

# Steps for Revitalization in Fukushima

< March 27, 2017 >





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.

## Disaster status after the earthquake and tsunami

<Disaster status in Fukushima Prefecture> As of 2017.3.21

- ◆ **Deaths : 3,967**  
(This number includes 2,139 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.

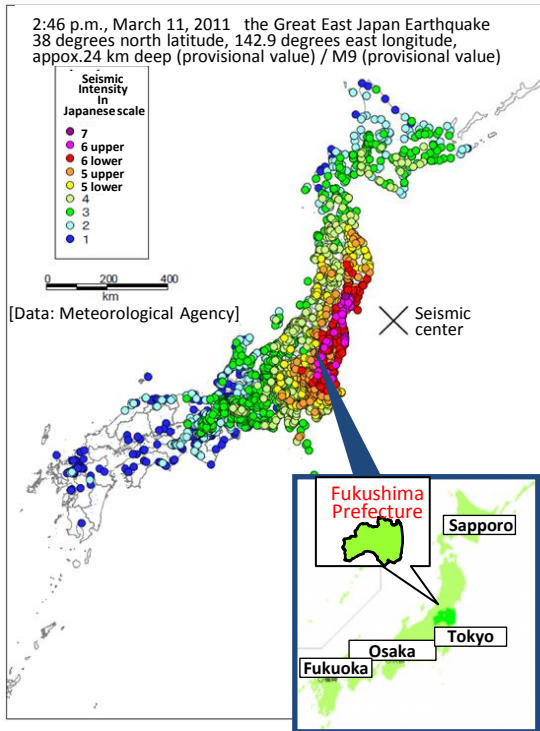
<Cost of damage in Fukushima Prefecture> As of 2012.3.23

- ◆ Reported cost of damage for **public works facilities**: **About JPY 316.2 billion**
- ◆ Reported amount of damage on **agricultural, forestry and fishery facilities**: **About JPY 245.3 billion**
- ◆ Reported amount of damage on **educational facilities**: **About JPY 37.9 billion**
- ◆ **Total of reported amount of damage on public facilities**: **About JPY 599.4 billion**

※Areas under the jurisdiction of the prefectural government: for the 30km radius surrounding the Fukushima Daiichi Nuclear Power Station (F1NPS), damage costs were estimated based on aerial photographs.

※Areas under the jurisdiction of municipalities: Excludes approximate cost of damage for a part of Minamisoma City and 8 municipalities located in the Futaba area.

【data source】  
Land Rehabilitation & Development Group, Fukushima Restoration & Revitalization Headquarters for Great East Japan Earthquake



Iwaki City



A drainage facility in Soma City



Shirakawa-Toba line

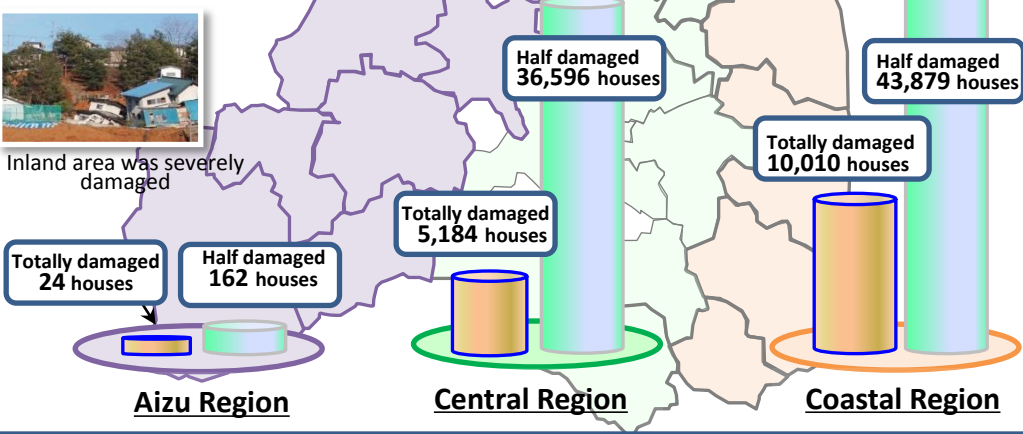


Iwase Agriculture High School in Kagamiishi Town

## Status of housing damage by region

<Damage status> As of 2017.3.21

- ◆ **Totally damaged: 15,218** housing facilities
- ◆ **Half damaged: 80,637** housing facilities



Extensive damage caused by Tsunami



Status of housing damage (Ukedo district, Namie Town)

The number of evacuees peaked in May 2012 at 164,865 and has since decreased, but as of February 2017 roughly 80,000 people are still under evacuation.

The areas under evacuation orders have changed such as with the lifting of the restricted residence zone and evacuation order cancellation preparation zones in the towns of Kawamata, Iitate, Namie, and Tomioka from March 2017 to April 2017.

**Areas to which evacuation orders have been issued in the wake of nuclear power station (NPS) accident**

[2011.3.11]

- ◆ Evacuation order was issued for 3 km radius zone from the Daiichi NPS.
- ◆ On the same day, indoor evacuation was issued for 10 km radius zone.

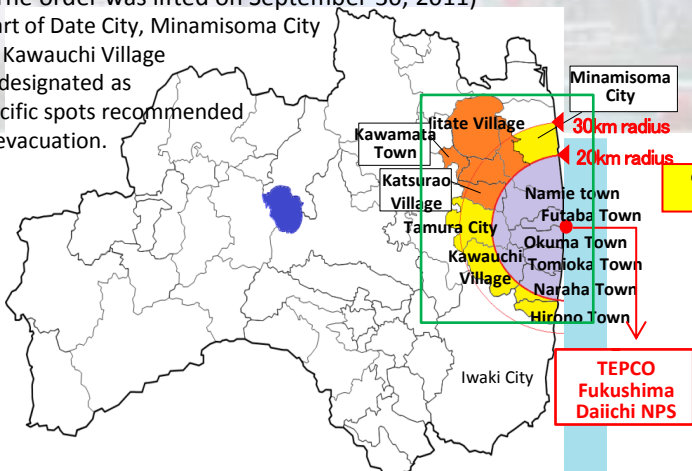
[2011.3.12]

- ◆ Evacuation order was issued for 10 km radius zone from the NPS.
- ◆ On the same day evacuation order was issued for 20 km radius zone.
- ◆ Evacuation order was issued for 3 km radius zone from the Daini NPS
- ◆ Evacuation order was issued for 10 km radius zone on the same day.

[2011.4.22]

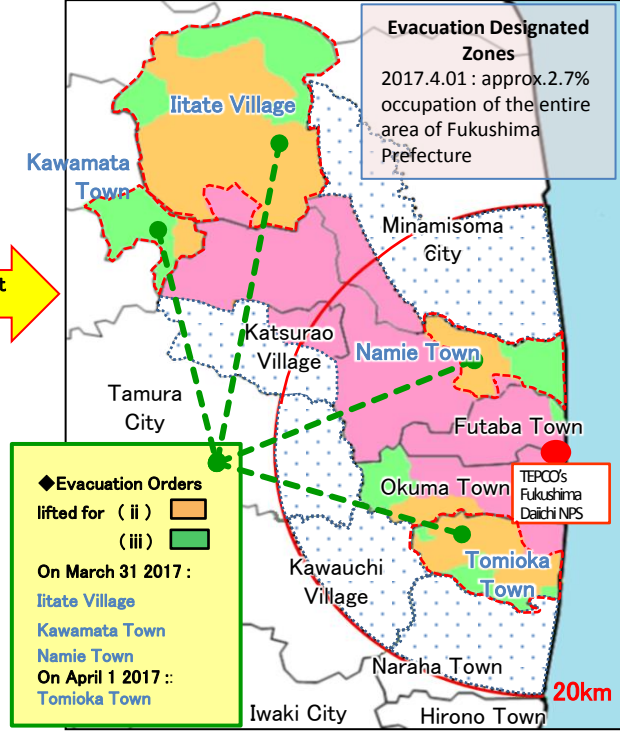
- Evacuation-designated areas (Restricted areas)
- Deliberate evacuation areas
- Evacuation-prepared areas in case of emergency (The order was lifted on September 30, 2011)

※Part of Date City, Minamisoma City and Kawauchi Village are designated as specific spots recommended for evacuation.

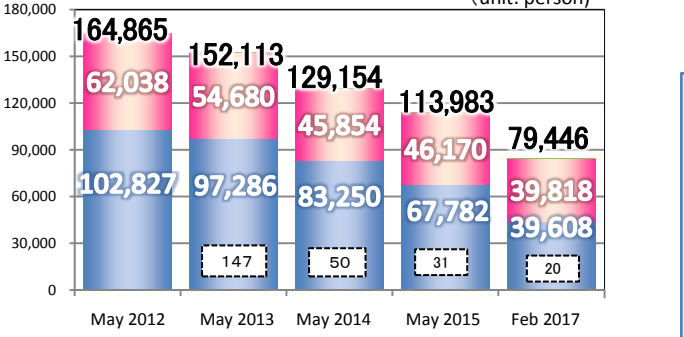


( i ) Difficult-to-return zone	<ul style="list-style-type: none"> <li>• Annual integrated doses are over 50mSv</li> <li>• Entry is prohibited with some exceptions</li> <li>• Lodging is prohibited.</li> </ul> <p>Official term : Areas where it is expected that residents will face difficulties in returning for a long time</p>
( ii ) Restricted residence zone	<ul style="list-style-type: none"> <li>• Annual integrated doses are between 20 and 50 mSv.</li> <li>• Entry is permitted, and business operation is partially permitted as well.</li> <li>• Lodging is prohibited with some exceptions.</li> </ul> <p>Official term : Areas in which residents are not permitted to live</p>
( iii ) Evacuation order cancellation preparation zone	<ul style="list-style-type: none"> <li>• Annual integrated doses are below 20 mSv.</li> <li>• Entry is permitted, and business operation is permitted as well</li> <li>• Lodging is prohibited with some exceptions..</li> </ul> <p>Official term : Areas to which evacuation orders are ready to be lifted</p>

◆ Management of 'Difficult-to-return zone' <( i ) (pink) on the map >  
 The National Government presented an idea on management of the areas on August 31, 2016, and declared to lift the evacuation order for the designated areas when hubs for revitalization are almost completed for residency of evacuees in five years of time.



**Transition of evacuees**



**Estimation of population**

	Number of households	Population (unit: person)	Population (unit: person)	
			male	female
March 1 2011	721,535	2,024,401	982,427	1,041,974
March 1 2017	743,327	1,892,982	936,666	956,316
comparison	21,792	▲ 131,419	▲ 45,761	▲ 85,658

◆ Efforts for the resumption of J-Village (Hirono Town, Naraha Town)

Fukushima Prefectural Government is addressing the recovery of J-Village which is under suspension due to the disaster. We are planning not only to restore the pre-disaster condition but also build a more attractive facility. For that, we are developing a new accommodation building with all weather training field in a scale of the whole soccer ground to partially resume the operation in summer of 2018 and fully resume in April, 2019.

In 2020 Tokyo Olympic games, J-Village will be a training camp for representatives of Japanese male and female soccer players. We are reconstructing a new J-Village which will gain popularity among people as a symbol of revitalization of the prefecture.



In order to provide stable housing for disaster-affected citizens, including evacuees, Fukushima is in the process of installing disaster public housing. The Prefectural Government is responsible for 'revitalization public housing' targeted towards nuclear evacuees and is currently planning to build a total of 4,890 units.



## Reconstruction of housing environment

## Temporary housing units for evacuees

Evacuees from Evacuation Designated Zones are available until March 2018.



Provision for evacuees from areas other than evacuation-ordered areas will terminate at the end of March, 2017. Accordingly, the prefectural government started to accept applications for subsidy of renting private apartments for those in need of continued evacuation as to support rebuilding of livelihoods from October 3, 2016.

## Opening of Fukushima Prefectural Odaka Industrial Technology and Commerce High School

In April 2017, Odaka Commerce High School will merge with Odaka Technology High School, as Odaka Industrial Technology and Commerce High School opens in Odaka, Minamisoma. It will train personnel who can contribute to regional reconstruction and the Innovation Coast Initiative.



## Operation of wide area bus services in the evacuation area

From April 1, 2017, bus route services that connect municipalities in the evacuation area will be resumed to help locals who have returned home live their daily lives with peace of mind. The bus route is an important means of transportation of returnee locals, and therefore, we will make the utmost efforts to secure the wide area transportation in cooperation with municipalities and transportation operators.



- Routes to commence operations
- 1: Iwaki-Tomioka
  - 2: Funehiki(Tamura City)-Katsurao
  - 3: Funehiki(Tamura City)-Kawauchi

## Police efforts to protect disaster-affected citizens

After the disaster, support was received from police officers all around the country. Police have continued efforts to protect evacuees and ensure their safety, including patrols of the disaster affected areas, temporary housing, and recovery public housing. To secure the safe return of residents, police officers have been stationed at Kawauchi sub-station, Katsurao sub-station and Odaka sub-station before lifting of the evacuation orders, maintaining peace and security.



## Housing environment of disaster-affected citizens

(As of 2017.2.28)

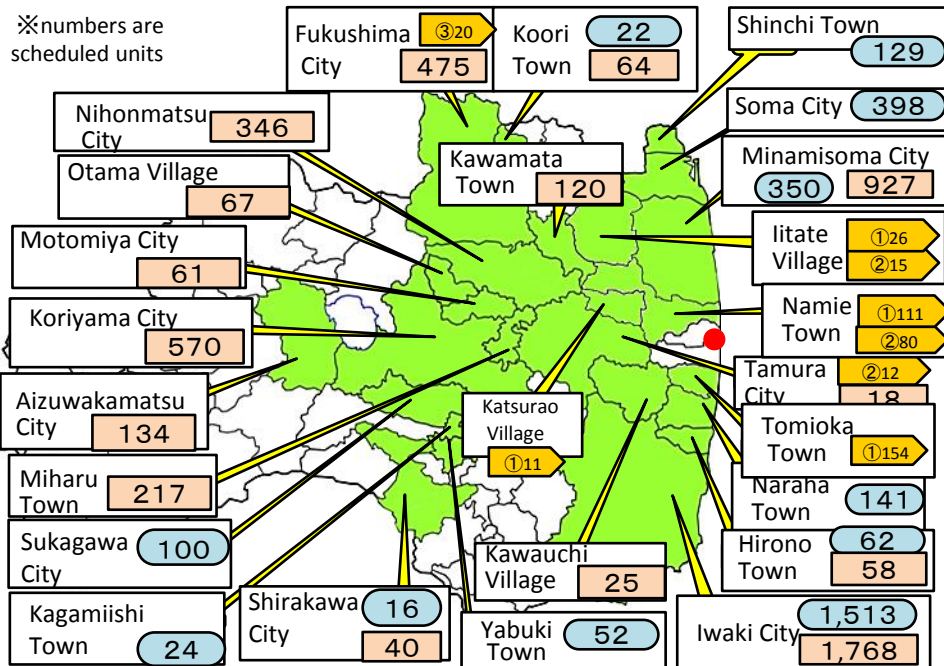
Temporary housing units built	15,437 units (6,292 units have tenants)
Housings rented by administrations to support affected citizens	10,109 units in the prefecture
Housings reconstructed	21,610 cases (vs 32,634 applications, 66.2% progress)

## Developmental situation of disaster public housing

(As of 2017.2.28)

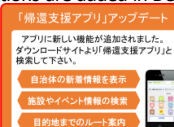
Classification	Units Planned	Applicable	Completed
For earthquake and tsunami affected people	2,807	For earthquake and tsunami affected people	2,687 units
For nuclear disaster evacuees (Revitalization Public Housing)	4,890	For evacuees from evacuation areas	3,239 units
① For returnees	302	For evacuees from evacuation areas	19 units
② For returnees or For people moving in	107	• For evacuees from evacuation areas • Voluntary evacuee • New comers	12 units
③ Fostering-child people	20	Households raising children aged 18 or under	20 units

※numbers are scheduled units



## Introduced an app to support returnees

Providing useful information for those living in evacuated areas and nearby municipalities. New functions are added in Dec 2016.



## Taking care of evacuees

300 life support counsellors have been assigned to social welfare councils in 27 municipalities throughout the prefecture (as of 2017.1.01)

In addition to taking care of elderly and preventing isolation, they are also actively involved in working to help with relieving residents' health worries.



## Support for recovery of evacuees' livelihoods

We established "Livelihoods Recovery Support Centers" in 25 spots around Japan in FY2016 to help evacuees outside the prefecture collect information or get consultation for their return or rebuilding of livelihoods in communities.

Providing them with information for rebuilding of livelihoods through face-to-face interviews, individual phone consultation and exchange sessions.

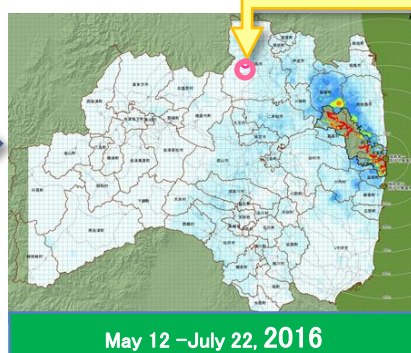
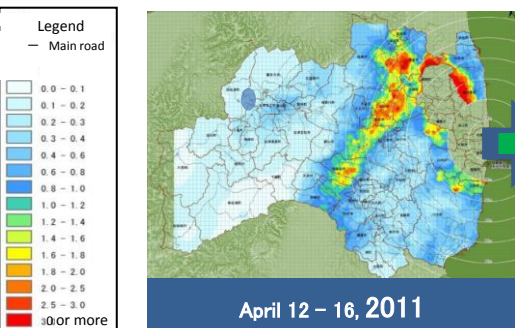




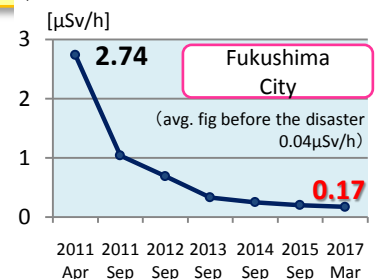
The air radiation dose rates within the prefecture have significantly decreased since April, 2011. In terms of environmental remediation to be conducted by the national government and municipalities, the zone of the national government will be completed by March, 2017, and the zone of municipalities will be almost completed by the same month as well.

## 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.



◆ Transition of measurements



【Source】 Fukushima Prefecture Disaster Prevention Headquarters (provisional value)

[Unit: μSv/h]

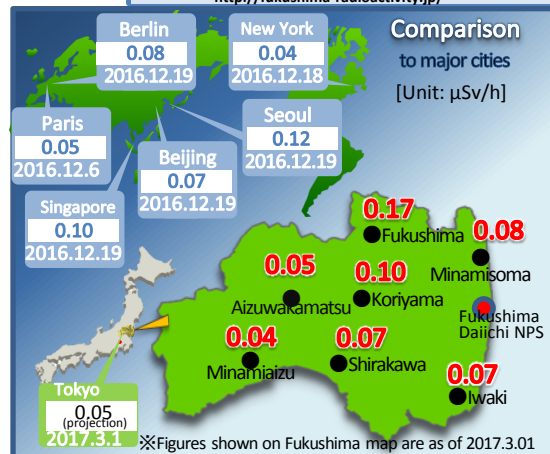
	Fukushima City	Aizuwakamatsu City	Iwaki City
Pre - disaster	0.04	0.04~0.05	0.05~0.06
Apr2011	2.74	0.24	0.66
Sep2011	1.04	0.13	0.18
Sep2012	0.69	0.10	0.10
Sep2013	0.33	0.07	0.09
Sep2014	0.25	0.07	0.08
<b>Mar2017</b>	<b>0.17</b>	<b>0.05</b>	<b>0.07</b>

«Reference»  
Data source: Japan National Tourism Organization

- New York, USA  
**0.04μSv/h** (As of Dec 18, 2016)
- Berlin, Germany  
**0.08μSv/h** (As of Dec 19, 2016)
- Beijing, China  
**0.07μSv/h** (As of Dec 19, 2016)
- Singapore  
**0.10μSv/h** (As of Dec 19, 2016)

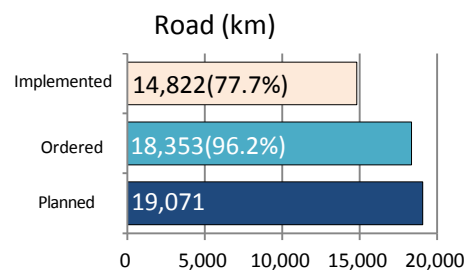
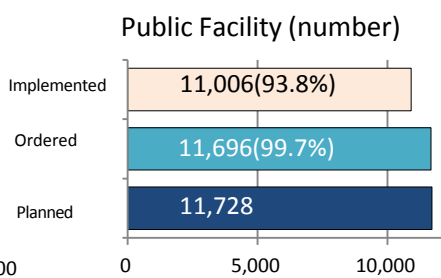
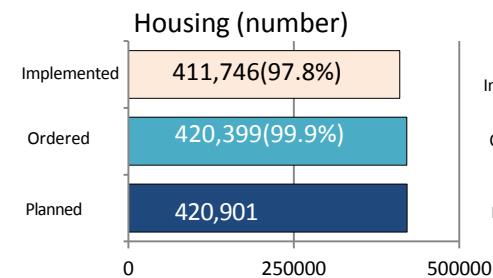
### World Map of radiation measurements

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



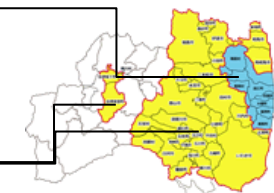
## Decontamination Progress in 'Intensive Contamination Survey Area'

(as of 2017.1.31)

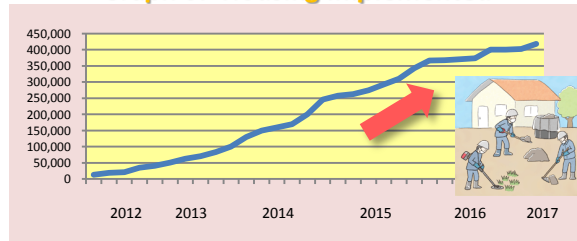


<Special Decontamination Area>  
The national government plans and conducts decontamination in **11** municipalities.

<Intensive Contamination Survey Area>  
Each municipality plans and does decontamination work. The prefecture's **36** municipalities are designated.



### <Graph of Housing implemented>



# Disaster Waste Disposal

## ◆ Status of Disaster Waste disposal (As of 2016.12.31) (unit: 1,000 tons)

	Amount estimated to be generated	Amount estimated to be carried into temporary storage sites	Amount disposed of
Coastal region	2,944	2,940 ( 99.8%)	2,490 ( 84.6%)
Central region	1,056	1,048 ( 99.2%)	1,040 ( 98.6%)
Aizu region	19	19 (100.0%)	19 (100.0%)
<b>Total</b>	<b>4,019</b>	<b>4,007 ( 99.7%)</b>	<b>3,549 (88.3%)</b>



## ◆ Storage situation of contaminated waste

Incineration disposal of sewage sludge (about 38,000 tons from 5 municipalities located in the upstream of the Abukuma River) which have been kept in the Ken-chu Purification Center was completed on May 31, 2016, steadily furthering the reduction of sludge in facilities in the prefecture.

	Storage amount : tons
Sewage sludge	75,700 (As of 2013.9.20)
	↓ about 16,400 (As of 2017.2.20)
Incineration ash (General waste)	56,698 (As of 2012.7.31)
	↓ about 307,400 (As of 2017.1.31)



## Temporary Storage site

Total of 52 municipalities in the prefecture, excluding 7 municipalities where the whole areas are designated as special areas for decontamination (Naraha Town, Tomioka Town, Okuma Town, Futaba Town, Namie Town, Katsurao Village and Iitate Village)

## ◆ Storage conditions of removed soil generated (unit: site)

	As of 2014.3.31	As of 2016.9.30
Temporary storage site based on the decontamination plan	664	847
Storage where it generated, such as house garden, factory site, school ground	53,057	146,489
others	104	67
<b>Total</b>	<b>53,825</b>	<b>147,403</b>



## Interim Storage facility

### ◆ Situation of receiving of removed soil and development of facilities

In terms of receiving removed soil and other materials into the interim storage facility, 37 municipalities among 40 municipalities intended for transportation are transporting them. On November 15, 2016, construction began on the first main facilities, the "Intake and Sorting Facility" and "Soil Storage Facility." The Ministry of the Environment announced on December 9 that it would begin preparing facilities to meet its next year's business plan of 500,000 cubic meters shipped, and its shipping goals for FY 2018.

The Prefectural Government will confirm the situation of transportation and facilities and post results on the prefectural website based on the safety agreement concluded between the National Government, Prefectural Government, Okuma Town and Futaba Town, in order to secure safety and security.



## 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 exchange building, "Commutan Fukushima."

**Centre for Environmental Creation Main Facilities (Miharu Town) Open in July 2016**

- Environmental monitoring, Education, training, exchanges
- Research building
- Main building
- Exchange building
- Environmental radiation Centre (Minamisoma City)
- Wildlife Symbiosis Centre (Otama Village)
- Inawashiro Aquatic Environment Centre (Inawashiro Town)
- Environmental monitoring Around the NPS
- Monitoring of wildlife, Environment learning, Dissemination, awareness-raising activities
- Research for Lake Inawashiro and other lakes and marshes: Environment learning, Dissemination, awareness-raising activities
- Inside the Exchange building
- Interaction Wing
- Spherical Structure Theater



Fukushima Prefecture is currently proceeding with 10 projects in cooperation with the IAEA (International Atomic Energy Agency). Projects include the review of decontamination technology used for rivers and lakes, and studying the movement of radioactive materials contained in wild animals.

- [IAEA proposed project]**
- Decontamination in Fukushima
  - Support for utilization of radiation monitoring data for drawing of easily understandable map ...

- [Our proposed projects]**
- Project to review the decontamination technology for rivers, lakes and ponds
  - Behavioral survey of radionuclide in wild lives ...



Reconstruction work has begun for 99% of public works facilities, and 87% have already been completed. Currently the prefecture is focused on the tsunami affected area, and is aiming to complete reconstruction as soon as possible, while developing and strengthening roads and other infrastructure, and ensuring that recovery efforts proceed in a safe and secure manner.



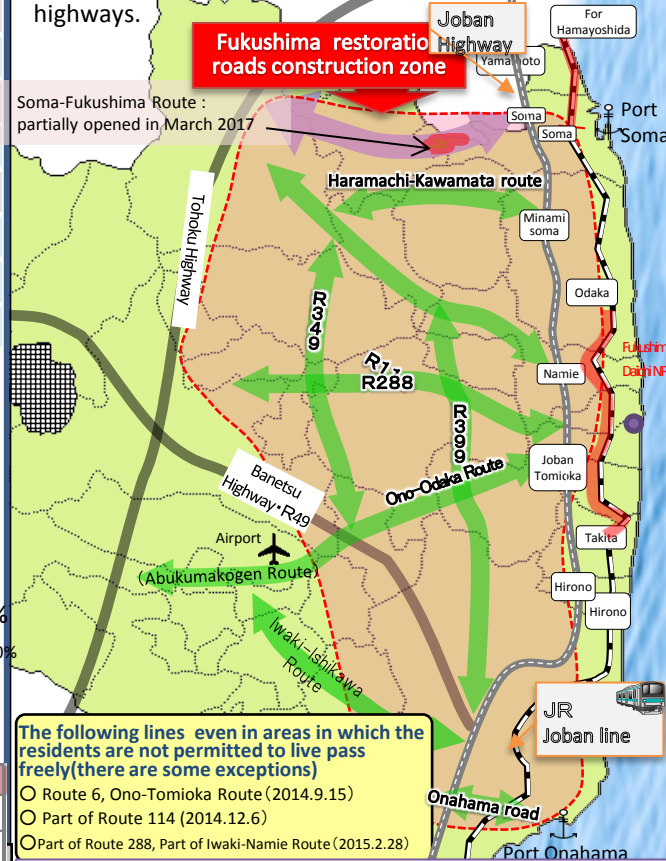
## ◆ Progress by construction site

(As of 2017.2.28)

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(%)
<b>Total</b>	2,122	2,107	<b>99%</b>	1,836	<b>87%</b>
River and sand erosion control	272	271	99%	242	88%
Coast	157	155	99%	90	57%
Road and bridge	798	795	99%	749	94%
Port and harbors	331	331	100%	311	94%
Fishing port	467	458	98%	347	74%
Sewage	3	3	100%	3	100%
Park and urban facility	5	5	100%	5	100%
Public housing	89	89	100%	89	100%

## New roads for restoration are under construction

The prefecture is currently installing a road network in order to provide strong support for the revitalization of 'areas to which evacuation orders are ready to be lifted'. The network is aimed to be completed by 2018-2023, and will include 8 main routes covering the coastal region, in the areas surrounded by express and national highways.



The following lines even in areas in which the residents are not permitted to live pass freely (there are some exceptions)

- Route 6, Ono-Tomioka Route (2014.9.15)
- Part of Route 114 (2014.12.6)
- Part of Route 288, Part of Iwaki-Namie Route (2015.2.28)

### JR Joban Line

- Hirono-Tatsuta sta. [Resumed on June 1 2014]
- Odaka-Haranomachi sta. [Resumed on July 12 2016]
- Soma-Hamayoshida sta. [Resumed on Dec 10 2016]
- Namie-Odaka sta. [Projected to resume in Apr. 2017]
- Tatsuta-Tomioka sta. [Projected to resume in Oct. 2017]
- Tomioka-Namie sta. [Projected to resume in 1Q of 2020]

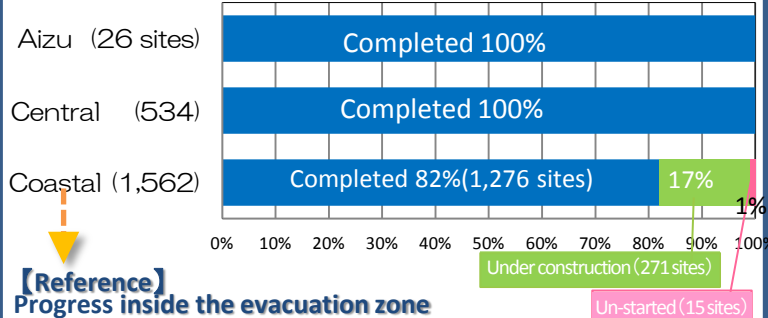
### Substitute Bus operation

- Tatsuta sta. - Haranomachi sta.
- Tatsuta sta. - Tomioka sta.

JR Joban Line is expected to run through the entire sections by March 2020.



## ◆ Progress, by Region



## 【Reference】 Progress inside the evacuation zone

Number of sites to be assessed (sites intended for restoration work)

Number of sites	starting		completion	
	ratio	ratio	ratio	ratio
344	322	94%	193	56%

### Joban Highway

The national government started expanding the expressway between Iwaki Chuo IC and Hirono IC 4 lanes, and aims to complete it in almost 5 years by the end of FY2020.

The NEXCO East Japan Co. announced that they are planning to install added lanes at 6 points between Hirono IC and Yamamoto IC to alleviate traffic congestion.

Iwaki Chuo IC - Hirono IC, aiming expand to 4 lanes by the end of FY2020.



## Agricultural and other facilities

### Progress rate

### Situation of restoration and revitalization/Damage status

Farmland (Ratio of area available for resumption of agricultural management)	<b>63.0%</b> (Feb,2017)	Area of farmland available for resumption of agricultural management	2,542 ha
		Area of farmland affected by tsunami following the Great East Japan Earthquake (Excluding Evacuation Designated Zones)	4,033 ha
Agricultural management bodies (Resumption status of management) ※including partially resumed bodies	<b>61.0%</b> (Mar,2014)	Management body that resumed agricultural management	10,500 management bodies
		Management body affected by the Great East Japan Earthquake	17,200 management bodies
Fishery management bodies (Situation of operational resumption)	<b>41.9%</b> (Dec,2015)	Management body that resumed fishing operation (including test fishing).	310 management bodies
		Management body affected by the Great East Japan Earthquake	740 management bodies
Restoration construction of farmland and agricultural facilities	<b>80.5%</b> (Dec,2016)	District for which construction completed	2,490 districts
		District for which assessment has been completed	3,093 districts



The prefecture has implemented the 'Fukushima Health Management Survey' in order to protect the physical and mental health of citizens, and maintain and improve health in Fukushima into the future. The survey includes the estimation of citizens' radiation exposure and thyroid examinations.

## Fukushima Health Survey

### Basic Survey

Self-administered questionnaires: 27.5%  
(As of 2016.12.31)  
(566,043 respondents against 2,055,305 subjects)

Citizens residing in the prefecture as of March 11, 2011 (2,055,305 persons)

< Results of estimate on external exposure dose >  
【All citizens surveyed】 Ratio of dose from 0 to 2mSv accounts for 93.8% of all.  
※ Estimate of external exposure dose for the 4 months from the nuclear accident (March-July 2011)

### Thyroid Ultrasound Examination

#### Primary Examination (April 2011 to March 2014)

Inspection to confirm the present situation of children who aged 18 or younger at the time of the disaster, about 300,000 were examined by March 2014.

Citizens aged 18 or younger at the time of the disaster (About 380,000 persons)

#### Full-scale Examination (April 2014 - present)

The second inspection for the comparison with the primary inspection. The subjects will include infants born till April 1, 2012. The inspection will be conducted every 2 years with the subjects to the age of 20, and after 20 it will take place every 5 years.



(Unit: Person, as of 2016.12.31)

Judgement Result	Judgement Contents		Primary Examination		Full-scale Examination (1 <sup>st</sup> round)		Full-scale Examination (2 <sup>nd</sup> round)	
			Examinee	Portion (%)	Examinee	Portion (%)	Examinee	Portion (%)
Judgement A	A 1	No cysts/nodules	154,607	99.2	108,688	99.2	25,182	99.3
	A 2	Nodules smaller than 5.0 mm / cysts smaller than 20 mm observed.	143,575		159,554		45,418	
Judgement B		Nodules larger than 5.1 mm / cysts larger than 20.1 mm observed.	2,293	0.8	2,226	0.8	483	0.7
Judgement C		Judging from the conditions of thyroid gland, the examinee is immediately required to take a secondary inspection.	1	0.0	0	0.0	0	0.0

**Primary Examination**  
Conducted: Apr. 2011- Mar. 2014

**Full-scale Examination**  
Conducted: Apr 2014- Mar 2016

**Full-scale Examination**  
Conducting: Apr 2016- Mar 2018

- Judgments A 1 and A2 require follow-up till the next (after FY2014) examination.
- Judgments B and C require the secondary examination. (Common in the advanced examination and full-scale examination)
- Though a person's condition is diagnosed as being within the Judgment A2, he/she is determined to be the Judgment B if the condition of thyroid gland seems to be in need of the secondary examination. (Common in the advanced examination and full-scale examination)
- In the secondary examination, 116 examinees were found to be malignant or suspicious malignant. (102 had operation: 1 with benign node, 101 with thyroid gland cancer)

- Judgments A 1 and A2 require follow-up till the next examination
- In the secondary examination (results were confirmed for 1,681 examinees), 69 examinees were found to be malignant or suspicious malignant. (44 had operation: 44 with thyroid gland cancer)

- In the secondary examination (results were confirmed for 64 examinees), 0 examinee was found to be malignant or suspicious malignant.

**Reference data**  
Results of survey for findings on thyroid glands over three prefectures other than Fukushima Prefecture

**Surveyed in three cities in Japan**  
Hirosaki City, Aomori Pref.  
Kofu City, Yamanashi Pref.  
Nagasaki City, Nagasaki Pref.

**Persons surveyed**  
Aged 3 to 18: 4,365 examinees

**Results of survey**  
【A1】1,853 examinees (42.5%)  
【A2】2,468 examinees (56.5%)  
(A1+A2=99.0%)  
【B】 44 examinees ( 1.0%)  
【C】 0 examinees ( 0.0%)

< Source >  
Data released to press by the Ministry of the Environment

### Internal exposure examinations using whole body counters

Cumulative number of examinees (June 2011 – January 2017) 319,962 examinees

【Results of Examination】  
Committed effective dose (internal exposure dose radiated within the body throughout one's lifetime)

Below 1mSv	1mSv	2mSv	3mSv
319,436 examinees	14 examinees	10 examinees	2 examinees

### Free medical care for all citizens aged 18 or under



Fukushima has increased the age range for those eligible to received medical subsidies. This is part of an effort to support child-raising in the prefecture through creating an environment focused on child health, where it is easy to give birth to and raise children. As of October 2012, free medical care is provided to citizens aged 18 or younger.

### Development of a hub for cutting-edge radiological research and medical care

In order to protect the health of citizens into the future, Fukushima has developed a hub for cutting-edge radiological research and medical care.

#### Fukushima Global Medical Science Center - main functions

	i	Radiation Medical Science Center for the Fukushima Health Management Survey	Place	Fukushima City (Fukushima Medical University)
	ii	Advanced clinical research center		
	iii	Advanced medical treatment section		
	iv	Education and personnel training section		
	v	Medical – Industry Translational Research Center		
	vi	Thyroid gland, internal secretion center		
	vii	Health promotion center		
	Completion	December 2016		

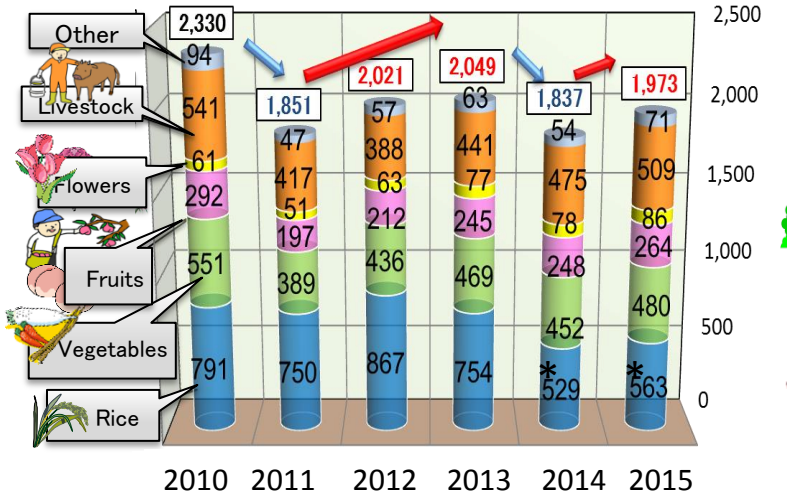




Production values for the agricultural, forestry, and fishing industries have decreased since 3.11. The prefecture is putting the utmost effort into a variety of activities to revitalize the agricultural, forestry, and fishery industries, which will in turn contribute to helping rebuild the livelihoods of disaster-affected citizens. Activities include PR campaigns introducing delicious Fukushima products along with the systems in place to ensure food security and safety.

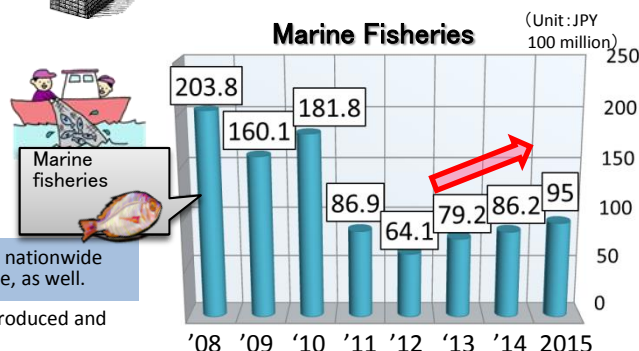
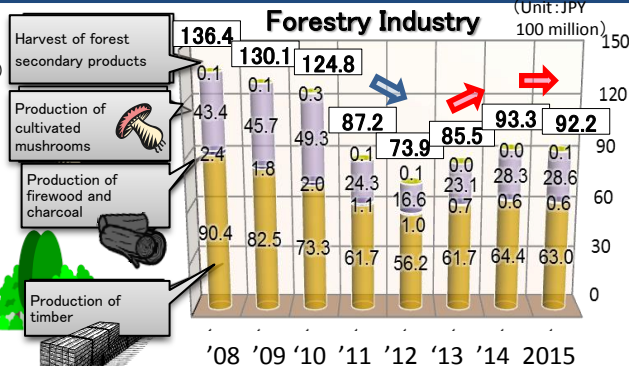
## Transition in the amounts of agricultural products produced in the prefecture

### Amount of agricultural products (Unit: JPY 100 million)



\*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.

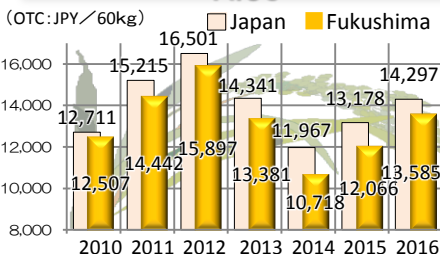
[Source] Prepared based on Statistics of Agricultural Income Produced, Forestry Income Produced and Fisheries Income Produced by the Ministry of Agriculture, Forestry and Fisheries



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

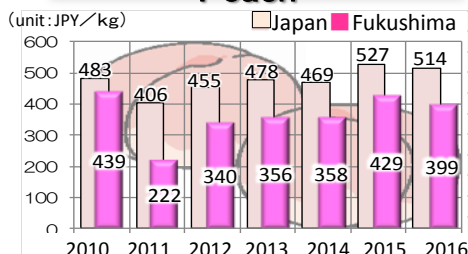
- Production Volume in the nation (2010) Rice: 4<sup>th</sup> highest, Peach: 2<sup>nd</sup> highest, Beef cattle (Japanese Beef): 10<sup>th</sup> highest (raised)

### Rice



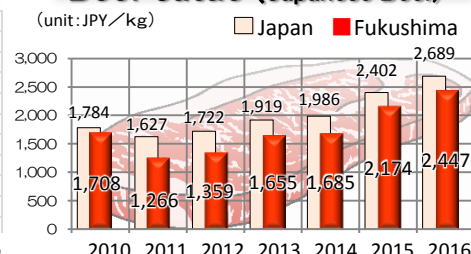
[Source] MAFF Projection of OTC trade of Rice

### Peach



[Source] Market statistics on website of Tokyo Central Market

### Beef cattle (Japanese Beef)



## Public relations for products that primary industries produced in the prefecture

In order to restore the reputation of Fukushima's products, the prefecture is carrying out a variety of PR activities to appeal a wide variety of delicious products that are safe and secure.



Governor's presentation at the tourism exchange seminar

### Promotion of trading in Thailand by the governor

On May 30, 2016, the Governor promoted trading targeting retailers and tourism agencies in Bangkok in Thailand through opening of a tourism exchange seminar and negotiation meeting. At the meeting, they reached an agreement to export about 20 tons peaches.



Provided Japanese sake produced in Fukushima Prefecture

At a reception in NY

### Evening for appreciation of Fukushima (New York)

The Governor visited America from October 16 to 21 2016. He expressed gratitude for support given over the past years and conveyed the real situation of Fukushima steadily heading for revitalization. Fukushima sake, Fukushima beef and buckwheat noodles were prepared for 200 participants including people relevant to New York City and operators of food related industry at the exchange reception held in New York. There prefectural food won the best appraisal in their taste and safety.



### Expansion of prefectural peach market to Thailand, Malaysia, and Indonesia

The Ministry of Finance's trade statistics for 2016 were released in January 2017. They showed that Fukushima's peach exports to Thailand, Malaysia, and Indonesia accounted for the highest market share in Japan. We will continue to promote sales to expand Southeast Asian markets.

For the prevention of distributing foods containing radioactive materials over the safety standard level, we are decontaminating farmland and intensifying the screening system to confirm the safety.

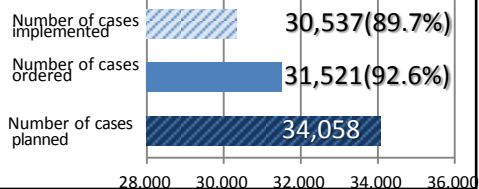
Particularly, rice which is a staple food, has to go through radiation monitoring. All rice bags produced in the whole prefecture and shipped must be monitored before the shipment, and only rice bags meeting the safety standard level are marked with certificate stickers.



## Decontamination of farmland



## Situation of decontamination in farmland (Jan, 2017) (Including rice field, farm, orchard and grazing ground)



## 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.



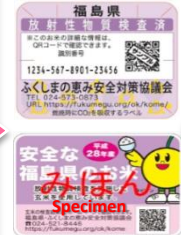
Distribution of food products exceeding the reference level is not allowed.

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

Brown rice 2016 production	Total No. of samples	No. of samples exceeding standard limits	Proportion of samples exceeding standard limits
	Approx. 10.23 million	0	0.00%

(2016.8.24-2017.2.28)

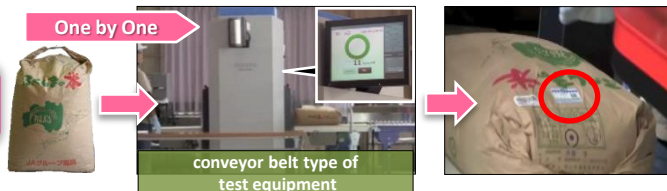
### Labels to be traceable



### Test results are released to the public.

<https://fukumegu.org/ok/contents/>

Flow of the test



### ◆ Inspection\* results

(2016.4.01-2.017.2.28)

Classification	Total No. of samples	No. of samples exceeding standard limits	Proportion of samples exceeding standard limits
Vegetables & Fruits	3,763	0	0.00%
Livestock products	4,026	0	0.00%
Cultivated edible plants & mushrooms	1,026	0	0.00%
Marine fishery products	7,785	0	0.00%
Inner water-cultivated fish	103	0	0.00%
Wild edible plants & mushrooms	762	2	0.26%
Inland water Fishery products	577	4	0.69%

Japanese Safety Standard for radioactive cesium <Food Sanitation Act> (Bq/kg)	
General foods	100
Milk	50
Infant foods	50
Drinking water	10

\* Fukushima prefecture is carrying out these inspections based on national guidelines.



### ◆ Trial Fishing Conducted by the Fishing Industry

#### Slime flounder and stone flounder catch



On November 29, 2016, the Fukushima Fishermen's Association added red barracuda and slime flounder to its list of species for trial fishing. It later added stone flounder, black cowtongue, and black rockfish as well on January 30, 2017.

Fishermen in Fukushima Prefecture were forced to place a ban on coastal and trawl fishing; however the safety of certain species of fish has been confirmed based on over 40,000 items tested during monitoring inspections. As of January 30, 2017, trial fishing is currently being carried out targeting 97 specific species.



Catch landing through test fishing



Measuring and retreatment of fish body



Inspection of radioactive cesium

All fish produced from the trial fishing that is planned to be sold undergoes inspection for radiation. The Fishery Cooperative Association set voluntary standards stricter than that of the national government (50Bq/kg vs 100Bq/kg for the national standard of "General foods" for catches to be sold through trial fishing, and conduct screening for radioactive substances.



Between April and June 2016, we held a tourism campaign 2016 (After DC), "Island of fortunes in full bloom" and had many sightseeing tourists visiting the prefecture. We are committed to making efforts for the success of Tokyo Olympic and Paralympic Games, namely Revitalization Olympic Games.

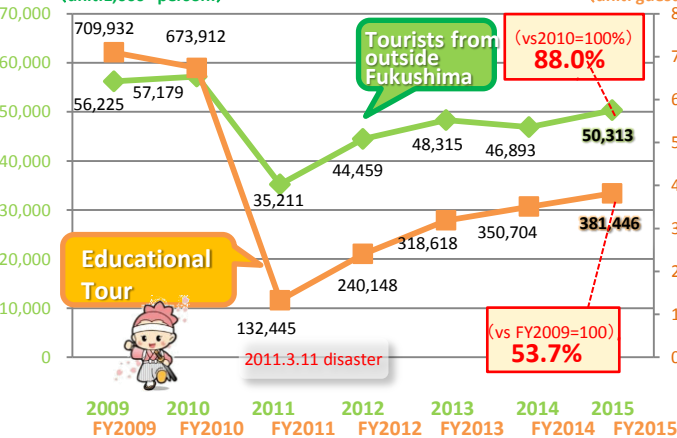
We hope that many people will visit Fukushima prefecture and see our situation steadily moving forward toward revitalization. To that end, we will strive for the promotion of tourism through improvement of hospitality together with all citizens and development of receiving system and polishing of tourism elements.

## Changes of the number on tourism in the prefecture

### ◆ Situation of **Tourism (from outside Fukushima)** and **Education tour** in Fukushima Prefecture

(unit:1,000 person:)

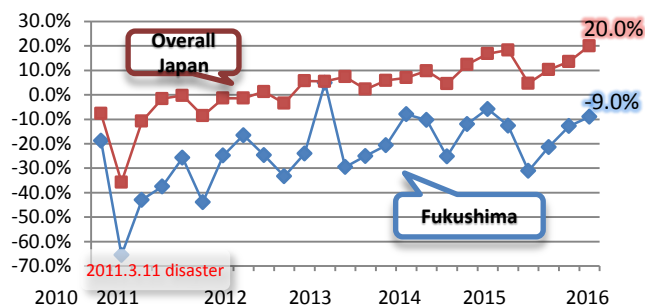
(unit: guest night)



[Data] Fukushima Tourism Promotion Bureau

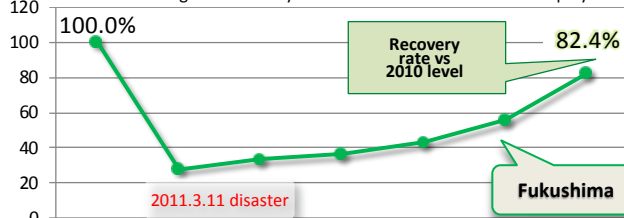
### ◆ \*Tourists' accommodation

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



### ◆ Total number of guests from overseas countries

<Number of foreigners who stayed at facilities with 10 or more employees>



YEAR	2010	2011	2012	2013	2014	2015	2016
person	87,170	24,000	28,830	31,300	37,150	48,090	71,820
%	100	27.5	33.1	35.9	42.6	55.2	82.4

## Tourism promotion through event & other information

### Ranked top in the Japan Annual Sake Awards for 4<sup>th</sup> straight year! (18 Brands)



2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
1st (23)	2nd (21)	2nd (17)	2nd (18)	1st (20)	2nd (19)	2nd (22)	1st (26)	1st (17)	1st (24)	1st (18)

(-)number of Gold medal awarded brands

On May 18, 2016, 18 brands of Fukushima brewers were awarded gold prizes at the 104th Japan Annual Sake Awards in which brewers of Japanese sake compete based on the quality of their new sake, and won the largest number of gold prizes in Japan for four consecutive years. This is the 6th time for the prefecture to win the largest number of gold prizes.

## 2020 Tokyo Olympic and Paralympic Games Fukushima to host baseball and softball matches!

On March 17, 2017, Fukushima was chosen as a venue to host a part of baseball and softball matches at the 2020 Games which will be an invaluable opportunity for Fukushima to draw attention from the world.



### New limited-express "500 Class" service begins between Aizu and Asakusa (Tokyo) "Revaty in Aizu for All" event held to commemorate opening

March, 2017 Minamiaizu Town

It will be on service in April.

The Revaty Aizu limited-express train will start service on the Tobu Railway between Tobu Asakusa Station and Aizutajima Station on April 21, 2017.

An event was held on March 5th to commemorate the opening. Connection between Tokyo and the Minamiaizu region will become much more convenient, which should lead to an increase in visitors.



### Japan Michelin Green Guide Tohoku Published on the web Tourist attractions from the Aizu region added

December, 2016 Aizu region

Eight spots in Fukushima were selected, including Sazaedo Hall, the Goshikinuma Nature Road, and the Shingu Kumano Shrine, which were all awarded one star.

- ★ Sazaedo Hall
- ★ Goshikinuma Nature Road
- ★ Shingu Kumano Shrine

### Experience the true essence of Fukushima "Hope Tourism"

December, 2016 Hamadori region

We are promoting encounters with Fukushima residents working to reconstruct the prefecture, as well as "hope tourism," which allows visitors to experience the true essence of Fukushima. For three days from December 25-27, 2016, a monitor tour was conducted for students from Tsukuba University Komaba Junior High and High School (Tokyo) and Nada Junior High and High School (Hyogo) to reestablish educational tourism and reconstruct the Hamadori region.

Through the tour, the students deepened their understanding of the true state of Fukushima and learned how to take advantage of earthquake and nuclear emergency training to improve the futures of Japan, their regions, and themselves.

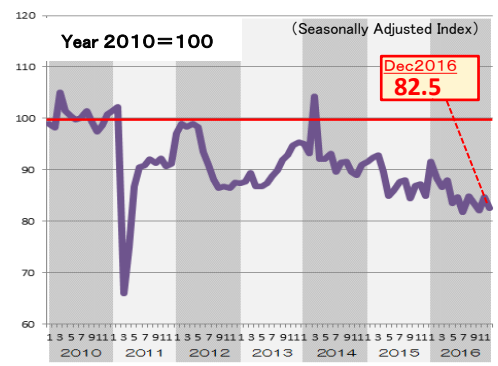


After the disaster the number of offices has shown a declining trend. According to the industrial production index which indicates the production situation for the manufacturing industry, levels have not yet recovered to pre-disaster conditions. There have also been employment mismatches occurring, depending on the type of occupation.

For the sustainable development of Fukushima industries, the prefecture will provide proactive support for the continuation and resumption of small and medium sized companies, which are the core of the regional economy. In addition, there are also efforts in place to secure employment opportunities, including attracting business investment within the prefecture.

### Industrial Production Index

◆ **IP index** transited around 90 from 2011 to 2016 based on the index of 100 for 2010, not showing the recovery to the pre-disaster level. Particularly, slowdown is apparent in the transportation machinery industry, electronics parts, device, machinery industry.



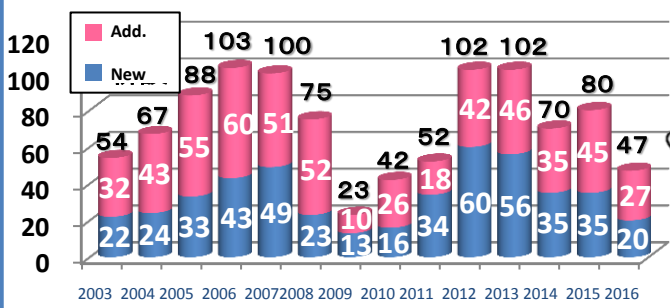
### Subsidies for restoration

#### ◆ Fukushima business investment subsidy for revitalization of industries

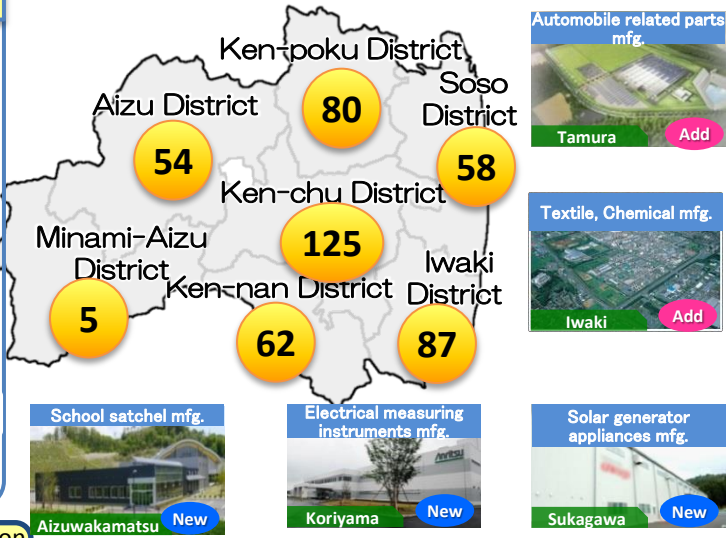
We support companies that set up new factory or additional factory inside the prefecture. Those activate business and create jobs.

#### Number of New and additional construction of factories

Situation of new and additional construction for plants (sites over 1,000 m<sup>2</sup> in area) in Fukushima Prefecture



※Number of reported establishments based upon the Fukushima Industrial Development Ordinance.



**471 companies assigned**- total subsidy sum: JPY 198.9 billion as of September 2016 (about USD 1.8 billion, (USD1=JPY113.00))

**Added 5,923 jobs** (Projection)

#### ◆ Subsidy to business investment for employment creation in the tsunami and nuclear disaster-affected areas

Companies that are based in Fukushima Prefecture for business operation  
Cumulative total of adopted companies by the first to the third public offerings.

**164 companies assigned**- total subsidy sum: JPY 81.1 billion as of September 2016 (about USD 0.72 billion, (USD1=JPY113.00))

**Added 2,134 jobs** (Projection)

### Measures for restoration and revitalization of small and mid-sized companies as well as securing employment

#### Support for restoration of facilities and equipment

- ◆ Subsidized project for restoration and maintenance of group facilities including small and mid-sized companies
- Sum covering from FY2011 to FY2016: Supported 389 groups 3,837 companies with grants of JPY 116.8 billion
- ◆ Support project for restoration and revitalization of small and mid-sized companies
- Sum covering from FY2011 to FY2015: Supported 3,761 cases with JPY 8.6 billion

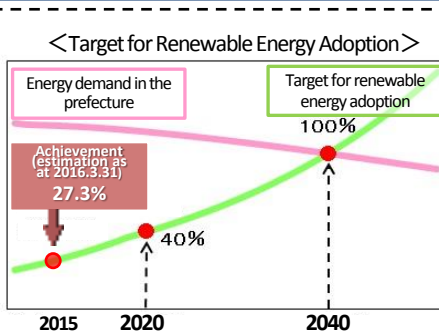
#### Employment support projects

- ◆ Emergency Job Creation Project
- Total Sum of covering FY2011-FY2015 : created **70,307 jobs**
- ◆ Fukushima Support Project for Industrial Revitalization and Employment
- Total sum of covering FY2011-FY2015 : created **27,391 jobs**



For the revitalization and recovery of Fukushima, it is necessary not just to restore things to how they were before the disaster, but create new, leading enterprises. Revitalization of the prefecture is currently being propelled by the development of hubs for R&D and industrial creation in a wide variety of fields.

## Renewable energy promotion



Fukushima has a target to produce enough renewable energy to supply 100% of the energy demand in the prefecture by 2040. This will be achieved by increasing renewable energy adoption, and building hubs through the clustering and development of relevant industries.

## Strengthen ties with NRW, Germany

The prefecture is engaging in cooperation with overseas partners to promote renewable energy in Fukushima. In particular, Fukushima Prefecture joined in a memorandum of understanding with North Rhine-Westphalia, Germany (NRW) in 2014 to promote business exchange. Building upon that, the prefecture concluded a memorandum of understanding to further deepen cooperation in the renewable energy field with the NRW Environmental Minister Rimmel in January 2017, agreeing to strengthen the support systems for companies in Fukushima and NRW.

In addition, a meeting was held with state officials, including NRW Governor Kraft, to strengthen cooperation and deepen exchange between Fukushima and NRW going forward.

In the future, we hope to take advantage of this network to provide strong support for companies in Fukushima as they expand sales channels in Germany, throughout Europe, and around the world.



## Renewable energy bases and projects in Fukushima prefecture

### Fukushima Renewable Energy Research & Development Center

Koriyama City

Photo: AIST

National Institute for Advanced Industrial Science and Technology (AIST) developed R&D hub centers for renewable energy. Smart System Research Building started operation on April 1, 2016.

### Geothermal Hot-springbinary Tsuchiyu Onsen power plant

Operating

Fukushima City

400 KW

### Coastal Area Mega Solar Power Project

Scheduled to operate in 2018

Minamisoma City

70 MW

### Promotion of Smart Community Concept

Using a system for effective use of distributed energy by providing heat and electricity with renewables, such as solar power and wind power and LNG for building of towns for revitalization.

- Shinchi Town
- Soma City
- Namie Town
- Naraha Town

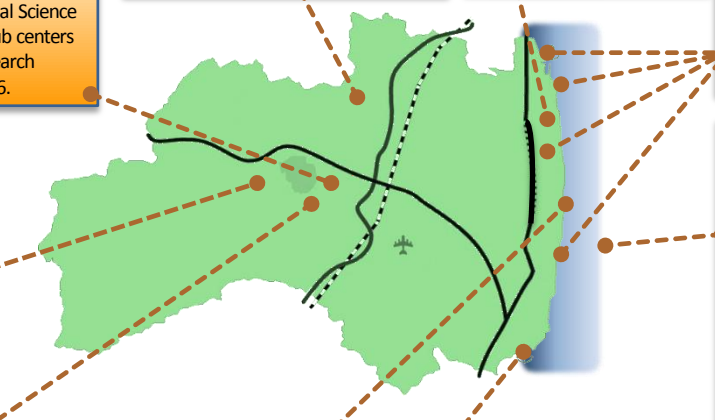
### Green Energy Aizu, Biomass Power Station

Operating

5.7 MW

Aizuwakamatsu City

Photo: Green Energy Aizu



### Fukushima Floating Offshore Wind Farm Demonstration Project

Operating

14 MW

Offshore of Fukushima Pref.

Photo: Fukushima Offshore Wind Consortium

“Fukushima Shimpuu” (Height: 189m) in Operation

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.

- [1st stage] 2MW system operating since Nov 2013
- [2nd stage] 7MW system operating since Dec 2015
- [2nd stage] 5MW system installation on July 20, 2016

### Koriyama Nunobiki Kogen Wind Farm

Operating

65.98 MW

Koriyama City

Photo: J-POWER

### Okuma Town Furusato Revitalization Mega Solar

Operating

1.89 MW

Okuma Town

### Onahama Solar Power Project

Operating

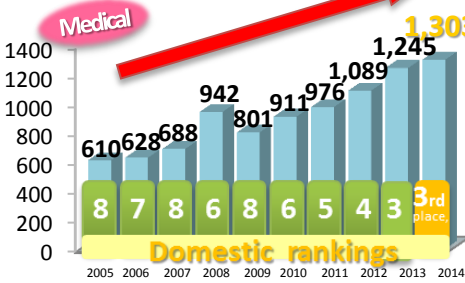
18.4 MW

Iwaki City

Photo: Mitsubishi Corporation

< Production volume of medical devices >

[Unit: 100 million yen]



Since before the disaster, Fukushima has been one of the top producers of medical devices and parts in Japan. The prefecture plans to develop an even greater production base, through promoting both industry and employment.

Production volume of medical devices in 2014	130.3 billion yen ( <b>3rd</b> place in Japan)
Outsourced production volume of medical devices in 2014	43.3 billion yen ( <b>1st</b> place in Japan)
Production volume of parts for medical equipment in 2014	17.7 billion yen ( <b>1st</b> place in Japan)



The prefecture set up a Fukushima booth in MEDICA, the world's largest medical device trade fair in order to transmit excellent technologies owned by companies in the prefecture to the rest of the world.

\* Medical device and technology trade fair is held in Dusseldorf in Germany in every November. About 130,000 medical workers, buyers and manufacturers are projected to get together for negotiation sessions.

**Innovation Coast Framework**

Within Fukushima prefecture, the Coastal (Hamadori) region especially suffered severe damage from the earthquake disaster and nuclear accident.

This framework 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.

**A B C D**

**A Robot Test Field**



To conduct demonstrative tests and performance assessments of disaster response robots.

**Okuma Analysis and Research Center**

**B** (Laboratory for analysis and research of radioactive substances)



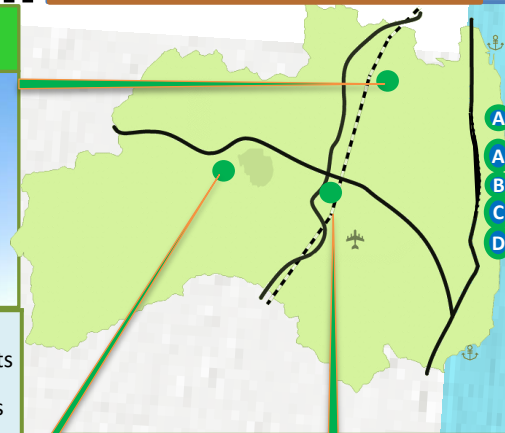
To understand properties of fuel debris and develop disposal technology

**Medical – Industry Translational Research Center (Radiation Medical Science Center)**



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)
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**Fukushima Medical Device Development Support Centre**



The center is 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)
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**C International Decommissioning Joint Research Center, International Joint Research Building**



The facilities for universities, research institutions, corporations and other entities of various fields in and outside Japan to collaboratively use for reactor decommissioning study and to cultivate human resources.

**Aizu University Revitalization Support Centre (Advanced ICT Laboratory)**



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)
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**D Naraha Remote Technology Development Centre (mock-up Centre)**



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

## The prefecture's Fukushima Revitalization Plan(the 3rd edition)

[Outlines] is available on <http://www.pref.fukushima.lg.jp/site/portal-english/rev-plan-3.html>

Fukushima Prefectural Govt.  
Budget for Fiscal Year 2017  
(April 2017-March 2018)

# JPY1.72 trillion

Incl. East Japan Earthquake and nuclear disaster portion: JPY 0.88 trillion

### Revitalization evacuation area

Acceleration project for evacuation area

53.0 billion JPY

Building of towns based on the hub of revitalization, strengthening of wide-area infrastructure, promotion of wide-area cooperation, reconstruction of system for provision of medical care, recovery of industry and jobs, promotion of Innovation Coast Concept, fostering of human resource for the future

### Living in peace and security

Assistance for re-building livelihoods

74.8 billion JPY

Assistance for evacuees, measures for returning of evacuees to their homes, rebuilding of livelihoods after returning. Fulfillment of a support system for evacuees



Environmental restoration

242.7 billion JPY

Promotion of decontamination, securing of food safety, disposal of waste, Promotion of research at the Environmental Creation Center, Safety surveillance for decommissioning



Protecting the physical and mental health of citizens

15.1 billion JPY

Maintenance and promotion of citizens' health, reconstruction of regional medical services, development of systems providing cutting edge medical service and mental care for the disaster affected residents



Fostering the next generation project

19.0 billion JPY

Development of the best environment in Japan for people to give birth and raise children, human resources who remain viable, and workforces who are responsible for the future industry



### Work in your hometown

Primary industry revival

54.0 billion JPY

Measures to provide safety and peace of mind, recovery of agricultural, forestry and fisheries industries and response for reorganization of designated areas



SMEs revitalization

116.6 billion JPY

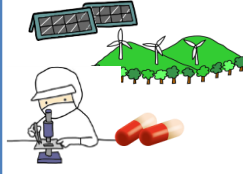
Vitalization of SMEs in the prefecture, promotion of business investment



New industry creation

34.8 billion JPY

Promotion of renewable energy, clustering of medical and welfare devices, clustering of robotics industry



### Rebuild towns, connect people

Project to counter harmful rumors and to preserve remembrance of the disaster

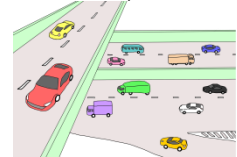
12.8 billion JPY

Recovery and opening up of market channel of our products, such as primary products; promotion to increase tourists and recovery of educational tours; Release of accurate information to the rest of Japan and the world; Promotion taking the opportunity of Tokyo Olympic Game and Paralympic Game

Town-building for revitalization and exchange network basis strengthening

156.0 billion JPY

Promotion of town-building for tsunami-affected areas, development of traffic infrastructure, counter-measures for disaster reduction and prevention.



### Countermeasures against depopulation and aging

42.1 billion JPY

Building of a prefecture where people can comfortably live, work, give birth and raise children; elderly people can easily live and youths and women can actively join the social activities.

Including projects reposting

### Topics

#### Exchange with Oita and Kumamoto Prefectures —Recovering from earthquakes hand-in-hand

On February 7, the "Challenge Fukushima Forum in Kyushu" was held in Oita for companies and government organizations in Oita and Kumamoto, which suffered an earthquake in 2016. The subject of the forum was reviving tourism. Before the forum, the "Fukushima - Oita - Kumamoto Restoration Market" was held in January in Koriyama City and Oita City. Messages of support were collected from visitors to the event.

Fukushima Governor Uchibori, Oita Governor Hirose, and Kumamoto Governor Kabashima paid courtesy visits to give thanks for past support, give a photo book of support messages and a self-righting doll, and exchange cheers of support.



#### KIZUNA with the world, Fukushima Revitalization Seminar committed to progress.

On February 6, 2017, Fukushima Prefecture Revitalization Seminar was held in Tokyo for ambassadors and diplomats to Japan from European countries. The Governor gave a presentation on the progress of the revitalization efforts and new industries, such as the renewable energy and robot industry which are leading the revitalization. Many of the participants voiced that the presentation helped them understand the current situation of the prefecture and they were willing to report it to their home countries. New partnerships with Fukushima are expected to grow.



#### Great East Japan Earthquake Reconstruction Memorial Ceremony and Candlelight Vigil

March 11, 2017 marked 6 years since the Great East Japan Earthquake. To commemorate this anniversary, a Great East Japan Earthquake Reconstruction Memorial Ceremony was held in Fukushima at Korasse Fukushima. Visitors from throughout Japan and around the world paid their respects, offered flowers following the ceremony, and paid their condolences to those who were lost in the disaster.

That night, candlelight vigils were held in five regions throughout the prefecture. 8,000 candles were lit by visitors to renew their prayers for recovery and remember the tragedy.

2017.3.11  
Candle Vigil



**Columbia University in the City of New York (USA)  
School of International and Public Affairs**



Governor's presentation, "Current situation of Fukushima"



Commemorative photo

On March 13, 25 students of Columbia University in the City of New York, School of International and Public Affairs visited Fukushima Prefecture, holding a theme of revitalization after the Great East Japan Earthquake.

They observed on-site decontamination work taking place at the Fukushima Daiichi Nuclear Power Station in Futaba Town and Okuma Town. Afterward, they moved to Fukushima City and visited the prefectural government to hear Governor Uchibori's presentation and exchanged opinions frankly with the governor.

**University of St. Thomas – Texas (USA)**



Workshop at Fukushima University

Photo by: JICE



Visiting Aizu-wakamatsu City

Photo by: JICE

From March 16 to 20, 2017, a total of 25 students and faculty members of the University of St. Thomas (UST) from Houston, the United States of America stayed in Fukushima Prefecture on the "KAKEHASHI Project," which is an exchange program to promote deeper understanding of Japan.

On March 16, the delegation visited the Fukushima government office and had a briefing on the tourism and revitalization progress of the Prefecture from officials. During their stay, the UST students held a workshop with Fukushima University counterparts. They also had opportunities to learn culture and history of Fukushima through exchanges with local residents when they visited the snow-patched Aizu region.

**Fukushima prefecture outlines**



**Basic Data**

- Capital : Fukushima City
- Population : 1,892,982 (March 2017)
- Area : \*13,783km<sup>2</sup>
- \*Evacuation designated zones: 371km<sup>2</sup>(April 2017)

**Access**

- Roughly 200km away from Tokyo
- JR Tohoku bullet train
  - Tokyo-Koriyama Station 80 min
  - Tokyo-Fukushima Station 90 min
- NEXCO Highways
  - Tohoku expressway
  - Joban expressway
  - Ban-Etsu expressway
- Fukushima Airport
  - Fukushima Airport <->Itami(Osaka )
  - Fukushima Airport<->New Chitose (Hokkaido)



**Fukushima Revitalization**  
to update Fukushima 's information

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

Steps for Revitalization in Fukushima the latest version is available on  
<http://www.pref.fukushima.lg.jp/site/portal/ayumik-1.html>



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