



復興庁

Reconstruction Agency

復興・創生 その先へ

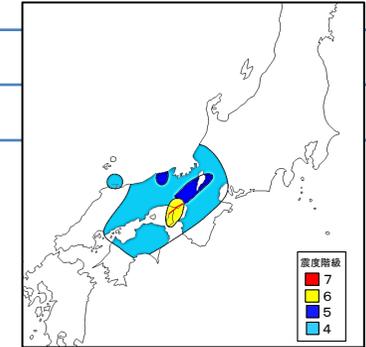
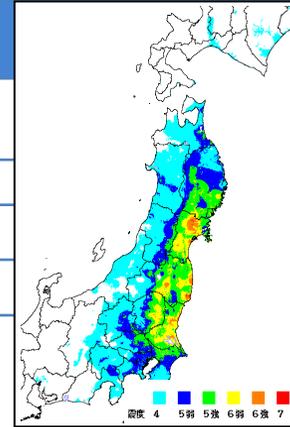
# Current Status of Reconstruction and Future Efforts

- I Overview of the Great East Japan Earthquake
  - II Japanese Government's Response to the Great East Japan Earthquake
  - III Phases of Reconstruction
  - IV Status of Reconstruction and Reconstruction Efforts
- Related Data

**August 2023**

# I. Overview of the Great East Japan Earthquake

	Great East Japan Earthquake	(Reference) Great Hanshin-Awaji Earthquake
<b>Date and time of occurrence</b>	March 11, 2011, 14:46 JST	January 17, 1995, 5:46 JST
<b>Magnitude</b>	9.0	7.3
<b>Type of earthquake</b>	Subduction zone	Near field
<b>Disaster-affected area</b>	Agriculture, forestry and fisheries area	City center
<b>Number of prefectures with a seismic intensity of 6-lower or greater</b>	8 (Miyagi, Fukushima, Ibaraki, Tochigi, Iwate, Gunma, Saitama, Chiba) Seismic intensity 7: Northern Miyagi Prefecture Seismic intensity 6 upper : Southern/Central Miyagi Prefecture, Nakadori/Hamadori region in Fukushima Prefecture, Northern/Southern Ibaraki Prefecture, Northern/Southern Tochigi Prefecture	1 (Hyogo)
<b>Tsunami</b>	Large tsunamis observed at various areas (Max. wave height: Soma [9.3 m and higher], Miyako [8.5 m and higher], Ayukawa in Ishinomaki City [8.6 m and higher])	Reports of tsunami several tens of centimeters high, no damage
<b>Characteristics of damage</b>	Tsunamis caused extensive damage in coastal areas. Many areas were destroyed.	Buildings collapsed. Large-scale fires mainly in Nagata Ward.
<b>Deaths &amp; Missing</b>	Deaths: 19,765 (including disaster-related deaths) (Iwate: 5,145, Miyagi: 10,570, Fukushima: 3,935) Missing: 2,553 (Iwate: 1,110, Miyagi: 1,215, Fukushima: 224)	Deaths: 6,434 Missing: 3
<b>Housing damage (Completely destroyed)</b>	122,039 (Iwate: 19,508, Miyagi: 83,005, Fukushima: 15,469)	104,906
<b>Application of the Disaster Relief Act</b>	241 municipalities (10 prefectures of Aomori, Iwate, Miyagi, Fukushima, Ibaraki, Tochigi, Chiba, Tokyo, Nagano and Niigata)	25 municipalities (2 prefectures of Osaka and Hyogo)
<b>Multiple disasters</b>	Accident at the Fukushima Daiichi Nuclear Power Station, TEPCO Area of evacuation order: 1,150km <sup>2</sup> (August 2013(maximum)) Number of evacuees : 470,000 ( just after the occurrence of the disaster )	—



# II. Japanese Government's Response to the Great East Japan Earthquake

Immediate Responses	<p align="center"><b>Disaster caused by the nuclear power station accident</b></p>	<p align="center"><b>Disaster caused by the earthquake and tsunami</b></p>
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>Nuclear Emergency Response Headquarters</b></p> <p>[At the beginning]</p> <p><b>Director-General:</b> Prime Minister <b>Vice Director-General:</b> Minister of Economy, Trade and Industry <b>Secretariat:</b> Cabinet Office</p> <ul style="list-style-type: none"> <li>• Evacuation orders</li> <li>• Rescue and aid</li> </ul> </div> <div style="width: 30%; text-align: center;"> <p>Act on Special Measures Concerning Nuclear Emergency Preparedness, Article 16(1)</p> <p>[November 2, 2012 and onward]</p> <p><b>Director-General:</b> Prime Minister <b>Vice Director-General:</b> Chief Cabinet Secretary; Minister of Economy, Trade and Industry; Minister of the Environment; Chairman of the Nuclear Regulation Authority <b>Secretariat:</b> Cabinet Office</p> <p>➔</p> </div> <div style="width: 30%;"> <p><b>Extreme Disaster Management Headquarters</b></p> <p>Basic Act on Disaster Management, Article 28-2(1)</p> <p><b>Chairperson:</b> Prime Minister <b>Assistant Chairperson:</b> Chief Cabinet Secretary, Minister of State for Disaster Management, Minister of Internal Affairs and Communications, Minister of Defense <b>Secretariat:</b> Cabinet Office (Disaster Management)</p> <ul style="list-style-type: none"> <li>• Rescue and aid</li> <li>• Search</li> <li>• Support for evacuation shelters, provision of supplies, construction of temporary housing</li> <li>• Emergency restoration of essential utilities</li> </ul> </div> </div>	
Current Responses	<p align="center"><b>Nuclear Emergency Response Headquarters</b></p> <p>&lt;Decommissioning, contaminated water and treated water control team&gt;</p> <ul style="list-style-type: none"> <li>• Measures for decommissioning, contaminated water and treated water</li> </ul> <p>&lt;Support team for people affected by nuclear incidents&gt;</p> <ul style="list-style-type: none"> <li>• Review of areas under evacuation orders</li> <li>• Livelihood support for people affected by nuclear incidents</li> </ul> <p>&lt;Ministry of the Environment&gt;</p> <ul style="list-style-type: none"> <li>• Disposal of waste</li> <li>• Decontamination, establishment of interim storage facilities</li> <li>• Monitoring</li> </ul> <p><b>【Nuclear damage compensation】</b></p> <p>&lt;Ministry of Economy, Trade and Industry&gt;</p> <ul style="list-style-type: none"> <li>• Provision of guidance to TEPCO</li> </ul> <p>&lt;Ministry of Education, Culture, Sports, Science and Technology&gt;</p> <ul style="list-style-type: none"> <li>• Follow-up of compensation status and response thereto</li> <li>• Mediation to reach an amicable settlement</li> </ul>	<p align="center"><b>Reconstruction Headquarters</b> <span style="float: right;">Established on 24 June 2011</span></p> <p align="center">Functions as control tower for reconstruction (planning/proposals for reconstruction measures, general coordination)</p> <p align="center">Chairperson: Prime Minister Assistant Chairperson: Chief Cabinet Secretary, Minister of State for Reconstruction</p> <hr/> <p align="center"><b>Reconstruction Agency</b> <span style="float: right;">Established on 10 February 2012</span></p> <p align="center">Functions as control tower for reconstruction (planning/proposals for reconstruction measures, general coordination), implementation of reconstruction projects, etc.</p> <p align="center"><b>Support for affected people</b></p> <ul style="list-style-type: none"> <li>• Protection and counseling support</li> <li>• Community development support</li> <li>• "Mental recovery"</li> </ul> <p align="center"><b>Housing reconstruction and community development</b></p> <ul style="list-style-type: none"> <li>• Reconstruction of housing and cities</li> <li>• Improvement of living environment</li> <li>• Development of transportation and logistics networks</li> </ul> <p align="center"><b>Revitalization of industries and livelihoods</b></p> <ul style="list-style-type: none"> <li>• Support for developing sales channels</li> <li>• Support for securing human resources</li> <li>• Promotion of tourism</li> </ul> <p align="center"><b>Reconstruction and revitalization of Fukushima</b></p> <ul style="list-style-type: none"> <li>• Support for evacuees outside the prefecture</li> <li>• Development of Specific Reconstruction and Revitalization Bases</li> <li>• Fukushima Innovation Coast Framework</li> <li>• Elimination of harmful rumors</li> </ul>

# III. Phases of Reconstruction

## I Intensive Reconstruction Period (March 2011–March 2016)

### Basic Guidelines for Reconstruction in Response to the Great East Japan Earthquake (Cabinet decision July 2011 / Revised August 2011)

*Aim for the earliest possible restoration/reconstruction of disaster-affected areas*

#### <Organizations/systems>

- Basic Act on Reconstruction promulgated and enforced (Jun. 2011)  
→ Reconstruction Headquarters established
- Act for Establishment of the Reconstruction Agency Promulgated (Dec. 2011)  
Enforced (Feb. 2012)  
→ **Reconstruction Agency established**
- Act on Special Zones for Reconstruction promulgated and enforced (Dec. 2011)
- Mid-and-Long-term Roadmap\* determined (Dec. 2011) \*Revised in 2019
- Special account for reconstruction established (April 2012)  
\*Mid-and-Long-term Roadmap towards the Decommissioning of TEPCO's Fukushima Daiichi Nuclear Power Station, Tokyo Electric Power Company Holdings

#### <Others>

- Number of occupied emergency temporary housing units at peak (Mar. 2012)
- Fisheries start test operation in Fukushima Prefecture (Jun. 2012 to Mar. 2021); currently transitioning to full operation.
- Evacuation shelters eliminated (Feb. 2013)
- Review of area of evacuation order completed (Aug. 2013)
- Disaster waste disposal completed with the exception of certain areas in Fukushima Prefecture (Mar. 2014)

## II First Reconstruction/Revitalization Period (Mar. 2016 to Mar. 2021)

### Basic Guidelines for Reconstruction in Response to the Great East Japan Earthquake From the "Reconstruction and Revitalization Period" (Cabinet decision Mar. 2016 / Revised Mar. 2019)

*While meticulously addressing new issues and diverse needs that arise as reconstruction progresses in phases, aim to achieve reconstruction that leads to independence of disaster-affected areas and serves as a role model of regional revitalization.*

#### <Organizations/systems>

- Specified Reconstruction and Revitalization Base system established (Feb. 2017)
- the mandate of the Reconstruction Agency extended for another 10 years (Jun. 2020)

#### <Others>

- All landing functions restored at 319 disaster-affected fishing ports. (Mar. 2018)
- Restoration of major port facilities completed (Mar. 2018)
- Decontamination completed in 100 municipalities in eight prefectures, except for the Difficult-to-return-home Area (Mar. 2018)
- Evacuation orders lifted in all areas, except for the Difficult-to-return-home Area (Mar. 2020)
- Reconstruction of housing and cities and almost all public infrastructure works completed (Dec. 2020)
- Provision of emergency temporary housing units in Iwate and Miyagi prefectures terminated (Mar. 2021)
- Transportation of removed soil, etc. after decontamination within Fukushima Prefecture (excluding Difficult-to-return-home Area) to interim storage facilities almost completed
- A cumulative total of 3,090 businesses moved out from temporary plants and other facilities, with 97 occupants remaining. (Mar. 2021)

## III Second Reconstruction/Revitalization Period (Apr. 2021 to Mar. 2026) <Current phase>

### Basic Guidelines for Reconstruction in Response to the Great East Japan Earthquake From the "Second Reconstruction and Revitalization Period" (Cabinet decision Mar. 2021)

The philosophy of the First Reconstruction/Revitalization Period is retained.

#### (1) Area affected by the earthquake and tsunami

##### Meticulously respond to issues that remain

- To support people affected by the disaster, meticulously address issues specific to each phase of reconstruction
- Encourage utilization of land left after relocation
- Support the seafood processing industry, the core industry of the disaster-affected area, in developing sales channels and converting raw materials for processing

#### (2) Area affected by the nuclear disaster

##### National government continues to take the lead in medium- to long-term measures

- Continue with efforts to return to normal after the accident and revitalize the environment
- Prepare the living environment for returnees and promote relocation/settlement, etc.
- Promote measures to encourage people to return to and reside within and outside the Specified Reconstruction and Revitalization Bases in Difficult-to-return-home Area
- Promote the Fukushima Innovation Coast Framework, Establish the Fukushima Institute for Research, Education and Innovation (F-REI)
- Support resumption of business in farming, forestry and fisheries, and respond to reputational damage

#### (3) Passing on lessons and memories to future generations

- Establish state-run memorial/prayer facilities in Fukushima Prefecture
- Collaborations with earthquake remnants and legacy facilities
- Compile effective reconstruction methods/measures and private-sector expertise, and widely share and proliferate the outcomes with related organizations.
- Assess reconstruction initiatives

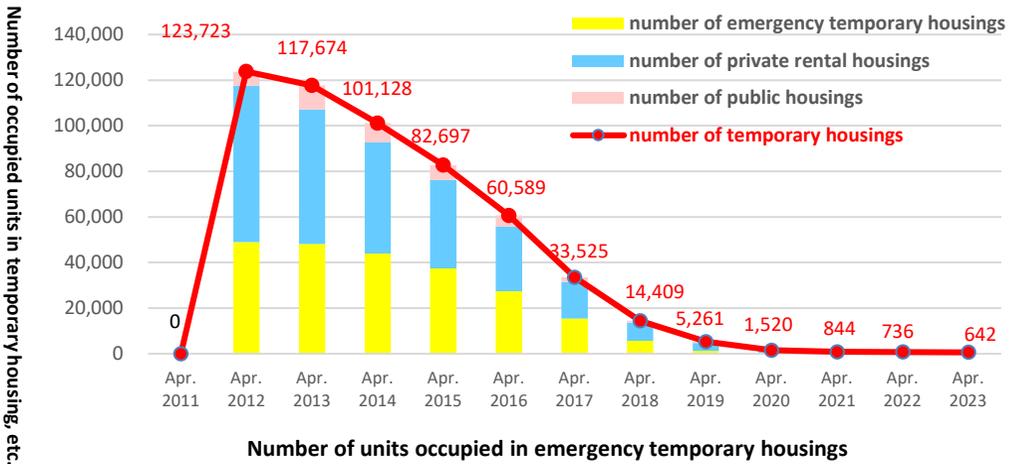
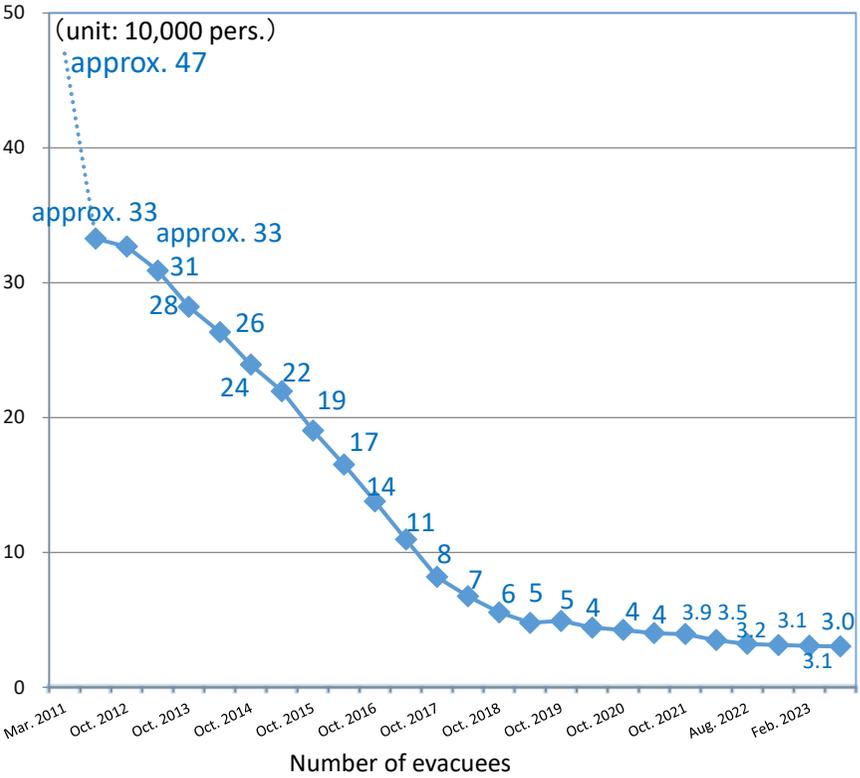
# IV. Status of Reconstruction and Reconstruction Efforts ① 【Common Efforts for all the Disaster-affected Areas】

1. Support for Evacuees
2. Reconstruction of Homes and Cities
3. Revitalization of Industries and Livelihoods

## 1. Support for Evacuees

(Current status) ▪ The number of evacuees has decreased from the initial 470,000 after the disaster to 30,000. (May 2023)  
 ▪ The number of residents in emergency temporary housing decreased from a maximum of 124,000 units (316,000 pers.) to 1,000 units (1,000 pers.). (June 2023) ※Okuma Town, Futaba Town

(Efforts) ▪ Continue seamless support according to the stage of reconstruction  
 ➢ Watching over the elderly people ➢ Providing mental and physical care ➢ Supporting community formation  
 ➢ Creating purpose in life ➢ Providing learning support and mental care for the disaster-affected children, and more



Gatherings are held for residents of public housing for disaster-affected people



Farming helps people interact and feel fulfilled



Local communities and schools join hands to support learning

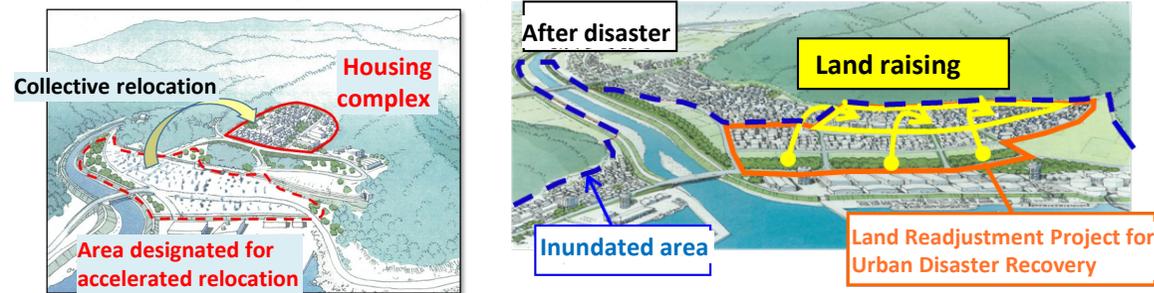
# 2. Reconstruction of Homes and Cities

(Current status) • Development of residential land with relocation to higher ground (approximately 18,000 unit plan) (Mar. 2020) and development of public housing for disaster-affected people (approximately 30,000 unit plan) (Dec. 2020) have been completed.

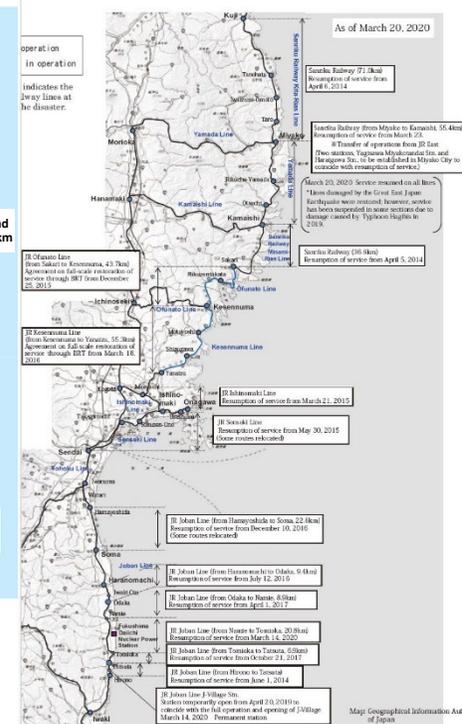
Note: Excluding units under coordination and for returnees

- Reconstruction Roads and Reconstruction Support Roads: the total planned length of approx. 570 km was opened to traffic (Dec. 2020)
- All damaged railroads have been restored. (Dec. 2020) (including restoration by Bus rapid transit/BRT)

(Efforts) • Support for the utilization of developed residential land and land left after relocation by a detailed response to issues specific to each community



Reconstruction Roads & Reconstruction Support Roads



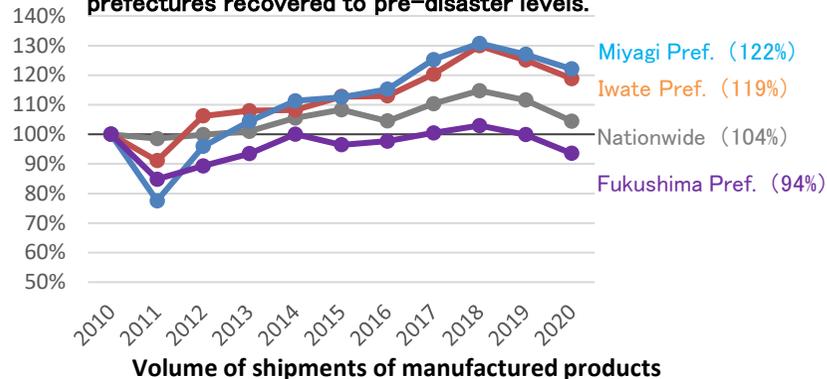
Recovery of railways

# 3. Revitalization of Industries and Livelihoods

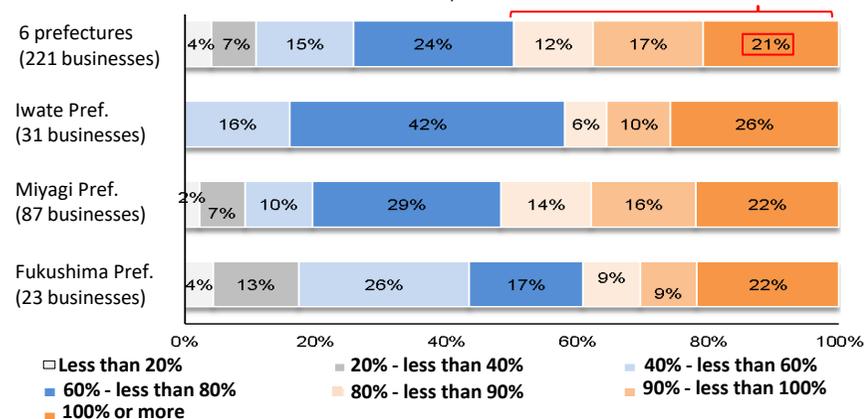
(Current status) • Production facilities in the three disaster-affected prefectures have mostly been restored.

(Efforts) • Support the development of sales channels and conversion of raw materials for processing in the seafood processing industry, which is the core industry of the disaster-affected area

**[Industry] Volume of shipments of manufactured products from 3 prefectures recovered to pre-disaster levels.**



**[Seafood processing industry] Sales for seafood processing businesses are still on the way to recovery.** (According to the results of the 10th survey of seafood processing businesses on restoration from the Great East Japan Earthquake, sales were restored at least to the pre-disaster level at 21% of all seafood processing businesses in six prefectures along the East Coast from Aomori to Chiba, and to 80% or higher of the pre-disaster level at 50% of the businesses.)



\*1 Prepared by the Reconstruction Agency based on the Census of Manufacture conducted by the Ministry of Economy, Trade and Industry and the Economic Census for Business Activity conducted by the Ministry of Internal Affairs and Communications and the Ministry of Economy, Trade and Industry.

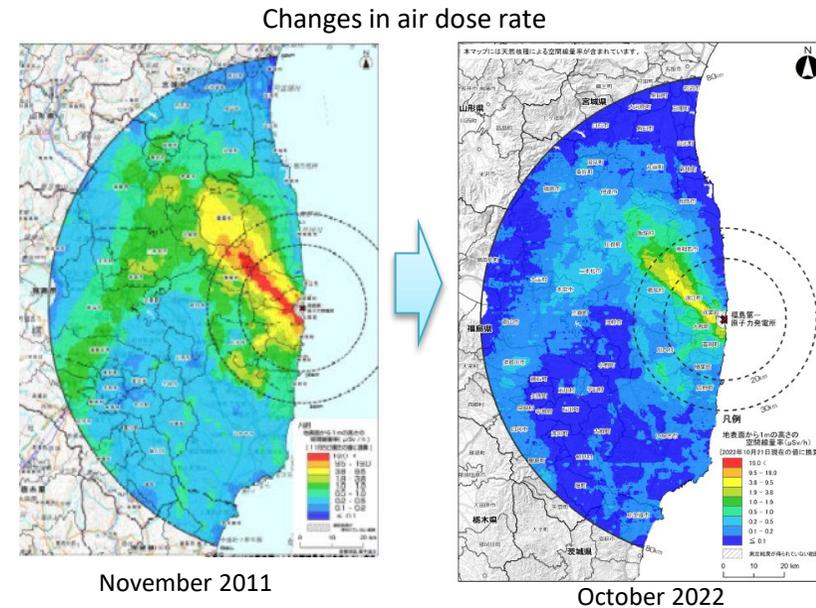
\*2 The value of 2010 is set at 100.

# IV. Status of Reconstruction and Reconstruction Efforts ②

【Main efforts in Areas affected by the nuclear disaster】

1. Returning to normal after the accident (decommissioning and measures of contaminated water or ALPS treated water)
2. Efforts for reconstruction and revitalization of Areas affected by the nuclear disaster
  - 2-1. Efforts for Environmental Revitalization
  - 2-2. Lifting of evacuation orders and reconstruction and revitalization of Difficult-to-return-home Area
  - 2-3. Promotion of returning and reconstruction of livelihoods
  - 2-4. Fukushima Innovation Coast Framework
  - 2-5. Fukushima Institute for Research, Education and Innovation (F-REI)
  - 2-6. Revitalization of agriculture, forestry and fisheries
  - 2-7. Countermeasures against reputational damage

## **1. Returning to normal after the accident (decommissioning and measures of contaminated water or ALPS treated water)**



Source: Nuclear Regulation Authority

- Based on the Mid-and-Long-term Roadmap towards the Decommissioning of TEPCO's Fukushima Daiichi Nuclear Power Station, the national government takes a leading role in implementing safe and steady steps.
- To proceed with the decommissioning of TEPCO's Fukushima Daiichi Nuclear Power Station and achieve restoration of Fukushima, the discharge of ALPS (Advanced Liquid Processing System) treated water is a pressing issue that cannot be put off.
- The Comprehensive Report by IAEA on ALPS treated water discharge was released in July 2023, concluding that the discharge is consistent with relevant international safety standards and that its radiological impact on people and the environment is negligible.
- It was decided at the meeting of relevant ministers held in August 2023 that the government would take full responsibility in taking measures against reputational damage and livelihood concerns caused by the discharge of ALPS treated water, until the discharge is completed.
- At the meeting, the government requested TEPCO to promptly prepare for the commencement of ocean discharge based on the implementation plan approved by the Nuclear Regulation Authority. The ocean discharge was started on August 24, 2023, and is monitored by relevant organizations, with monitoring results disclosed to the public.

## 2. Efforts for reconstruction and revitalization of Areas affected by the nuclear disaster

### 2-1. Efforts for Environmental Revitalization



Soil storage facility at Interim Storage Facility (Okuma Town)



Soil reception / separation facility of Interim Storage Facility (Okuma Town)



Environmental restoration project in Nagadoro district, Iitate Village



Paddy field test in Nagadoro district, Iitate Village

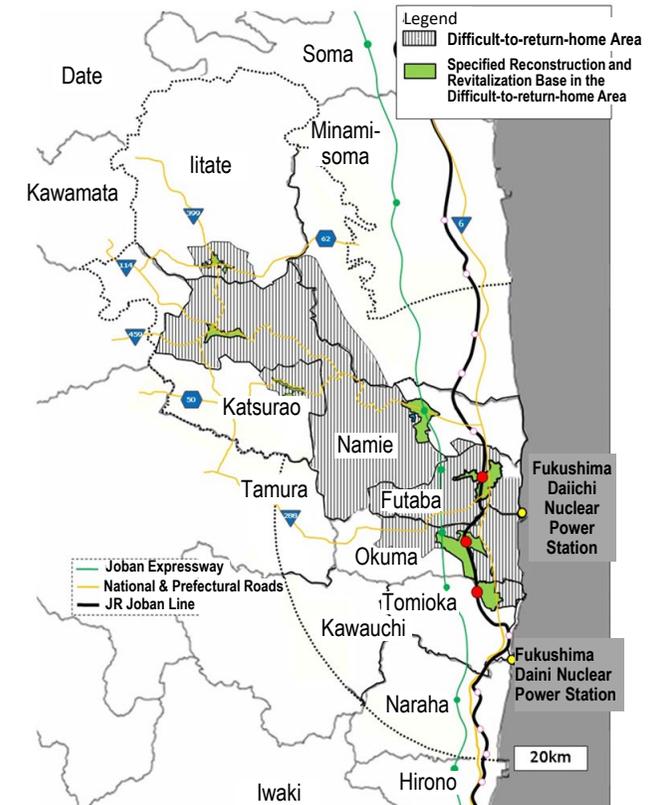
- (Current status) • Decontamination was completed in 100 municipalities in eight prefectures, except for the Difficult-to-return-home Area. (March 2018)
- Approx. 13.54 million m<sup>3</sup> of removed soil, etc. has been transported to interim storage facilities. (End of July 2023), and approx. 86% of the temporary storage site has been restored to its original state. (End of June 2023)

- (Efforts) • Management and restoration of temporary storage sites
- Transportation of removed soil, etc. to interim storage facilities
  - Treatment of specified waste, such as volume reduction and recycling, for final disposal outside the prefecture

### 2-2. Lifting of evacuation orders and reconstruction and revitalization of Difficult-to-return-home Area

- (Current status) In the target areas, decontamination and infrastructure development have been carried out, and evacuation orders have been steadily lifted. In the Specified Reconstruction and Revitalization Bases, evacuation orders were lifted in **six towns** and villages by May 2023.

- (Efforts) With regard to areas outside the Specified Reconstruction and Revitalization Bases, the Revised Act on Special Measures for the Reconstruction and Revitalization of Fukushima promulgated and enforced in June 2023 established a new system in which Specific Revitalized Residential Areas can be designated with the aim of enabling the residents to return and reside by lifting evacuation orders. The residents' intentions will be carefully monitored before proceeding with the necessary decontamination and infrastructure work. (In preparation for the full-scale decontamination to start in FY2024, decontamination will start in some areas of Okuma Town and Futaba Town ahead of other areas.)



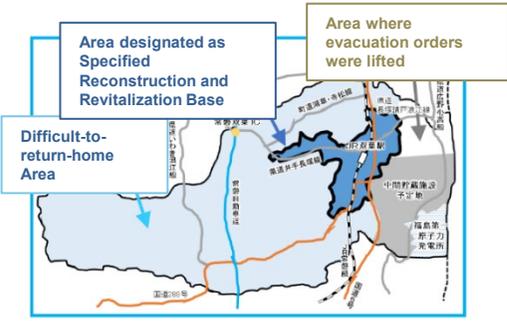
Areas under evacuation orders (as of May 1, 2023)

## 2-2. Lifting of evacuation orders and reconstruction and revitalization of Difficult-to-return-home Area

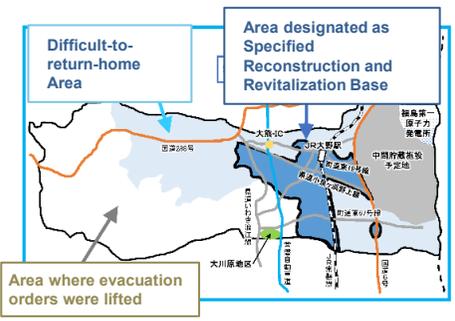
Where?		When?	What?
Areas under preparation for lifting evacuation orders & Restricted residential areas		By March 2020	Evacuation orders have been lifted in all areas, except for the Difficult-to-return-home Area.
Difficult-to-return-home Area	Specified Reconstruction and Revitalization Bases (Katsurao Village, Okuma Town, Futaba Town, Namie Town, Tomioka Town, Iitate Town)	March 2020	Evacuation orders in areas around JR Futaba Station, Ono Station and Yonomori Station were lifted ahead of other areas.
		June 2022	Evacuation order for Katsurao Village and Okuma Town was lifted.
		August 2022	Evacuation order for Futaba Town was lifted.
		March 2023	Evacuation order for Namie Town was lifted.
		April 2023	Evacuation order for Tomioka Town was lifted.
	May 2023	Evacuation order for Iitate Village was lifted.	
Area outside the Specified Reconstruction and Revitalization Base		August 2021	The "Approach to the Lifting of Evacuation Orders for the Return and Resettlement Outside of the Specified Reconstruction and Revitalization Bases" was decided.
		June 2023	Revised Act on Special Measures for the Reconstruction and Revitalization of Fukushima was promulgated and went into effect. (Specific Revitalized Residential Areas)

### 【Specified Reconstruction and Revitalization Bases】

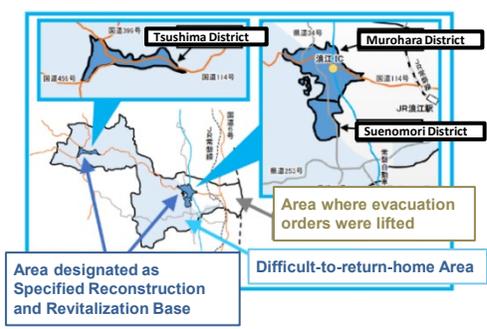
**Futaba Town**  
(designated on September 15, 2017)



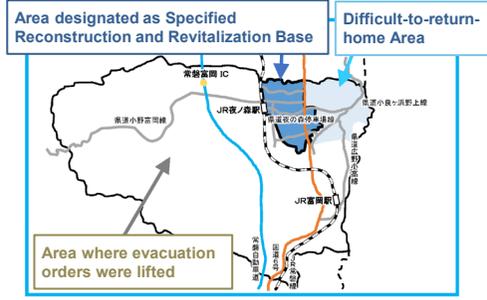
**Okuma Town**  
(designated on November 10, 2017)



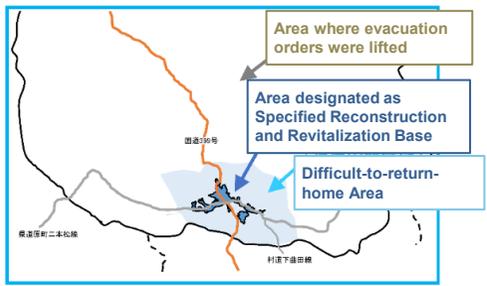
**Namie Town**  
(designated on December 22, 2017)



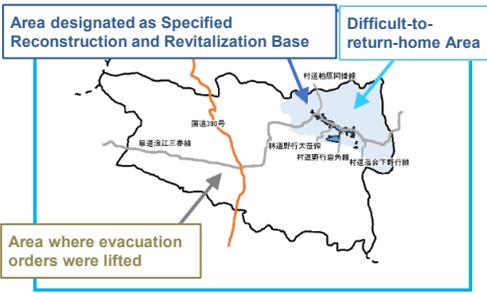
**Tomioka Town**  
(designated on March 9, 2018)



**Iitate Village**  
(designated on April 20, 2018)



**Katsurao Village**  
(designated on May 11, 2018)



## 2-3. Promotion of returning and reconstruction of livelihoods

(Current status) • The number of evacuees in Fukushima Prefecture has decreased (from a maximum of 165,000 to 27,000 (June 2023)).  
• The number of residents in the all areas where evacuation orders have been lifted has been gradually increasing.  
(4,000 in April 2017 → 16,000 in April 2023)

(Efforts) • Improvement of living environment, such as medical care, long-term care, education, shopping, housing, and transportation  
• Promotion of migration and settlement of new residents (providing information on housing and jobs through the Fukushima 12 Municipalities Migration Support Center, assisting migrants in securing housing, and providing grants to support migration, etc.)

### Medical and nursing care, welfare

April 2018 Minamisoma City

"Ume-no-Ka", a special assisted living facility for the elderly reopened

April 2018 Tomioka Town

Establishment of Fukushima Prefecture Futaba Medical Center, which provides core medical services in the region 24 hours a day



Futaba Medical Center

April 2020 Okuma Town

"Okuma Mominoki-en" opened, a group home for the elderly with dementia

February 2021 Okuma Town Medical Clinic opened

December 2021 Odaka Medical Clinic opened

April 2022 Tomioka Town "Co-living Support Center Sakura no Sato" opened

June 2022 Namie Town Fureai Welfare Center opened

February 2023 Futaba Town Medical Clinic opened

### Workplaces

September 2018: Mitsufuji Corporation plant started operations in Kawamata-nishi Industrial Park in Kawamata Town

October 2019: NBS Co.,Ltd. plant started operations in Naraha-kita Industrial Park in Naraha

May 2021: Ohashi Kisan plant started operations in Tanoiri Industrial Park in Kawauchi Village

June 2021: ROBOTCOM & FA.COM plant started operations in an Minamisoma City Fukko Industrial Park

September 2021: A grain drying, preparation and storage facility started operations in Namie Town

April 2022: Berg Fukushima Co.,Ltd. opened a plant vaccine research institute in Kawamata-nishi Industrial Park in Kawamata Town

July 2022: Okuma Incubation Center opened (Okuma Town)

April 2023: Asano Nenshi Co.,Ltd FUTABA SUPER ZERO MILL (Futaba Town) opened

### Housing

Reconstruction Public Housing:

→ 4,767 units completed out of 4,890 planned units

Disaster Public Housing for returnees:

→ 431 units completed out of 453 planned units



Hiwada housing complex, reconstruction public housing managed by the prefecture

### Education

Elementary/Junior high schools already reopened in 11 municipalities(except Futaba Town)

Opening of new schools, other:

April 2019 : Futaba Future School JHS opened

April 2020 : Iitate Kibo-no-Sato Gakuen opened

April 2021 : Kawauchi Elementary & JHS opened

April 2022 : Tomioka Elementary School & Tomioka JHS opened

April 2022 : Naraha Elementary School opened

April 2023 : Okuma Town "Manabiya Yumenomori" kindergarten & opened

May 2023: A committee started to discuss the reopening of the school in Futaba Town



Manabiya Yumenomori

### Transportation, etc.

[JR Joban Line]

March 2020: All lines opened. J-Village Stn. established

[Joban Expressway]

March 2020: Joban-Futaba IC opened

Opening ceremony of J village Stn.

[Soma-Fukushima Road]

December 2019: Soma IC to Soma-Yamakami JCT opened

August 2020: Date-Koori IC to Koori JCT opened

April 2021: Entire section opened to traffic



### Shopping

March 2017: *Sakura Mall Tomioka* opened in Tomioka Town

June 2018: *Kokonara Shopping Town* opened in Naraha Town

June 2019: *Daiyu 8 Odaka* opened in Minamisoma City

July 2019: *Aeon Namie* opened in Namie Town

February 2020: *York Benimaru Haramachi* opened in Minamisoma City

April 2021: *Roadside Station(Michi-no-eki) Namie* opened in Namie Town

April 2021: A commercial facility opened in Ogawara, Okuma Town



Roadside Station Namie

## 2-4. Fukushima Innovation Coast Framework

- In June 2014, the Fukushima Innovation Coast Framework, an initiative aimed to establish a new industrial platform in Hamadori and other areas, was put together by the Fukushima International Research Industry City (Innovation Coast) Framework Association. In May 2017, the Act on Special Measures for the Reconstruction and Revitalization of Fukushima was revised to legislate the framework into law.
- Under the Framework, the plan is to utilize various technologies (e.g., robot technology for decommissioning operation) for resolving issues in other fields, and to develop specialized personnel as leaders of new technologies and industries in order to support regional reconstruction. In addition, building on projects for regional energy and agricultural, forestry and fisheries industries as seedbeds, we will establish new research/industry bases to generate new technologies and industries in the future.

### 3 Pillars

(1) A region where all challenges are possible

(2) Local companies play central roles

(3) Human resources development that sustains the Framework

### Concrete Initiatives

#### (1) Industrial clustering

- Business creation support
- Technology development and commercialization support, etc.

#### (2) Education/ Human resources development

- Career education in conjunction with the Framework
- Development of top leaders, etc.

#### (3) Expansion of the circle

- Drawing visitors by creating new attractions in collaboration with the local community, etc.

#### (4) Information dissemination

- Widely share information through the Great East Japan Earthquake and Nuclear Disaster Memorial Museum, etc.

## 6 Key Areas

### Decommissioning

Developing technology through collective wisdom of Japan and the rest of the world

- Establish international decommissioning R&D sites to accelerate the decommissioning of TEPCO's Fukushima Daiichi Nuclear Power Station (Naraha Town, Tomioka Town, Okuma Town)



Naraha Center for Remote Control Technology Development

### Robotics and drones

Clustering the robotics industry around Fukushima Robot Test Field

- Fukushima Robot Test Field reproduces the environment for using land/sea/air field robots (Minamisoma City, Namie Town)



### Energy

Establishing technologies for leading-edge renewable energy and recycling

- Establish a smart community where renewable energy including hydrogen energy are efficiently used



Source: Toshiba Energy Systems & Solutions Corporation  
 Fukushima Hydrogen Energy Research Field (FH2R) (Namie Town)

### Agriculture, forestry, and fisheries

Regenerating agriculture, forestry, and fisheries industries by utilizing ICT, robotic technology, etc.

- Establish ICT-based agricultural model  
 Demonstration of self-driving tractor operation



### Medical and health care

Cultivating corporate sales channels through technology development support

- Cluster health care-related companies and promote new corporate and other entrants



Fukushima Medical Device Development Support Centre (Koriyama City)

### Aerospace

Developing next-generation air mobility solutions and strengthening competitiveness of related companies

- Support technological exchange and business negotiations in the aerospace industry and companies advancing into the industry



Robot & Aerospace Festa Fukushima

## 2-5. Fukushima Institute for Research, Education and Innovation (F-REI)

The Fukushima Institute for Research, Education and Innovation (F-REI) aims to become a **world-class, core center for creative reconstruction**, embodying people's **hopes and dreams for realizing the reconstruction of Fukushima and other parts of the Tohoku region, driving Japan's scientific and technological capabilities and industrial competitiveness**, and contributing to **economic growth and the improvement of people's lives**.

Prime Minister
Minister of Education, Culture, Sports, Science and Technology
Minister of Health, Labour and Welfare
Minister of Agriculture, Forestry and Fisheries
Minister of Economy, Trade and Industry
Minister of the Environment

• Co-jurisdiction by competent ministers  
• Medium-term objectives and plans over 7-year period

### Fukushima Institute for Research, Education and Innovation (F-REI)

(Special legal entity under the Act on Special Measures for the Reconstruction and Revitalization of Fukushima) (established on 1 April 2023)  
President: Mr. Koetsu YAMAZAKI (former President of Kanazawa Univ.)  
Integrated promotion of R&D, industrialization, and human resources development under the leadership of the President

- Attractive research environment for researchers (i.e., development of standards for salaries and other benefits, taking into account the need to retain globally competitive human resources)
- Active recruitment and promotion of young or women researchers

World-class researchers from Japan and abroad

Hundreds of people expected to be involved in the future

#### R&D

- Promotion of R&D that is second to none in Japan and abroad and helps solve problems in disaster-affected areas and around the world, focusing on the above five areas where Fukushima's competitive advantage is clear

#### Industrialization

- Establishment of a collaborative system between industry and academia
- Active application of demonstration fields
- Strategic management of intellectual property

#### Human resources development

- Post-graduates, other
- Younger generations who will be responsible for the future of local regions
- Specialists in companies, other

#### Coordination

- Cross-functional council across existing facilities, other
- Integration and consolidation of some existing facilities and budgets into the Center to accelerate research and facilitate comprehensive coordination of activities

**Research Themes at F-REI** \* Basic plan for research and development, including the creation of new industries, to be formulated by the summer of 2022

#### 【① Robotics】

Development of advanced, remotely operated robots and drones that can contribute to decommissioning work, research on performance evaluation methods, other



Drones  
Remotely operated robots

#### 【② Agriculture, forestry and fisheries】

Realization of a regional circular economy model through intense labor-saving production and the utilization of agricultural, forestry and fisheries resources



Demonstrations on automated production systems  
Identification and application of useful resources

#### 【③ Energy】

Demonstrations of technologies that will position Fukushima as a global pioneer in carbon neutrality, other



Development and demonstrations of hydrogen energy networks  
Negative emissions technology

#### 【④ Radiation science, medicine and drug development, industrial applications for radiation】

Basic and fundamental research on radiation science and the development of advanced medical applications and drug discovery technologies for RI, and industrial applications for radiation, other



Cancer treatment with new RI drugs  
Ultra-large X-ray CT machine (Monozukuri DX)

#### 【⑤ Collection and dissemination of data and knowledge on nuclear disasters】

R&D and dissemination of information integrating the natural and social sciences to contribute to environmental recovery from nuclear disasters and preparations for nuclear disaster on an international scale, as well as the elimination of harmful rumors, other



Research on the environmental dynamics of radioactive substances

<Location of the F-REI>  
• HQ : in Fureai Center Namie  
• Main facility : in Kawazoe district in Namie Town

### Aim to spread the effects of F-REI's establishment over a wide area

- Promote diverse partnerships with municipalities, universities and research institutions, companies and organizations, etc., with F-REI as the core.
- Realize "the only place in the world for research, demonstration, and implementation" centered on the Hamadori region, and disseminate information internationally

## 2-6. Revitalization of agriculture, forestry and fisheries

(Current status) • In the 12 municipalities affected by the nuclear disaster, the areas where farming resumed are at 46% of the pre-disaster level. (As of the end of FY 2022)

- Coastal fisheries in Fukushima Prefecture are in a transition phase from test operations, which ended in March 2021, to full-scale operations. The fish landings are at 22% of the pre-disaster level. (As of end of 2022)

(Efforts) • Support for resumption of farming

(Development of large-scale agricultural management with high labor productivity, and creation of production areas that produce high value-added products over a wide area)

- Support for resumption of full-scale operations, such as development of sales channels
- Dispelling harmful rumors about products from the disaster-affected areas

## 2-7. Countermeasures against reputational damage

(Current status) • Although the price gap between products from Fukushima Prefecture and the national average is decreasing, the price of some products has not yet recovered to pre-disaster level.

- Of the 55 countries/regions that have taken import control measures, 48 have abolished the measures, and 7 maintain them.

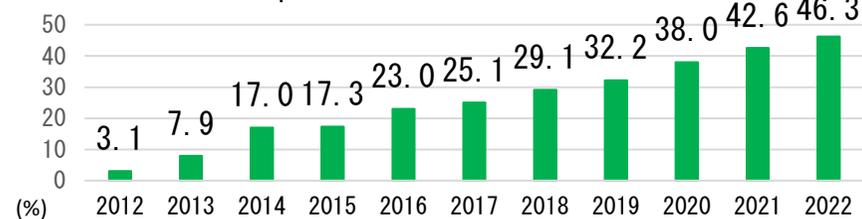
(Effort) • Provide information to promote agricultural and other products from Fukushima Prefecture through various media, such as TV, radio and the Internet, while highlighting safety and encouraging people to buy the products.

- The Measure Package for Information Provision to Increase Understanding of ALPS Treated Water was compiled at the meeting of the Task Force for Measures against Damage Caused by the Nuclear Disaster, Including Reputational Damage held in August 2021. (Revised in April 2022)

- Public relations activities at the G7 Hiroshima Summit and ministerial meetings.
- Following the start of the discharge of ALPS treated water into the ocean, a task force meeting was held in August 2023, at which the Minister of Reconstruction instructed the ministries and agencies concerned on points they should follow in their efforts to dispel rumors.

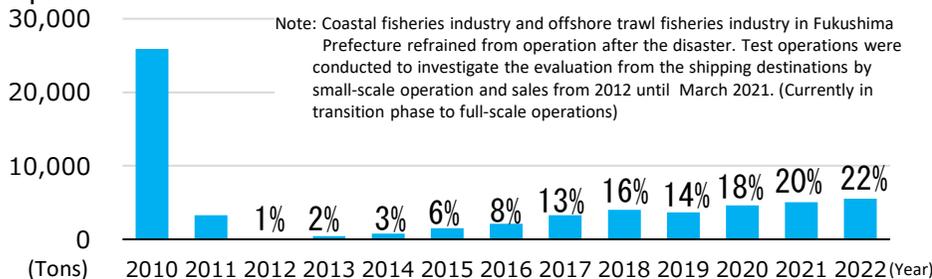
○ Areas where farming resumed in the 12 affected municipalities

Note: The ratio to the areas where farming was suspended as of the end of December 2011

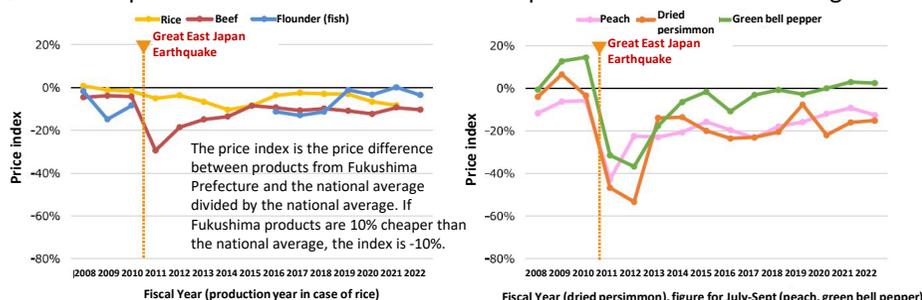


Source: 2021 Activities and Results Report on the Farming Resumption Support Project of Fukushima Prefecture (Fiscal year)

○ Landings of coastal fisheries (including offshore) and marine aquaculture in Fukushima Prefecture



○ Trends in price difference between Fukushima products and national average



source : FY2022 Survey on Distribution of Agricultural Products Produced in Fukushima (Ministry of Agriculture, Forestry and Fisheries)

### Video series: "Oishii Fukushima" (Delicious Fukushima)

Total 16 videos were watched more than 12.8 million times in total. (as of end of July 2023)



# IV. Status of Reconstruction and Reconstruction Efforts ③ 【Passing on Memories and Lessons of Earthquake Disaster】

## 1. State-run memorial facilities

- With the aim of consoling the souls of the victims of the Great East Japan Earthquake, passing on our memories of the disaster and the lessons we have learned from it, and sharing with the world our strong determination to achieve reconstruction, the government has been creating hills and open spaces as core centers within reconstruction memorial parks established by local municipalities.

**Iwate and Miyagi Prefecture** : Completed at the end of FY 2020

**Fukushima Prefecture** : Construction underway for completion by the end of FY 2025

A state-run memorial facility (Rikuzen-takata, Iwate Prefecture)



## 2. Ruins and legacy facilities

- Participated in the Earthquake Disaster Legacy Network Council
- Rurubu* (travel guide series) special edition : the *Densho Shisetsu* (legacy facilities) Guide (published in March 2023)
- Will participate in the Tohoku Reconstruction Tourism Promotion Network (tentative name) (East Japan Railway Company)

*Densho Shisetsu* (legacy facilities) Guide ( *Rurubu* special edition)



## 3. Share know-how and assess reconstruction policy

### (1) “Lessons Learned and Know-how Gained from the Great East Japan Earthquake” (Released in March 2021)

- Collected and studied a huge volume of case examples of initiatives implemented by the public and private sectors, and extracted lessons and know-how from them in consideration of expert knowledge

### (2) “Reflection on the Past Decade of Reconstruction Policy” (released in August 2023)

- Collected and organized materials about the transitions of government organizations and initiatives related to reconstruction, progress in reconstruction, etc. for the First Reconstruction/Revitalization Period (FY 2011 to FY 2020), and summarized assessments and issues in consideration of the opinions of external experts

### (3) Launched a website for passing on lessons learned from the Great East Japan Earthquake: “*Tsunagu, Mirai-e*” (lit. Passing on to the future) (March 2023)

### (4) Share Japan’s expertise with other countries (e.g., Ukraine)

Giving a lecture on reconstruction measures for Ukrainian government officials (May 2023)



In light of a decade of progress after the disaster and challenges, establish policies for actions in each field, systems to support reconstruction, and organizations from the Second Reconstruction and Revitalization Period (2021 to 2025), based on Article 3 of the Basic Act on Reconstruction in Response to the Great East Japan Earthquake.

## Basic policy and efforts in each field

### 1. Area affected by the earthquake and tsunami

At the stage of "overall completion" of reconstruction

⇒ Aim for the reconstruction project to **fulfill its role** in the second period.

#### ○ Construction project

• Most of the project has been completed. Part of the project has yet to be completed, and will continue within the budget already secured.

#### ○ Support for people affected by the disaster

(mental care, community formation, monitoring, consultations, etc.)\*

• Continue to provide support according to the progress of the project amid changes in social conditions

#### ○ Support for children

(additional placement of teachers, placement of school counselors, financial assistance for schooling)\*

• Continuous support according to the progress of the project, such as the situation of children in need of support

\*For projects that are not completed within the second period, consider how to support and take appropriate measures.

#### ○ Reconstruction of homes and cities

• Continue support for rent reductions and special rent reduction projects for a determined period of time  
• Detailed response and support for utilizing developed residential land and land left after the relocation

#### ○ Industries and livelihoods

• Support the revitalization and relocation of small and medium-sized enterprise groups (restriction and prioritization of targets)  
• Support the seafood processing industry in developing sales channels and converting raw materials for processing

#### ○ Strengthening collaboration with regional revitalization

• Enhancing and strengthening collaboration between reconstruction and regional revitalization measures

### 3. Passing on lessons and memories to future generations

- Establishment of national memorial and prayer facilities in Fukushima Prefecture
- Identifying effective reconstruction methods and efforts, as well as providing information and enlightenment to related organizations

### 2. Area affected by the nuclear disaster

It is necessary for the national government to continue to take a leading role in the medium- to long-term response. ⇒ Efforts for full-scale reconstruction and revitalization over the next decade

#### ○ Returning to normal after the accident

- Implement safe, steady decommissioning and measures for contaminated water, which are the prerequisites for reconstruction.
- Make responsible, timely conclusions regarding ALPS treated water.

#### ○ Efforts to revitalize the environment

- Management and restoration of temporary storage sites, and the development of interim storage facilities and transportation to the facilities
- Treatment of specified waste, such as volume reduction and recycling, for final disposal

#### ○ Promotion of returning and relocation, rebuilding of livelihoods, etc.

- Preparing the environment for returnees, promoting relocation/settlement, etc.
- Continuously supporting disaster-affected people
- Development of the Specified Reconstruction and Revitalization Bases while managing the progress

• Accelerating the discussion of policies for lifting evacuation orders outside the Specified Reconstruction and Revitalization Bases

#### ○ Promotion of the Fukushima Innovation Coast Framework

• Promote with emphasis on core fields for industrial development in areas including Hamadori

#### ○ Establishment of an international educational and research base

• Promote efforts to establish a new base that will be the core base for creative reconstruction

#### ○ Reconstruction of businesses and agriculture, forestry and fishery industry

• Support for business resumption, acceleration of resumption of farming, forest maintenance, revitalization of log wood forests and production areas for special forest products, and support for full-scale fishery operations and the seafood processing industry

#### ○ Dispelling rumors and promotion of risk communication

- Continuous provision of information both domestically and internationally to eliminate negative rumors about agriculture, forestry and fisheries products, tourism, etc.
- Verification of regulations on food, etc.
- Promotion of abolition and relaxation of import regulations

## Project scale and financial resources

- Estimated budget for 15 years from FY 2011 to FY 2025: Approximately 32.9 trillion yen  
※Detailed responses to new issues and various needs are required in the nuclear disaster-affected areas. It is important to review responses as necessary.

## Organization

- Extend the period of establishment for the Reconstruction Agency by ten years, relocate the Iwate Reconstruction Bureau to Kamaishi and the Miyagi Reconstruction Bureau to Ishinomaki
- Establish an organization in charge of knowledge utilization in the Reconstruction Agency and share knowledge with related organizations

# Related Data

		Figures before the disaster or maximum figures	Current status
Evacuees	The number of evacuees	470,000 (Immediately after the disaster)	30,000 As of May 2023 (out of which evacuees from Fukushima prefecture: 27,000)
	Number of people living in emergency temporary housing	316,000 April 2012 (maximum)	1,000 As of June 2023
Infrastructure/housing	Reconstruction Roads and Reconstruction Support Roads (Aomori, Iwate, Miyagi, Fukushima)	570km (Planned)	570km (100%) As of December 2021
	Public housing for disaster-affected people (Aomori, Iwate, Miyagi, Fukushima, Ibaraki, Chiba, Niigata, Nagano) Note: Excludes units under coordination and for returnees	29,654 (Planned number of units)	29,654 (100%) As of December 2020
	Development of residential land with relocation to higher ground (Iwate, Miyagi, Fukushima)	18,226 (Planned number of units)	18,226 (100%) As of December 2020
Industries and livelihoods	Volume of shipments of manufactured products (Iwate, Miyagi, Fukushima)	10,763.7 billion yen 2010	11,619.3 billion yen 2020
	Areas able to resume farming (Aomori, Iwate, Miyagi, Fukushima, Ibaraki, Chiba)	19,660 ha (Areas affected by the tsunami)	18,640 ha (95%) As of September 2022
Nuclear disaster	Dimension of areas under evacuation orders	1,150 km <sup>2</sup> August 2013 (maximum)	309 km <sup>2</sup> (27%) As of May 2023
	The number of countries and regions imposing import restrictions on Japanese agricultural, forestry and fishery products and foods	55 countries/regions (maximum)	7 countries/regions (lifted by 48 countries/regions) As of August 2023