# Steps for Revitalization in Fukushima

< August 3, 2015>





#### Disaster status in Fukushima Prefecture (1) (Damage of an earthquake and the tsunami)



The 2011 Great East Japan Earthquake occurred at 2:46 p.m. March 11, 2011 with its epicentre off the Sanriku coast. Its magnitude was observed at a record high of M9.0.

This massive earthquake of a maximum seismic intensity of 7 triggered a large tsunami that rushed into a large area inshore.

#### Disaster status after the earthquake and tsunami

<Disaster status> As of July 10, 2015

◆Death toll: 3,766 persons

(disaster-related death toll: 1,938 persons)

Missing: 3 persons



Yotsukura Bay being struck by tsunami



Police officers searching missing persons with heavy machines (Soma City)

<Cost of damage> As of March 23, 2012

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

\*Areas under jurisdiction of the prefectural government: the 30km radius zone from the Fukushima Daiichi NPS, approximate amount of damage was estimated based on air photos.

\*Areas under jurisdiction of municipalities: Excluding approximate amount of damage in parts of Minami soma City and 8 municipalities in Futaba.

#### [data source]

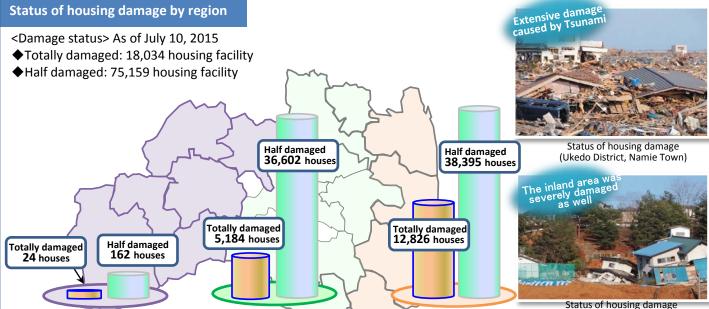
Land Rehabilitation & Development Group, Fukushima Restoration & Revitalization Headquarters for Great East Japan Earthquake

# 2:46 p.m., March 11, 2011 the Great East Japan Earthquake 38 degrees north latitude, 142.9 degrees east longitude, Appox.24 km deep (provisional value) / M9 (provisional value) X Seismic center Seismic Intensity in Japanese scale 6 upper 6 lower 5 upper 5 lower 0 4 3 Sapporo Tokyo Osaka Seismic center and intensity Fukuoka (Data released by the Meteorological Agency)

(Fushiogami, Fukushima City)

#### Status of housing damage by region

Aizu Region



Coastal Region

**Central Region** 



#### Disaster status in Fukushima Prefecture②(Situation of evacuation)



Evacuees of the prefecture counts 108,164 as of July 2015, down from 164,865 at the peak recorded in May 2012, showing a gradual increase in the number of returnees. Yet, still many citizens remain evacuate from their hometown. Currently, there are about 63k evacuees residing inside the prefecture, and about 45k residing outside.

Date City

Areas to which evacuation orders have been issued in the wake of nuclear disaster

◆Evacuation order was issued for 3 km radius zone

On the same day, indoor evacuation was issued

Areas where it is expected that residents will face difficulties in returning for a long time

Areas where the radiation levels are so high that protective measures including installation of barricades are taken, and citizens are forced to evacuate.

Areas in which residents are not permitted to live

Areas where decontamination work is being implemented and infrastructure in urgent need of restoration is intended to be restored so that citizens will be able to return and rebuild their community in the future.

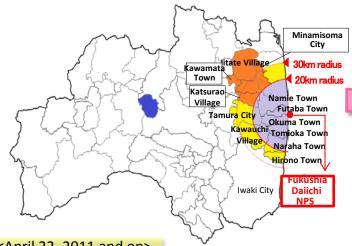
Areas to which evacuation orders are ready to be lifted

Areas where support measures for restoration and revitalization are quickly implemented and the environment is intended to be improved so that citizens can return.

# from the Daiichi NPS. ◆On the same day, indofor 10 km radius zone. <March 12, 2011>

<March 11, 2011>

- ◆Evacuation order was issued for 10 km radius zone from the Daiichi 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.

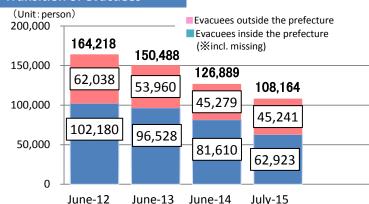


#### <April 22, 2011 and on>

- Evacuation-designated areas (Restricted areas)
- Deliberate evacuation areas
- Emergency evacuation preparation areas (The order was lifted on September 30, 2011)

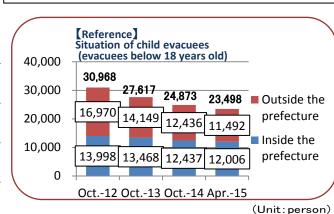
\*\*Part of Date City, Minami Soma City and Kawauchi Village are designated as specific spots recommended for evacuation.

#### **Transition of evacuees**



Poluplation of Fukushima Prefecture

Now litate Village From July 17,2012 Reactor 4 of Fukushima Daiichi Nuclear Power Station(NPS) disabled by the hydrogen explosion and fire Kawamata Town From August 8,2013 Minamisoma City From April 16,2012 Katsurao Village From March 22,2013 Namie Town **Tamura City** From April 1,2013 Mivakoii district **Futaba Town** April 1, 2014, From May 28,201 The evacuation order lifted. Okuma Town Daiichi NPS Kawauchi Village From December 10,2012 Oct.1 2014 The evacuation order was **Tomioka Town** lifted in a part of the area. rom March 25,2013 • The other part became to the Areas to which evacuation orders are ready to be lifted Naraha Town Naraha Town From August 10,2012 Sep. 5,2015 The evacuation order is expected to be lifted. Iwaki City **Hirono Town** 



\*Dates in parentheses show days when the evacuation orders were rearranged for the areas to which evacuation orders have been issued.

Population by age Number of Young Productive Population population Aged 0 to 14 households population Age unknown Aged 65 or older Aged 75 or older Aged 15 to 64 March 1, 2011(A) 535 274.322 235, 833 502. 275. 12. 086 024. 401 160 465 July 1, 2015(B) 734, 561 927, 386 238. 242 133. 543. 294 286.318 086



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

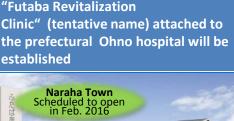


We have developed plans to build "Public housing for revitalization" in order to stabilize residency of evacuees and disaster-affected citizens. In terms of building the public housings for nuclear disaster evacuees, the prefectural government takes initiatives in building 4,890 housings in total.

#### Reconstruction of housing environment

(Housing environment of disaster-affected citizens ) (As of June 30, 2015)					
Temporary housing units built	16,553 units (11,025 units already have tenants)	Extension of tenancy for evacuees in temporary housing units  Extended until			
Housings rented by administrations to support affected citizens	16,503 units	March 2017			
Housings reconstructed	19,530 cases (vs 30,991 application, 63% progress )				

(Developmental situation of Public Housing for Revitalization) (As of June 30, 2015) **Hokushin Housing Complex** units classification units planned completed in Fukushima City For earthquake and Total of 2,811 units will be built by 11 1,660 units municipalities. tsunami affected For nuclear disaster In total 4,890 housings will be built by the 601 units March 2015 Prefectural Government. evacuees completion





"Futaba Future School", newly established high school opened in **April 2015** 

the school's entrance ceremony Carefully thought-out support for evacuees

## Taking care of evacuees

We have assigned 274 life support counselors in 28 municipalities' Social Welfare Councils (as of July 2015) in the prefecture. They are taking care of elderly people and supporting evacuees living in temporary housing units.



Hirono Town Opened in April 2015

For earthquake and tsunami affected people For nuclear disaster evacuees

(22units

Koori Fukushima Town 475units 64units City Soma City (398units Nihonmatsu 346units Minami-Aizuwakamatsu soma 134units City Koriyama City 570units TEPCO's Fukushima Miharu Town 217units Sukagawa (100units Kagamiishi 24units Town Yabuki 52units

(16units

40units

Shirakawa City

★ 291units in other municipalities

Provision of information to evacuees

Town

We send public information magazines and digest versions of local papers to evacuees, with publishing "The paper featuring the current Fukushima" that contents information of efforts for revitalization of the prefecture, exchange sessions and other support activities, which are offered in cooperation with municipalities and NPOs located inside and outside of the prefecture.

Iwaki City

Shinchi Town (133units

Daiichi NPS

Naraha

Hirono (

Town

Town

(350units

927units

141units

62units

58units

1,513units

1,768units

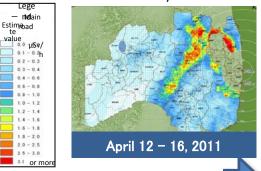




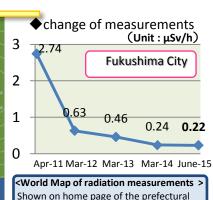
Air radiation doses in the prefecture have sharply decreased compared with April, 2011. Regarding the progress of decontamination, steady progress has been seen in every sectors.

#### 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.



May 12 -June 4, 2014



government, releasing results of measurements in major cities in the world

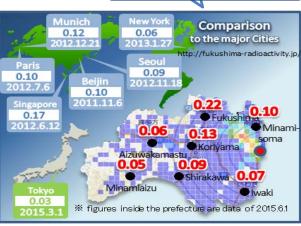
\*Radiation doses were surveyed with a monitoring car in the former restricted area.

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

	Fukushima City	Aizu- wakamatsu City	lwaki City	
before the disaster	0.04	0.04~0.05	0.05 <b>~</b> 0.06	
Apr-11	2.74	0.24	0.66	
Mar-12	0.63	0.1	0.17	
Mar-13	0.46	0.07	0.09	
Mar-14	0.24	0.07	0.08	
June-15	0.22	0.06	0.07	

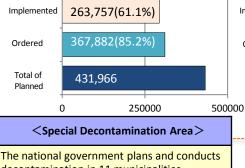
≪Reference≫ Data source: SafeCast

- Seoul, South Korea 0.09μSv/h (As of Nov.18,2012)
- Beijing, China 0.10μSv/h (As of Nov.6,2011)
- Munich, Germany 0.12μSv/h (As of Dec.21,2012)
- New York, America 0.06μSv/h (As of Jan.27,2013)

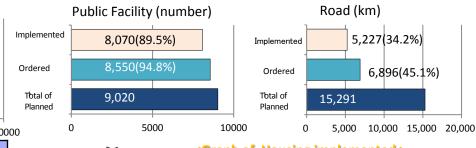


#### Decontamination Progress in 'Intensive Contamination Survey Area'

#### (as of June 30, 2015)



Housing (number)



decontamination in 11 municipalities.

#### <Intensive Contamination Survey Area>

Each municipality plans and does decontamination work. The prefecture's 39 municipalities are designated.



#### **Disaster Waste Disposal**

◆ Status of Disaster Waste disposal (As of March, 2015) (unit: 1,000 tons) Amount estimated to be carried into temporary storage sites Amount estimated to be generated Amount disposed of 2.355 Coastal region 2,079 (88.3%) 1.575 (66.9%) 1,042 1,040 (99.8%) 1,040 (99.8%) Central region 19 (100.0%) (100.0%) Aizu region 19 3.416 3, 138 (91.9%) 2,634 (77.1%) Total



(unit:site)



Storage situation of contaminated waste

As export of sludge was delayed due to the disaster, storage amount increased in the warehouse. Situation has been getting better, we are at work on finding places to store it and reducing the sludge itself.

	Storage amount (tons)
Sewage sludge	75, 700 (As of Sep. 20,2013)
	50, 700 (As of July 20,2015)
Incineration ash	56, 698 (As of July 31 ,2012)
(General waste)	224, 600 (As of May,2015)





#### **Temporary Storage site**

◆Storage conditions of removed soil generated

<u> </u>		
	As of March 31, 2014	As of March 31, 2015
Temporary storage site based on the decontamination plan	664	791
Storage where it generated, such as house garden, factory site, school ground	53,057	102,093
others	104	72
Total	53,825	102,956



The number above is all sites in the prefecture except 7 municipalities, where the national govt. directly conduct decontamination-Naraha Town, Tomioka Town, Okuma Town, Futaba Town, Namie Town, Katsurao Village, Iitate Village. 【data】 Fukushima Prefecture

#### **Interim Storage facility**

◆Transportation of excavated soil and other wastes into the Interim Storage Facility

The PILOT transportation to the interim storage facility has been underway for the soil removed by decontamination work since March 2015. Out of 9 municipalities intended for the initial transportation, 6 municipalities such as Okuma Town, Futaba Town, Tamura City, Tomioka Town, Kawauchi Village and Hirono Town have already finished transporting the removed soil, and 3 other municipalities including Namie Town, Katsurao Village and Naraha Town are still transporting them. By taking advantage of the summer holidays, elementary schools in Tanakura Town and Koriyama City are transporting the soil.

# Establishment of research centers for environmental recovery

◆Fukushima Prefectural Center for Environmental Creation (Minami soma, Miharu)

We are developing research centers to help quickly restore the radio-contaminated environment and create an environment where citizens can live with peace of mind over the future.





We are proceeding with 10 cooperation projects with IAEA (International Atomic Energy Agency) for reviewing of decontamination technology for rivers, ponds and lakes, and behavioral research of radioactive substances.

#### [IAEA proposed projects]

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

#### (Our proposed projects)

O Project to review the decontamination technology for rivers, lakes and ponds

O Behavioral survey of radionuclide in wild life etc.

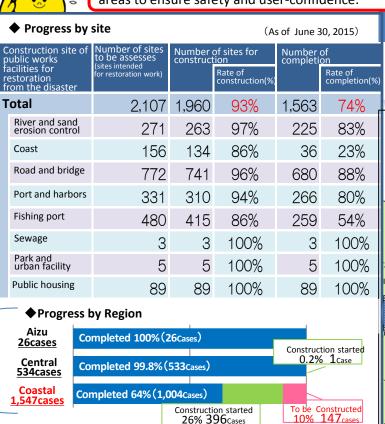




#### Situation of restoration and development of social infrastructure



Construction for restoration started in 93% of the disaster-affected public works facilities, and 74% of them completed in the restoration work. We have been making efforts for the earliest completion of the restoration work and enhancement of infrastructure including roads in the tsunami-affected areas to ensure safety and user-confidence.



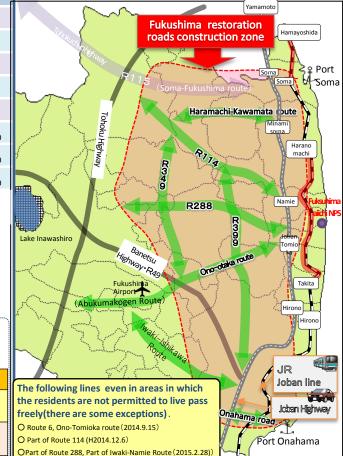
Disaster assessment of 'the areas to which evacuation orders are ready to be lifted' has been completed. On the other hand, assessments for the 'restricted areas' and 'areas where residents have difficulties in returning home for a long time' are yet to be finished, and will be conducted in coordination with decontamination being conducted by the national government.

Number of sites to be assesses (sites intended for restoration work)	construction	Rate of Construction	completio	Rate of Completion
326	235	72%	126	39%

#### New roads for restoration are under construction

We push forward of construction for 8 main lines to promote restoration of evacuation areas. They will enhance the convenience in traffic from Coastal area.

The completion target is around 2020.



#### Joban Expressway opened entire route in March 2015

#### New Inter Changes(IC) scheduled to open

• Naraha Smart IC in 2018

Agricultural and

Okuma IC in 2018





JR Joban Line

Soma-Hamayoshida re-connec (projected in Spring 2017)

substitute by bas Soma∼Watari Station, April 2011

Tatsuta~Haranomachi Jan. 2015

	June 2014 Hirono-Tatsuta Stations reconnected.	
t		

other facilities	Progress rate	Situation of restoration and revitalization/Damage status	
Farmland 33.3%		Area of farmland available for resumption of agricultural management	1,820 ha
(Ratio of area available for resumption of agricultural management)	(July 2015)	Area of farmland affected by tsunami following the Great East Japan Earthquake (Including old Restricted Area)	5,460 ha
Agricultural management bodies	60.9%	Management body that resumed agricultural management	10,500 management body
(Resumption status of management)  Xincluding partially resumed bodies	(March,2014)	Management body affected by the Great East Japan Earthquake	17,200 management body
Fishery management bodies	41.1%	Management body that resumed fishing operation (including test fishing).	304 management body
(Situation of operational resumption)	(May,2015)	Management body affected by the Great East Japan Earthquake	740 management body
Restoration construction of	83.4%	District for which construction get started	2,468 district
farmland and agricultural facilities	(March,2015)	District for which assessment is completed	2,958 district



#### Health of citizens



We are conducting "Fukushima Health Management Survey" for follow-up observation of mental and physical health of citizens, maintenance and improvement of citizens' in the future to come, estimating their exposure dose and examining thyroid gland.

#### **Fukushima Health Survey**



#### **Basic survey**

Self-administered questionnaires: 27.1%

(As of March 31.2015) (556,917 respondents against 2,055,339 subjects)

#### Citizens residing in the prefecture as of March 11, 2011 (2,055,339 persons)

< Results of estimate on external exposure dose >

154.018

142,936

[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)



#### Thyroid gland inspections

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

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

<Full-scale inspection > (starting FY2014)

prefectures other than Fukushima Prefecture

## <Primary inspections > (FY2011 to FY2013)

Inspection to confirm the present situation of children who aged 18 or younger at the time of the disaster, about 298,000 were examined as of December 31.2014.

(As of March 31,2015)

number<u>of</u>

examinees

50,767

70,187

1,043

Primary inspection Full-scale inspection [Reference] Results of survey for findings on thyroid glands over three portion

Judgment	(4	
Α	(1	

Judgement

Result

Judgment B

Judgment C

A2) observed.

Node smaller than 5.0 mm or cyst smaller than 20 mm was

No node or cyst was observed.

Node larger than 5.1 mm or cyst larger than 20.1 mm

Judgement Contents

was observed. Judging from the conditions of thyroid gland, the examinee

is immediately required to take a secondary inspection. Judgments A 1 and A2 require follow-up till the next (after FY2014) inspection.

2,278 0.8% 0.0%

take place every 5 years.

•Judgments B and C require the secondary inspection. (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 inspection. (Common in the advanced examination and

99.2%

Persons surveyed 0 0.0%

99.1%

0.9%

#### Aged 3 to 18: 4,365 examinees Results of survey

[A1]1,853examinees (42.5%) [A2]2,468examinees (56.5%) (B) 44examinees ( 1.0%)

Surveyed in three cities in Japan

Hirosaki City, Aomori Pref.

Kofu City, Yamanashi Pref. Nagasaki City, Nagasaki Pref.

[C]0examinees (0.0%)

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

Full-scale inspection

In the secondary examination (results were confirmed for 262 examinees), 8 examinees were found to be malignant or suspicious malignant. (1 had operation: 1 with papillary cancer)

Primary inspections

full-scale examination)

#### Internal exposure inspections using whole body counters

In the secondary examination (2,525 examinees confirmed the results) 127 examinees were found to be malignant or

suspicious malignant. (104 had operation: 1 with benign node, 100 with papillary cancer and 3 with poorly differentiated

•Judgments A 1 and A2 require follow-up till the next inspection. (after FY2016)

Cumulative number of examinees (June 2011 - May 2015) 250,276 examinees

#### [Results of inspection]

Committed effective dose (internal exposure dose radiated within the body throughout one's lifetime)

Below 1mSv 1mSv 2mSv 3mSv 250,250 examinees 14 examinees 10 examinees 2 examinees

\*The Fukushima Prefectural Government now conducts inspection using 22 whole body counters (As of March, 2015)



#### No charge for medical fee for citizens aged 18 or younger

Medical fees for citizens aged 18 or younger have become free of charge since October, 2012 after extending the eligible age for medical subsidy. It is a project to support child-raising by creating an environment that protects children's health where one can give birth and raise children with peace of mind.

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

We are developing a hub for cutting edge radiological research and medical care in order to protect health of citizens over the future.



#### (Five functions)

1. Radiology and health care center for citizens of the prefecture

Fukushima Global Medical Science Center

- 2. Cutting-edge clinical study center
- 3. Cutting-edge medical treatment section
- 4. Education and personnel training section 5. R&D center to act as a bridge between medical care and industry

Place

(Fukushima Medical University)

Completion

To be in service in 2016

**Fukushima City** 

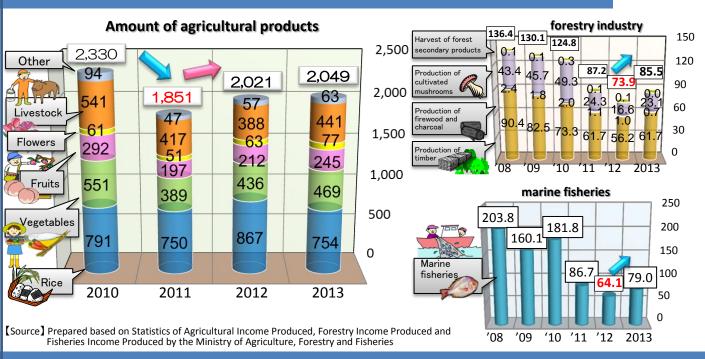


#### Situation of the agricultural, forestry and fishery industries



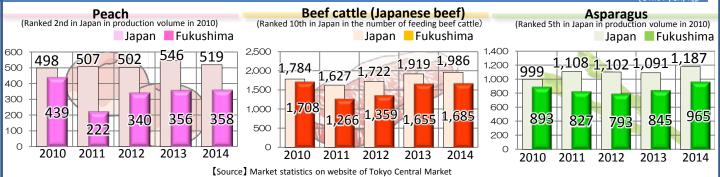
Production volume of the agricultural, forestry and fishery industries was sharply declined by the disaster. order to help reconstruct disaster-affected citizens' livelihoods, we have been making the utmost efforts to proceed measures for the rehabilitation and to promote measures for dissemination of attractions as well as the safety and security of the products.

#### Transition in the amounts of agricultural products produced in the prefecture (Unit: 100 million yen)



#### **Transition of the price of main agricultural products** ~Agricultural products, representing Fukushima Prefecture~

Unit: ven/kg



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

#### Conducting to promote the attractions, safety and security of primary industry products in order to regain products reputation



We release information about attractions of Fukushima's rich nature and its blessings, and also safety managements in Fukushima through various media and seminars. This year, we are in EXPO MILANO 2015 Japan Pavilion to convey A real New Fukushima to overseas.



#### Fukushima Hall "MIDETTE" at Nihonbashi

We operates MIDETTE in Nihonbashi, in the center of Tokyo as a base station of Fukushima 's information toward the metropolitan area. In July 2015, the number of visitors reached 500,000, counted from April 2014 open.



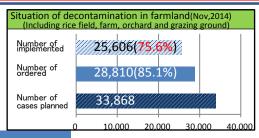
#### Measures for food safety and security



In order to prevent food containing radioactive materials over the standards from distributing in the market, we have intensified an inspection system as well as decontaminating farmland to confirm the safety. Particularly, for rice which is a staple food for us, we inspect all rice grains in all bags being produced and shipped in the whole area of the prefecture. The rice bags that satisfied the standards have labels of inspection certificate on them. Furthermore, we instruct inspection technology on the voluntary inspection being held by the fishery cooperative association to safely distribute sea food caught in the test fishing. Also, we consult with producers and distributors concerning establishment of effective inspection system.

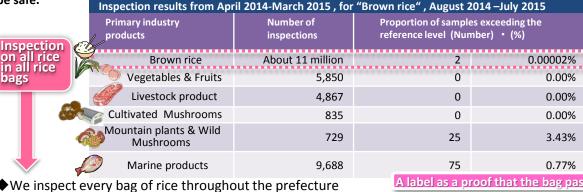
#### Decontamination of farmland





#### Monitoring of agricultural, forestry and fisheries products in the prefecture

Primary products produced in the prefecture are all obligated to undergo inspections before being shipped. Any product exceeding the reference level is banned from shipment by municipality item by item. Products being distributed are confirmed to be safe.



A label as a proof that the bag passed the inspection







Nil!

All rice bags containing polished brown rice has a sticker on it so one can confirm it passed the inspection.





We do not allow distribution of foods exceeding the reference level!



Website of Fukushima "Shinhatsubai" or "Release of new products'



http://www.new-fukushima.jp/

#### Test fishing in fishery industry

Coastal fishing and trawl fishing of the prefecture were forced to voluntary ban their fishing operation. Some fish species were confirmed to be safe after monitoring 20,000 or more items. They are conducting test fishing on those fish species. As of June 30, 2015, 64 species were set out for the test fishing.







Reference level for Radio sium contained in food

Infant food

Drinking wate

(Unit :Bq /kg) New reference level (from April, 2012) General food 100 50 Milk

50

10

For fish products to be sold by test fishing, the prefectural government voluntarily set stricter standards than the national ones for the inspection of radioactive materials. →Voluntary standards 50Bq/kg (National standards; 100Bq/kg)

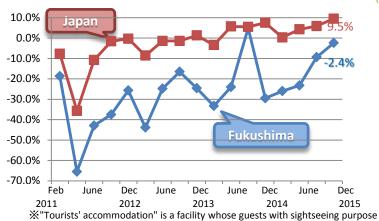
#### Recovery of the tourism industry



We see recovery of tourism going on thanks to a history TV drama "Yae's Cheery blossoms" broadcasted in 2013. We will proactively promote measures to attract tourists, such as Fukushima Destination Campaign which is jointly held with JR this year.

#### Transit of the number of guests (guest night) who stayed in the tourists' accommodation

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



accounted for over 50% of all guests. [Source] Japan Tourism Agency The Survey of Tourist Accommodation

Situation of inbound tourism and education tour in Fukushima Prefecture (guest nights) 800,000 709,932 673,912 82.0% vs. inbound 700,000 56,225<sup>57,179</sup> 600,000 500,000 48,315 **46,893** 40.000 44,459 400,000 35,211 30,000 300,000 318,618 200,000 240,148 100,000 132,445

2011

[Source] Fukushima Pref. Tourism Promotion Bureau

FY2009 FY2010 FY2011 FY2012

Tourism Promotion Bureau, Fukushima Prefectural Government

#### Various events are accelerating the recovery of the tourism industry



The tourists who visited Aizu Wakamatsu City reached 3.95million in 2013 which is a record high.



■ **B1 Grand Prix in Koriyama** Took place on October, 2014. We had 453,000 visitors. The annual 2 day event was held in a city of Fukushima Pref. to show support to Tohoku region, gathering 59 groups which were revitalizing local areas across the country.



RockCorps
Holding in 2015, for two consecutive year. This is a project to promote social contribution with the help of power of music. It allows volunteers having 4hour volunteer activities to join a concert.



FY2013

This is an annual event with warriors on the horseback which has been passed down for 1,000 years, and was resumed in July, 2012, just one year after the disaster.



This year, it is going to be held in Minami-soma City, twenty groups are taking part in the event and show long-preserved folk arts. Some are from the coastal area where groups have hard time passing down the traditional performance due to the evacuation of successors after the disaster.





**Leaders Meeting (PALM7)** It took place in Iwaki City in May 2015 expected to improve international recognition, to increase the number of visitors, and eradicate harmful rumors



in Fukushima 2014

Held in April, 2014, cheerful smiles and power of youths gave energy to Fukushima.



This year, it was taken place on June 06-07. Over 180 mascot characters got together from all around the country.



#### Industrial promotion and creation of employment



After the disaster, the number of offices in the prefecture kept declining. According to the industrial production index showing the production of manufacturing industry, the level has not yet recovered to the pre-disaster condition. There are many **employment** mismatches, depending on the type of occupations. For the sustainable development of industries in the prefecture, we will support business continuity and resumption of mid and small sized industries which are the core of the regional economy as well as attracting business establishments into the prefecture in order to secure employment.

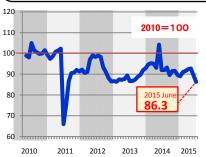
#### Change of the numbers of offices by industries

◆The number of offices in the prefecture declined in all industries as of 2012 after the disaster. Even in 2014, the number did not recover to the pre-disaster level except for a part of industries.

		Pre-disater	Post-disater Post-disat		sater	
Industrial macrotaxonomy		FY 2009	FY 2012	FY 2013		
		actual number	actual number	actual number	(v.s. FY2009)	
All industories		98,596	86,170	87,222	88.5%	
	Primary	agricultural, forestry ,fishery	747	606	627	83.9%
		construction	12,079	10,265	10,308	85.3%
	Secondary	manufacturing	8,249	7,481	7,219	87.5%
		other sencondary ind.	76	65	52	68.4%
	tra w	electricity, gas, water supply, telecom	798	707	670	84.0%
		transportation, mail	2,212	1,952	1,901	85.9%
		wholesale, retail	27,031	22,512	23,100	85.5%
		finance, insurance, real estate, lease	7,019	6,521	6,316	90.0%
	rertiary	accomodation, restaurant	12,125	10,346	10,560	87.1%
		medical, welfare	5,306	5,254	5,973	112.6%
		education related	5,945	5,224	5,365	90.2%
		other tertiary ind.	17,009	15,237	15,131	89.0%

#### Industrial production index

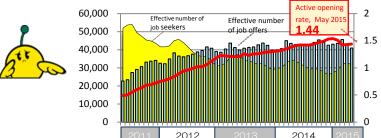
◆ IP index transited around 90 from 2011 to 2014 based on the index of 100 for 2012, not showing the recovery to the pre-disaster level. Particularly, slowdown is apparent in the transportation machinery industry, electronics parts, device, machinery industry.



[Data] Ministry of Internal Affairs and Communications, Fukushima Prefecture

#### Trends in active opening rate

◆Job-to-applicants ratio keeps high level, but the breakdown shows mis-matching, or imbalance in occupations; job shortage in clerical jobs and labor shortage in expert and technical occupations including construction and civil engineer doctors, nurses, and nursing care givers.



#### Support for corporate's business investment

 Fukushima business investment subsidy for revitalization of industries

433 companies total subsidy sum: JPY 196.9 billion (about USD 1.6 billion), as of March 2015



#### 4,987 jobs

to be created

#### <Main designated industries>

- Transportation machines
- Semiconductors
- Medical welfare devices
- Renewable energy, etc.



Electronic apploiance

Textile, Chemical mfg

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. **183 companies** Total sum of adoption: 80.9 billion ven

lwaki

75

Soso

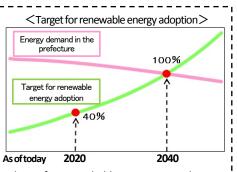


#### Development of hubs for research & development and industrial creation



For the revitalization and recovery of Fukushima Prefecture, we are in need of advanced measures that just surpass restoring the prefecture to the state it was before the disaster.

#### Promotion of renewable energy



The prefecture upholds a target to produce renewable energy to cover 100 % of energy demand in the prefecture by 2040. For that, we will increase adoption of renewable energies as well as cluster and grow relevant industries by developing hubs.



MOU Pref. Governol Danish Ambassador

Fukushima Prefectural Government has concluded MOU with the Ministry of Environment in Nordrhein-Westfalen of Germany (NRW) and Embassy of Denmark for collaboration in the fields of renewable energy and energy saving. By utilizing advanced findings in both regions related to these fields, we will make efforts to adapt renewables and accumulate related industry in the prefecture.

Collaboration with NRW of Germany and Denmark



The National Institute of Advanced Science and Technology (AIST) established a research and development center for renewable energy, which was in operation in 2014.

Koriyama City Place (Koriyama West No.2 Industrial Park) Demonstrative and research project of Offshore Floating Wind farm technology



The Floating Offshore Wind Farm System, to verify the safety, reliability and economic efficiency.

We aim to form hubs for R&D and test activities, and build a wind power industry

[ 1<sup>st</sup> stage] In November 2013, operation began of a 2,000 kW floating wind power station and an offshore floating substation [2<sup>nd</sup> stage] 2014-2015, a huge 7,000 kW (one of the biggest in the world) floating wind power station scheduled to be set up

this year. Off the coast of Place

Hirono Town and Naraha Town

#### Coastal Area Mega Solar Power Project Place Minami Soma City Output 70,000 kW Construction Status Operation planned to start in 2017





Status





Onahama Solar Power Project Iwaki City Output 18,400 kW Construction Operating Status

#### Promotion of industrial development and environmental creation

<Production volume of medical devices>

[Unit: 100 million yen] 1400 801<sup>911</sup>976 1200 1000 610 628 688 800 600 400 200

2005 2006 2007 2008 2009 2010 2011 2012 2013

Fukushima Prefecture has been one of the top production areas for medical devices and parts even before the disaster. In the coming years, we will enhance industrial concentration for promotion of industries and employment.

124.5 billion yen Production volume of medical devices in 2013 Japan)

Outsourced production volume of medical devices in 2013

Production volume of

parts for medical

equipment in 2012

0

Japan) 13.3 billion yen 1st place in

Japan)

3th place in 35.2 billion yen **1St** place in



The prefectural government is promoting business exchange in the field of medical devices with the Minister of Economic Affairs, Energy and Industry, NRW, Germany. Both parties signed MOU on September 1, 2014. It will help transmit profound technology of companies in the prefecture to the German State as well as promote various exchange including joint research by medical and research institutions of both sides. We are expecting that there will be further development in the medical device industry.

Collaboration with internationally advanced area International Cooperation with German state North Rhine-Westphalia (NRW)

**World Fair** 

We 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.

#### MEDICA/COMPAMED

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.



#### **Radiation Medical Science Center**



We are developing a hub to promote drug discovery of new therapeutic drugs, diagnostic drugs and reagents mainly for the treatment of cancer, which will be a bridge between medical and industrial fields. To be in service in FY 2016.

Place

**Fukushima City** (Fukushima Medical University)

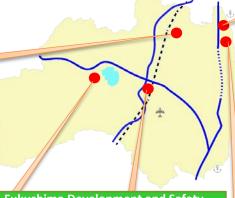
#### Aizu University Revitalization Support Center (Advanced ICT Laboratory)



The prefectural government is working towards the accumulation of companies responsible for regional industrial promotion using ICT, along with the fostering of workforce as well as developing a hub R&D center in order to create a new ICT industry. To be in service in 2015.

Place

Aizuwakamatsu City (Aizu University)



Fukushima Development and Safety Assessment of Medical Devices Center (provisional)



The center will be established to provide overall support for the development and commercialization of medical devices, such as safety assessment using large animals and implementation of the training of medical personnel for machine operation.

Intended to open in FY 2016.

Place

Koriyama City (Site of the former Agricultural Test Center)

Research and Production facility for fish farming



We are restoring and maintaining a hub for research and study for the promotion of fishing industries in the prefecture. Aiming to open in FY 2017

Place

Soma City

Coastal Region Agricultural Rehabilitation Research Center (tentative)



The prefecture is developing a research center for resumption of agricultural management and rehabilitation of agriculture in evacuation areas.

The center is to open in FY 2015.

Place

Minamisoma City (Kaibama New Sports Square)

#### Three basic concepts of revitalization plan and Priority Projects

# Three basic concepts of revitalization plan

- OBuilding a safe, secure and sustainable society free from nuclear power.
- ORevitalization that brings together everyone who loves and cares about Fukushima.
  - OA homeland we can all be proud of once again.

(Excerpt from Plan for Revitalization in Fukushima formulated in December, 2011)

# **Priority Projects**

For depopulation and ageing society

Easing of effects of depopulation and ageing Curbing of outflow of population outside the prefecture Measures for recovery of birth rate

#### Living with peace of mind: decontamination and health control, etc.

#### **Environmental restoration**

Development of facilities providing research functions including promotion of decontamination securing of food safety, disposal of waste and environmental restoration



## Assistance for rebuilding livelihoods

Assistance for evacuees inside and outside the prefecture, measures for returning of evacuees to their homes, rebuilding of livelihoods after returning, development of hubs for livelihoods of long-term evacuees, and assistance for long-term evacuees



# 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



# Raising and supporting our children and young people, who are our future

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: promotion of industries and employment creation, etc

#### **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



#### **SMEs revitalization**

Vitalization of SMEs in the prefecture, promotion of business investment, creation of new businesses that lead the new era, and response for reorganization of designated areas



# Promotion of renewable energy

Expansion in the adoption of renewable energy, cooperation with R&D hubs, attraction of relevant industries, assistance for entry and transactions of industries in the prefecture, promotion of local production and local consumption of renewable energy



#### **Medical industry cluster**

Clustering of medical and welfare devices and development of drug discovery hubs



#### Rebuild towns, connect people: building bonds and revitalizing towns, etc.

# Building bonds in Fukushima

Building bonds between evacuees inside and outside the prefecture and our supporters release of measures for revitalization and information, and maintenance of bonds with evacuees





# Tourism exchange in Fukushima

Promotion of tourism and various exchanges, such as tourism revitalization campaign and recovery of education tour



# Revitalizing towns, such as tsunami-affected area

Improvement of comprehensive anti-disaster measures, reviewing of regional plans for disaster prevention, raising of citizens and regions with high anti-disaster awareness, reorganization of land usage, planning and implementation of town-building for revitalization

# Prefectural network infrastructure

Investment in early restoration of Hama-dori's (Coastal Region) "axis" road and life-supporting roads; building of a prefectural road network and infrastructure to support revitalization of logistics and tourism, early restoration of JR Joban line and Tadami line, building of extended cooperation and communication systems

#### The Fukushima Declaration

We have received immeasurable support from people around the nation and the world.

This heartfelt support has greatly helped, inspired, and encouraged the people of Fukushima.

I would like to express my sincere appreciation once again to all our friends.

Thanks to this support and the efforts of the people of Fukushima, we are finally starting to see the first signs of reconstruction in our prefecture too.

I want to see all of us work together and raise these small sprouts into strong plants with our own hands. Once these sprouts have grown into large trees, I would like to see children gather under them with smiles of delight on their faces.

That is the kind of vibrant Fukushima I would like to create.

- 1. We will create once again a beautiful Fukushima.
- 2. We will build a dynamic and vibrant Fukushima.
- 3. We will show the world and pass down to future generations Fukushima's reconstruction process.

March 11, 2012



### Future From Fukushima.

#### Concept contained in the slogan "Future From Fukushima"

Let each one of us start to step forward toward the revitalization! And, let new movements start from Fukushima!

Fukushima is fully determined to recover from the great disaster and the nuclear disaster no matter how hard it is.

The process of revitalizing Fukushima will show that it is possible to create a brand new society.

We want to make new waves from Fukushima.

The slogan, "Future From Fukushima" will carry our strong will toward a brighter and more promising future.





Symbol character for revitalization in Fukushima "Future From Fukushima Kibitan"

Contact: Revitalization & Comprehensive Planning Division
Planning & Coordination Department, Fukushima Prefectural Government
2-16 Sugitsuma-cho, Fukushima City Tel: (+81)-24-521-1111 (pilot number)
For further details, please see the official website.

Fukushima Prefecture Steps for Revitalization Search