

- Fukushima Today Steps for Reconstruction and Revitalization in Fukushima Prefecture







「Futaba Super Zero Mill 」 (Futaba Town)

Futaba Super Zero Mill, a commercial complex that ASANONENSHI CO., LTD has developed in the Reconstruction Industrial Hub in Nakano district of Futaba Town, opened in April 2023. It incorporates a textile mill, "Air Kaoru Futaba Maru", a company-operated outlet for towels and other flagship products as well as "Key's Café" where dishes made of local ingredients are served. Along with the training facilities and event spaces available for corporates, it is expected to serve as a hub for expansion of social interaction and the revitalization of the community in the aftermath of the Great East Japan Earthquake and the nuclear accident at Fukushima Daiichi Nuclear Power Station.

Fukushima Prefecture

24 Aug. 2023

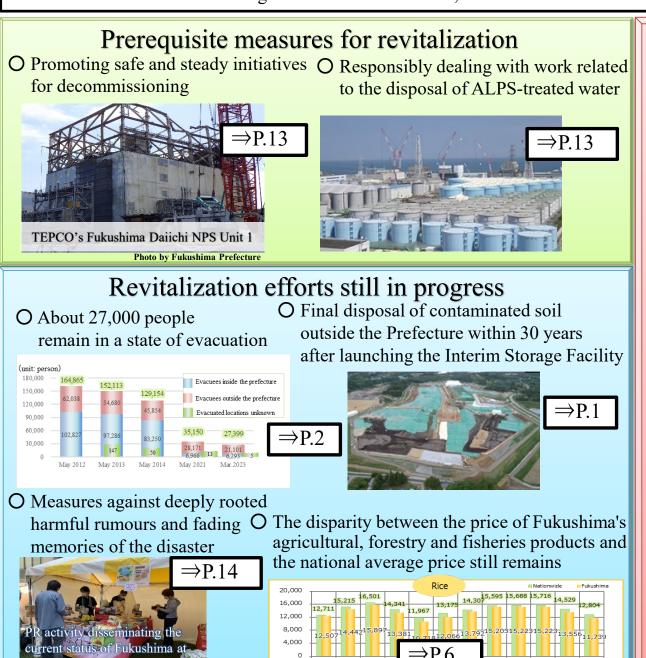
New Fukushima Revitalization Promotion Headquarters

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Towards achieving revitalization

As 12 years have passed since the Great East Japan Earthquake and the nuclear disaster, revitalization of Fukushima has been making steady progress thanks to the great efforts made by the people of Fukushima and the warm support from within Japan and abroad. This encompasses the lifting of evacuation orders in areas including the Special Zones for Reconstruction and Revitalization (SZRR) of towns and village of Namie, Tomioka and Iitate, the improvement of living environment and the establishment of Fukushima Institute for Research, Education and Innovation (F-REI).

On the other hand, about 27,000 residents of the prefecture are still living as evacuees (as of Mar. 2023). In addition, the Prefecture is faced with a pile of unique issues such as rebuilding the livelihoods of disaster affected residents, population recovery through the return and relocation of residents, revitalization of local industries, fighting deeply rooted harmful rumours and fading memories of the disaster, measures for the contaminated/treated water and decommissioning of the reactors etc.





O Export promotion for produce grown in Fukushima

O Passing down the records and lessons of the complex disasters to future generations



Fukushima Hydrogen

Energy Research Field

It is necessary to flexibly and carefully respond to new challenges which arise as revitalization progresses as well as the different issues faced in different areas according to their revitalization progress, and to realize them one at a time.

was opened

Promoting the reconstruction and revitalization of Fukushima to transform it from a "disaster affected area" to a "revitalization area"

1. Revitalization efforts and challenges

(1) Decontamination

Whole area decontamination completed by March 2018 in all areas except for the Difficult-to-Return Zones. Displacement of removed soil and waste to the Interim Storage Facility mostly completed by March 2022. Atmospheric radiation levels in the prefecture significantly dropped, and are the same as other major cities throughout the world.

(Accumulation of transportation volume into the interim storage facility O Municipality led decontamination (Flow of decontamination: Diagram) and future perspective) (Excludes difficult-to-return zones) Transportation to the Interim Storage Facility has almost been completed at Final disposal site the end of FY2021. 1,500 The Interim **Completed** in Mar. 2018 **Storage** 1,000 Area the national government Facility 500 conducts decontamination Temporary Area each municipality 2015 2016 2017 2018 2019 2020 2021 2022 2023 Storage Site conducts decontamination (As of Jun 2023) (Yellow) Decontamination Removed soil and waste are stored in the Interim Storage Facility for a certain period. The final disposal is required by law to be completed outside of the Prefecture within 30 years since the commencement of the Interim Storage Facility (By Mar. 2045).

0.06

Okuma

 $0.09 \sim 4.03$

Sep. 2021

MinamiSoma

Location of the Interim Storage Facility

Okuma Town, Futaba Town

prefectural land has

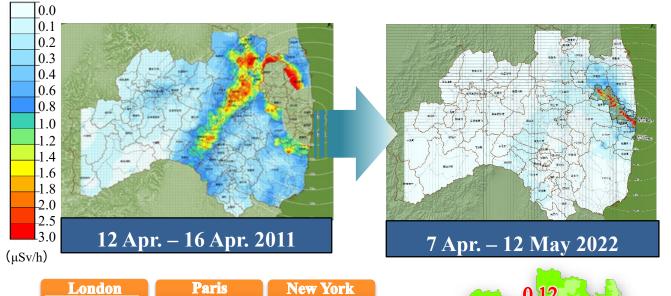
been completed

Shirakawa ...

O Air radiation dose in Fukushima Prefecture

0.04

15 Oct. 2017



0.05

[µSv/h]

[µSv/h]

As of Sep. 2021

Bases for comprehensive efforts towards environmental recovery and creation



Environmental monitoring, research information release education, training, exchanges (Exhibition facilities renovated in March 2023)

Environmental monitoring around the NPS

Fukushima Prefectural Centre for Environmental Creation Main Facilities (Miharu Town)

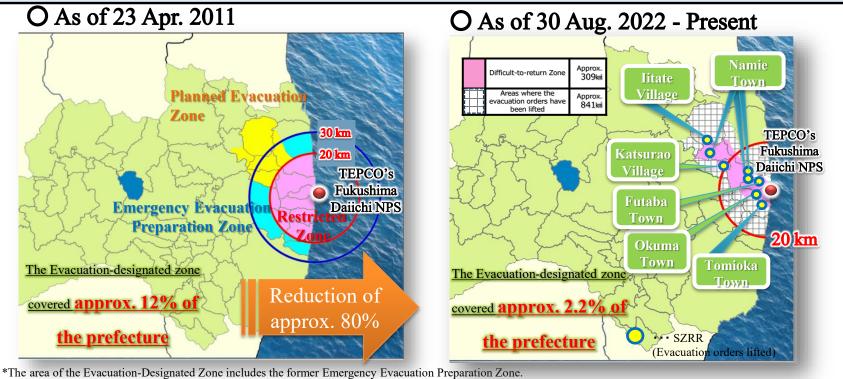


- Restoration of the land used for Temporary Storage Sites and returning back the land
- Safe maintenance and operation of the Interim Storage Facility as well as safe and secure transportation of contaminated soil
- Final disposal of contaminated soil outside of Fukushima Prefecture
- Decontamination and demolition of houses in the Difficult-to return
 Zone (except for Special Zones for Reconstruction and Revitalization)

(2) State of Designated Evacuation Zones and Changes in Number of Evacuees

Improvement of living environment has led to the lifting of evacuation orders, reducing the areas under evacuation orders from approximately 12% to 2.2% of the entire prefectural landscape. Approximately 27,000 evacuees remain inside and outside of the prefecture.

O As of 23 Apr. 2011 Planned Evacuation TEPCO's Fukushima Emergency Evacuat Daiichi NPS Preparation Zone The Evacuation-designated zone Reduction of covered approx. 12% of approx. 80% the prefecture



◆ Transition of evacuees: Earthquake, Tsunami, NPS accident

Source: Fukushima Prefectural Disaster Response Headquarters Immediate report on the damage situation caused by the Great East Japan Earthquake in 2011



(Reference) Change in the population of

	No. of households	Population (persons)
Mar. 2011	721,535	2,024,401
July 2023	749,793	1,771,100
Change	28,258	△ 253,301

(Source) Estimated population of Fukushima Prefecture (Monthly report from a survey on resident population)

Special Zones for Reconstruction and Revitalization (SZRR)

Areas within the Difficult-to-return Zone where residence would have been restricted into the future but was made possible when evacuation orders were lifted.

In 2022, evacuation orders were lifted at SZRRs in Katsurao, Okuma and Futaba, another orders were lifted in Namie, Tomioka as well as Iitate in 2023.

	Total area	Evacuation orders lifted
Katsurao Village	approx.95ha	12 Jun. 2022 (lifted)
Okuma Town	approx.860ha	30 Jun. 2022 (lifted)
Futaba Town	approx.555ha	30 Aug. 2022 (lifted)
Namie Town	approx.661ha	31 Mar. 2023 (lifted)
Tomioka Town	approx.390ha	1 Apr. 2023 (lifted)
Iitate Village	approx.186ha	1 May 2023 (lifted)

Specified Living Areas for Returnees (SLAR)

A zone established outside of SZRR in the Difficult-to-Return Zone to help residents return to their homes and rebuild their lives, stipulated by the revision of the Act on Special Measures for the Reconstruction and Revitalization of Fukushima of June 2023.

Proportion of residents in the 12 municipalities of the evacuation areas (As of 31 May 2023)

Period when orders were lifted	Category	Municipalities	Rate of residents
_	_	Hirono Town	90.7%
2014	Lifted for whole area	Tamura City (Miyakoji District)	86.1%
2015	Lifted for whole area	Naraha Town	65.9%
2016	Partially lifted		
2022	Partially lifted (SZRR)	Katsurao Village	36.1%
2016	Lifted for whole area	Kawauchi Village	83.2%
	Partially lifted	Minamisoma City (Odaka District)	62.0%
2017	Lifted for whole area	Kawamata Town (Yamakiya District)	49.8%
2017	Partially lifted		
2023	Partially lifted (SZRR)	Namie Town	13.4%
2017	Partially lifted		
2023	Partially lifted (SZRR)	litate Village	32.0%
2017	Partially lifted		
2023	Partially lifted (SZRR)	Tomioka Town	19.0%
2019	Partially lifted		
2022	Partially lifted (SZRR)	Okuma Town	5.5%
2020	Partially lifted		
2022	Partially lifted	Futaba Town	1.3%

*The rate of residents is calculated using figures from municipal websites.

- Improvements of infrastructure and living environment in SZRR tailored to the actual circumstances of each region
- > Thorough decontamination and other efforts aimed for early lifting of evacuation orders in SLARs
- Maintaining a support system and consultation services for evacuees
- Creation of an environment for people to return that includes shopping, healthcare and welfare, education, transportation, and wildlife damage control
- Lifting of evacuation orders to the whole area of the Difficult-to-return Zone

(3) Health of Fukushima residents

In light of the effects of the Great East Japan Earthquake and the nuclear disaster, cutting-edge research and medical institutes such as Fukushima Global Medical Science Center at Fukushima Medical University have been established to conduct Fukushima Health Management Survey and promote initiatives focused on health and longevity.

- ♦ Basic Survey (As of 31 Mar. 2023)
- External exposure doses were estimated for a 4-month period immediately after the nuclear accident to 11 Jul. 2011, based on a self-administered questionnaire.
- Results of estimate on external exposure dose (All citizens surveyed) Ratio of dose from 0 to 2mSv accounts for 93.8% of all.

O The Fukushima Health Management Survey Detailed Survey (Thyroid Ultrasound Examination)

- It covers residents of Fukushima Prefecture aged 18 years and younger at the time of the disaster.
- *Preliminary Baseline Screening: FY2011-FY2013 Full-scale Thyroid Screening: FY2014-

(Primary Examination) Ultrasonography

(Confirmatory Examination) Advanced ultrasonography, blood test, etc.

Testing equipment used in the thyroid ultrasound examination

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

Fukushima Global Medical Science Center



Base for supporting the revitalization of Fukushima on the medical front

School of Health Sciences Fukushima Medical University



Training medical professionals responsible for local medical care.

Fukushima Medical Device Development Support Centre



Promotion of the domestic medical equipment industry and improving medical skills through training.

(Challenges and Responses)

- Reducing the residents' concerns about the health effects of radiation
- Securing nursing personnel and support the operation of caregiving facilities
- The number (or rate) of people with metabolic syndrome, child obesity is high, compared with the national average
- Educating the next generation through child health promotion programs
- Increasing cancer screening rates
- Extending people's healthy life expectancy by encouraging a healthy lifestyle
- →The number of people who died from lifestyle diseases: Fukushima ranked the tenth-worst prefecture in Japan (706.9 per 100,000 people (as of Feb. 2020))

O The Projects for a Long and Healthy Life

Health indices in Fukushima have been lower than the national average since the disaster; as such, the Prefecture will take measures to promote the health of residents focusing on the three pillars of food, exercise, and social participation. This is so that everyone can review their lifestyle and improve their physical fitness while getting to know and understand their health.

健康・3・くしまポータルサイト

Created a web portal site to present information about health promotion in Apr. 2021.













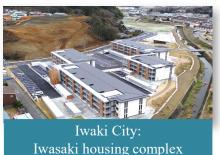
(4) Re-establishing the living environment for people to return and relocate

Development of living environment such as public housing, commercial, medical and caregiving facilities in evacuation areas progressed for people to return and relocate.

◆ Revitalization Public Housing



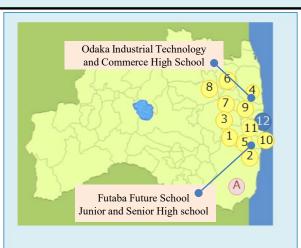
- ◆ Medical and caregiving services ◆ Educational facilities

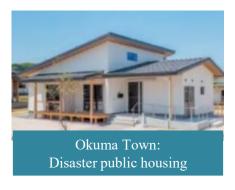










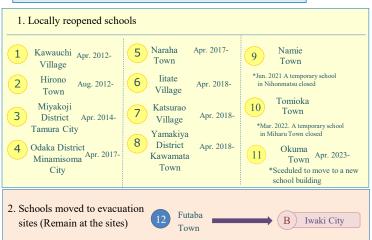








Junior and Senior High school



◆Efforts in evacuation areas to promote relocation

Fukushima Prefecture's Relocation Support Centre for 12 Municipalities

In Jul. 2021, a support centre was established in the Prefectural Tomioka Branch Office to promote relocation and settling down in the former evacuated 12 municipalities, and to support projects with effective wide-area collaboration and measures to help relocation. While focusing on the efforts to have

people return which we have promoted so far, we are working to encourage people from outside the Prefecture to relocate and increase the number of people visiting the area. Also, the "Future Work Fukushima" website, which gathers information about jobs, housing, support systems, etc., has been created to increase information sharing to people in their 20s and 30s who are interested in revitalization. We are working to accelerate efforts towards revitalization in the Prefecture by inviting mainly young people across the country to support revitalization.



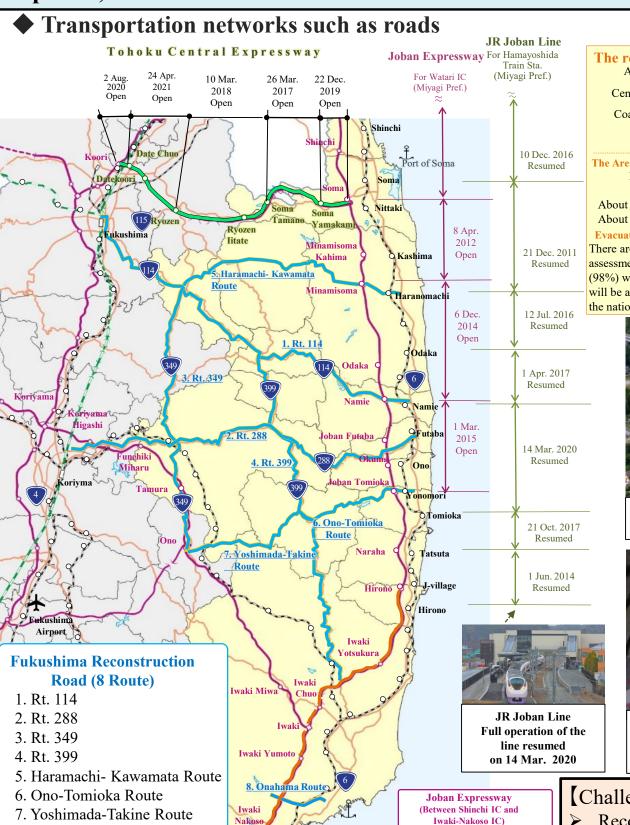
[Relocation Seminar at Future Work Fukushima]

- Creating an environment where the disaster-affected and evacuees can rebuild their lives securely
- Continuing to provide consultation regarding housing and rebuilding of livelihoods, as well as looking after residents, providing support for everyday life and community building
- Providing a comprehensive medical and caregiving system based on the needs of residents
 - → Resumption rate of medical institutions: 41.6% (as of July 2023)
- Further promotion of distinctive and engaging education
- **Encouraging people from outside the Prefecture to** relocate and settle down as well as increasing the number of people visiting the Prefecture

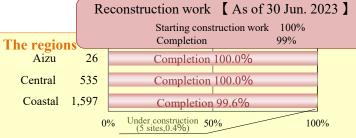
(5) Basic infrastructure

8. Onahama Route

99% of the initiated reconstruction projects related to the damages caused by the Great East Japan Earthquake has been completed, while the Fukushima Reconstruction Roads and other integral projects to the revitalization are underway.



Port of Onahama



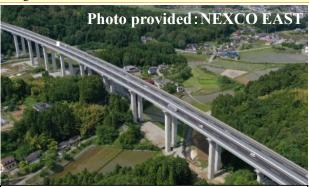
The Areas Percentage of completion

100% · · · Port and harbors, Fishing port, Sewage, Park,
Public housing, Bridge, Sand erosion control, Road

About 99% · · · River About 98% · · · Coast

Evacuation-designated Zones

There are 372 disaster recovery projects that were determined through assessment. Constructions of 372 (100%) sites were begun and 366 sites (98%) were completed. Construction plans in the Difficult-to-Return Zone will be adjusted with the progress of the decontamination work conducted by the national government.



Joban Expressway (Iwaki Chuo IC- Hirono IC) A four-lane operation started on 13 Jun. 2021



The Sekiba Tunnel in the Kawamata Town section on the National Road Route 114 was opened on 2 Mar. 2022



Tohoku Chuo Expressway (Soma-Fukushima) Entire section was opened on 24 Apr. 2021



Ukedo Fishing Port completion ceremony was held on 20 Nov. 2021 Restoration of 10 fishing ports in affected areas has been completed



The National Road Route 288 (located on Nogamikotsuka section within Okuma Town) was opened on 16 Jul. 2022

(Challenges and Responses)

Four-lane section

Temporary two-lane section

- Reconstruction of public works facilities and coasts in the Difficult-to-return Zone
- Development of the Fukushima Reconstruction and Revitalization road,
 Development of roads in the 12 municipalities where evacuation orders had been issued

The number of countries and regions restricting import of Fukushima products down to 7 from 55 in the aftermath of the nuclear accident. Exports exceeded pre-disaster levels, reaching the second highest export volume ever in FY2022. While the price of Fukushima products are on recovering back to normal in general, some items have not reached their pre-disaster price levels.

OAgricultural product exports



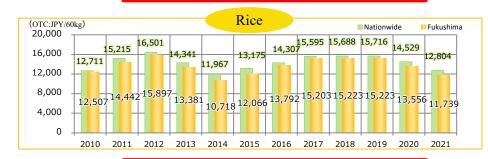
Exports of agricultural products to Southeast Asia are on the rise!



The disperitual etwases the price 1 065 IDV

O Transition of the price for most Fukushima agricultural products

The disparity between the price: 1,065JPY



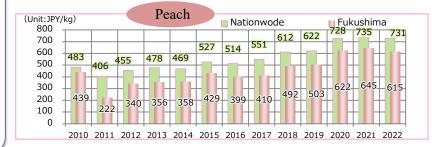
∼Import restrictions on food products from Fukushima∼ (As of 15 Aug. 2023)

- Countries and regions imposing an import ban on a wide range of products produced in Fukushima (3) China, Hong Kong, Macao
- Countries and regions imposing an import ban on some of the products produced in Fukushima (2) Korea, Taiwan
- Countries and regions allowing import of foods only when inspection certificates are attached (2) French Polynesia, Russia

The number of countries and regions imposing import restrictions on food products from Fukushima

- Immediately after the nuclear accident 55
- As of 15 Aug. 2023
 *Restrictions lifted in 48 countries and regions

The disparity between the price: 116JPY



Debut of a new rice brand "Fuku Warai"



Farming has resumed in

- The top brand of sweet, fragrant, and plump rice developed over the course of 14 years in an attempt to create the best rice in Japan
- Making "Fuku Warai" a driving force to improve the image of all the rice produced in Fukushima and to increase sales prices.

Fostering human resources for the fisheries industry



Fostering human resources for the forestry industry



Online store sales for FY 2022 hit JPY2.9B (approx.) Broke JPY2.5B for four consecutive years

Buy seasonal Fukushima
products online!
Fukushima Pride Delivery
Service
Just look for
"Fukushima's agricultural,
forestry, and fisheries
products and specialty
products" at the shopping
sites available.



https://fukushima-pride.com/?lang=en

Wildlife Damage



- (Challenges and Responses)
- Regaining the price of agricultural products to the national average (Promoting branding of Fukushima products)
- Further accelerating the resumption of farming, developing and demonstrating advanced technology, securing new manpower
- → Progress rate of resumption of farming in cultivable areas of 12 disaster affected municipalities: 53.3% (Mar. 2023)
- Countermeasures against damages on agricultural crops caused by wildlife such as wild boar, etc.
- Promoting measures against radioactive materials necessary for the maintenance of forests as well as revitalizing the forest areas for logs and minor forest products
- Resumption of coastal fishery, support for expanding market channels, securing and fostering human resources for fishery operators and management entities

(6) Industry 2. Tourism

Decline in incoming tourist population due to the impact of COVID-19 pandemic and repeated Fukushima-Oki (offshore) earthquakes in 2021 and 2022. Educational tour inflows are back on track mostly due to visits from neighbouring prefectures.

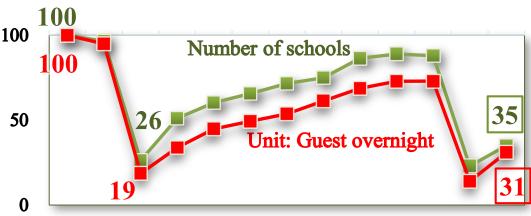
O Tourists from outside Fukushima

(Unit: Thousand people)



O Educational Tour

(Ratios of Educational Tour compared to 2009 set as 100%.)
(Unit: %)



2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

O Total number of international guests

(Unit: %) (Ratios of International Guests compared to 2010 set as 100%)



Implementation of the Fukushima SDGs Tourism focusing on Hope Tourism

Fukushima Prefecture's Hamadori blue tourism promotion project

Project to promote the branding of adventure tourism and other activities

Project to attract more visitors by utilising cultural assets and other elements

Fukushima Prefecture's green tourism promotion project

Hope Tourism promotion project

Fukushima Prefecture's fermented food and culture promotion project



Hamadori blue tourism Adventure tourism



Cultural assets attracting vis



Fermentation tourism



Green tourism



Disaster remains of Ukedo Elementary School of Namie Town



The Great East Japan
Earthquake and Nuclear
Disaster Memorial Museum



J-Village Hope Tourism

Tokyo 2020 Olympic Game: Games to commence with a softball game in the Prefecture

Japan won all the games held in Fukushima! Softball games 21 Jul. Japan vs. Australia 22 Jul. Japan vs. Mexico Baseball game 28 Jul. Japan vs. Dominican Republic

World-renowned Fukushima peaches

Coaches and players of teams participating in the baseball and softball games praised these peaches, saying, "Fukushima's peaches are delicious" and "I've never tasted anything so good!"





- Attracting more visitors to Fukushima through the Fukushima SDGs Tourism in order to accelerate the revitalization of Fukushima, which was set as the 18th goal of the SDGs
- Recovering educational tours by inquiry-based learning programmes focusing on Hope Tourism as well as by continuously spreading information and marketing
 - Spreading information to attract more foreign tourists in a post-pandemic world
 - Spreading information about places related to the Olympics to promote them as part of the legacy of the Recovery Olympics

(6) Industry 3. Business investment and employment creation

Promoting business investment. The total value of manufactured product shipments has recovered to pre-earthquake levels, but currently is on a downward trend due to the impact of the COVID-19 pandemic. Manufactured product shipments in Futaba District remain around 30% of pre-earthquake level mostly due to stagnant investment.

○ The shipment value of O The shipment value of products (Futaba County) products (Fukushima Pref.) (Unit: Trillion JPY) (Unit: 100 million JPY) 5.25 5.09 5.10 1,500 5 4 Pref.: Recovered to pre-earthquake levels but on a downward trend 1,000 3 Futaba County: Remains at 26% pre-disaster récord 2 500 129 1 282 0

O Business investment support utilising special provisions for taxation (preferential tax system)

2018 2019

2020

2010 2011 2012 2013 2014 2015 2016 2017

Cases	Special provisions for taxation on businesses investment in the revitalization of industries in the special zones		Special provisions for taxation on business investment in the revitalization of tourism in the special zones	Special provisions for taxation concerning the Act on Special Measures for the Reconstruction and Revitalization of Fukushima
Zones and business fields	Manufacturing, etc. Industrial parks in the 15 municipalities	Agriculture, etc Agricultural promotion areas in the 15 municipalities (excluding some areas) and areas which promote clusters of the fishing industry with fishing ports as the core	Tourism Tourism and other related facilities at hot spring resorts in 8 municipalities	SZRR designated by the national government
Purposes	Promoting industries and business investment	Revitalization of farming and fishing villages	Revitalization of tourism	Supporting the resumption or continuation of business operations and promoting new business in the zones
Details	devices, instruments, equipment and buildings, etc. 3. 10 percent tax credit for salary payments will be given if evacuees are hired. 4. Special depreciation and tax deduction for depreciable assets acquired, manufactured or constructed for R&D will be provided.		Special depreciation and tax credits will be provided when acquiring machines, devices, instruments, equipment and buildings, etc. 2. 20 percent tax credit for salary payments will be given if evacuees are hired. 3. Tax exemption from business tax, real estate acquisition tax or property tax and other measures on building new or adding factories or equipment will be provided. 4. Tax deferral for up to three years will be permitted for businesses preparing for resuming operations in the future.	
Approvals	31 Mar. 2022/2,678	31 Mar. 2022/248	31 May 2023/117	1 Jul. 2023/ Existing businesses: 3,269
Appiovais	No. of people to be employed: 63,079	No. of people to be employed: 1,462	No. of people to be employed: 2,442	1 Jul. 2023/New businesses moving into the zones: 484

O Business investment support utilising the Fukushima business investment subsidy

O Fukushima business investment subsidy for revitalization of industries (FY2012-FY2021) Creating employment and industry expansion in the Prefecture through supporting companies looking to start new or expand the number of factories and other facilities in the Prefecture.

O Subsidy to business investment for employment creation in the tsunami and nuclear disaster-affected areas (FY2013-)

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

O Subsidy for investment promotion for the support of self-help and return and the employment creation (FY2016-) 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.

O Fukushima business investment subsidy for industrial vitalization (FY2020-)

Creating employment and industry expansion in the Prefecture through supporting companies that aim to start new or expand the number of factories and other facilities in the Prefecture.

Allotted to 601 entities 7,405 jobs created (projection) (As of 31 May 2021)

> 212 entities 2,744 jobs created (projection) (As of 16 Jun 2023)

> **131** entities 1,298 Jobs created (projection) (As of 7 Oct. 2022)

Allotted to **27** entities 303 jobs created (projection) (As of 27 Dec. 2022)

- Recovery of the industrial bases in Futaba County and the Coastal Region. Accelerating the Fukushima Innovation Coast Framework to develop selfsustaining and continuous industry growth
 - Creation of new industries through technological development support and attracting new businesses to the region. Promoting participation of local companies
- Supporting disaster affected companies in Futaba County and other businesses to resume operations and promoting expansion of business from outside of the Prefecture

In addition to making progress on strategic installations in the priority projects of the Fukushima Innovation Coast Framework, efforts to implement the Framework are driven further ahead, such as industrial integration by attracting business investment and promoting business start-ups within and outside of the prefecture, human resource development and increasing the number of visitors.

The Fukushima Innovation Coast Framework

The Fukushima Innovation Coast Framework is a national project that aims to revitalize industries in the coastal region affected by the Great East Japan Earthquake and the nuclear disaster through the establishment of a new industrial base in the region. Based on the 3 core pillars, the project is being put into shape in the coastal region in the priority fields of decommissioning, robotics, drones, energy, environment, recycling, agriculture, forestry and fisheries, and healthcare-related industries as well as aerospace industries. It also includes various infrastructure development initiatives to achieve these plans, such as clustering of industries, fostering human resources, increasing people visiting the region, spreading information, and re-establishing the living environment.

3 core pillars to realise the initiatives

- 1. A region where people can take on any challenge We aim to develop the coastal region to be a place where new challenges are taken up in various fields.
- 2. Local companies are major players

In order to encourage not only cutting-edge companies but various local companies to actively participate in the initiative, we will promote wide-area cooperation between local businesses and incoming companies to the region.

3. Fostering human resources who will play a major role in the initiative We will foster innovators in the region and professionals who will support the industrial cluster.

♦ Hubs for research and main projects

Decommissioning

Developing technology by gathering wisdom from Japan and around the world

■ Demonstration tests necessary for decommissioning, etc. are carried out at Naraha Center for Remote Control Technology Development

(Naraha Town)



■ Okuma Analysis and Research Center (Okuma Town)

(Tomioka Town)

Robot Test Field as the core

Clustering of industries with the Fukushima



■ Demonstration tests of a bridge

by DENSO Corporation

inspection service using a drone





Healthcare-elated industries

Agriculture, Forestry

and Fisheries

Opening up markets for businesses by supporting technological development

Revitalization of agriculture, forestry and fisheries industries utilizing ICT and robotic technologies

and tablet devices

fishing information

for collecting

■ Hamadori Satellite Office of Fukushima Medical University opened in Nov. 2021 to support companies and other entities in the Coastal Region using research from the Medical-Industrial Translational Research Center. (Minamisoma City)

implemented in areas of advanced

agriculture, forestry and fisheries

which are employed in

the development

and demonstration

of ICT and robotic

technologies.

■ Integrating support from the development through to the commercialization of medical devices (Fukushima Medical Device Development Support Centre, Koriyama City)

technology for fishing operations using ICT, such as offshore buovs







■ In a Japan first, initiatives are being ■ Development of support



and Recycling

Robots and Drones

■ A major R&D hub for land, sea,

(Minamisoma City, Namie Town)

and air robots and drones

Establishment of advanced renewable energy and recycling technologies

■ Fukushima Hydrogen Energy Research Field (FH2R) (Namie Town) is one of the world's largest hydrogen production bases from renewable energy sources. Hydrogen produced at FH2R is used in fuel cells installed in Prefectural Azuma Sports Park and J-Village.

Electricity is supplied to both of these facilities.





Aerospace industries

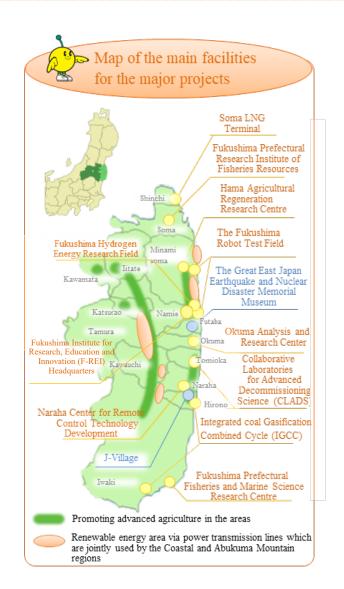
Development of Next Generation Air Mobility and expansion of business of local companies

■ Development of flying cars by teTra aviation corp., which has a research room in the Fukushima Robot Test

■ Products and technologies were introduced at the Robot and Aerospace Festa Fukushima 2022 with the aim of expanding business of local companies

Big Palette Fukushima)





(6) Industry 4. The Fukushima Innovation Coast Framework II

◆Initiatives towards the realization of the framework

Clustering of industries

Helping to promote business investment and supporting companies inside and outside the region to start business

■ Seminar on Industrial Sites for Business Establishment to publicize the most preferential system in Japan and environment of the location



Expanding the non-

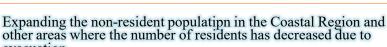
resident population

■ A startup pitch event was held for businesses and those who aspire to be business entrepreneurs and pioneers to make presentations about their business plans to start businesses (Fukushima Tech Create program)





- epreneurship and creation
- Subsidies for supporting the creation of innovation
- 3. Fukushima Tech Create supr







■ Mieruka Visible Seminars have been held for residents for them be familiar with the efforts of the Fukushima **Innovation Coast** Framework



Re-establishment of the living environment

Creating an environment necessary for people to safely live

- Development is progressing for public infrastructure
- · Tohoku Chuo Expressway
- · Joban Expressway
- JR Joban Line

- Scheduled bus service available
- · Fukushima Robot Test Field-Fukushima station



The preferential tax system to promote the Fukushima Innovation Coast Framework

Special provision for taxation will be applied to businesses that invest in equipment, employ people affected by the disaster and carry out R&D in relation to the development of new products in the priority fields of the initiative.

■ Eligible areas

Areas implementing projects which promote the creation of new industries

- *Part of the international research and industry areas in Fukushima Prefecture (15 municipalities)
- Who can apply
- The sole proprietor or corporations who are in areas implementing projects which promote the creation of new industries and who are engaged in these projects
- *These projects are specified by the Order of the Reconstruction Agency to play a central part in creating and activating industry clusters
- Details of special cases
- 1. A 15 percent tax credit for payments such as salary will be given if evacuees are hired.
- 2. Special depreciation and tax credits will be provided when acquiring machines, devices, instruments, equipment and
- 3. Immediate depreciation and tax depreciation for depreciable assets will be provided towards development and research
- 4. Tax exemption from business tax, real estate acquisition tax or property tax and other measures on building new or adding factories or equipment will be provided.

Spreading information



Passing down the records and lessons learnt from the compound disaster to future generations

> ■ In June 2023, the number of visitors reached 200,000 at the Great East Japan Earthquake and Nuclear Disaster Memorial Museum, which opened in September 2020. Research and study have also made progress with the museum hosting its first academic conference in March 2023. The accomplishment of the research and study, on top of the materials collected and preserved from the nuclear disaster, will be used for exhibits and training and utilised to address issues such as the fading awareness of the disaster and disaster prevention/reduction.

Fostering human resources in education

Fostering the youth force who will carry the future of the Coastal Region

■ The Revitalization Knowledge Project It supports activities conducted by universities and technical colleges nationwide in the Prefecture for local residents.



■ Robotics and programming classes The Fukushima Robot Test Field hosts programs for elementary and junior high school students of Fukushima Prefecture and is highly acclaimed as introductory learning experience on robotics and programming.



The entire Prefecture will work to foster highly ambitious leaders for this project as well as human resources who will serve as immediate assets in the fields of expertise of robotics, renewable energy, agriculture, forestry, fisheries, and more. Odaka Industrial Technology and Commerce High School and Futaba Future School have taken the lead in this project.

The University of Aizu has also been working with local enterprises to develop robotics technology and human resources using its expertise in ICT.



Odaka Industrial Technology and Commerce High School

The school has been designated as one of the Meister high schools, which is a project of the Ministry of Education, Culture, Sports, Science and Technology. It is working to develop human resources with advanced knowledge and skills that can handle new industries through the human resource development system linked to these industries as well as the collaboration between commercial and industrial academic courses.



■ Futaba Future School Junior and Senior High school

Fostering future global leaders as core schools of the Ministry of Education, Culture, Sports, Science and Technology's "Project to Support Development of the World Wide Learning (WWL)", establishing carriculums of Community Development, Search for Future Creation and fostering top-class athletes.

[Challenges and Responses]

Creating an economic ripple effect in the Prefecture by connecting businesses to the innovation projects and enhancing industrial clustering

(6) Industry 5. Fukushima Institute for Research, Education and Innovation (F-REI)

On 1 April 2023, the Fukushima Institute for Research, Education and Innovation (F-REI) was established in Namie Town as a world-class core centre for "creative reconstruction".

[Fukushima Institute for Research, Education and Innovation (Abbreviated name: F-REI)

What is F-REI?

- F-REI is a legal entity established by the Government of Japan as a world-class core centre for creative reconstruction with the goal of realising the revitalization of Fukushima and other parts of the Tohoku region, as well as contributing to Japan's scientific and technological capabilities and industrial competitiveness. F-REI is expected to drive the Fukushima Innovation Coast Framework further ahead.
- F-REI headquarters were opened at "Fureai Center Namie" in Namie Town on 1 April 2023. Facilities and research equipment will be in place hereafter.

F-REI up to date

- The opening ceremony for F-REI took place on 1 April 2023 with Prime Minister Kishida and many others in attendance.
- Since its inception, F-REI has launched a number of projects such as entering into collaboration with various organisations, establishing research annex, holding conferences among government-industry-academia, Top Seminars for local universities and high schools as well as organising Roundtable in Hamadori (Coastal Area) among other areas.

Four Functions of F-REI

1. Research & Development

Promotion of R&D in five areas that contributes to solving problems in the disaster-affected areas and the world, and that will be a source of pride at home and abroad.

2. Industrialization

■ Establishment of a collaborative system between industry and academia to make investment in F-REI ventures and joint research with companies

3. Fostering human resources

■ Development of research personnel by joint graduate schools through R&D activities, Collaboration with technical colleges

4. Control Tower

 Organization of a council and maximizing its functions as a command post to coordinate activities by existing facilities



1 Apr. 2023 F-REI opening ceremony



1 Apr. 2023 Signing of the collaboration agreement (Fukushima Technical College)



Opening ceremony for F-REI research annex at Fukushima Medical University



R5.5.10 1st New Industry Creation Research & Development Council Meeting



17 May 2023 F-REI Top Seminar (Fukushima University)



30 May 2023 F-REI Top Seminar (The University of Aizu)



Roundtable (Iwaki City)



Roundtable (Minamisoma City)

Five Areas in R&D

1. Robots

Research and development on robots to support the steady promotion of decommissioning work and to enable responses in harsh environments, such as disaster sites, and at industrial sites where labor is in short supply.

4. Radiation Science, Medicine and Drug Development & Industrial Applications for Radiation

■ Creation of an all-Japan research promotion system, conduct of basic research on radiation science, development of advanced medical applications and drug discovery technologies for RI, and industrial applications for radiation.

2. Agriculture, Forestry and Fisheries Industries

Demonstrations and research on intense labor-saving and ultra-low cost sustainable agriculture, forestry and fisheries with the aim to realize a regional circular economy model through smart agriculture, carbon neutrality, etc.

3. Energy

 Building hydrogen energy networks and R&D on negative emission technology in order to posit Fukushima as a global pioneer in carbon neutrality, etc.

5. Collection and Dissemination of Data and Knowledge on Nuclear Disasters

■ Contribution to environmental recovery from nuclear disasters and to knowledge on nuclear disaster preparedness at the global level, as well as to the elimination of harmful rumours by integrating the result of research in the natural and social sciences.

 F-REI also conducts research to verify an impact of community development for recovery, helping to create vital communities.

(Challenges and Responses)

➤ Collaboration with the national government and relevant organisations for the best practice of F-REI's R&D, industrialisation and HR development functionality

6) Industry 5. Renewable energy

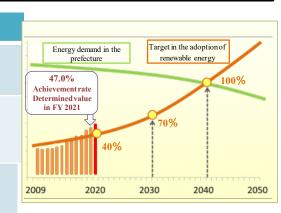
Under the revitalization principle (building a safe, secure and sustainably developing society free from nuclear power) and renewable energy promotion vision, expansion of renewable energy adoption and promotion of industry integration with aiming to become a "pioneering region in renewable energy" are being conducted.

Revitalization principle and renewable energy promotion vision



- Revitalization Principle: Building a safe, secure sustainably developing society free from nuclear power
- 1. Switch to low carbon/circular society with less environmental impact
- 2. Revitalization (Promotion of local community)
- Initiatives will be conducted focusing on the four pillars under the "renewable energy promotion vision"

Targets of adoption		
Index	Targets	Present state
Amount of the adoption of renewable energy in relation to the Prefecture's energy demand	100% (2040)	47.0% (2021)
Amount of the adoption of renewable energy for the amount of power consumed in the Prefecture	100% (2025)	86.8% (2021)
Number of stationary hydrogen station installed	20 Units (2030)	2 Units (2021)



Hubs for renewable energy in the Prefecture

Fukushima Renewable Energy Institute, AIST (FREA)

National Institute of Advanced Industrial Science and Technology built the R&D hub for renewable energy, which opened 1 Apr. 2014. Smart System



Green Power Aizu Woody biomass power station provided

Wind Power

Koriyama-Nunobiki Kogen wind farm Developmen Co., Ltd.

Shinobuyama Endogataki Otama Daiichi small-scale hydropower station

Tsuchiyu Onsen Source No. 16 Binary Power Plant



Fukushima Airport Mega Solar



Sukagawa City Tamakawa Village

◆ To realize a hydrogen based society

■ Benefits of utilising hydrogen It can be generated from renewable energy and other resources and stored for a long period of time. It does not

emit CO2 while being utilised.

Fukushima Hydrogen Energy Research Field (FH2R)

- Fukushima Hydrogen Energy Research Field was opened in Namie Town on 7 Mar. 2020. This is one of the world's largest hydrogen production bases from renewable energy sources (utilizing 20MW generated solar power). It can supply up to 1,200 Nm3 of hydrogen per hour (rated power) and fill up about 560 fuel cell vehicles a day.
- Hydrogen stations, fuel cell bus, and fuel cell vehicles were adopted in various places.



Stationary hydrogen station

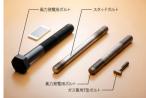


Tohoku's first FC bus



♦ Clustering of industries

- Promotion for development of technologies related to renewable energy, commercialization, expansion of market channels and overseas expansion
- Fostering and securing human resources in renewable energy related industries such as wind power O&M
- Promotion of solar power and recycle of storage batteries etc. and creation of new business model
- * Meaning of O&M It is an abbreviated expressions of Operation and Maintenance.



Windmill parts



REIF Fukushima

◆ Sustainable energy based society

- Utilisation of energy in local communities (Promotion of local production and consumption, Smart Community)
- Consideration of environment and landscape,
- Implementation of thorough energy conservation (Energy-saving measures, renovate or build public facilities for ZEB)
- * What it means to achieve ZEB It is an abbreviattion for Net Zero Energy Building, called ZEB. It refers to buildings that aim to achieve annual primary energy consumption balance of zero while realizing comfortable indoor condition.



Katsurao Village Smart Community



The office received a certification of "Nealy ZEB" for the first time in Tohoku as a government building. It achieved to reduce 87 percent of energy consumption

- Switch to low-carbon society through efforts to save natural resources and conserve energy
- Create systems that gives back profit to the local community
- Local production for local consumption of energy
- Attract companies related to the industries. Foster new industries and create jobs

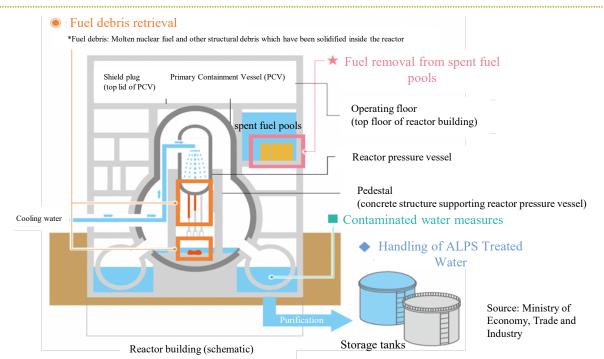
(7) Efforts towards decommissioning

Efforts toward decommissioning of TEPCO Fukushima Daiichi and Daini Nuclear Power Stations are ongoing. The Association for Monitoring of Safety in Decommissioning and other entities are continuing to monitor the process to ensure safe and steady decommissioning work.

Fukushima Daiichi NPS			
Measures being taken	(on the Mid- to Long- Term Roadmap)	Current state of progress	
Contaminated water measures	Reduction of the volume of contaminated water Reduce to about 100m³/day or less (within 2025)	In order to reduce the volume of contaminated water, measures have been taken to prevent groundwater from flowing in by pumping up groundwater from Subdrain and with impermeable walls of frozen soil as well as to prevent rainwater from seeping in by installing roofs of reactor buildings and other buildings.	
Fuel removal from spent fuel pools	Complete fuel removal from Units 1 to 6 (within 2031) Start of fuel removal from Unit 1 (FY2027 to 2028) Start of fuel removal from Unit 2 (FY2024 to 2026)	Unit 1: Operation of installing a large cover has been in progress to remove rubble from the upper part of the pool from Apr. 2022. Unit 2: Foundation construction of stand for removal has been completed, and the steel framework has been under construction since Jan. 2023. Unit 3: Fuel removal was completed in Feb. 2021. Unit 4: Fuel removal was completed in Dec. 2014.	
Fuel debris retrieval	Begin fuel debris retrieval from initial reactor (From Unit 2) (Postponed from 2021 to the 2nd half of FY2023)	Unit 1: Underwater robot conducted inspection of the inside of PCV (Primary Containment Vessel) and retrieved a sediment believed to be from the debris. Unit 2: A robot arm is being adjusted for the start of fuel debris retrieval Unit 3: An additional investigation and analysis inside the primary containment vessel are being planned.	
Waste measures	Eliminating outside temporary storage areas for rubble and other waste (within FY2028)	An additional miscellaneous solid waste incineration facility to dispose waste such as rubble, fallen trees and used protective clothing has started operation and a facility for analysing low-to-medium-level radioactive waste has started operation in Oct. 2022.	
Fukush	ima Daini NPS		

ALPS treated water

- Contaminated water is being generated from the cooling of fuel which melted (fuel debris) due to the nuclear accident and by the rainwater and groundwater flowing into the reactor buildings.
- > Water in which radionuclides, except tritium, are removed from the contaminated water below the regulatory standards by using ALPS and other equipment is referred to as ALPS treated water.
- ➤ "Basic Policy on Handling of ALPS-Treated Water" (April 2021) stipulated that ALPS treated water should be discharged into the sea after being diluted to levels well below its regulation standard to ensure its safety.
- ➤ The inter-ministerial council held by the Japanese government on 22 August reached a unanimous decision to fully commit to the disposal of ALPS treated water until its completion, and to start the discharge into the sea on 24 August if there is no interference due to weather or sea conditions. The discharge started on the same day.
- For the discharge of the treated water into the sea, the national government should take the lead role and full responsibility up to the completion of the mission with coordinated efforts of relevant ministries and agencies to ensure safety of the work, dissemination of accurate information and comprehensive measures against harmful rumours in line with the "The Action Plan concerning the Continuous Implementation of the Basic Policy on Handling of ALPS Treated Water" formulated by the national government (December 2021, revised in August 2023)



Fukushima Daini NPS

- > TEPCO estimates period of decommissioning project for all four units as 44-years, divided the process into four stages and drafted the "Decommissioning Implementation Plan" which outlines specific measures for the first stage (10-year preparation period for demolition) subject to annual review.
- ➤ The Nuclear Regulation Authority (NRA) approved the plan in Apr. 2021, in accordance with the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Nuclear Reactors. Fukushima Prefecture and the towns where the power station is located (Naraha Town and Tomioka Town) also gave prior approval based on the Agreement on Ensuring the Safety of the Surrounding Communities when Decommissioning the Fukushima Daini NPS. In response to this, TEPCO started decommissioning work in June.
- > At Stage 1, there is a plan to inspect the contamination status of radioactive substances, remove the contamination, dismantle and remove equipment outside of the controlled area and remove the spent fuel from the reactor buildings.
- > Currently, decontamination and evaluation of the contamination status of the equipment, and dismantlement and removal of equipment outside of the radiation controlled area, etc. are being carried out.

- It is necessary to have continuous surveillance carried out by the Association for Monitoring the Safety in Decommissioning to ensure the decommissioning progresses safely and steadily
- For the discharge of the treated water into the sea, the national government should take the lead role and full responsibility up to the completion of the mission ensuring safety of the work, dissemination of accurate information both in and out of the country, comprehensive measures against harmful rumours as well as prompt and solid compensation by the coordinated efforts of whole government.

(8) Strengthening the countermeasures against harmful rumours

Strengthen efforts to dispel persistent rumours and encourage public awareness which is fading over the passage of time by communicating information effectively within Japan and abroad, developing sales channels for local products and establishing brands unique to Fukushima.

Fukushima Prefecture's strategies to strengthen measures to fight harmful rumours and fading public interest

- **♦** Policies to strengthen countermeasures
- 1. Continuing persistent initiatives and taking on new challenges
- Achieve in rebranding of Fukushima by fusing ongoing initiatives into new ones
- 2. Spreading the latest and accurate information to have further updated information
- Achieve in replacing fixed negative information about Fukushima

- 3. Build trusting relations thorough collaboration and co-creation
- Achieve in creating new values by replying to many people while taking measures against COVID-19 and progressing digitalisation

◆ Policies in each sector (Direction and Main Initiatives for Strengthening Measures)

Agricultural, forestry, and fisheries products and Fukushima products

- Strengthen measures for distribution and sales.
- Measures promoting Fukushima brand products, etc.
- ◆ Improve the brand power and expand exports
- Projects strengthening competitiveness of Fukushima farm products, etc.
- ◆ Increase consumer confidence
- Strategic information dissemination of the agricultural, forestry, and fisheries products, etc.

Spreading information (cooperation, co-creation, etc.)

- ◆ Spread information in cooperation with each department
- Fukushima Prefecture's strategic information dissemination project to meet challenges, etc.
- Spread information about the current situation and the charms of Fukushima
- Projects promoting the use of J-Village
- ◆ Expand the collaboration and co-creation
- Projects supporting municipalities and local communities, etc.

Tourism

- ◆ Create tourism models clarifying the strengths and features of the region
- · Projects promoting Hope Tourism, etc.
- Continue to spread information using overseas contacts, including virtually, etc.
- Projects recovering inbound tourists, etc.

Underlying measures

- ◆ Thoroughly inspect the food
- Projects dealing with radioactive materials in food products, etc.
- ♦ Have risk communication concerning radiation
- Projects promoting food security and safety
- Spread information about the progress in restoring the environment
- Projects managing and operating the Fukushima Prefectural Centre for Environmental Creation (main building), etc.

Priority measures

Promoting understanding at home and abroad

- ◆ Spread accurate information
- Strategic information dissemination project about the charms of the Soso District, project to pass down the information about the disaster to the next generation, etc.
- Spread the charms
- An all-Fukushima promotion week project in central Tokyo, information dissemination project to dispel harmful rumors overseas, etc.
- ◆ Spread information using bonds
- Project to promote the Prefecture using the legacy of the Tokyo 2020 Olympic and Paralympic Games, etc.

Strong support for businesses

- ◆ Strengthen measures for fisheries industry
- · Project to foster next generation human resources for the fisheries industry, etc.
- ◆ Promote production and consumption of local food
- Project to support the development of areas producing flowers unique to Fukushima
- ◆ Enhancing the local charms, brand power and expanding exports
- Project to attract more visitors utilising cultural assets and other elements

The preferential tax system for measures against harmful rumours

- Eligible areas
- All 59 municipalities in the Prefecture
- Who can apply Individual business operators or corporations conducting specified business activities in any of the following business fields in the Prefecture.
- Business activities related to production, processing, distribution and sales of agricultural,
- forestry, and fisheries products.
- 2. Business activities supporting the promotion of tourism in the Prefecture.
- Details of special cases (1 or 2)
- 1. A 10 percent tax credit for payments such as salary will be given if specified disaster-affected people are hired.
- 2. Special depreciation and tax credits will be provided when acquiring machines, devices, instruments, equipment and buildings, etc.

Approvals 7 companies (as of 16 Feb. 2022)

Achievements and Current Status of Countermeasures against Harmful Rumours and Fading Awareness

- Analysis of Social Recognition related to Rumours and Fading Awareness (Sep.2022)

 "Percentage of people with a good image of Fukushima"
- As of Sep. 2022, "Good image" group ("Good" and "Somewhat good" combined) climbed up to 52.0%.



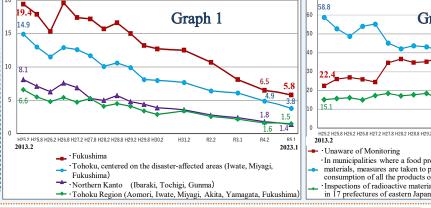
- Export Shipment of Products of Fukushima (2021)
- "Export Shipment of Products of Fukushima" has reached to a record high of over JPY 1 billion as a result of campaigns by the Governor and other efforts. On the other hand, the "price of the Prefecture's agricultural products" has remained low while harmful rumours persist, and the "number of tourists" and "number of foreign visitors staying overnight" have been affected by the pandemic.

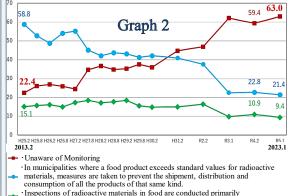
Recovery of Agricultural Product Prices (Rice)	Current price (2021)	92.03
*Relative price of Prefectural products to national averages(Rice)	Target price (2030)	100
Recovery of Agricultural Product Prices (Peach)	Current price (2022)	84.25
* Relative price of Prefectural products to national averages(Peach)	Target price (2030)	100
Recovery of Agricultural Product Prices (Beef Cattle (Wagyu))	Current price (2022)	90.65
* Relative price of Prefectural products to national averages(Beef)	Target price (2030)	100
Export Amount of Prefectural Products	Current price (2021)	1,375,000,000
Export / tillount of / relectaria / roducts	Target price (2030)	2,000,000,000
Number of tourists	Current price (2021)	35,454,000
rumber of tourists	Target price (2030)	60,000,000
Number of foreign visitors staying	Current price (2021)	20,390
overnight	Target price (2030)	300,000

- Field Survey on Consumer Awareness Related to Harmful Rumors (Consumer Affairs Agency 3 Mar. 2023)
- "Place of food production consumers are reluctant to purchase because of radioactive materials" (Graph 1)
- "Reluctant to purchase products from Fukushima"

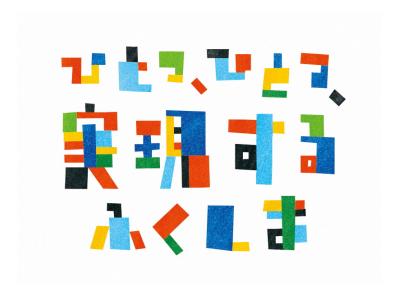
(Of those concerned about radioactive materials in food products) 5.8%

- "Inspection of radioactive materials in food products" (Graph 2)
- "Do not know that inspection is conducted" 63.0%
- When asked what they thought should be done to prevent harmful rumours and to make people feel safe eating the food in the market, the most common responses were providing information on food safety and the charms of the production areas as well as the products, and scientific explanations on radioactive materials contained in food products.





- > Deeply rooted harmful rumours and fading of memories related to the disaster over time
- > Prevent harmful rumours and fading awareness through publicity, expanding sales channels, and establishing brands



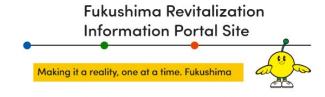
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Fukushima Prefecture website





Please visit this website for other updates and recovery-related information.