

The Great East Japan Earthquake



Reconstruction Stage First Half Report <Digest>

Fiscal Year 2014-2015

First Steps Forward: A Message from the Governor

Six years have passed since the March 11, 2011 Great East Japan Earthquake.

The road to restoration and reconstruction has not been smooth. However, the overwhelming support we have received from many communities both at home and abroad as well as the efforts of all our citizens has been very encouraging. We are overcoming challenges that arise one by one and are already witnessing the recovery efforts taking shape.

However, we have only reached the halfway point on our road to recovery. Although construction of disaster public housing and projects to promote disaster prevention collective relocation are progressing, many have no choice but to remain in either temporary housing or in areas outside the prefecture. We must accelerate the recovery of our regional economy and communities so that these displaced individuals can return to their normal lives as soon as possible. Moreover, since memories of the earthquake are fading, promoting the recovery progress of the affected areas is something we continue to emphasize.

The Miyagi Prefecture Earthquake Disaster Recovery Plan has passed the halfway point of its ten-year plan. Our vision for a “creative recovery” is steadily becoming a reality. Moreover, in the restoration and reconstruction stages, we are approaching a phase where it is increasingly important to focus on not just physical infrastructure but also on policies that include

the establishment of livelihood and good living conditions in newly built areas.

In the future, we will work more than ever to create a fulfilling lifestyle that emphasizes the bonds between people. Our goal is to reconstruct Miyagi Prefecture in a way that makes our citizens proud and expresses our gratitude to those in Japan and abroad who have provided support. We sincerely ask for everyone’s gracious support as we continue on the road to recovery.

This publication is intended to provide a record of the recovery initiatives during the first half of the Reconstruction Stage (FY 2014-2015) of the Miyagi Prefecture Earthquake Disaster Recovery Plan (formulated in October 2011). It has been edited to convey the scope of this tragedy to future generations to ensure its lessons are never forgotten. We hope this publication will be helpful to many, starting with administrative officials and disaster prevention officials around the country, and trust it will be useful in creating safe and secure communities for the future.

Yoshihiro Murai
Governor of Miyagi Prefecture
March 2017



宮城県知事
村井嘉浩

Contents

First Steps Forward:
A Message from the Governor..... 01

The Great East Japan Earthquake:
Overview and State of Damage..... 02

Summary of the Miyagi Prefecture
Earthquake Disaster Recovery Plan
(formulated in October 2011)..... 03

SPECIAL FEATURE: Initiatives for a Creative Recovery... 04

Data on Miyagi’s Recovery..... 05

10 Initiatives Targeting Recovery:
Main Initiatives of the Reconstruction Stage
FY 2014–2015..... 13

Main Initiatives

- (1) Environment, Daily Life, Hygiene, and Waste ... 15
- (2) Health, Medical Service and Welfare 16
- (3) Economy, Commerce & Industry, Tourism and Employment ... 17
- (4) Agriculture, Forestry and Fisheries 18
- (5) Public Works Facilities 19
- (6) Education 20
- (7) Disaster Prevention, Safety and Security..... 21

SPECIAL FEATURE:
New Initiatives by Women and Young People 22

By Area

- Kesennuma-Motoyoshi Area 23
- Ishinomaki Area 25
- Sendai Coastal Area 27
- Inland Area 29

Progress of Recovery (FY 2014-2015) 30

About the cover

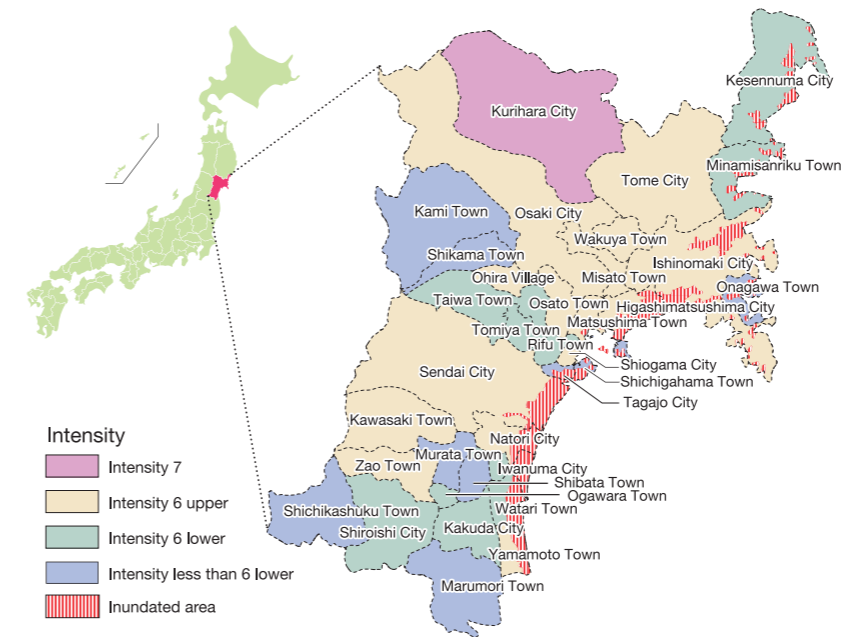
1. Landing of sea pineapple catch (Kesennuma City)
2. Minamisanriku Hospital and the Health and Social Welfare Center Minamisanriku (Minamisanriku Town)
3. Seapal-Pier Onagawa (Onagawa Town)
4. Resumption of operation of Senseki Line (Ishinomaki City)
5. Progress of construction of Nobiru Hokubu Hill housing complex (Higashimatsushima City)
6. Matsushima Panorama House (Salgyo Modoshi no Matsu Park) (Matsushima Town)
7. Hamada Fishing Port (Rifu Town)
8. Building B, cargo-handling yard, Shiogama Fish Market (Shiogama City)
9. Disaster public housing in the Shobutahama district (Shichigahama Town)
10. Students of Tagajo High School (Tagajo City)
11. Area adjacent to Arai Station, Subway Tozai Line (Sendai City)
12. Natori City Memorial Monuments of the Great East Japan Earthquake (Natori City)
13. Tamauranishi district (Iwanuma City)
14. Completion Ceremony for New Building, Arahama Nursery School (Watari Town)
15. Nakahama Elementary School (Earthquake aftermath) (Yamamoto Town)

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	

The Great East Japan Earthquake: Overview and State of Damage

At 14:46 on Friday, March 11, 2011, a magnitude 9.0 earthquake with an epicenter 24 km deep around 130 km east-southeast of the Oshika Peninsula (off the coast of Sanriku) occurred. The greatest seismic intensity of 7 was observed in Kurihara City in Miyagi Prefecture. Over a wide area of the prefecture the earthquake measured “5 upper” to “6 upper” on the Japanese seismic intensity scale.

This earthquake triggered a massive tsunami on the Pacific coast, and all homes in the coastal areas of our prefecture were subjected to tsunami damage. The tsunami surged upriver, flooding areas extending far inland.



Date and time:
14:46, Friday, March 11, 2011

Site:
**Off the coast of Sanriku (38.1 degrees north latitude, 142.5 degrees east longitude)
*Around 130 km east-southeast of Oshika Peninsula**

Maximum seismic intensity:
Intensity 7 (Kurihara City)

Scale: **Magnitude 9.0** Depth of epicenter: **24km**

■ Extent of tsunami inundation according to land use, by municipality

- River, lake, beach, seawater
- Rice paddy, other farmland, forest, barren land, golf course land
- Other land use (airport; harbor; vacant property on reclaimed land)
- Land for main traffic routes ■ Land for structures

Inundated area:
327 km²

*Equivalent to about 60% of the total area (561 km²) inundated in the Great East Japan Earthquake

A closer look at the disaster area



Photo: Kesennuma City (large fishing vessel left stranded by the tsunami)



Photo: Shiogama City (tsunami flooding pier for sightseeing boat)



Photo: Sendai City (stranded on top of Arahama Elementary School)



Photo: Iwanuma City (tsunami surging against the Kennan Purification Center)



Photo: Natori City (school gymnasium used as an evacuation shelter)



Photo: Minamisanriku Town (massive amounts of debris in urban district around Shizugawa Public Hospital)



Photo: Ishinomaki City (burned cars and other wreckage around Kadowaki Elementary School)



Photo: Higashimatsushima City (rail cars on the Senseki Line swept away by the tsunami)



Photo: Onagawa Town (government office building flooded to third floor)

Summary of the Miyagi Prefecture Earthquake Disaster Recovery Plan (formulated in October 2011)

Basic Principles of Recovery

- 1 Developing a disaster-resistant and secure community
- 2 Each citizen is a key player in recovery efforts; utilizing all available resources
- 3 Drastic "restructuring" that does not simply stop at "restoration"
- 4 Progressive community development that will help solve modern-day social issues
- 5 Constructing a model that outlines the steps from catastrophic damage to full recovery

Guidelines

1 Plan period

The recovery plan was developed to achieve full recovery of the region in a 10-year period with the goal of completion by FY 2020. It is broken down into three stages – "Restoration," "Reconstruction" and "Development." The Restoration Stage will focus on the restoration of the livelihood of the disaster victims and public facilities, the Reconstruction Stage will focus on completing construction of infrastructure and enhancing support not only for those directly affected by the disaster but also those facing difficulties in their personal lives or businesses due to the disaster, and the Development Stage will promote strategic projects created for the future prosperity of this region.

2 Citizen-led recovery

Prefectural citizens are the foundation of the recovery process. Various entities must cooperate with one another and engage in recovery efforts with a focus on people-to-people interaction.

The government will establish a system that fully promotes such initiatives, including those in the private sector, with a target of full recovery.

3 Target area

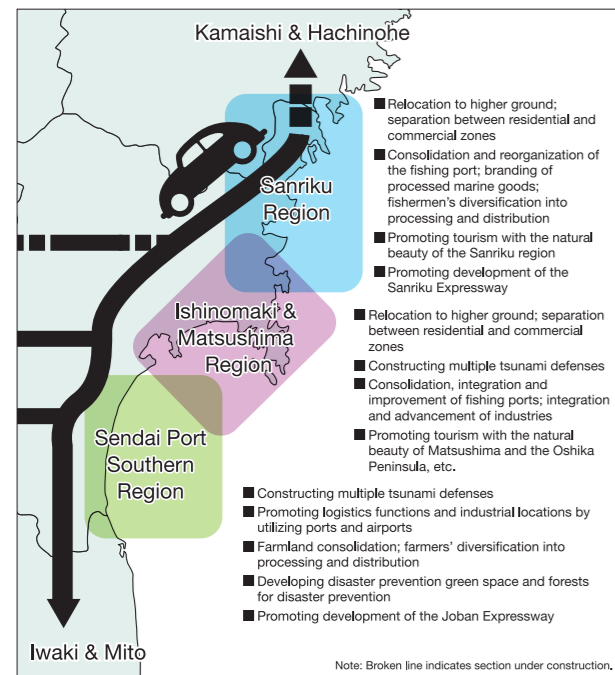
The plan addresses the entire prefecture. Special attention is placed on coastal cities and towns.

4 Progress management

Through PDCA cycle management techniques, we shall evaluate the progress of projects and implement those results in concrete recovery initiatives. In addition, we shall review the plan as necessary in response to changing social conditions.

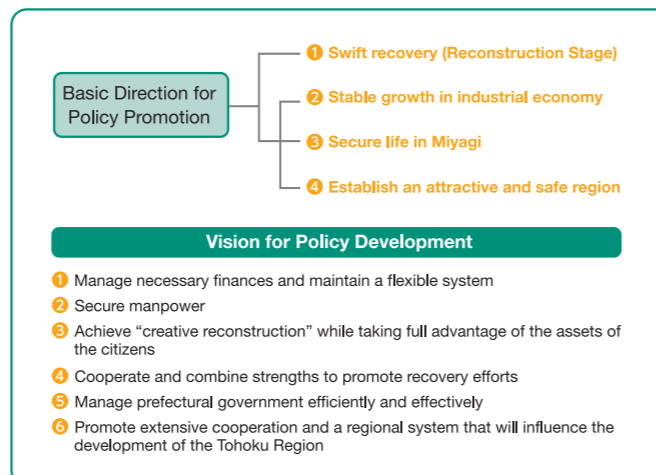


Scope of recovery of all coastal cities and towns in the prefecture



Initiatives during the Reconstruction Stage

The 4-year Reconstruction Stage marks a vital period in solidifying initiatives for extensive "rebuilding" that does not stop at "restoration," as stated in the Miyagi Prefecture Earthquake Disaster Recovery Plan. As a result, we are implementing our initiatives by positioning four pillars that include swift recovery and the three goals defined in the "Basic Direction for Policy Promotion," which outlines Miyagi's Future Vision plan.



SPECIAL FEATURE

Initiatives for a Creative Recovery

To promote prompt and vigorous restoration and recovery from the unprecedented damage caused by the Great East Japan Earthquake, new initiatives that are not limited by precedent or existing framework are being implemented.

Initiative 01

Initiative to establish a Department of Medicine

In order to promote recovery from the disaster and address the shortage of doctors in the Tohoku region, a policy was implemented in 2013 to approve the establishment of a new department of medicine in a university in the region. In 2016, the Tohoku Medical and Pharmaceutical University began training general practitioners who will provide medical services for local residents in its new Department of Medicine, the first to be established in Japan in 37 years. A total of 100 students are planned to enroll in the first year of the program.

Our prefecture decided to create a scholarship system with part of the earthquake recovery support funding from Kuwait, a portion of which has been earmarked for this university. This scholarship system exempts repayment for those who work at least ten years in the prefecture's designated municipal hospitals, and is expected to contribute significantly to solving the doctor shortage in the prefecture for a long time to come.



Photo: Establishment of new scholarship system utilizing earthquake support funding from Kuwait

Initiative 02

Initiative to privatize Sendai Airport

Although it was damaged significantly in the Great East Japan Earthquake, Sendai Airport managed full restoration of the terminal building only six months later and reinstated all scheduled flights. This effort came to symbolize the region's restoration and reconstruction. Sendai Airport, which will be the first state-controlled airport to be privatized, will begin operating in July 2016 under Sendai International Airport Co., Ltd. As a result, a private business operator will operate all integrated facilities of Sendai Airport whereas past management of the runway was by the

national government, the terminal building by a quasi-public corporation, and the parking by a foundation.

Going forward, many expect that the entire Tohoku economy will be revitalized with additional airline routes, improved airport convenience, and an increased number of visitors as a result of efficiency improvements accruing from private sector expertise.



Photo: Presentation by the airport operators: "5th Sendai Airport Supporter Meeting to Achieve 6 Million Passengers & 50,000 Tons of Freight"

Initiative 03

Initiatives to create a Fisheries Industry Reconstruction Zone

As one option for an early restart of the catastrophically damaged coastal fishery, the prefecture proposed the Fisheries Industry Reconstruction Zone in May 2011. This was approved by the national government in April 2013. As a result, the prefecture licensed demarcated fishery rights to the Momonoura Oyster Producers Limited Liability Company that was established and operated mainly by local fishermen. This Fisheries Industry Reconstruction Zone is a priority exception to the fishery rights licensing system (an exception to the Fisheries Act), and allows licenses

to be allocated in a priority manner to businesses run by local fishermen. Currently, oyster producers in Momonoura are focusing on integrated oyster production that encompasses production, processing, and sales by utilizing the sales capabilities and management expertise of the marine products wholesaling company in the LLC. Expectations are high that the fishery and local community will be reconstructed quickly as sustainable and efficient fishery management is realized.



Photo: Momonoura Oyster Producers Limited Liability Company