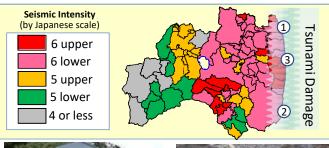


### "Steps for Revitalization in Fukushima" Digest version < Aug. 5. 2019 >

#### Triple Disaster

Earthquake, tsunami and nuclear accident on March 11, 2011

The Great East Japan Earthquake occurred on March 11, 2011 at 14:46. Centered off the Sanriku coast in North Eastern Japan, its magnitude was a record high of M9.0, measuring a 7 on the JMA seismic intensity scale. Heavy shaking resulted in a large tsunami that struck a wide area along the coast.





Police officers carry out search and rescue operations using heavy machinery (March 11, 2011, Iwaki City) operations using heavy machinery (March 2011, Soma City)

#### Disaster status after the earthquake and tsunami [as of 5 Jul., 2019]

Fatality: 4,105 people (This number includes 2,275 disaster-related deaths)

Missing: 1people



Status of housing damage (Ukedo district, Namie Town)

#### (Housing Damage by region)

Totally destroyed	15,435
Half destroyed	82,783



#### **Evacuation Designated Zones**

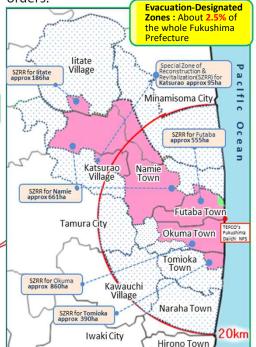
The areas under evacuation orders have changed such as with the lifting of the orders.



◆ Reconstruction projects in the difficult-to-return zone have started since 2017. (See SZRR\* on the map)

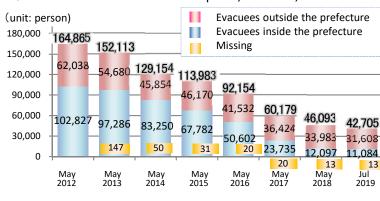


**Fukushima Prefecture** \*SZRR: Special Zone of Reconstruction & Revitalization



#### **Transition of evacuees**

◆Transition of evacuees :Earthquake, Tsunami, NPS accident



#### Reference

Numbers of evacuees are about 2.3% of the prefecture's entire population:

1,848,257 people 42,705 :

(As of Jul 2019) (As of Jun 2019)



#### **Current situation at TEPCO Fukushima Daiichi Nuclear Power Station**

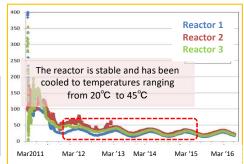
(As of December 2016, TEPCO's data)





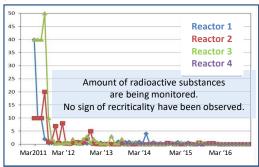
#### Reactor temperature

Temperature inside containment vessel air conditioners(°C)



#### Amount of radioactive substances

Amount of radio cesium per hour dispersed from the nuclear reactor buildings (1 mil. Bq)

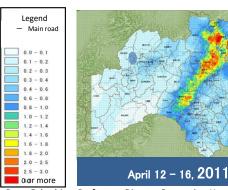


#### **Revitalization in Fukushima**

Air radiation levels in the prefecture have significantly decreased compared to April, 2011. Decontamination of prefectural land has been completed in all areas except for the Difficult-to-return zone.

#### Transition of air radiation dose in Fukushima Prefecture

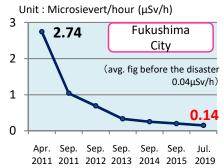
◆Radiation dose level map covering the whole area of the prefecture based on the monitoring mesh survey of environmental radiation by Fukushima Prefecture.



Data: Fukushima Prefecture Disaster Prevention Headquarters (provisional value)

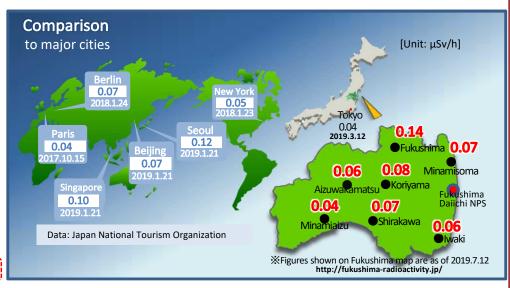


## ◆Transition of measurements(1)



Transition of measurements(2)

[Unit: µSv/h] **Aizuwaka Fukushima** Iwaki matsu City City City Pre -0.04 0.04-0.05 0.05-0.06 disaster 2.74 Apr.2011 0.24 0.66 Sep.2011 1.04 0.13 0.18 Mar.2012 0.63 0.10 0.17 Sep.2012 0.69 0.10 0.10 Mar.2013 0.46 0.07 0.09 Sep.2013 0.33 0.07 0.09 Jul .2019 0.14 0.06 0.06



# Fukushima Prefectural Centre for Environmental Creation

We have to quickly restore environment in Fukushima to create environment where citizens can live with peace of mind over the future. For that, we are conducting detailed environmental monitoring, research and information release as well as taking measures to help children learn about environment and radiation at the Information and Communication building, "Commutan Fukushima."





Fukushima Prefecture currently proceeding projects in cooperation with IAEA\*
Projects include the review of decontamination technology used for rivers and lakes, and studying the movement of radioactive materials contained in wild animals.
\*IAEA: International Atomic Energy Agency

#### IAEA proposed project

O Decontamination in Fukushima O Support for utilization of radiation monitoring data for drawing of easily understandable map ...

#### Our proposed projects

O Project to review the decontamination technology for rivers, lakes and ponds O Behavioral survey of radionuclide in wild lives ....

On-site inspection by IAEA experts



#### Situation of the agricultural, forestry, and fishery Industries

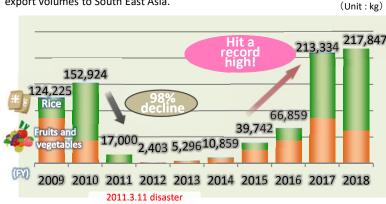
Production values for the agricultural, forestry, and fishing industries have decreased since the disaster, March 2011. The prefecture is putting the upmost effort into a variety of activities to revitalize the agricultural, forestry, and fishery industries, which will in turn contribute to helping rebuild the livelihoods of disaster-affected citizens. Activities include PR campaigns introducing qualities of Fukushima products along with the systems in place to ensure food security and safety.

#### Amount of agricultural produce (Unit: JPY 100 million) 2500 -2,077 2,071 94 2,021 1,851 1,973 61 2000 55 63 1,837 541 71 Others 54 388 441 497 495 61 509 417 Livestocks 475 63 1500 74 66 51 212 86 78 Flowers 250 197 264 436 248 1000 Fruits 469 458 389 482 480 452 **∀**egitables 500 747 692 563 529 0 2010 2011 2012 2013 2014 2015 2016 2017

\*\*In terms of rice, crop acreage and yield increased after 2012, but in 2014 and 2015, the nationwide rice price sharply dropped and the rice output also significantly dropped in the prefecture, as well.

#### Changes in exports of agricultural and fisheries products from Fukushima

Immediately after the disaster export volumes dropped by about 90%. In spite of that, our efforts for safety and confidence recovery within the prefecture and recognition of product quality has lead to a steady increase in export volumes to South East Asia.



#### Monitoring of Fukushima's agricultural, forestry and fishery products

Fukushima's primary products undergo monitoring inspection before being shipped. Any product that is found to exceed the safety standard is banned from being shipped based on the product type and produced area. **Products being distributed are confirmed to be safe.** 

#### Test results on all rice in all rice bags

(2018.8.21-2019.5.31)



Inspection results (2019.4.1-2019.5.31) Proportion of No. of samples Total No. of <u>exceeding</u> samples exceeding Classification samples standard limits standard limits Vegetables & Fruits 386 0.00% n Livestock products 667 0.00% Cultivated edible plants 0 & mushrooms 188 0.00% Marine fishery products 859 0.00% Fresh water farmed fish 14 0 0.00% Wild edible plants & mushrooms 416 0.00% Fresh water fishery products 232 2 0.86%

Inspection: Fukushima prefecture is carrying out these inspections based on national guidelines.

#### Reference Safety standard limits for radioactive cesium ( Unit: Bq/kg)

Category	Japan	EU
General foods	100	1,250
Milk	50	1,000
Infant foods	50	400
Drinking water	10	1,000

Data: Consumer Affairs Agency (Govt. of Japan)

Marine fish and shellfish monitoring inspection

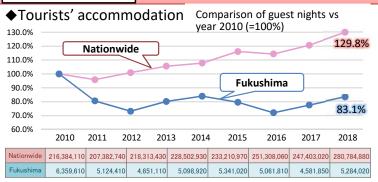


State of voluntary inspections by the
fisheries cooperative association.



#### Tourism to date

We hope that many people will visit Fukushima prefecture and see our situation steadily moving forward toward revitalization.





[Data] Japan Tourism Agency The Survey of Tourist Accommodation Tourism Promotion Bureau, Fukushima Prefectural Government





Tokyo 2020 Olympic Games Torch Relay to start from Fukushima Prefecture / Games to commence with a softball game in the prefecture

It has been finalized that the Tokyo Olympic Torch Relay will be kicked off from Fukushima Prefecture on March 26, 2020. Additionally, the schedule for the opening games of softball matches was released. They will take place at the Fukushima Azuma Baseball Stadium on July 22, two days before the opening ceremony of the Olympic Games. Ahead of all other matches it has also been decided that opening games of

baseball matches will take place in the prefecture as well.

The Tokyo Olympic and Paralympic Games will be held as the Reconstruction Olympic Games. The Prefectural Government will take that opportunity to show the appreciation for support from around Japan and the world and how Fukushima is progressing towards revitalization in the wake of the disaster.

Fukushima Airport -Operation of regular charter flights to and from Taiwan has began.



Taiwan's Far Eastern Air Transport airline began operating regular charter flights in April, 2019. 2 round-trip flights a week are operated departing from Fukushima and Taipei each on Thursdays and arriving at each airport on Sundays.

The regular charter flights are expected to expand mutual exchange between Fukushima and Taiwan. The prefectural government has made a commitment to promote further operations of international chartered flights.

#### Fukushima Innovation Coast Framework

Fukushima Innovation Coast Framework aims to create a new industrial base in the coastal region in order to revitalize industries affected by the Great East Japan Earthquake, Tsunami and nuclear disaster.

#### Construction of hubs for research and development

#### **Fukushima Robot Test Field**

This is an unprecedented research and development hub where R&D, demonstrative tests, performance assessments and operational training for use of robot and drones for land, sea and air will take place.



Construction of an Aerialdrone Area; Infrastructure inspection and disaster response area; On-water and under water robot area: and R&D infrastructure area is planned at a site extending 1,000 m east-west and 500 m north-south in Minamisoma City's Revitalization Industrial Park. There are also plans to construct a runway for long distance flight tests in Namie town's Tanashio Industrial Park

#### of industrial cluster Education and fostering of human

**Education & promotion** 

resources so that the next generation will be able to bear the burdens of the future and promote the industrial cluster

sessions

Accumulation of knowledge related to revitalization



#### Promotion of development of the environment



Shin Joban Kotsu Bus operation Co started Iwaki-Tomioka lane in April 2017.

**Futaba Medical** Centre-affiliated hospital





Hub facility for archiving of the Great East Japan Earthquake, Tsunami & Nuclear Disaster

Construction of hub facility for the archiving of material related to the Great East Japan Earthquake, Tsunami and Nuclear Disaster

#### Archive center



#### **Enhancement of regional** cooperation by various entities



Programming session

International Decommissioning Joint **Research Center** International Joint Research Building Tomioka

Opened in April, 2017

Okuma Analysis and Research Center (Laboratory for analysis and research of radioactive substances)

Partially opened in March 2018

Naraha Remote Technology Development Centre (mock-up Centre)



Opened in April, 2016



# Diamondroutejapan.

# Lonely Planet Discover Nikko & Aizu 国級統領

#### **Fukushima Revitalization Station**

- Portal site of revitalization progress -

http://www.pref.fukushima.lg.jp/site/portal-english/







#### O Capital: Fukushima City O Population: 1,848,257 (Jun. 2019)

(\*Evacuation designated zones: 339km²)

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