

**Triple Disaster** Earthquake, tsunami and nuclear accident of March 11, 2011

**Disaster status after the earthquake and tsunami**

<Disaster status in Fukushima Prefecture> As of 2016.11.28

◆ **Deaths : 3,927**

(This number includes 2,099 disaster-related deaths(※1))

◆ **Missing: 3** (※2)

(※1) Disaster-related deaths are not caused directly by the disaster, but occur afterwards due to indirect causes including stress and decline in health from living as evacuees. (※2) For the 227 people missing, 224 have had death notifications issued, and are counted as deaths.



Yotsukura Bay struck by the tsunami (March 11, 2011)

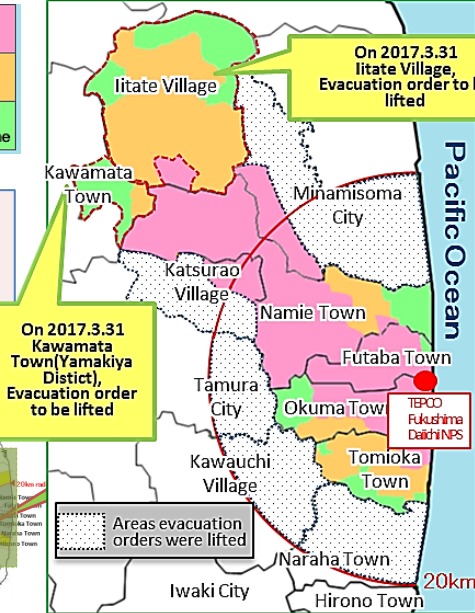


Police officers carry out search and rescue operations using heavy machinery (March 2011, Soma City)

**Evacuation Instruction Zones**

- Difficult-to-return zone
- Restricted residence zone
- Evacuation order cancellation preparation zone

On July 12, 2016, evacuation instruction areas become 726km<sup>2</sup>, approximately 5% occupation of Fukushima Prefecture.

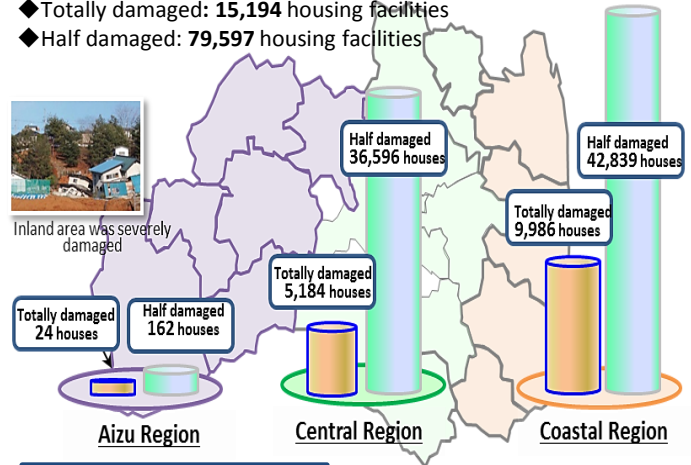


**Status of housing damage by region**

<Damage status> As of 2016.11.28

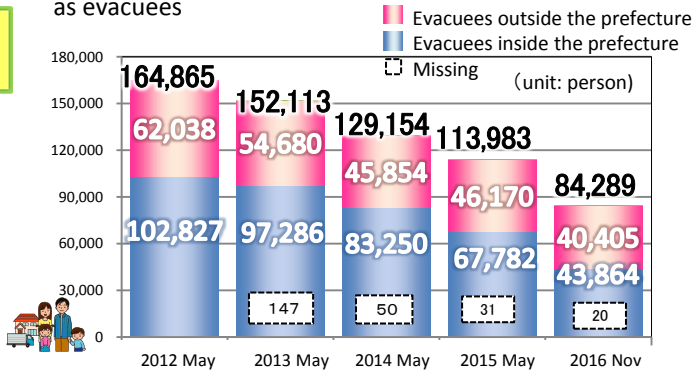
◆ **Totally damaged: 15,194** housing facilities

◆ **Half damaged: 79,597** housing facilities



**Transition of evacuees**

◆ **Nearly 90,000 people from Fukushima continue to live as evacuees**



**Estimated population**

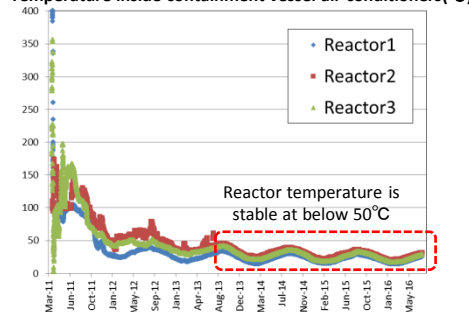
	Number of Households	Population		
		male	female	
2011.3.01	721,535	982,427	1,041,974	
2016.11.01	743,836	939,933	959,553	
comparison	22,301	▲ 124,915	▲ 42,494	▲ 82,421

**Current situation at TEPCO Fukushima Daiichi Nuclear Power Station** (As of July 2016, data from TEPCO)



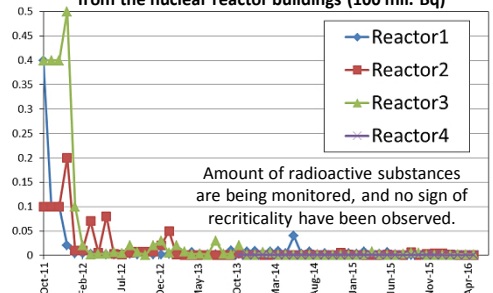
**Reactor temperature**

Temperature inside containment vessel air conditioners(°C)



**Amount of radioactive substances**

Amount of radio cesium per hour dispersed from the nuclear reactor buildings (100 mil. Bq)

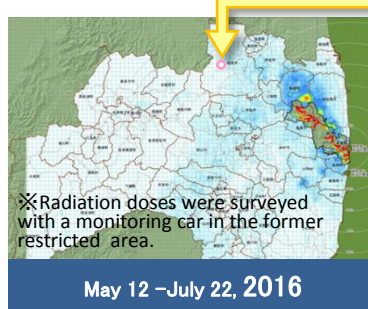
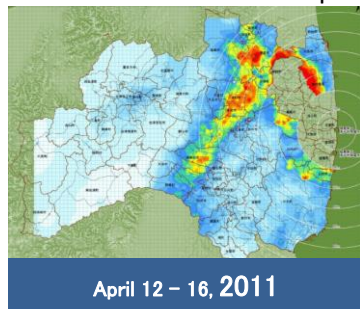
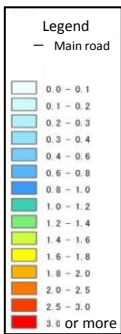


# Restoration of the prefecture

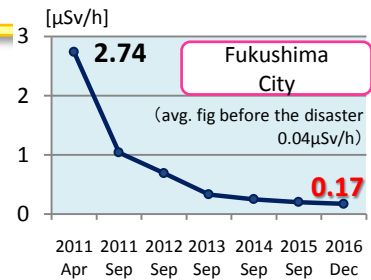
**The air radiation dose** It has significantly decreased. Decontamination has been progressing.

## Air radiation dose transition in Fukushima Prefecture

◆ Radiation dose level map covering the whole area



◆ Transition of measurements



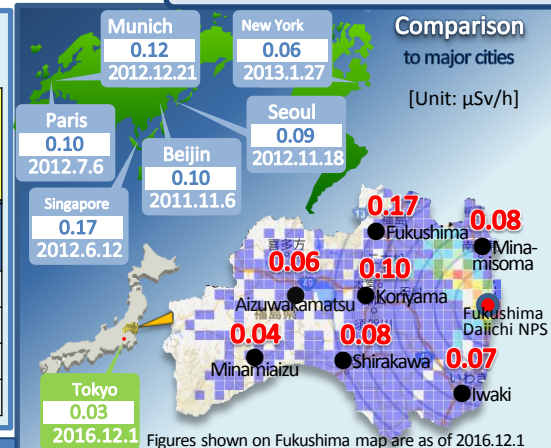
◆ World Map of radiation measurements  
Shown on home page of the prefectural government, releasing results of measurements in major cities in the world  
<http://fukushima-radioactivity.jp/>

[Source] Fukushima Prefecture Disaster Prevention Headquarters (provisional value)

	Fukushima City	Aizuwakamatsu City	Iwaki City
Pre-disaster	[Unit: μSv/h] 0.04	0.04~0.05	0.05~0.06
Apr2011	2.74	0.24	0.66
Sep2011	1.04	0.13	0.18
Sep2012	0.69	0.10	0.10
Sep2013	0.33	0.07	0.09
Sep2014	0.25	0.07	0.08
Dec2016	<b>0.17</b>	<b>0.06</b>	<b>0.07</b>

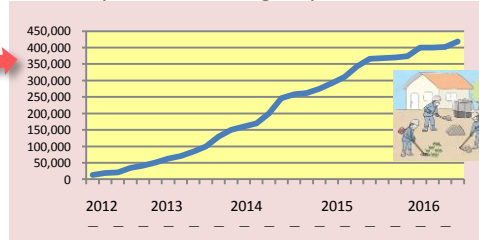
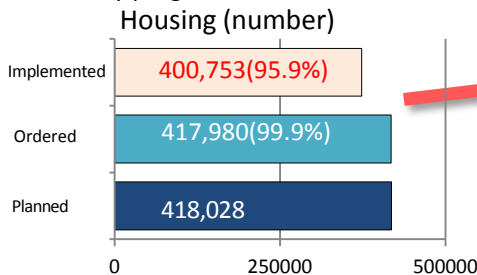
《Reference》  
Data: SafeCast

	Seoul (Korea)	Beijing (China)	Munich (Germany)
Pre-disaster			
Nov2011		0.10	
Nov2012	0.09		
Dec2012			0.12

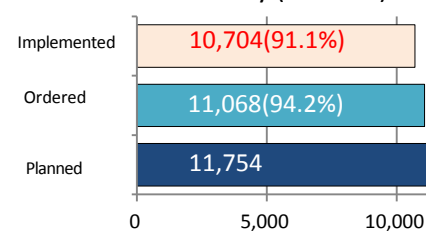


## Decontamination : Progress in 'Intensive Contamination Survey Area' (2016.9.30)

◆ Steady progress has been made in the decontamination of housing and other areas.  
<Graph of Housing implemented >



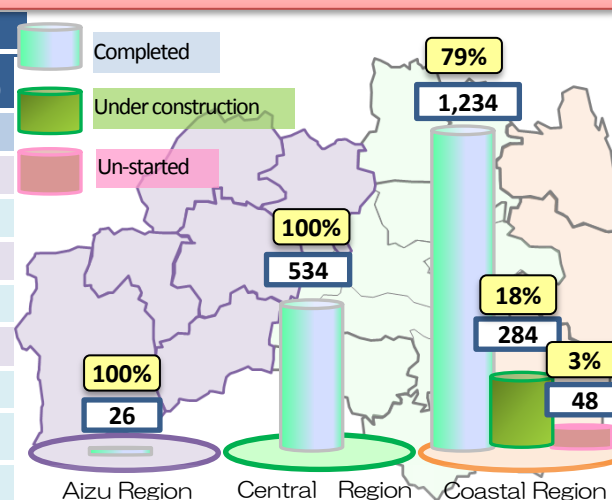
## Public Facility (number)



## Social Infrastructure

Progress by construction site and Progress by region (as of 2016.10.31)

Construction site of public works facilities for restoration from the disaster	Number of sites to be assessed (sites intended for restoration work)	Number of sites for construction		Number of completion	
		Rate of construction (%)	Rate of completion (%)	Rate of construction (%)	Rate of completion (%)
<b>Total</b>	2,126	2,078	98%	1,794	84%
River and sand erosion control	271	268	99%	239	88%
Coast	156	155	99%	73	47%
Road and bridge	798	793	99%	749	94%
Port and harbors	331	317	96%	305	92%
Fishing port	473	448	95%	331	70%
Sewage	3	3	100%	3	100%
Park and urban facility	5	5	100%	5	100%
Public Housing	89	89	100%	89	100%



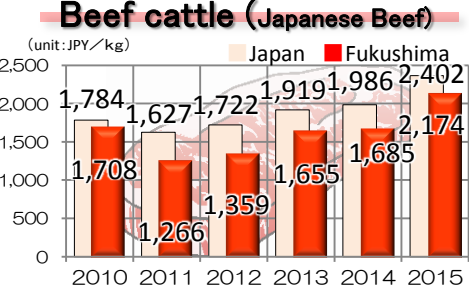
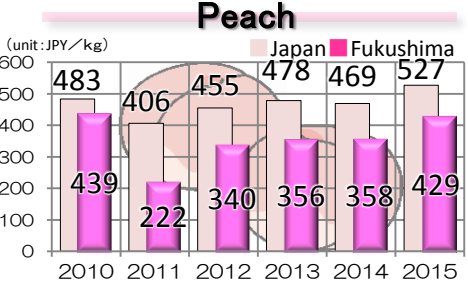
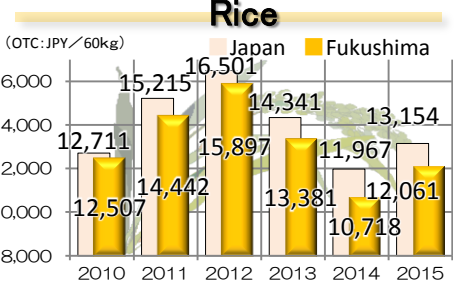


**Primary industry** Fukushima products being distributed are confirmed to be safe

**Transition of the price of agricultural products representative of Fukushima**

◆ Negative reputation impact is on.

- Production Volume in the nation (2010) Rice : 4th highest, Peach : 2nd highest,, Beef cattle (Japanese Beef) : 10th highest (raised)



[Source] MAFF Projection of OTC trade s of Rice

[Source] Market statistics on website of Tokyo Central Market

**Monitoring of Fukushima's agricultural, forestry and fishery products** Inspection results from April to October 2016 (\* "Brown rice", August -November 2016)

◆ Only those foods that have been certified for safety can be found on the market.

Primary industry products	Number of inspections	Proportion of samples exceeding the reference level (Number) - (%)
* Brown rice	About 8.6 million	0 0.00%
Vegetables & Fruits	2,998	0 0.00%
Livestock product	2,496	0 0.00%
Cultivated Mushrooms	562	0 0.00%
Mountain plants & Wild Mushrooms	1,031	2 0.19%
Marine Fishery products	4,908	0 0.00%
Inland water Aquaculture products	66	0 0.00%
Inland water Fishery products	502	4 0.80%

◆ Results are on a website in English  
<http://www.pref.fukushima.lg.jp/site/portal-english/en01-01.html>

STOP Distribution of food products exceeding the \*Reference level is not allowed.

◆ Every single bag of rice is carefully inspected for safety and taste, as the world's first action.

\*Brown rice → A conveyor belt type of testing equipment → A sticker is on every bag passed the test.

◆ "Fukushima rice set to make first EU foray with debut in Britain"  
 (The Fukushima Minpo News, The Japan Times :25 May 2016)

<http://www.fukushimaminponews.com/news.html?id=683>

◆ Trial Fishing Conducted by the Fishing Industry

All fish produced from the trial fishing that is planned to be sold undergoes testing for radiation. Fishermen's cooperative association conducts it with even **stricter** than standard: i.e. 50 Bq/kg, compared to the national standard of 100 Bq/kg (\*Reference level for General foods).

Catch landing through trial fishing → Measuring and retreatment of fish body → Testing of radioactive cesium

**\*Reference level**  
 Japan's current Limits for radioactive cesium

Category	Limit (Bq/kg)
Drinking water	10
Milk	50
General foods (example: rice, fish)	100
Infant foods	50

**Overseas indexes concerning radioactive substances in food (Bq/kg)**

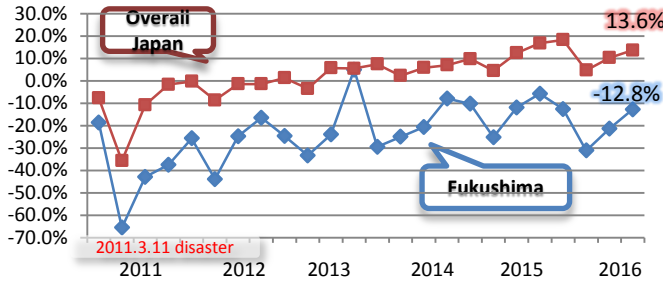
Radionuclides	Japan	Codex Alimentarius Commission	EU	US
Radioactive cesium	Drinking water...10		Drinking water...1,000	
	Milk...50		Milk...1,000	All food...1,200
	Infant food...50	Infant food...1,000	Infant food...400	
	General food...100	General food...1,000	General food...1,250	
Upper limit value of additional dose	1mSv	1mSv	1mSv	5mSv
Estimated values of the proportion of food containing radioactive substances	50%	10%	10%	30%

It is not possible to simply compare the numerical values because the reference values (standard limits) were established by taking into account the estimated impact of the amount of food ingested, the proportion of food containing radioactive substances, etc. The Codex Alimentarius Commission (EU and Japan), have designated the upper limit of additional doses as being 1 mSv/year.  
 [Data] "Food and Radiation Q&A" (Mar 2016, Consumer Affairs Agency, Govt. of Japan)

# Tourism From April to June 2016, we are having the tourism promotion 'After Destination Campaign'.

## \*Tourists' accommodation

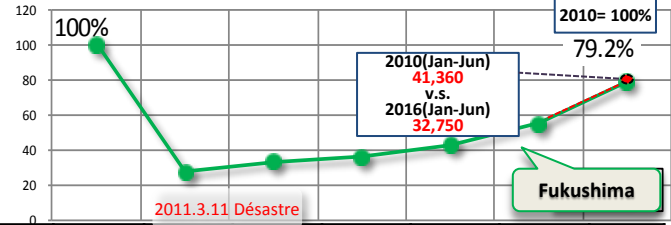
Comparison of guest nights on year-to-year basis  
(After March, 2012, compared to the same month in 2010)



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

## Total number of guests from foreign countries to Fukushima

※Accommodation to hire more than 10 people



	2010	2011	2012	2013	2014	2015	2016 (1-6)
Annual Jan-Jun	87,170 41,360	24,000	28,830	31,300	37,150	48,090	32,750
%	100	27.5	33.1	35.9	42.6	55.2	79.2

## Ranked top in the Japan Annual Sake Awards for 4th straight year

全国新酒鑑評会で福島県の日本酒が  
金賞受賞数 4年連続第1位に!  
(18銘柄)



The prefecture will keep promoting to increase tourists by having tours around food spots, flower spots and hot-spring spots.

# Development of industry Hubs Revitalization of Fukushima is propelled by the development of hubs for R&D.

### Fukushima Medical Device Development Support Centre

**Medical**

The center will be established to provide comprehensive support for medical devices from development to commercialization. Support includes safety assessment using large animals, and machine operation training for medical personnel, which opened on 2016.11.07.

Place: Koriyama City (Site of the former Agricultural Test Center)

### Fukushima Renewable Energy Research & Development Center

**Energy**

In 2014, the National Institute of Advanced Science and Technology (AIST) opened a research and development center for renewable energy in Koriyama City. The center is currently installing a facility to test and evaluate large-scale power conditioning systems.

Place: Koriyama city

Status: Open in April 2014

### Radiation Medical Science Centre

**Medical**

In order to serve as a bridge between the medical and industrial fields, the center acts as a hub to promote the creation of reagents, therapeutic, and diagnostic drugs used mainly for cancer treatment.

Place: Fukushima City (Fukushima Medical University)

### Innovation Coast Initiative

Within Fukushima prefecture, the Hama-dori region especially suffered severe damage from the earthquake disaster and nuclear accident. This initiative aims to create new industries and jobs in this region by establishing an energy industry hub where research and development on robot technology and nuclear reactor decommissioning are centralized.

- Robot Test Field**  
To conduct demonstrative tests and performance tests of various types of rescue robots.  
Place: Minamisoma city, Namie town
- Okuma Analysis and Research Center**  
(Laboratory for analysis and research of radioactive substances)  
To understand properties of fuel debris and develop disposal technology.  
Place: Okuma town, Iwama JAEA
- International Decommissioning Joint Research Center, International Joint Research Building**  
Place: Tomioka town
- Naraha Remote Technology Development**  
The facility is equipped with a mock-up of a part of a nuclear reactor containment vessel, and serves as a hub of decommissioning research by TEPCO.  
Place: Naraha town

**Offshore Floating Wind Farm Technology**

Demonstrative and research project of Offshore Floating Wind farm technology

**Energy**

Operations are in progress to verify the safety, reliability, and economic efficiency of floating offshore wind farm systems. The aim is to build a R&D hub, and cluster the wind power industry.

Place: Offshore of Hirono and Naraha area

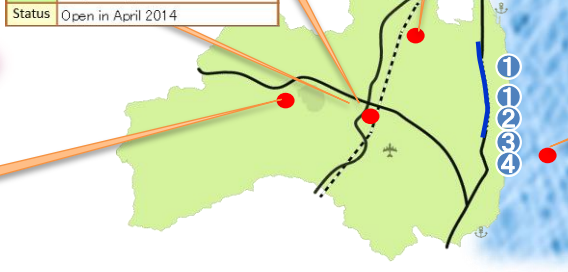
Status: [1st stage] 2MW system operating since Nov 2013  
[2nd stage] 7MW system operating since Dec 2015  
[3rd stage] 5MW system to set up in July 2016

### Aizu University Revitalization Support Centre

**ICT**

The prefecture is making efforts to help clustering and foster human resources for businesses that are using ICT to promote regional industry. The support center is part of plans to install an R&D hub that will lead to cutting-edge ICT research, and the creation of new ICT industries.

Place: Aizuwakamatsu City (Aizu University)



## Fukushima Prefecture

- Capital : Fukushima City
  - Population : 1,899,486 (Nov 2016)
  - Area : \*13,783km<sup>2</sup>
- (\*Evacuation Instruction zones: 726km<sup>2</sup>)

## Fukushima Prefectural Government

Telephone : (+81) 24- 521-1111  
E-mail : sougoukeikaku@pref.fukushima.lg.jp

## Fukushima Revitalization Station

- Portal site of revitalization progress -  
<http://www.pref.fukushima.lg.jp/site/portal-english/>

What's New

- 2016年12月20日 辞任の閣僚の閣議
- 2016年12月16日 避難者の帰郷支援事業
- 2016年12月15日 避難者に対する支援事業
- 2016年12月15日 放射性物質のモニタリング事業
- 2016年12月15日 復興推進本部

2020年。Thank you, World. 東京と東北で会いましょう。