# Steps for Revitalization in Fukushima

< August 6, 2018 edition>







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 2018.7.5

Deaths: 4,067

(This number includes 2,238 disaster-related deaths(\*)

Missing: 2

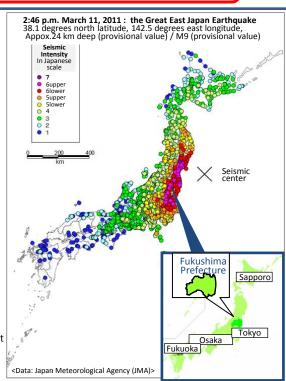
(\*)Disaster-related deaths are not caused directly by the disaster, but occur afterwards due to indirect causes including stress and decline in health from living as evacuees.

### 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.

XAreas 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] Land Rehabilitation & Development Group, Fukushima Restoration & Revitalization Headquarters for Great East Japan Earthquake





Agricultura



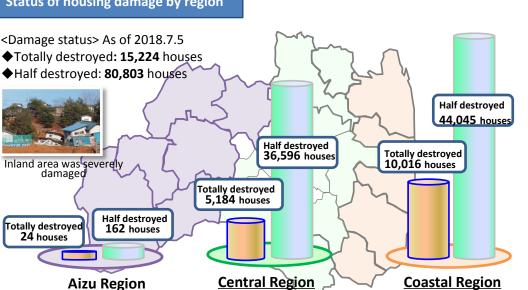


Iwaki City

A drainage facility in Soma City

in Kagamiishi Town

### Status of housing damage by region





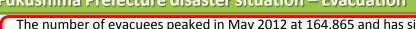
caused by Tsunami (Iwaki City)



Status of housing damage (Ukedo district, Namie Town)



### Fukushima Prefecture disaster situation – Evacuation



The number of evacuees peaked in May 2012 at 164,865 and has since decreased, but as of July 2018 roughly 45 thousand people are still under evacuation. Most of the evacuation orders issued to the evacuation-designated zones (excluding the Difficult-to-Return zones) have been lifted. Additionally, the Difficult-to-Return zones have been recognized in the Plans for Reconstruction and Revitalization for Special Zones. Accordingly, reconstruction and revitalization in the evacuation-designated zones are already showing steady progress with remediation and construction underway.



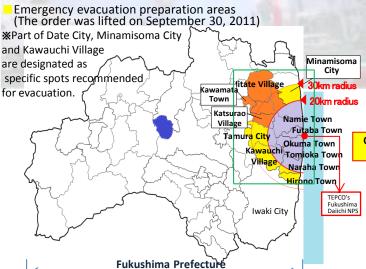
- ◆Evacuation order was issued for 3 km radius zone from the Daiichi NPS.
- On the same day, indoor evacuation was issued for 10 km radius zone.

### [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.

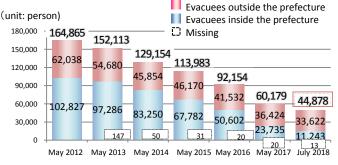
Evacuation-designated areas (Restricted areas)

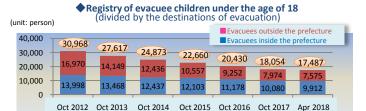
Deliberate evacuation areas

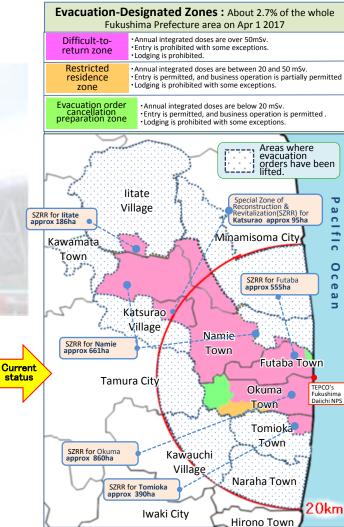


### ◆Transition of evacuees :Earthquake, Tsunami, NPS accident

166Km







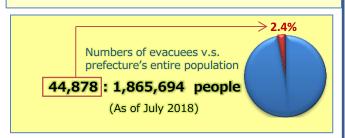
### Approved plans for the Reconstruction and Revitalization of the Special Zone

Following the revision of the Act for Special Measures for the Reconstruction and Revitalization of Fukushima (May, 2017), the national government was able to designate special zones for reconstruction and

Plans by the following municipalities were recognized by the national government in the Plans for Reconstruction and Revitalization for Special Zones which stipulated SZRR.

Futaba Town(Sep 15 2017), Okuma Town(Nov 10 2017) Namie Town(Dec 22 2017), Tomioka Town(Mar 9 2018) litate Village(Apr 20 2018), Katsurao Village(May 11 2018)

The revised act will concentrate on carrying out decontamination and infrastructure development of the designated zones in order to create an environment which people can return to.



### Reconstruction of the livelihood of disaster-affected citizens



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.

(As of 2018 6 30)

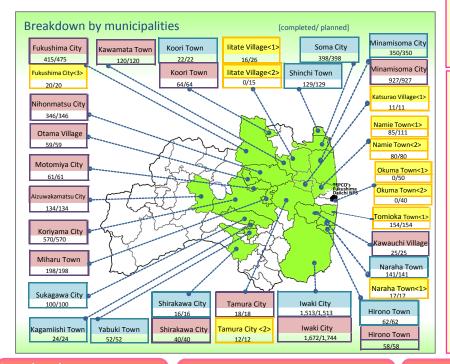
### Reconstruction of housing environment

### Housing environment of disaster-affected citizens

T	emporary housing units built	11,132 units (898 units have tenants)	(As of 2018.6.30)
T	emporary housing units built	3,847units in the prefecture	(As of 2018.6.30)
Hou	usings reconstructed	25,059 cases (vs 35,744 application, 70.1% progress )	(As of 2018.5.31)

### Developmental situation of disaster public housing

Classification	Units Planned	Applicable	Completed
For earthquake and tsunami affected people	2,807	For earthquake and tsunami affected citizens	2,807(100%)
For nuclear disaster evacuees (Revitalization Public Housing)	4,890	For evacuees from evacuation areas	4,707(96%)
<1> For returnees	369	For evacuees from evacuation areas	283(77%)
<2> For returnees or For people moving in	147	•For evacuees from evacuation areas •Voluntary evacuee •New comers	92(63%)
<3> For household raising children	20	Household raising children aged 18 or under (voluntary evacuees)	20(100%)



### Temporary housing units for evacuees

### Evacuees from evacuation areas are available until March 31 2019.

- ◆The whole area: Tomioka Town, Okuma Town, Futaba Town, Namie Town, Katsurao Village and litate Village
- ◆Part of the area: Minami Soma (Odaka district) Kawamata (Yamakiya district) Kawauchi (Shimokawauchi Kainosaka / Hagi district).

### Fukushima Prefectural Futaba Medical Center-affiliated hospital opened

On April 23, 2018, a hospital affiliated to Fukushima Prefectural Futaba Medical Centre started medical practice. The hospital will provide medical services required in the region with overall support by the Fukushima Medical University.

It will provide emergency medical services through 24/7/365 in close cooperation with regional medical institutions in order to support residents' self-care at home and promotion of health.



### Police activities to protect the safety of affected people

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.

The Prefectural Police rearranged The Special Patrol Force (SPF) to effectively carry out vigilance activities in the disaster-affected areas. The Special Patrol Force is integrally conducting vigilance activities based in the Namie Branch Office of Futaba Police Station.



### 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.

- · Showing new information of municipalities · Search information of facilities and events
- · Route guidance to destinations

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

### Taking care of evacuees

210 life support counsellors have been assigned to social welfare councils in 23 municipalities throughout the prefecture (as of 2018.6.1)

In addition to taking care

### Support for recovery of evacuees' livelihoods

The Prefectural Government has established 26 Support Centers around the country to help evacuees from the prefecture rebuild their lives in their new homes or to help them return to where they evacuated from by providing consultation services and information. Evacuees can consult with counselors by phone or face-to-face at these centers and also participate in the exchange meetings

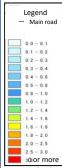


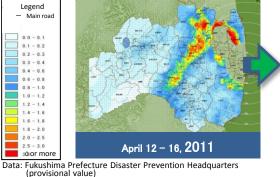


Air radiation levels in the prefecture have significantly decreased compared to April, 2011. Decontamination of prefectural land has been completed in all areas except for the Difficult-to-return zone.

### Transition of air radiation dose in Fukushima Prefecture

lacktriangle 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(1)



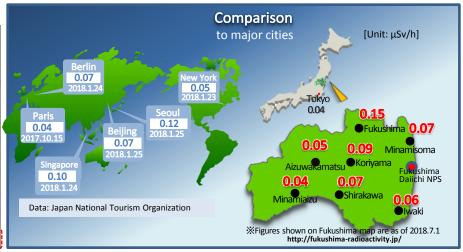


April 20 –July 5, 2017

Unit: Microsievert/hour (μSv/h) 3 2.74 Fukushima City 2 (avg. fig before the disaster 0.04µSv/h) 1 Apr. Sep. Sep. Sep. Sep. July 2011 2011 2012 2013 2014 2015 2018

Transition of measurements(2)

[Unit: µSv/h] Aizuwaka Iwaki **Fukushima** matsu City City City Pre -0.05-0.06 0.04 0.04-0.05 disaster Apr.2011 2.74 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 July 2018 0.15 0.05 0.06



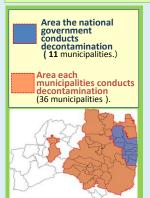
### Decontamination

### ◆The need for decontamination

Radiation doses decrease naturally overtime and from the effects of natural phenomena, such as wind and rainfall. However this process can take a long time. Therefore, the Prefectural Government began carrying out decontamination efforts in order to lower radiation doses and reduce the impact on communities and on the health of residents at the earliest possible time.

### Effects of decontamination

When averages of air radiation dose rates were compared for before and after decontamination work in the Intensive Contamination Survey Area carried out by local municipalities, it was found that radiation levels were reduced by 42% in residential areas, by 55% at schools and parks and by 21% in forests. This shows the effectiveness of lowering radiation levels through environmental decontamination work





Temporary Storage Site



### 52 municipalities' total \*

\* The prefecture has 59 municipalities. Excluded 7 municipalities: Naraha, Tomioka, Okuma, Futaba, Namie, Katsurao and litate where the whole areas are designated as special areas for decontamination )

(As of Mar 31 2018)

total	129,138	6,008,612
Storage where it generated, such as house garden, factory site, school ground	128,312	1,738,965
Others	14	396
Temporary storage sites based on the decontamination plan	812	4,269,251
Storage condition	Number of sites	Volume ( <b>m</b> ³)

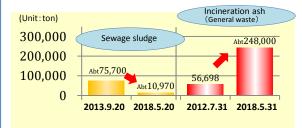
### Disaster waste disposal

(As of 2018.4.30, Unit:1,000 tons)

Municipalities National Govt. Total	3,040	3,040(100%) 1,105(67.0%) 4,145(88.4%)	Completed in Aug 2017
Who will process waste materials	Volume of contaminated material transported to the temporary storage site	Volume already processed	Note



### ◆Storage situation of contaminated waste



### [Ken-chu (Central Region) Purification Center]



After the disaster, transportation of sludge was temporarily disrupted and storing volume increased in the facility. As a result of efforts to secure accepting facilities and volume reduction, we came in to complete incineration disposal for the volume reduction. We will continue to work with relevant organizations, such as the national government and municipalities for the securement of the accepting facilities of incinerated ash.

### ◆Landfill disposal of designated waste

Designated waste within the prefecture is being disposed of at the nationally designated landfill facility in Tomioka town. Designated waste includes rubble and other debris from regions where action has been taken for removal of contaminated waste, as well as specified waste which is 100,000 Bq/kg or lower.

Transportation of designated waste to landfill started from November 2017, and as of the end of May 2018, 21,154 bags have been disposed of. The prefectural government inspects the sites and conducts environmental monitoring in order to ensure safety and security. These activities are based on the safety agreement between the national government, the prefectural government, Tomioka and Naraha Town. The results of the environmental monitoring are released on the internet.



Removal of designated waste



Designated waste landfill disposal facility

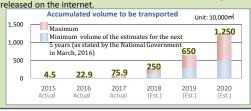
### **Interim Storage Facility**

O Situation of receiving of removed soil and development of facilities For the transportation of removed soil into the interim storage facility, about the total of 886,000m was transferred from March, 2015 when the transportation started to late May, 2018, and transportation for 21 municipalities out of intended 52 has been completed.

In FY2018 it is planned that 1.8 million m of waste will be disposed of from 31 prefectural municipalities. This is 3 times the amount disposed of in the previous financial year.

Concerning the acquisition of land for the Interim Storage Facility (ISF) approximately 950ha (about 59% of total land for the project) has been acquired as of the end of June, 2018 and the construction of the facility is underway.

The prefectural government inspects the sites and conducts environmental monitoring in order to ensure safety and security. These activities are based on the safety agreement between the national government, the prefectural government, Tomioka and Naraha Town. The results of the environmental monitoring are







# 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 restoration and development of social infrastructure



Reconstruction work has begun for 98% of public works facilities, and 94% 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 and by region

(As of 2018.6.30)

Construction site of public works	Number of sites to be assessed	Number construct	of sites for tion		ber of eltion	Prospect for Completion Excluding
facilities for restoration	Intending for restoration work		(%)		(%)	Difficult-to- return zone
Total	2,145	2,116	98%	2,019	94%	
River and sand erosion control	283	272	96%	255	90%	FY2020
Coast	157	156	99%	130	82%	FY2020
Road and bridge	807	799	99%	789	97%	FY2020
Port and harbors	331	331	100%	331	100%	Completed
Fishing port	470	461	98%	417	88%	FY2020
Sewage	3	3	100%	3	100%	Completed
Park and urban facility	5	5	100%	5	100%	Completed
Public housing	89	89	100%	89	100%	Completed



### <Progress inside the evacuation zones>

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

Number of sites	Number of		Number of	
Number of sites	s tarts	%	completion	%
359	330	91%	257	71%

[Including Tamura City, Minamisoma City, Katsurao Village, Kawauchi Village, Naraha Town, Namie Town, Kawamata Town, Iitate Village and Tomioka Town to which evacuation orders were lifted.]

### Joban Expressway

<March 1, 2015 Completion>

- ♦ Iwaki Chuo IC- Hirono IC, aiming expand to 4 lanes 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.
- Naraha Smart Inter Change(IC)

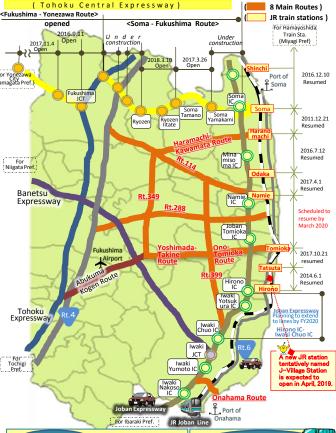
  to open in FY2018
  Okuma IC

  to open in FY2018
  Futaba IC

→to open in FY2019

### New roads for restoration are under construction

The prefecture is currently installing a road network in order to provide strong support for seriously damaged zones. The network is aimed to be completed by 2023, and will include 8 main routes covering the coastal region, in the areas surrounded by express and national highways.



### JR Joban Line

Operation status as of Nov., 2017

- Namie-Odaka Station < resumed in April 2017>
   Tatsuta-Tomioka Station < resumed in Oct. 2017>
- •Tomioka-Namie Sta.<To resume in 1Q of 2020>

### Substitute bus operation

•Tomioka-Namie Station 11 trips/day (Incl. Tomioka-Namie-Haranomachi Sta. 1trip.)

# Operation of wide area bus services in the evacuation zone

### Operation starts in April, 2017

- : Iwaki-Tomioka
- 2: Funehiki(Tamura City)-Katsurao 3: Funehiki(Tamura City)-Kawauchi Operation starts in Oct., 2017
- : Kawauchi –Kamimisaka (Iwaki City) : Minamisoma – Fukushima City ( via Fukushima Medical Univ.)

### peration starts in April, 2018 Tomioka -- Kawauchi

These services have been done with cooperation of bus operators and municipalities in the areas.

### Agricultural and other facilities: situation of restoration and revitalization/damage status

		Agricultural management bodies (Resumption status of management)		Restoration construction of farmland and agricultural facilities
	* 4,571 ha	17,200 bodies	740 bodies	2,264 districts
Damage status	Area of farmland affected by tsunami following the Great East Japan	Management body affected by the Great East Japan Earthquake	Management body affected by the Great East Japan Earthquake	Districts that restoration needed
Situation of	2,542 ha	10,500 bodies	523 bodies	1,922 districts 1,745 districts
restoration and revitalization	Area of farmland available for resumption of agricultural management	Management body that resumed agricultural management	Management body that resumed fishing operation (including test fishing)	Restoration work started Restoration work
Progress (%)	55.6%	61.0%	70.6%	84.9% 77.1%
Aggregated date	2018.3	2014.3	2017.12	2018.3

\* Area showing the damage status of farmland excludes evacuation-ordered and diverted areas from affected area

### Health of citizens





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 Management Survey



### **Basic Survey**

Citizens residing in the prefecture as of March 11, 2011 (2,055,266 persons)

Self-administered questionnaires:27.6%(As of 2018.3.31) [567,810 respondents/ 2,055,266 subjects]

<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-July2011)

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

### Thyroid Ultrasound Examination

### **Primary Examination** (April2011 to March2014)

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.

**Full-scale Examination** (April2014 - 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.



						(Ur	nit: person, as	of 2018.3.31)
Judgement		Judgement Contents	Primary Examination		Full-scale Examination (1 <sup>st</sup> round)		Full-scale Examination (2 <sup>nd</sup> round)	
Resu	JĊ .		Examinee	Portion(%)	Examinee	Portion(%)	Examinee	Portion(%)
Judgement		No cysts/nodules	154,605	00.2	108,718	00.3	71,519	00.3
A	AZ	Nodules smaller than 5.0 mm / cysts smaller than 20 mm observed.	143,573	99.2	159,584	99.2	130,940	99.3
Judgement	В	Nodules larger than 5.1 mm / cysts larger than 20.1 mm observed.	2,293	0.8	2,227	0.8	1,367	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 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]

•In the secondary examination (results were confirmed for 1,826 examinees), 71 examinees were found to be malignant or suspicious malignant. [52 had operation: 52 with thyroid gland cancer]

• In the secondary examination (results were confirmed for 689 examinees), 12 examinee was found to be malignant or suspicious malignant. [9 had operation: 9 with thyroid gland cancer]



### Internal exposure examinations using whole body counters

Cumulative number of examinees (June 2011 – March 2018) 330,753 examinees

\*The examination results have been below 1mSv since March 2012.

Committed effect		radiated within the body through	nout one's lifetime)	
Below 1mSv	1mSv	2mSv	3mSv	
330 727 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.

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

Reference

Surveyed in 3 cities in Japan Hirosaki City, Aomori Pref. Kofu City, Yamanashi Pref. Hirosaki Nagasaki City, Nagasaki Pre. Kofu

Persons surveyed Nagasaki Aged 3 to 18: 4,365 examines

Results of survey A1 1,853 examinees (42.5%) [A2]2,468examinees (56.5%)

Data: Released to press by the (A1+A2=99.0%) Ministry of the Environment

[B] [C] 44examinees ( 1.0%) 0examinees (0.0%)

Development of a hub for cutting-edge radiological research and medical care & Fostering of human resources in medical fields

### Fukushima Global Medical Science Center

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

### 7 Functions

(7)Health Promotion Center

**Health Management Survey** Advanced clinical research center Advanced medical treatment section Education and personnel training section Medical – Industry Translational Research Center Thyroid and Endocrinology Center

**1** Radiation Medical Science Center for the Fukushima



### School of Health Sciences (tentative name) **Fukushima Medical University**

The Prefectural Government will establish a new department at the Fukushima Medical University in order to foster and stably secure human resources for health and medical services who are in short supply in the prefecture.



 Name of the school and departments(tentative name) School of Health Sciences Expected mission quota · Department of Physical Therapy Department of Occupational Therapy Department of Radiological Sciences • Department of Laboratory Sciences -Facility outline

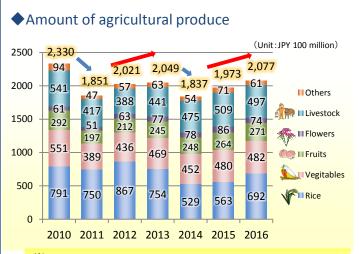
Location: Sakae-machi, Fukushima City Facility scale (total floor space): Approx. 18,300m Floor count: 9 (including 1 basement floor) Antiseismic style: Earthquake-resistant structure

Situation of the agricultural, forestry, and fishery Industries

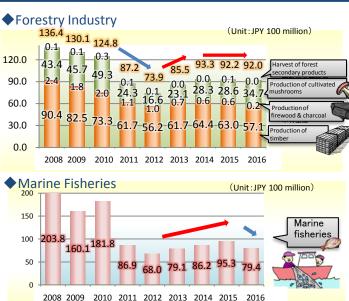


Production values for the agricultural, forestry, and fishing industries have decreased since the disaster, March 2011. The prefecture is putting the upmost effort into a variety of activities to revitalize the agricultural, forestry, and fishery industries, which will in turn contribute to helping rebuild 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.

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



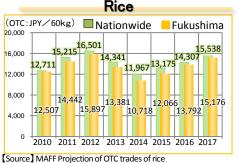
XIn terms of rice, crop acreage and yield increased after 2012, but in 2014 and 2015, the nationwide rice price sharply dropped and the rice output also significantly dropped in the prefecture, as well.



X In terms of marine fisheries, in 2016, it was reduced because the output of bigeye and bluefin tuna was excluded.

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

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



514 406 400 300 356 358 100 2010 2011 2012 2013 2014 2015 2016 2017 [Source] Market statistics on website of Tokyo Central Market

Beef cattle (Wagyu) (unit:JPY/kg) ■Nationwide ■Fukushima 3,000 2,402 2,689 2,591 2.500 2,000 1,500 1.000 500 2010 2011 2012 2013 2014 2015 2016 2017

### The 69th National Tree Planting Festival Fukushima 2018

(unit:JPY/kg) Nationwide Fukushima

The 69th National Tree Planting Festival





Hosting the 69th National Tree Planting Festival Grow the forest of hope, grow the forest of life!"

On Sunday, June 10, 2018, the festival was opened to 14,000 participants from around Japan and the world (including those that attended at the satellite sites and PR sites). It was primarily held at the designated zone for the development of sea coast anti-tsunami green belt in Shidoke, Haramachi-ku, Minamisoma City.

On the day of the festival, Their Majesties the Emperor and Empress of Japan hand-sowed seedlings. The festival showcased citizens of the prefecture who are steadily stepping ahead toward revitalization. It was also an opportunity to express our feeling of appreciation for warm support that has been received form around Japan and the world. Participants' aspiration for the development of forests linked to the future was also showcased. The prefectural government will continue to push forward with the revitalization efforts alongside its citizens and the people who are supporting Fukushima from around the world.



Emperor of Japan



### Food safety and security efforts



In order to prevent distribution of food products containing radioactive substances exceeding the safety standard set by the government, farms are being decontaminated. Alongside this, the inspection system is being strengthened to ensure food safety. In particular all bags containing locally produced rice are required to undergo inspection before shipping.

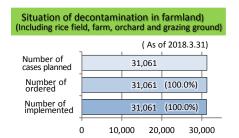
In order to ensure the safe distribution of marine products obtained through trial fishing operations, the prefectures offers guidance to fishery cooperatives in regards to inspection technology, and are working with producers and distributors to establish an efficient inspection system.

### Decontamination of farmland









### 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

(2017.8.22-2018.6.30)

Brown rice	Total No. of samples	No. of samples exceeding safety standard limits	Proportion of samples exceeding safety standard limits	Test results are released to the public.
Year 2017 production	Approx. 9.97million	0	0.00%	https://fukumegu.org/ok/co
Flow of the test	conveyor belt type of test equipment		THE STATE OF THE	Intents /    Description of the control of the cont

◆Inspection* results		(	2018.4.1-2018.6.30)
Classification	Total No. of samples	No. of samples exceeding standard limits	Proportion of samples exceeding standard limits
Vegetables & Fruits	817	0	0.00%
Livestock products	1,065	0	0.00%
Cultivated edible plants & mushrooms	244	0	0.00%
Marine fishery products	1,566	0	0.00%
Fresh water farmed fish	16	0	0.00%
Wild edible plants & mushrooms	568	1	0.18%
Fresh water fishery products	329	2	0.61%
*Inspection: Fukushima prefecture is carrying out these inspections based on national guidelines.			

	[P States] SHINK SHINK SHINK SHINK  (Condit Experience					
		Referenc ty standard ive cesium (				
,	Category	Japan	EU			
6	General foods	100	1,250			
6	Milk	50	1,000			
6 6	Infant foods	50	400			
6 6	Drinking water	10	1,000			
	Data: Consum	er Affairs A Sovt. of Jap	gency an)			

### ◆Trial Fishing conducted by the fishing industry

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 50,000 items tested during monitoring inspections. Since March 2017, the scope of trial fishing has been extended to all species of fish and shellfish except fish species under shipment ban (7 species).









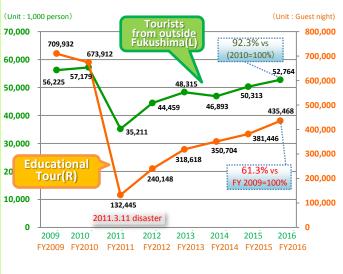
All fish produced from the trial fishing that is planned to be sold undergoes inspection for radiation. The Fishery Cooperative Association set voluntary standards [50Bq/kg], stricter than that of the national government for the national standard of "General foods [100Bq/kg]" for catches to be sold through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

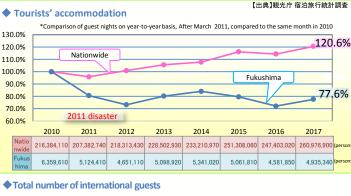
### Tourism industry recovery



Working towards the Tokyo Olympic and Paralympic Games which are positioned as to support reconstruction, all citizens are united to promote tourism through improvement of hospitality, development of region-centered receiving system and honing of tourism elements.

### Changes of the number on tourism in the prefecture







### Tourism promotion through event & other information



### 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

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.



金水晶

### Japan-US Softball Match 2018 held Fukushima Azuma Baseball Stadium on June 23, 2018

Fukushima Azuma Baseball Stadium will be one of the sites for the 2020 Tokyo Olympic Baseball and Softball games. There, the Japan-US Softball Match 2018 took place with female representatives from Japan and the US. Over 7,000 spectators gathered from all over Japan. They were all drawn to the event by high level athletes' top level plays. Many local volunteers also supported the operation

Before the opening of the game, both teams were presented with Shirakawa Daruma dolls which were painted with each team's uniform colors. Also at the event were PR booths promoting the PR of the Olympic Games and places to buy sales of prefectural products, showcasing attractiveness of the prefecture.

Tokyo 2020 Fukushima web site

Fuku-plus2020

Search 5

### Achieved top in the number of gold awards for 6 consecutive years The first-ever in the history of

the Annual Japan Sake Awards

There was an announcement on the results of screening at the Annual Japan Sake Awards for Japanese sake brewed in 2017. 850 sake brands made entries from all over Japan. Fukushima Prefecture received awards for 31 brands and gold awards for 19 brands. The number of gold awards was top in Japan for 6 consecutive years which is a record high). The prefecture was proud of its 8th top rank in Japan.



### Sake brands with Gold awards 2018 (in no particular order)

Kinsuisho

廣戸川 Hirotogawa 雪小町 Yukikomachi 三春駒 Miharugoma 東豊国 Azuma Tovokuni 人 気 一 Ninkiichi 奥の松 Okunomatsu Aizuchujo 会津中将 名倉山 Naguravama 会津宮泉 Aizumivaizumi 弥右衛門 Yauemon 笹正宗 Sasamasamune 國権 Kokken 出島 Taiima 榮四郎 Eishiro 萬代芳 Bandaiho 學十郎 Gakuivurou -生青春 Isshouseishun Matabei

### Awarded IWC 2018 Champion Sake!!

Okunomatsu Adatara Ginjo (Okunomatsu Sake Brewery, Nihonmatsu City) won the highest award, Champion Sake in the category of Japanese Sake at IWC International Wine Challenge 2018.



IWC is the world-largest wine appraisal competition. The category of Japanese sake is divided into 9 subcategories. In 2018, a record high of 1,639 different brands made entries into the competition. The. "Champion Sake" title is given to the brand which places in the top of all 9 subcategories. It is the second time a Fukushima sake has been awarded in the last three years.

### Industrial promotion and creation of employment



The total shipment value for manufacturing products in 2016 dropped from the previous year due to a decline in shipment amount declined from industries including chemical industries and information telecommunication machinery manufacturers. Nevertheless, the level of shipment in all industries in the prefecture has recovered to the pre-disaster level.

In order to continue development of local industries, we will continue to support the operation and resumption of small to medium-sized businesses which form the core of regional economies, as well as secure employment opportunities through the promotion of company investment into the prefecture.

### Changes in the shipment value of products (X)

Nationally, the shipment value recovered to levels exceeding the pre-disaster value observed in 2010. In 2014 Fukushima Prefecture had almost recovered to the pre-disaster level, and then slightly declined in 2015 compared to the previous year. However, in spite of that, an increasing trend is ongoing.

On the other hand, since 2011 the shipment value in Futaba County where residents were forced to evacuate due to the nuclear power accident has remained down around 20% of predisaster level. We think it is necessary for us to further promote revitalization in Futaba County and other evacuation-ordered areas as well as the coastal area.



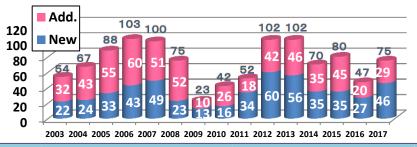
X Total of annual shipment value of manufactured products, income of processing fee and other incomes of business establishments with 4 or more employees that belong to the manufacturing industry.

(note) Those being temporarily closed or in preparation are not included

### Fukushima business investment subsidy for revitalization of industries



Number of new and additional construction of factories



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

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

2,437 jobs created (projection)

(As of July 14, 2017)

◆Subsidy for investment promotion for the support of self-help and return and the employment creation

In order to secure jobs for disaster-affected people and accelerate support for their independence and ability to return to the areas they evacuated from, we will support companies that are planning to newly or additionally build plants in the evacuation-ordered areas, and make efforts to create employment and cluster industries.

60 entities

(As of Nov 10, 2017)

626 jobs created (projection)

### Measures for restoration and revitalization of small and mid-sized enterprises(SMEs)as well as securing employment

1) Support for restoration of facilities and equipment				
Name of Subsidy	Applied Period	Allotted number		
Subsidized project for restoration and maintenance of group facilities including SMEs	FY2011- FY2017	406 groups + 3,861 companies Sum: JPY 117.7 billion		
Support project for restoration and revitalization of SMEs	FY2011- FY2017	4,074 cases Sum: JPY 9.0 billion		
Support project for resumption of businesses	FY2016- FY2017	750 cases Sum: JPY 6.9 billion		

2) Support for financing			
Name of Project	Applied Period	Cases/ Sum	
Special fund for Fukushima Revitalization	FY2011- FY2016	21,368 cases/ Loans JPY359.7 billion	
Special fund for SMEs in special areas	FY2011- FY2016	909 cases/ Loans JPY 15.4 billion	

3) Employment support projects				
Name of Project	Applied Period	Jobs created		
Emergency Job Creation Project	FY2011- FY2017	71,003 jobs		
Fukushima Support Project for Industrial Revitalization and Employment	FY2011- FY2017	28,839 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 Target for renewable energy introduction Energy demand in the prefecture 100% 28.2% Achievement rate in FY 2016 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 introduction, and building this through the other hand. building hubs through the clustering and

### Strengthen ties with NRW, Germany

As part of the promotion of renewable energy and medical industry fields in the prefecture, we are promoting collaborations with overseas countries. We concluded a memorandum of understanding with the State of Nordrhein Westfalen, Germany in the fields of renewable energy and medicine in 2014,



and since then we have been promoting business exchanges. We renewed the MOU in January, 2017 for cooperation of the renewable energy industries, and in August, 2017 for cooperation of the medical industries. As part of this an agreement was made to strengthen the support system for companies in both regions. When the governor visited Germany in January 2017, he met with influential figures of the state

government including the prime minister of NRW. They both committed to further strengthening cooperation between Fukushima Prefecture and NRW as well as deepening exchange between both regions. By utilizing the robust network with NRW, we will wholeheartedly support efforts by local companies for expanding market opportunities in Europe, Germany and throughout the world.



### Promotion of the clustering and recovery of the industrial sector

### MEDICA/ COMPAMED

development of relevant industries



November 13-16, 2017

Exhibition at the worldslargest trade fair

From November 13 to 16, 2017. the worlds-largest trade fair for medical device products and technology took place in Dusseldorf, Germany with approx. 130,000 people attending including medical service staff, and buyers and manufacturers from over 100 countries. The prefecture has set up a Fukushima Booth at this trade fair for 7 consecutive years to support local Fukushima companies expand to overseas markets. At the trade fair, the prefectural government exhibited along with 7 local companies promoted PR for technology and products of medical welfare device.

# Fukushima Booth set up at the exhibition of energy in Germany.

From February 6 to 8, 2018 a Fukushima Booth was set up at the "Eworld energy & water 2018" exhibition (the largest exhibition in Europe) in Essen City, the State of Nordrhein-Westfalen, Germany. The prefecture used the booth to promote economic exchange in the renewable energy field. It was the 5th time that the prefecture has had a booth at the exhibition. 5 local Fukushima companies participated in the exhibition

(a record number) and proactively conducted business negotiations. At the "Energy Forum" held at the venue, Mr. Hattori (representative of the Energy Agency Fukushima) illustrated efforts for fostering and clustering of renewable energy-related industries in the prefecture during the forum which was attended by many visitors.



### Research & development hubs in Fukushima Prefecture

### **Fukushima Renewable Energy** Research & Development Center



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.

Medical - Industry Translational Research Center (Radiation Medical Science Center)



In order to serve as a bridge etween 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.

**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 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 cuttingedge ICT research, and the creation of new ICT industries.



### **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.

### **Hub facilities for decommissioning rese**

International Research Center. International Joint Research Building



Opened in April, 2017

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



Naraha Remote Technology Development Centre (mock-up Centre)



Opened in April, 2016

### **Education & promotion** of industrial cluster

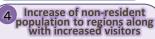
Education and fostering of human resources so that the next generation will be able to bear the burdens of the future and promote the industrial cluster



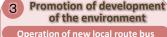










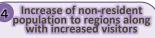




Shin Joban Kotsu Bus operation co. started Iwaki-Tomioka in April 2017.

Medical services started in April

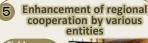






the Great East Japan Farthquake. Tsunami and Nuclear Disaster

Construction of





\*NEDO(New Energy and Industrial Technology Development Organization)

### Fostering human resources who will play a major role in the Fukushima Innovation Coast Framework



### High School

Aiming to foster top leaders possessing strong ambitions to lead the Fukushima Innovation Coast Framework as well as training the next generation to be part of the practical work force working in specialized fields, such as the robotics; renewable energy; and agriculture, forestry and fisheries industries.

> Aizu Region Central Region

### Advanced education at technical high school

External instructors will be invited from advanced technology companies and research institutes related to the Fukushima Innovation Coast Framework in order to foster advanced technological skills in the next generation.



### Fostering the next generation of robotics

By inviting instructors from companies and research institutes, we will foster a new generation, possessing cutting edge technological knowledge related to robot manufacturing.

Coastal Region

"Odaka Industrial Technology and Commerce High School" and 'Futaba Future High School" have already started this advanced education.

### **Fostering top leaders**

The schools aim to foster top leaders possessing strong ambitions and sense of mission towards their hometowns and who will contribute to the Fukushima Innovation Coast Framework through an education program. It will also foster a new generation of local entrepreneurs and researchers working in fields of decommissioning and energy production in order to contribute to their hometowns

Fostering the next generation of agricultural producers An education program will be put in place to foster the next generation which will lead the future of regional agriculture in terms of Affrinnovation (sixth industry), utilization of cutting edge technologies, improvement of sales and management performances. \*Affrinnovation (sixth industry) is based on collaboration between people in the Agriculture, Forestry, and Fisheries and diverse business

Fostering the next generation of industry professionals
An education program will be put in place to foster the next
generation of specialists who will contribute to the fulfillment of the Fukushima Innovation Coast Framework. The program will provide lectures, practical trainings and research on relevant subjects to people through collaboration with companies, higher education facilities and research institutes.





In order to foster the next generation which will play major role in achieving the Fukushima Innovation Coast Framework, science and mathematics programs will be put into practice. The education programs will give students hands-on experience of the cutting edge technologies through experiencing robots, drones, renewable energy and programming through participation in seminars and competitions in the stage of compulsory education. In addition, global education and carrier education will be implemented for students to acquire abilities to share information with the rest of the

### Creative revitalization education for the future of Fukushima

### Odaka Industrial Technology and Commerce High School

Since the opening of the school, Odaka Industrial Technology and Commerce High School has been designated as a Super Professional High School (SPH). It has also been engaged in fostering the next generation by integrating industrial and commercial courses to equip their students with high level knowledge and expertise so that they will be well matched with new industries.

This year marks its second year of operation, and all staff members at the school are determined to address promotion of projects collaborated with regions and related organizations in order to foster the next generation which will be able to contribute to the promotion of the Fukushima Innovation Coast Framework



driving cars

### **Futaba Future High School and Junior High School**



In April, 2016, the high school was founded prior to the junior high school. It aims to foster regional and societal revolutionaries. The school is engaged in providing education and research on community development, future creation and fostering of top

It was designated as Super Global High School (SGH) by the Ministry of Education, Culture, Sports, Science and Technology to foster global leaders who will achieve the revitalization of the prefecture in the wake of the nuclear disaster.

In April, 2019, the affiliated junior high school will start and initiate a 6-year long education program integrating junior and high school.

### The Revitalization Plan and FY2018 budget

The Fukushima Revitalization Plan (the 3rd edition)

In the Fukushima Revitalization Plan (the third version), major projects for restoration and revitalization of the prefecture are stated as ten priority projects which are being intensively implemented. In combination with comprehensive plans to take countermeasures against depopulation and ageing, the prefecture is working to progress revitalization and regional creation.

http://www.pref.fukushima.lg.jp/site/portal-english/rev-plan-3.html

Fukushima Prefectural Govt. Budget for Fiscal Year 2018 (April 2018-March 2019)

(equiv. USD13. 15 billion)

Incl. East Japan Earthquake and nuclear disaster portion: JPY617.8 billion

### Acceleration project for evacuation area

JPY67 billion

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

### Rebuild towns, connect people

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

JPY18.7 billion

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

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

JPY 135.5 billion

### Living in peace and security

### Assistance for rebuilding livelihoods

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

JPY 30.9 billion

JPY

124.7

billion

### **Environmental restoration**

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

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

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

**JPY 22** billion



billion



### Work in your hometown

### **Primary industry revival**

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

72.8 billion

### **SMEs revitalization**

Vitalization of SMEs in the prefecture, promotion of business investment



JPY 93.3 billion

### New industry creation

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

JPY 40.1 billion

### Countermeasures against depopulation and aging

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.

billion

JPY

55.7





### Topics

### Governor's visit to the UN headquarters



At the Tokyo Girls Collection held at the UN headquarters in New York, in combination with the children on the stage from Fukushima, the Governor delivered a speech conveying the feelings of appreciation for the warm support Fukushima has received from around the world and how Fukushima is currently moving towards revitalization

### MIRAI 2061 a short movie illustrating Fukushima's hopes and aspiration is being broadcast.

On February 19, 2018, MIRAI 2061, a short musical movie set in Fukushima Prefecture 50 years after the disaster was released to the public. The movie features Hikari's recollection of half of her life to her granddaughter, Mirai. The video was broadcast at the Shinjuku ALTAVISION, outdoor screen in Tokyo with cooperation from Studio ALTA.

The short movie will continue to be broadcast through digital billboards and is backed by companies and organizations that are supporting Fukushima with an aim to convey the hopes for the future of Fukushima.

MIRAI2061



# Celebrating the 95th Anniversary of the foundation of the Honolulu Fukushima Kenjinkai

On June 3, 2018, Vice Governor Suzuki attended the Commemorative Ceremony for the 95th Anniversary of the foundation of the Honolulu Fukushima Keniinkai and addressed a congratulatory speech in honor of Fukushima immigrants' long-lasting endeavors on behalf of citizens of the prefecture. During the visit to Hawaii, the Vice Governor paid courtesy calls on the Governor of Hawaii and U.S. Senator Mazie Hirono (born in Kori Town, Fukushima Prefecture).

He conducted a Fukushima Revitalization Seminar to convey Fukushima's efforts for the future and accurate information related to the current state of the revitalization. He also talked about what efforts the prefecture is taking in order to stop the spread of harmful rumors and what steps are being taken to address the fading awareness about the disasters around the world.

Fukushima Prefecture will continue to convey accurate information about the prefecture to the world and promote revitalization efforts through further strengthening of relations with overseas kenjinkais.



### J-Village has restarted operation.

2018.7.28

J-Village which was suspended due to the nuclear accident, partially restarted its operation on July 28, 2018. The prefectural government will make use of J-Village as a symbol of revitalization to centralize and promote soccer and other sports as well as work to stop the spread of harmful-rumors generated in the wake of the nuclear

J-Village will be an important platform from which the prefecture will be able to show the rest of Japan and the world its strong progress towards revitalization.



# Research team from Harvard John F Kennedy School of Government

On July 5, 2018 Dr. Arnold M Howitt of Harvard University research team and Dr. Kyle Cleveland from the Temple University research team visited the Fukushima Prefectural Government in order to conduct research on the revitalization progress, related issues, revitalization policies and targets for economic revitalization and development.

Additionally, they took a study tour around the affected areas in the coastal region.



# Holding of the 8th Pacific Islands Leaders Meeting (PALM 8)

On May 18 and 19, 2018, leaders from 18 Pacific Island countries and regions visited the prefecture. At the luncheon reception hosted by the Governor, meals prepared with local ingredients were served for them. The leaders joined a study tour to observe the revitalization progress in the disaster-affected areas.

They also viewed a panel exhibition and promotional videos to learn about how the revitalization has progressed since the last summit was held three years ago and about the attractive qualities of the prefecture.



Governor Uchibori greeting and welcoming the Prime Minister of the Independent State of Samoa and his spouse

### Fukushima Prefecture outlines



- O Capital: Fukushima City
- O Population: 1,865,694 (July 2018)
- O Area: \*13,783km²
  - \*Evacuation designated zones: 371km²(July 2018)

### Access

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



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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