosai_jirei.htm
Kamaishi City handbook for education regarding tsunami disaster reduction	Kamaishi City Board of Education	http://www.city.kamaishi.iwate.jp/index. cfm/10,0,109,445,html
Miyagi Schools Basic Safety Guidelines, Guideline for Drafting School Disaster Resilience Manuals	Miyagi Prefecture Board of Education	http://www.pref.miyagi.jp/soshiki/ supoken/anzen.html
Case studies of disaster resilience education in schools, School manual for resilience against seismic disasters, Materials for teaching disaster resilience at schools	Chiba Prefecture Board of Education	http://www.pref.chiba.lg.jp/kyouiku/ anzen/saigai-anzen/index.html
Nara Prefectural Schools Plan for Promoting Education for Seismic Disaster Resilience	Nara Prefecture Board of Education	http://www.pref.nara.jp/kyoiku/
Handbook for teaching disaster resilience education, Side reading to educate for disaster mitigation	Wakayama Prefecture Board of Education	http://www.pref.wakayama.lg.jp/ prefg/500100/koumoku2/sub10_1.html
School disaster management manual, Materials for disaster resilience education	Hyogo Prefecture Board of Education	http://www.hyogo-c.ed.jp/~board-bo/ gakkou.html
School Disaster Response Manual - Drafting Guidelines	Himeji City Board of Education	http://www.city.himeji.lg.jp/ s110/2212774/_28949.html
School Disaster Management Manual, Materials for disaster resilience education	Tokushima Prefecture Board of Education	https://www3.tokushima-ec.ed.jp/ bousai/

Reference – 3: Examples of consultation services regarding advisor systems

Туре	Name (A-Z order)	Contact Details	
National/	Regional HQ enterprise for supporting schools	Enterprise under MEXT jurisdiction. Point of contact is local public bodies	
Regional Public Bodies	Comprehensive support enterprise for practical disaster resilience education (School disaster resilience advisor)	(board of education)	
Publicly Funded Enterprises	Executive Committee for Disaster Management Education Challenge Plan	http://www.bosai-study.net/top.html	
	Association for the Promotion of Disaster Prevention Volunteers	http://www.saigai.or.jp	
NPO/NGO etc.	Nonprofit Organization Sakura net	http://npo-sakura.net/	
	Nonprofit Organization Rescue Stock Yard	http://www.rsy-nagoya.com/	
	Disaster Resilience Network Plan	http://homepage3.nifty.com/BOUSAI_ NWP/index.html	

Reference – 4: Examples of creative disaster resilience education contents

Туре	Name (A-Z)	Contact Details		
	Crossroad	Team Crossroad	http://maechan.net/crossroad/ toukou.html	
Game	Disaster Information & Communications Exercise Program (DICE)	Association for the Promotion of Disaster Prevention Volunteers	http://www.saigai.or.jp/ info/2014/0815104354.html	
	Earthquake school	NPO Plus Arts	http://www.plus-arts.net/	
	Bousai Duck	The General Insurance Association of Japan	http://www.sonpo.or.jp/archive/ publish/education/0008.html	
	Safe Home Return Map Service	PASCO CORPORATION	https://www2.kitakumap.com/	
Apps for learning about	Sonaemon	Gifu Prefecture	http://www.pref.gifu.lg.jp/kensei- unei/kocho-koho/event-calendar/ sonota/joho-sangyo/sonaemon.html	
disaster resilience	Tsunami AR App	Miyagi University of Education/ TOHOKU UNIVERSITY	http://www.miyakyo-u.ac.jp/news/ general/-ar.html	
	Tensai! (catastrophe) Study aid	The University of Tokyo/ CAD CENTER CORPORATION	http://www.cadcenter.co.jp/camp/ ARscope.html	
	100 dollar earthquake reinforcement	Meguro Laboratory, Institute of Industrial Science, the University of Tokyo	http://risk-mg.iis.u-tokyo.ac.jp/top/ top.html	
	Safe and Sound placards	-		
	"Rabbit family" disaster resilience goods selection	Association for the Promotion of Disaster Prevention Volunteers	http://www.saigai.or.jp/ info/2014/0529161411.html	
	Furniture fixation	Tokyo Fire Departments	http://www.tfd.metro.tokyo.jp/hp- bousaika/kaguten/handbook/	
	Dramas/sketches	-		
	Disaster toilet usage guide	NPO Japan Toilet Labo.	http://www.toilet.or.jp/toilet-guide/index.html	
	Bururu	Fukuwa labolatory, Nagoya University	http://www.sharaku.nuac.nagoya-u. ac.jp/laboFT/bururu/index.htm	
Other Teaching Materials	Disaster resilience picture shows	Fire and Disaster Management Agency, Ministry of Internal Affairs and Communications	http://www.fdma.go.jp/syobodan/ bousai/	
	Disaster resilience playing cards	Museum of Fire Safety & Disaster Preparedness, etc.	http://www.bousaihaku. com/cgi-bin/hp/index5. cgi?ac1=P205&Page=hpd5_tmp	
	50 examples of practical disaster resilience education	EDUPEDIA	https://edupedia.jp/articles/keyword/ 53233f7d059b682d585b4cd0	
	Leaflets for disaster resilience education	NPO Sakuranet	http://www.npo-sakura.net/disaster. php	
	Safety hood	-		
	Meguro Maki	Meguro Laboratory, Institute of Industrial Science, the University of Tokyo	http://risk-mg.iis.u-tokyo.ac.jp/ meguromaki/meguro_maki.pdf	
	Nursery songs/music	-		

Reference – 5: Examples of disaster drills

Name (A-Z)	Outline	Со	ntact Details
Iza! Kaeru Caravan!	Disaster resilience events for kids, combining the "Kaekko Bazaar" (exchange of toys) and experiential exercises. Kids learn skills and knowledge about fire-extinguishing, rescuing, first-aiding, etc. through the various activities including games, workshops, physical exercises, puppet shows. They can also get the points for exchange of toys through these exercises.	NPO Plus Arts	http://www.plus-arts. net/?p=15458
Great ShakeOut Earthquake Drills	Drills for people to practice how to protect themselves ("Drop, Cover, and Hold On") when an earthquake occurs. The participants act simultaneously in each place at a specific date and time.	The Great Japan ShakeOut	http://www.shakeout.jp/
Swimming fully- clothed	Training for swimming with full clothes. People learn how to survive (float and move) in the event of water disaster / accidents.	The society of water rescue and survival research	http://wr.umin.jp/
DIG (Disaster Imagination Game)	A drill utilizing on-site maps to examine the regional disaster countermeasures by participants.	Faculty of Social and Environmental Studies, Tokoha University	http://www.tokoha-u.ac.jp/department/social/index.html
HUG (Hinanzyo ("evacuation center") Unei ("management") Game)	A simulation game for running an evacuation center and dealing with all sorts of problems.	Shizuoka Prefecture	http://www.pref.shizuoka.jp/ bousai/seibu/hug/index.html
Disaster resilience sports day	A sports day full of disaster resilience elements including buckets relay and stretcher carrying.		_
Disaster resilience camp	Training for daily living in a evacuation center without utilities (running water, electricity, gas), through simulated outdoor experiences.	Ministry of Education, Culture, Sports, Science and Technology	http://www.mext.go.jp/a_ menu/sports/ikusei/taiken. htm

Reference – 6: Examples of major subsidization schemes and honors systems.

Category	Project/Implementing Body (Japanese syllabary order)	Contact Details
	Subsidies for activities of voluntary disaster management organization	Disaster management section of each local municipality
	Comprehensive support projects for practical disaster resilience education (model schools for promotion of disaster resilience education, etc.)	Projects under the jurisdiction of the Ministry of Education, Culture, Sports, Science and Technology Point of contact: local municipalities (board of education)
National/ Regional Public Body	Neighborhood Associations for Disaster Resilience in Tokyo	http://www.bousai.metro.tokyo.jp/tonarigumi/
Fublic Body	Council for promotion of disaster resilience education	Point of contact: local municipalities (board of education)
	Hyogo Safety Day Promotion Committee	http://19950117hyogo.jp/
	Disaster prevention town development award (Fire and Disaster Management Agency)	http://www.fdma.go.jp/
Publicly	Map contest of "Exploration for Disaster Prevention" for elementary school children	http://www.sonpo.or.jp/
Funded Enterprise etc.	Disaster Management Education Challenge Plan	http://www.bosai-study.net/top.html
etc.	1.17 Disaster Reduction Future Award "Bousai Koshien"	http://npo-sakura.net/bousai-koushien/
	Kiguchi Foundation	http://kiguchi.or.jp/
	JR West Relief Foundation	http://www.jrw-relief-f.or.jp/index.html
	Daiwa Securities Foundation	http://www.daiwa-grp.jp/dsf/index.html
Corporations, Funds, NPOs	The Toyota Foundation	http://www.toyotafound.or.jp/
etc.	The Nippon Foundation	http://www.nippon-foundation.or.jp/
	Japan Lottery Association	http://jla-takarakuji.or.jp/
	Fostering of social contribution works by New Year's Card donation (Japan Post)	https://www.post.japanpost.jp/kifu/index.html
	Subsidies for nurturing "Bousaisi" (disaster management expert)(Japan Bousaisi Society)	http://www.bousaisikai.jp/

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