

Milestones in Recovery and Reconstruction from the Great East Japan Earthquake

2011

- Mar.11 Great East Japan Earthquake struck, (tsunami hit the area)
Evacuation centers opened (a peak of 105,947 evacuees on Mar.12 and a peak of 288 evacuation centers on Mar.14)
- Mar.15 Sendai City Disaster Volunteer Centers opened (until Aug.10)
- Mar.24 Collection of waste from tsunami flooding began (tsunami-flooded eastern area)
- Mar.28 Construction of prefabricated temporary housing began (Asuto-Nagamachi area)
- Apr.01 Sendai City Basic Policy for Earthquake Disaster Reconstruction announced
- Apr.05 Committee for Agricultural Reconstruction in Eastern Sendai established
- Apr.07 Largest aftershock struck (seismic intensity: Upper 6)
- Apr.11 Applications for primary recruitment of emergency temporary housing opened
- Apr.16 Gas utilities fully recovered (excluding evacuation advisory areas, etc.)
- Apr.22 Tsunami-flooded residential area debris removal began (tsunami-flooded eastern area)
- May 01 Post-Disaster Reconstruction Bureau established
- May 21 Reconstruction Symposium held (six meetings through May 29)
- May 23 Applications accepted for demolition and removal of destroyed houses
- May 30 Sendai City Earthquake Disaster Reconstruction Vision formulated
- May 31 Policy for Development of Disaster Reconstruction Municipal Housing announced
- Jun.01 Reception of personnel from local governments nationwide on long-term assignment began
- Jun.12 Opinions exchanged on reconstruction and community building (seven meetings through Jun.26)
- Jun.15 All 1,505 prefabricated temporary housing units completed
- Jul.01 Debris removal began in farmland (tsunami-flooded eastern area)
- Jul.11 Great East Japan Earthquake Memorial Service held in Sendai
- Jul.16 Tohoku Rokkon Festival held in Sendai (until Jul.17)
- Jul.31 Debris removal in residential area completed (tsunami-flooded eastern area)
All evacuation centers in Sendai closed
- Aug.11 EGAO Sendai recovery support station established
- Aug.20 First briefing session for community building in eastern Sendai held (until Aug.31)
- Sep.20 Sendai City Earthquake Disaster Reconstruction Plan (draft) formulated
- Oct.01 Debris incineration began with temporary incinerators
- Oct.08 Briefing sessions started for draft of the Sendai City Earthquake Disaster Reconstruction Plan (seven meetings through Oct.16)
- Nov.05 Briefing sessions held with tsunami flooding simulations (until Nov.6)
- Nov.09 Briefing sessions began for the Farmland Consolidation Project in eastern Sendai
- Nov.30 Sendai City Earthquake Disaster Reconstruction Plan formulated
- Dec.01 Regional Support Center Project began
- Dec.09 City gas supply resumed with Liquefied Natural Gas (LNG)
- Dec.16 Disaster Risk Areas designated (tsunami-flooded eastern area)
- Dec.17 Briefing sessions began for the Disaster Prevention Collective Relocation Promotion Project (until Dec.26, tsunami-flooded eastern area)
Briefing for recovery in affected residential areas (until Dec.25, hilly inland area)
- Dec.28 Debris removal in farmland completed (tsunami-flooded eastern area)
Citizens surveyed on Disaster Prevention Collective Relocation Promotion Project and other projects (until Feb.5, 2012)

2012

- Jan.10 Consultation desk for recovery in affected residential areas opened (hilly inland area)
- Jan.16 Individual counseling on Disaster Prevention Collective Relocation Promotion Project (until Feb.5, tsunami-flooded eastern area)
- Jan.30 Subsidy for the Recovery of Residential Land Damaged in the Great East Japan Earthquake created; applications opened (hilly inland area)
- Mar.11 Great East Japan Earthquake Memorial Service held in Sendai
- Apr.01 Sendai City Post-Disaster Reconstruction Bureau established
- May Farming restarts on farmlands where recovery work and desalination was completed
- Jun.05 Applications accepted for residential reconstruction aid for eastern Sendai (tsunami-flooded eastern area)
- Jul.17 Policy for Redevelopment of Northern Gamo area set to advance as land readjustment project (tsunami-flooded eastern area)
- Sep.03 Minami-Gamo Wastewater Treatment Plant repairs began (groundbreaking ceremony)
- Sep.10 Disaster Risk Areas designated (Midorigaoka 4-chome hilly inland area)
- Oct.10 Elevated road project started on Shiogama-Watari Prefectural Road
- Nov.11 Applications accepted for residential area for Disaster Prevention Collective Relocation in Arai (tsunami-flooded eastern area)
- Dec.21 Applications accepted for 12 units in first Disaster Reconstruction Municipal Housing

2013

- Feb.13 Development of Gamo-Zatsukofukuro Disaster Prevention Collective Relocation Area started (tsunami-flooded eastern area)
- Mar.11 Great East Japan Earthquake Memorial Service held in Sendai "Sendai City's First Year Activity Records from the Disaster" published
- Mar.15 Disaster Risk Areas designated (Matsumori-Jingahara hilly inland area)
- Apr.01 Sendai City Regional Disaster Prevention Plan revised (general information, earthquake and tsunami measures)
Sendai-Miyagi Destination Campaign started
- Sep.17 Applications accepted for 661 units in six Disaster Reconstruction Municipal Housings
- Sep.29 Debris (combustible) incineration completed
- Oct.25 National Eastern Sendai Land Improvement Project (farmland development) groundbreaking ceremony
- Oct.31 Development of five Disaster Prevention Collective Relocation areas began (tsunami-flooded eastern area)
- Dec.27 Debris treatment and disposal completed

2014

- Mar.11 Great East Japan Earthquake Memorial Service held in Sendai
- Mar.15 Debris collection sites restored to original state
- Mar.16 Road elevation work on Shiogama-Watari Prefectural Road began (groundbreaking ceremony)
- Mar.31 Program for the Rebuilding of Disaster Victims' Lives formulated
- Apr.01 Reception of personnel on long-term assignment ended
Revision of Sendai City Regional Disaster Prevention Plan (section on wind, water and other damage disaster preparedness)
Development of Sendai City Regional Disaster Prevention Plan (section on nuclear disaster preparedness)
Plans decided for Recovery Land Readjustment Project for affected areas of Northern Gamo
- May 10 Applications accepted for residential land in seven areas for Disaster Prevention Collective Relocation (tsunami-flooded eastern area)
- Jul.10 Applications accepted for 2,447 units in 36 Disaster Reconstruction Municipal Housings
- Nov.18 Damage recovery work began in Kaigan Park

2015

- Feb.14 Construction Completed on the first Tsunami Evacuation Tower
- Mar.11 Great East Japan Earthquake Memorial Service held in Sendai
- Mar.14 The Third UN World Conference on Disaster Risk Reduction took place in Sendai (until Mar.18)
- Mar.23 Program for the Speedy Rebuilding of Disaster Victims' Lives formulated
- Mar.26 Residential land for seven areas of Disaster Prevention Collective Relocation Land Handing-Over Ceremony and all residential land completed (tsunami-flooded eastern area)
- Aug.10 Northern Gamo Disaster-Affected Area Urban Redevelopment Project started
- Aug.12 Construction started on Kaigan Park Evacuation Hill
- Dec.06 Sendai Subway Tozai Line began operation

2016

- Feb.03 Concept for use of land after collective relocation announced (tsunami-flooded eastern areas)
- Feb.13 Sendai 3/11 Memorial Community Center fully opened
- Mar.11 Great East Japan Earthquake Memorial Service held in Sendai
- Mar.12 2016 Sendai Symposium for Disaster Risk Reduction and the Future held
- Mar.31 Sendai City Post-Disaster Reconstruction Bureau closed in connection with the end of the Sendai city Earthquake Disaster Reconstruction Plan
- Apr.01 Minami-Gamo Wastewater Treatment Plant repairs fully completed
- Apr.19 Agriculture and Horticulture Center is renovated and reopened
- Apr.19 Open call for ideas for use of land after collective relocation began (tsunami-flooded eastern areas)
- May 20 G7 Finance Ministers and Central Bank Governors' Meeting, Sendai held (until May 21)
- Jun.30 All 3,206 houses for Disaster Reconstruction Municipal Housing completed
- Sep.30 Four Kaigan Park Evacuation Hills completed
- Oct.15 Part of Kaigan Park reopened for use
- Oct.28 Provision of prefabricated temporary housing completed

2017

- Mar. "Sendai City's Five-year Recovery Records from the Disaster" published
- Mar.11 Great East Japan Earthquake Memorial Service held in Sendai
- Mar.12 2017 Sendai Symposium for Disaster Risk Reduction and the Future held
- Mar.28 All 13 Tsunami Evacuation Facilities completed
Prefabricated temporary housing dismantled
Policies for use of land after collective relocation announced
- Apr.30 Disaster Ruins of Sendai Arahama Elementary School opened to the public

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THE RECONSTRUCTION OF SENDAI



The Earthquake Disaster

Sendai and the Tohoku region were hit by the most powerful earthquake ever recorded in Japan, along with a tsunami of a magnitude seen only once in a thousand years, causing a level of destruction never before seen.

Earthquake Overview

Name of the Earthquake:

The 2011 off the Pacific coast of Tohoku Earthquake

Date and Time: March 11, 2011, 2:46 pm

Location of the Epicenter:

Off the Sanriku coast (38° 6.2' N, 142°51.6' E)

Scale: Magnitude 9.0, Maximum Intensity: 7 on the Japanese Scale (1 to 7)

Highest Recorded Seismic Intensity: 7 in Kurihara City, Miyagi Prefecture

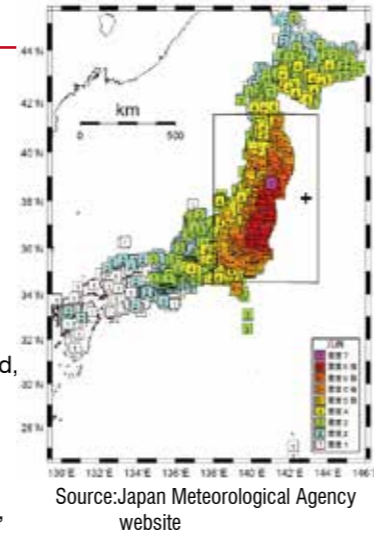
Seismic Intensity in Sendai City:

Upper 6 in Miyagino Ward, lower 6 in Aoba Ward, Wakabayashi Ward and Izumi Ward, upper 5 in Taihaku Ward

Height of Tsunami: 7.1 meters at Sendai Port (estimated)

*Largest Aftershock:

April 7, 11:32 pm; Magnitude 7.2, off the Coast of Miyagi Prefecture, upper 6 in Miyagino Ward, lower 6 in Aoba Ward and Wakabayashi Ward, upper 5 in Izumi Ward, lower 5 in Taihaku Ward



Extent of the Destruction (as of March 1, 2017)

Casualties: 904 Fatalities, 27 Missing, 2,275 Injured

Damage to Buildings:

30,034 Destroyed, 27,016 Severely Damaged, 82,593 Partially Damaged, 116,046 with Minor Damage

Residential Areas Confirmed to be Either "Dangerous" or "Requiring Caution": 5,728

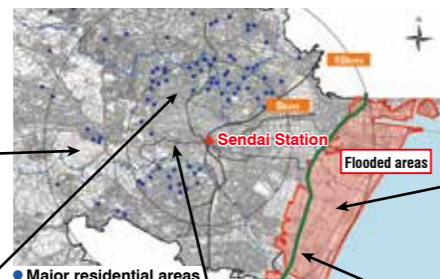
Tsunami Flooded: 8,110 Households Affected (including 1,160 farming households)

Flooded Area: Approximately 4,500 ha (including approximately 1,860 ha of farm land)

Cost of the Damage in Sendai City: Estimated at 1,300.6 billion Japanese Yen



Damage to an inland residential area on a hill



Major residential areas affected by the disaster



Tsunami reaching the eastern coastal area



People waiting in line for food



Damaged public facilities



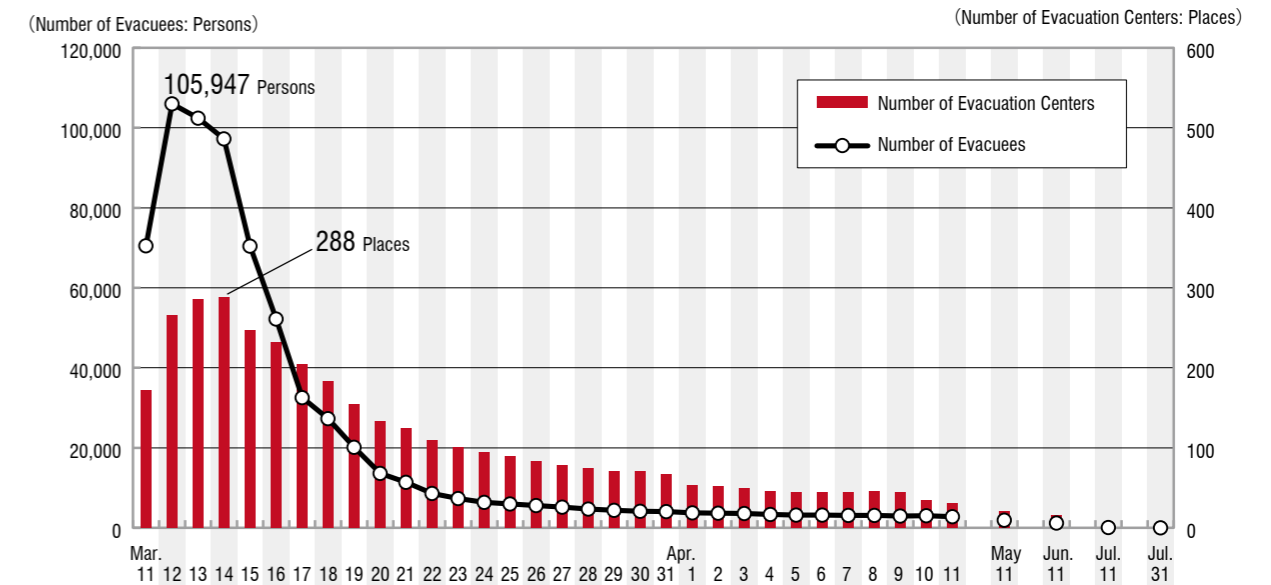
Six meter-high elevated expressway that prevented tsunamis from reaching urban areas (Sendai-Tobu Road)

Evacuation Status

Evacuation Centers (Refuge Areas)

In Sendai, elementary, junior and senior high schools are the Designated Evacuation Centers (Refuge Areas) for the surrounding areas. During the 2011 disaster, as many as 100,000 people, approximately 10% of the population of Sendai, evacuated to these centers.

At their peak on March 14, there were 288 centers set up throughout the city. The number of evacuees declined after transportation services and essential utilities such as electricity, water supply, and gas had resumed. By consolidating evacuation centers and moving people into temporary housing, all evacuation centers in the city were closed by July 31.



Emergency Temporary Housing

At its peak Sendai city had more than 12,000 households flee to emergency temporary housing which included evacuees from outside of the city and other prefectures. 1,505 prefabricated temporary housings were set up in parks etc. and large numbers of private rental accommodation (private rental housing) were also utilized as emergency temporary housing.

Due to the efforts in constructing Disaster Reconstruction Municipal Housing and revitalizing peoples lives, Sendai city closed their grants for temporary housing for affected victims by March 2017. Currently approximately 95 percent of households have been rebuilt.

*As of March 2017 there were 0 people who moved into prefabricated temporary houses the buildings were deconstructed.

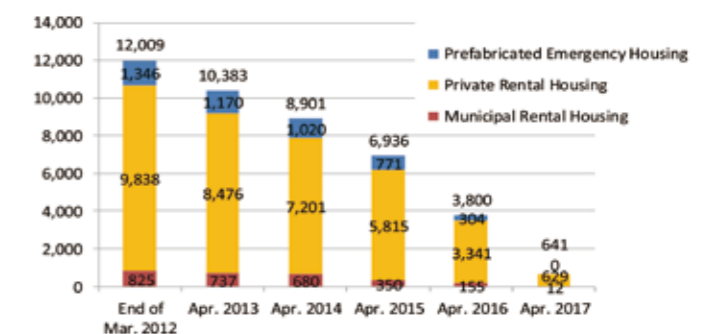


Members of an aid organization visiting a temporary housing unit



Prefabricated temporary housing (Asuto Nagamachi district)

Number of Households Moving into Emergency Temporary Housing



Recovery

Our goal is to help victims of the disaster rebuild their lives as soon as possible. By the end of November 2011, after asking for opinions from victims of the disaster, City Assembly members and experts, the shortest possible 5-year Sendai City Earthquake Disaster Reconstruction Plan was formulated.



Sendai City Earthquake Disaster Reconstruction Plan

Four directions were outlined in the Sendai City Earthquake Disaster Reconstruction Plan towards recovery.

1. Rebuilding disaster prevention systems based on disaster reduction

Rather than attempting to completely control nature, we build disaster prevention infrastructure based on the goals of protecting lives and minimizing damage.

2. Addressing energy issues

We secure energy and fuel while advancing the use of renewable energy.

3. Reconstruction with self-help, independence, cooperation, and mutual support

By protecting ourselves by ourselves (self-help), and helping those in need following the disaster in our own communities (mutual assistance) while rebuilding the public aid infrastructure (public assistance), we promote the creation of cities that mitigate disaster.

4. Creating economy/urban vitality to drive the reconstruction of Tohoku

Reviving the local economy to create a new driving force to push the Tohoku's recovery forward.



Rebuilding Homes

The most important challenge facing the recovery process is getting those affected by the disaster back to their regular lives as soon as possible. Sendai implemented three major projects that were aimed at rebuilding homes.

Disaster Prevention Collective Relocation Promotion Project

Through the Disaster Prevention Collective Relocation Promotion Project, which is the relocation to safer inland housing from the eastern coastal areas affected by the tsunami, we developed relocation land in residential areas for those affected by the disaster.



Disaster Prevention Collective Relocation Site (Kamiokada area)

Restoring Disaster-Damaged Residential Land

This public project restored residential land in hilly inland areas that was severely damaged by landslides.



Damaged residential land in the hills before and after restoration (Takanohara 1-chome, Aoba Ward)

Disaster Reconstruction Municipal Housing

This project provided 3,206 Disaster Reconstruction Municipal Housing for those who had lost their homes in the disaster and had difficulties in securing housing.



Disaster Reconstruction Municipal Housing (Izumi-chuo Minami)

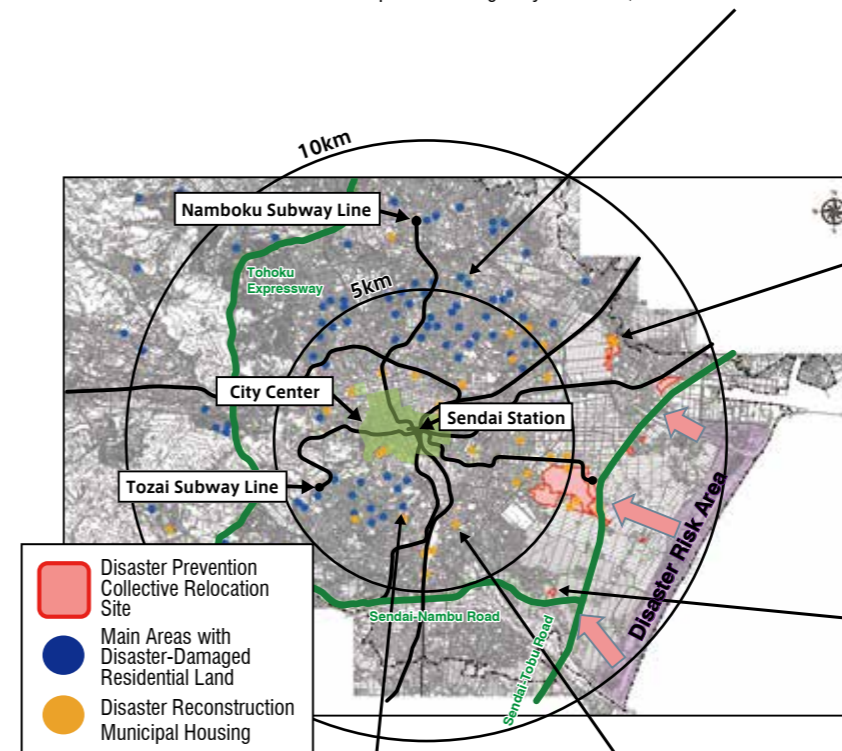


Before restoration



After restoration

This slope was damaged by landslides, and was then restored through a public project. (Nankodai area)



Housing construction completed at collective relocation site in the Tago-nishi-rinsetu area (above) and the Rokugo area (below).



New lives are beginning at these Disaster Reconstruction Municipal Housing (left: Asuto Nagamachi Dai-ni, right: Wakabayashi-nishi).

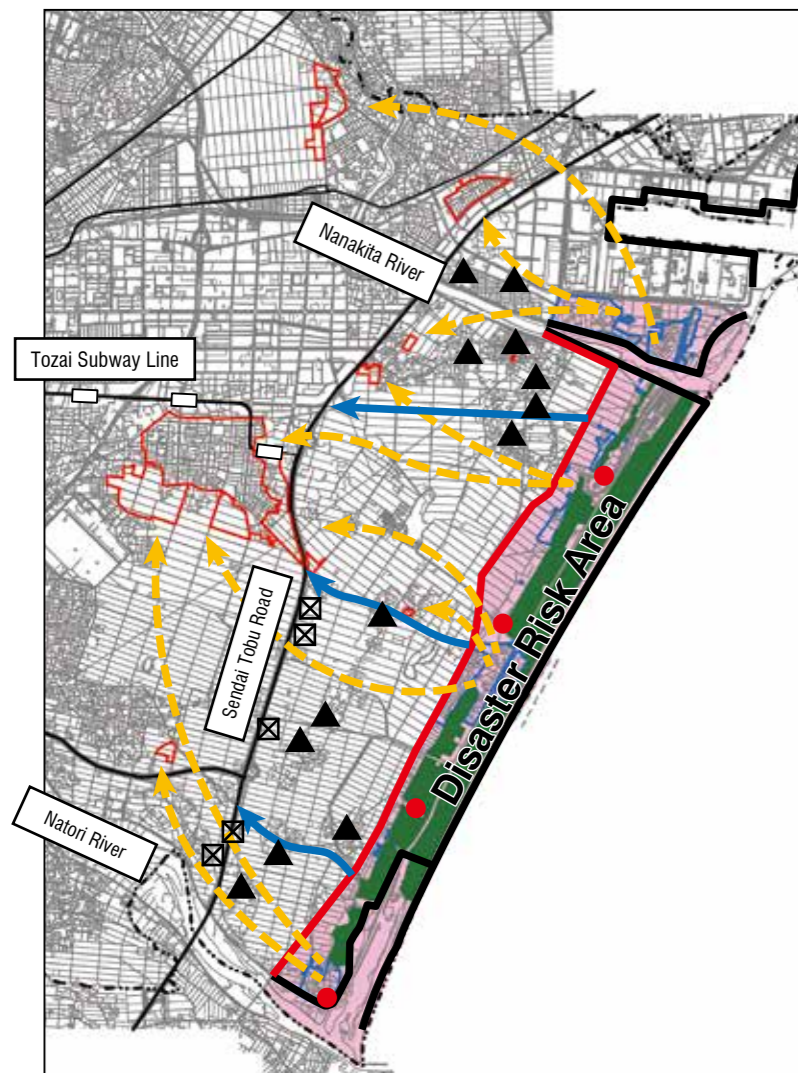
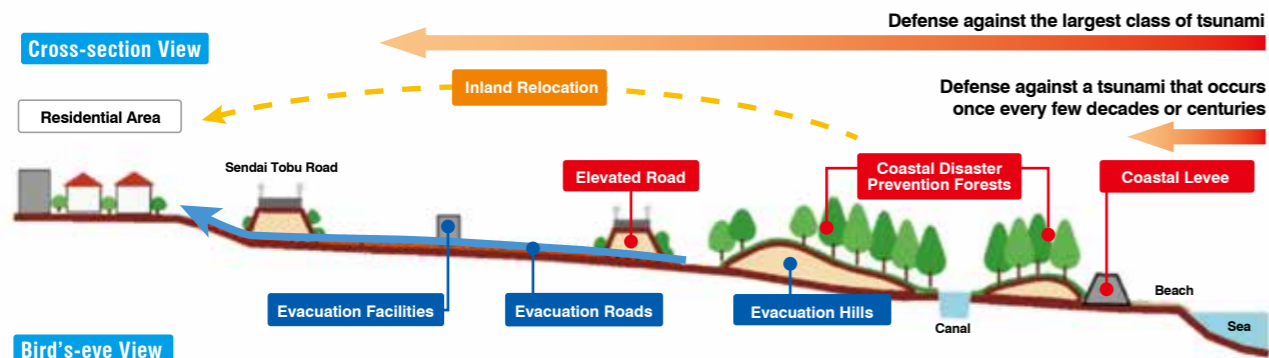
Lessons Learned

In 1978, Sendai experienced the Miyagi-ken-oki Earthquake. The lessons of that time allowed us to anticipate the next earthquake off the coast of Miyagi Prefecture, and put in place a range of earthquake preparedness measures. While those measures had a definite effect during the recent disaster, new problems also became apparent. Based on this experience, Sendai is taking on the challenge of preparing new disaster prevention measures for future disasters.

Lesson 1 From Disaster Prevention to Disaster Mitigation

1. Multiple Defense for Comprehensive Tsunami Protection

Sendai now has multiple lines of protection against tsunamis, such as a coastal levee and an elevated road. At the same time, the city does not rely on these alone, and the city is equipped with facilities that place importance on evacuation. Even so, in areas where safety cannot be secured, we are promoting measures including home relocation that places importance on "disaster mitigation" and minimizing damage.



Multiple Defense

Coastal levee construction, replanting of forests for disaster mitigation, and elevation of prefectural road are part of a plan that attempts to create multiple lines of defense.

- Coastal Levees / river Levees etc.
- Elevated Road
- Area slated for replanting of Disaster Prevention Forests

Evacuation

Because we place importance on fleeing from danger, we are establishing evacuation hills, evacuation facilities, and evacuation roads on coastal areas.

- ← Evacuation Roads
- ▲ Evacuation Facilities
- ☒ Evacuation Stairs
- Evacuation Hills

Relocation

Even with tsunami protection in place, the safety of areas near the coastal levee and elevated prefectural road cannot be ensured, therefore they are designated Disaster Risk Areas. The approximate 1,540 households that owned homes in those areas were relocated to over 13 inland areas in the Disaster Prevention Collective Relocation Promotion Project.

- Inland relocation sites
- Movement of Disaster Prevention Collective Relocation Sites

Coastal Levee, Disaster Prevention Forests, and Elevated Road



Coastal Levee Construction
We are building a coastal levee that will be +7.2 meters above T.P.* The coastal levee will protect against large tsunamis and high tides which occur only once every few decades or centuries.
*T.P. = Average sea level in Tokyo Bay



Replanting Coastal Disaster-prevention Forests
We are replanting coastal disaster prevention forests in order to slow the momentum of tsunamis.



Elevated Road Construction
An elevated road measuring 6 meters in height is being constructed by the sides of the road that runs north to south in preparation for the largest class of tsunami.

Evacuation Facilities

To help people evacuate, we have constructed evacuation facilities such as evacuation towers, buildings, and evacuation stairs leading to the roofs of schools (13 locations in total) and four evacuation hills. We have also been creating three evacuation roads. Furthermore, NEXCO EAST, which manages the Sendai Tobu Road, has installed evacuation stairs at five locations along the Sendai Tobu Road.



Nakano 5-chome Tsunami Evacuation Tower



Evacuation Stairs to Sendai Tobu Road

Relocation to Safer Inland Areas

In order to help those affected by the disaster move to a safe place to live, we constructed Disaster Prevention Collective Relocation Sites and Disaster Reconstruction Municipal Housing.



Construction Site for Collective Relocation (Minami-Fukumuro area)



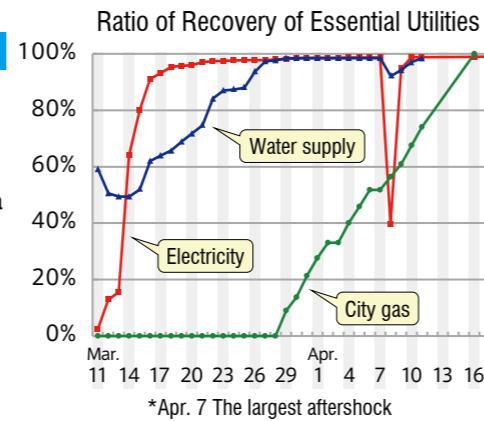
Disaster Reconstruction Municipal Housing (Rokuchonome-Nishimachi)

2. Building a City with the Strength to Withstand Disaster

Since the Miyagi-ken-oki Earthquake, Sendai City has been supporting disaster prevention measures for essential utilities such as water supply, sewage and City gas.

Utilities Recovery

The earthquake and tsunami caused approximately half of all households to lose water supply. City gas and electrical services (provided by private electric power companies) to all households stopped. Sewage lines continued to carry wastewater away, however, a wastewater treatment plant near the coast (Minami-Gamo Wastewater Treatment Plant) was critically damaged by the tsunami.



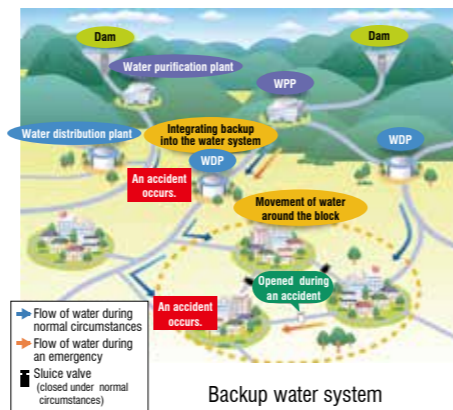
Preparation Until Now

Following the recent disaster, our earlier efforts to prepare the city's utilities to withstand earthquakes allowed us to minimize the damage and quickly restore service. Furthermore, these efforts also allowed Sendai to quickly begin recovery work.

Water Supply

- Ratio of earthquake-resilient water pipes¹ ... **84.5%** (in March 2011)
- A backup water supply system was constructed
 - ...Backup water supplies were secured and the system has the ability to block water delivery to prevent damage from happening and spreading.
- A cooperative network of water companies in other cities and local pipe construction contractors was established
 - ...By doing disaster drills and other activities outlined in disaster response agreements, fast and flexible support has been created.

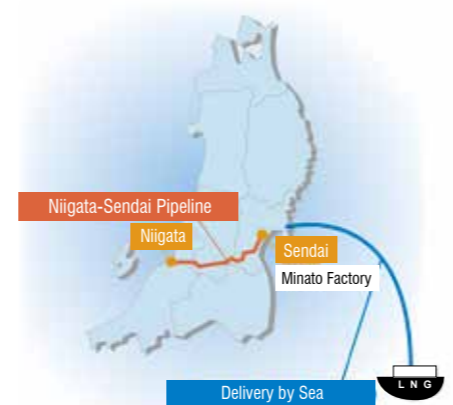
Restored 18 days after the earthquake (Except in areas affected by the tsunami / landslides)



City Gas

- Ratio of earthquake-resilient gas pipes² ... **80.9%** (in March 2011)
- Construction of a backup gas supply system
 - ...Securing two supply channels (by sea and over land) and blocking gas lines when necessary prevents damage from spreading.
- Close cooperation with The Japan Gas Association and city gas companies nationwide
 - ...This cooperation creates the fastest and largest support system to date and was built on the foundation of existing support agreements.

Restored 36 days after the earthquake (Except in areas affected by the tsunami / landslides)



Natural gas is supplied using two routes: one sea route and one land route.

*In addition to this, improvements in the earthquake resistance of Sendai's school facilities (99.6% made earthquake-resilient in March 2011) resulted in a 0% fatality rate among students who were under school supervision during the disaster.

Sewage

- Ratio of earthquake-resilient sewage pipes³ ... **19.4%** (in March 2010)
- Strengthening support systems during a disaster
 - ...Creating a city-based private-business-run inspection system for facilities during a disaster.
- Discussing Business Continuity Plans (BCP)
 - ...Securing sewage systems based on the content of the plan.

Preventing flooding in urban areas and eliminating usage limits during disasters

Preparing for the Future

In Sendai City we are dedicated to making resilient public utilities that are safer and more secure while also strengthening backup supplies. We also hope to learn from the experiences that we gained from the disaster and create new measures such as the following below.

Water Supply

- Further promoting earthquake-resilient water pipes and the integration of backup sources in the water system
 - ...Earthquake resilient rate¹ goal for March 2019: **87.9%**
- Installing water hydrants for use during disasters
 - ...Local initiatives install hydrants at elementary and junior high schools to supply water during emergencies.
- Promoting water storage development
 - ...Encouraging citizens to stockpile bottled tap water

We are working toward a disaster-resilient public water system that minimizes damage to water facilities and also minimizes the impact on citizens' lives.



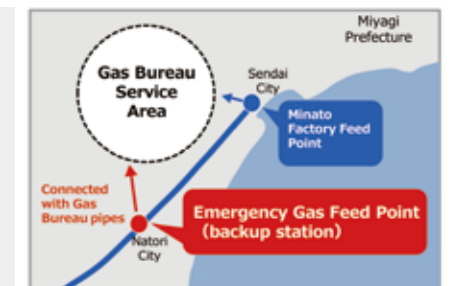
Water hydrant for use during disasters

We distribute Sendai bottled water at various City Waterworks events.

City Gas

- Further promotes earthquake-resilient gas pipes and the sectioning of the gas supply network
 - ...Earthquake resilient rate² goal for March 2021: **87.7%**
- Tsunami readiness policies for the Minato Factory Production Facility
 - ...Facility will be relocated to higher ground to prevent it from being flooded.
- Adding new gas feeding facilities for use during emergencies
 - ...New gas feeding sites have been built inland where tsunamis will not affect them (December, 2014).

We are working to completely eliminate interruptions in gas supplies through more secure supplies and measures to maintain supplies when tsunamis strike.



Adding new inland gas feeding points

Sewage

- Further promotion of making sewage facilities earthquake-resilient
 - ...Earthquake resilient rate³ goal for March 2019: **37.7%**
- Creating a Business Continuation Plan (BCP)
 - ...We will revise our damage estimates and response policies based on experiences from the recent disaster.
- Disaster Prevention Measures by the Minami-Gamo Wastewater Treatment Plant
 - ...We have made changes to this water treatment facility including making it more compact through a two-tier system and restored it as a facility that prevents disaster damage.

Strengthening disaster prevention measures including infrastructure, systems, awareness, and knowledge.



Restoration work on the Minami-Gamo Wastewater Treatment Plant proceeded at full speed. (January, 2015)



The completely restored Minami-Gamo Wastewater Treatment Plant (January, 2017)

¹: This figure represents the length of earthquake-resilient water pipelines / water pipelines overall length × 100
²: Water pipelines that have had their materials and couplers (parts that connect pipes together) tested for strength and other qualities and were found to meet a certain standard of earthquake-resilience.

³: This figure represents the length of earthquake-resilient gas conduit pipes / gas conduit pipes overall length × 100

³: This figure represents the length of disaster-resilient sewage pipelines / prioritized areas of pipelines not yet disaster-resilient × 100 (This definition is a revised guideline from the Japanese government in 2014.)



Lesson 2 Local Communities and The Power of Disaster Preparedness

After the 1978 Miyagi-ken-oki Earthquake that occurred off the coast of Miyagi, citizens in Sendai City actively formed **Volunteer Disaster Preparedness Organizations*** (mostly at the Neighborhood Association level) to take charge of disaster preparedness for their local area. Volunteer Disaster Preparedness Organizations are the primary entities capable of enhancing an area's ability to withstand disaster. The recent earthquake highlighted their importance once again.

*Volunteer Disaster Preparedness Organizations, usually a part of Neighborhood Associations, are volunteer groups lead by local residents joining together to take charge of disaster preparedness activities. Sendai has a high level of participation in Volunteer Disaster Preparedness Organizations relative to Japan as a whole. The rate was 97.4% as of March 31, 2017.



People running disaster drills

Creating Original Operation Manuals for Each Evacuation Center

After the disaster in Sendai, community groups, the local government and facility operators have worked together to review the operation of every evacuation center and to create a tailored manual for each community (**Community-Based Evacuation Center Operation Manuals**). They are also making an effort to operate evacuation centers that can accommodate to diverse needs by taking into account the characteristics of each community. This includes the perspectives of women, people with disabilities, and foreign residents.



Citizens meeting to create an Evacuation Center Operation Manual

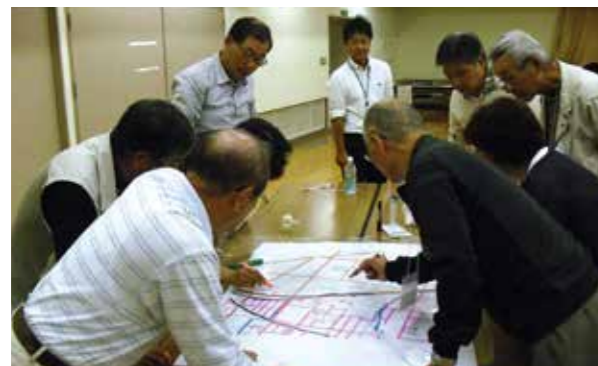


"Making an Evacuation Center for Everyone" workshop

Cultivating Sendai City Community Disaster Preparedness Leaders

Since the earthquake, Sendai City has encouraged the activities of Volunteer Disaster Preparedness Organizations in order to further enhance the city's communities and their disaster preparedness. With this in mind, Sendai has started an independent program to cultivate group leaders called "**Sendai City Community Disaster Preparedness Leaders**."

Under normal circumstances, Sendai City Community Disaster Preparedness Leaders will draft their Neighborhood Association's disaster response plan and plan effective disaster drills. During a disaster, they will be expected to shepherd local residents to shelter as well as participate in and lead rescue and relief operations.



Training Community Disaster Preparedness Leaders

Partnering with Businesses on Measures to Help Those Stranded During a Disaster

At the time of the earthquake, many people were in Sendai for work, business, study, and leisure. Due to the earthquake and other causes, the trains and other forms of public transportation stopped operation, and many people were left stranded in the city. Stranded and unable to return home, these people gathered in nearby evacuation centers. In some cases the centers became full and there was no room for local residents. Sendai City, after experiencing the problems faced by commuters and travelers during the disaster, reached agreements with private businesses and rail companies to secure temporary stay locations for those stranded at major transportation hubs. These agreements will avoid and stop confusion that would be generated if all commuters tried to go home at once.



Training held around Sendai Station based on a stranded commuter situation scenario.

Lesson 3 Connecting with the Future

Throughout its history, Sendai has withstood numerous large scale tsunamis, like those following the Jogan Earthquake of 869 and the Keicho Earthquake of 1611. Despite the variety of ways in which our ancestors tried to pass on this history to us, we modern people have failed to come to grips with their warning.

This time it is the responsibility of those of us who experienced the disaster to share our experience and the lessons we learned with the next generation. In Sendai, in addition to promoting disaster preparedness education for children, we are also organizing programs to share records and memories of the disaster with future generations.



Located approximately 5km from the coast, the Namiwake Shrine serves to mark how far the tsunami reached.

Promoting Disaster Preparedness Education

Ordinary people are the ones who, by protecting themselves and their families, give their communities the strength to withstand disaster. For this reason, it is important to educate people who can take appropriate actions during a disaster.

Following the earthquake, Sendai decided on a new disaster preparedness education policy. Students in all municipal public elementary and junior high schools are now receiving disaster preparedness education. All schools appoint a member of staff to take charge of disaster preparedness, and all students receive a copy of the new supplementary reader on disaster readiness published by the city, to be used in their lessons.



Children taking part in disaster drills



New disaster preparedness readers

Sendai City Disaster Reconstruction Memorial Projects

It is up to the citizens of Sendai who experienced the disaster first hand, that believe it is important to actively plan and share the earthquake records, experiences and memories with future generations.

Sendai City is actively going ahead with plans to preserve records of the earthquake and tsunami in photos and videos, and have preserved a tsunami-damaged elementary school and opened it to the public. Through these activities, we try to warn about a possible disaster that may occur in the future to help protect the lives of future residents.



Center for Remembering 3.11 (Sendai Mediatheque)



Sendai 3/11 Memorial Community Center Inside Arai Station on Sendai Subway Tozai Line



Disaster Ruins of Sendai Arahama Elementary School