One Year from the Great East Japan Earthquake

Documentary Record of Iwaki City



















One Year from the Great East Japan Earthquake

One year has passed from the Great East Japan Earthquake, March $11^{\rm th}$ 2011. I would like to extend my condolence to the people who have lost their lives from the natural disasters and my deepest compassion to the people who have suffered from the disasters.

I would also like to express my heartfelt gratitude to the enterprises and organizations in Japan and around the world who provided relief money, relief supplies, personnel and more, and to the volunteers inside and outside of Iwaki City.

The Great East Japan Earthquake, a complex disaster of earthquake, tsunami and nuclear power station accidents, which nowhere in the world has ever experienced, brought tremendous damage to our city.

Iwaki City set up the Disaster Countermeasure Headquarters immediately after the earthquake and has made the utmost efforts in responding to the



Takao Watanabe Mayor Iwaki City

problems which occurred one after another; securing food, water, medical supplies and other daily necessities, procuring petrol, management of evacuation shelters, responding to nuclear problems, distribution of stable iodine tablets, and also many other efforts. Within a few weeks after the earthquake, we were forced to make prompt judgment in a limited time and under the intensive pressure to protect lives and properties of our citizens.

Following this, we have devoted ourselves to provide infrastructure for reconstruction putting the priority on livelihood assistance to disaster-affected people, and in December 2011, we prepared the "Action Plan for Reconstruction" which outlined the detailed actions we will be taking.

To put the plan into action, I have determined to devote myself wholly to step forward to "securing the safety and comfort of Iwaki citizens" and towards "the city which is more active than before the natural disasters, which can present a reconstruction model to the world" with the phrase "Reconstruction of Japan starts from Iwaki" held high.

We have published this documentary record to illustrate the damage our city has suffered, countermeasures we took for recovery, works toward reconstruction, and to learn from the past experiences without fading the memory. We hope that the limited pages of this documentary record will be of assistance to disaster prevention in the future.

We greatly appreciate the cooperation of the people involved in editing this documentary record.

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Outline of Iwaki City

1 Area & Population

Area: 1,231.35 km²

Population: 332,955

Number of Households: 127,313

(%as at 1st of February 2012)



2 Location & Topography

Iwaki City is located in the southern end of Fukushima Prefecture, adjoining Ibaraki Prefecture to the south, and Pacific Ocean to the east. In the western part of Iwaki stand the Abukuma highlands (height: 500-700 metres). From there the land gradually descends to the eastern plains, where Natsuigawa, Samegawa and other rivers run to the Pacific.

Coastline with the length of 60 kilometres are blessed with beautiful contrast of green pine trees and white sand beaches. Rocky areas add charm to the scenery. This area is called the "Iwaki Shichihama (Seven Beaches)."

3 Nuclear Power Plants in Fukushima

A total of 10 reactors run by the Tokyo Electric Power Company operated in the Soso district in the middle and northern part of Hamadori, Fukushima Prefecture.

They produced 9.096 million kilo watts of electricity which covered approximately 20 percent of all nuclear power generated in Japan and functioned as one of the biggest resources of electricity in Japan.

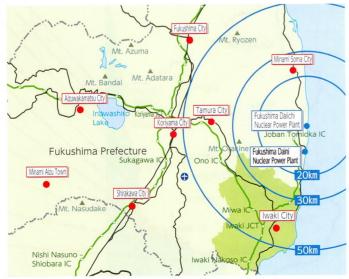
(1) Fukushima Daiichi Nuclear Power Plants

Fukushima Daiichi Nuclear Power Plants (hereinafter referred to as "Fukushima 1 NPP") is located in Okuma Town and Futaba Town. As the Tokyo Electric Power Company (TEPCO)'s first nuclear power station, the 1st Reactor started its operation in March 1971, and they later constructed another 5 reactors. Iwaki City is located approximately 30-70 kilometres from the Fukushima 1 NPP.

(2) Fukushima Daini Nuclear Power Plants

Fukushima Daini Nuclear Power Plants (hereinafter referred to as "Fukushima 2 NPP") is located in Naraha Town and Tomioka Town. The 1st reactor started its operations in April 1982, and 3 other reactors were constructed later.



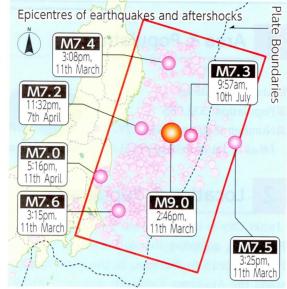


Locations of nuclear power stations in Fukushima Prefecture Concentric circles with Fukushima 1 NPP as the centre **IC: Interchange, JCT: Junctions on expressways

Great East Japan Earthquake

1 Great East Japan Earthquake 2011

Date/Time	2:46pm, 11 th of March 2011		
Epicentre	Offshore Sanriku (142.9 degrees east in longtitude 38.1 degrees north in latitude, approx. 130 kilometres east-southeast of Oshika Peninsula, Miyagi Prefecture) / 24 kilometres in depth		
Scale	Magnitude 9.0		
Others	Size of Fault: approximately 450 kilometres long, approximately 200 kilometres wide Slide of the Fault: 20-30 metres maximum Moves of ocean bed straight above the epicenter: sliding of approximately 24metres to east-southeast, approximately 3 metres lifted		
	7	Northern Miyagi	
Seismic Levels	6 upper	Southern/Middle Miyagi, Nakadori/Hamadori Fukushima, Northern/Southern Ibaraki, Northen/Southern Tochigi (Shindo seismic level in Iwaki: 6 lower)	

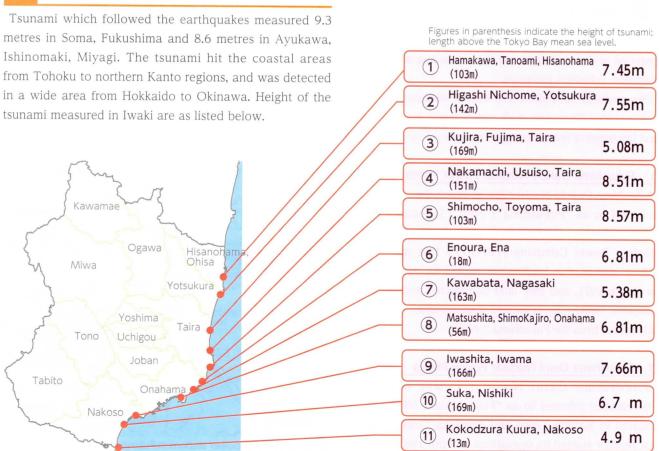


%Prepared based on the data by the Japan Meteorological Agency

The Japan Meteorological Agency analyzed that the Great East Japan Earthquake was caused by sliding of bedrock of Tohoku-Kanto offshore, ranging 450 kilometres south-to-north, and 200 kilometres east-to-west.

The earthquake caused quake of seismic level 4 or more for 190 seconds, and the maximum of level 6 lower was measured. The main earthquake was followed by aftershocks, which totals 2 times of seismic level 6 upper, 2 times of level 6 lower, 10 times of level 5 upper, 30 times of level 5 lower, 175 times of level 4 as of the 10th of January 2012.

2 Tsunami Hit Iwaki City



Flash Report, The 2011 Tohoku Earthquake Tsunami Joint Survey Group (http://www.coastal.jp/ttjt/), Japan Society of Civil Engineers

Damage to the City



Car swept into Nagasaki Elementary School (12th March)



Books fell off the shelves in the Iwaki City General Library (12th March)

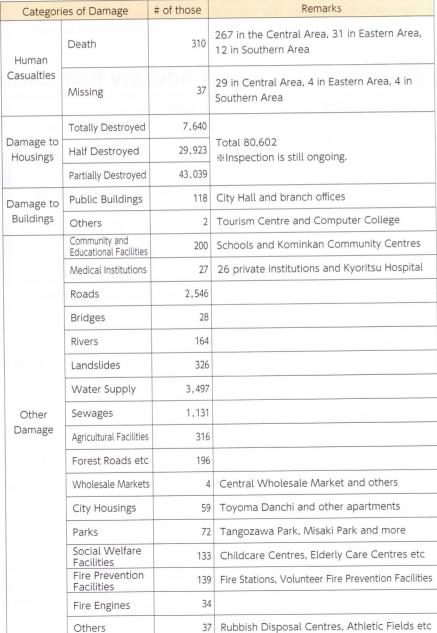


Land slides in Uchigo Uchimachi district along the City Road Miyasawa-Hiruuchi Route (26th April)



Tsunami sank the roads and made the buried water pipes visible Kageisobashi, Hisanohama (14th April)

Impact of the Great East Japan Earthquake on Iwaki City, as at 1st of January 2012





ShimoKajiro Childcare Centre was totally destroyed by the tsunami, but all the children were safe as the centre staff promptly led them to evacuate. (23'd April)



Partially destroyed Umegaoka Danchi, city housings in Yotsukura (27th April)

Disaster Countermeasures Headquarters

At 2:46pm, Friday, 11th of March 2011, the largest earthquake recorded in Japan (magnitude 9.0) with its epicenter off the Sanriku coast struck Japan. Iwaki City set up the Disaster Countermeasure Headquarters immediately after the earthquake, at 2:50pm, and launched a 24-hour operation to deal with the natural disasters.

Setting up of the Disaster Countermeasures Headquarters

Iwaki City Mayor set up the Disaster Countermeasures Headquarters in the Iwaki City Fire Prevention Headquarters at 2:50pm, immediately after the earthquake. At the same time, the Mayor ordered to open evacuation shelters and to procure foods, mattresses and so forth. At 4:30pm, he requested the Fukushima Prefectural Governor to dispatch the Self Defense Force. At 11:00pm, Ground Self Defense Force 6th Antiaircraft Artillery Battalion from Koriyama arrived in Iwaki and started their disaster relief works.

At 4:10am on the 12th March 2011, Iwaki City requested the Fukushima Branch of Japan Red Cross Society to dispatch DMAT (Disaster Medical Assistance Team). In addition, Iwaki City prepared rice balls to deliver to the evacuation shelters together with the relief supplies which started arriving in Iwaki, with cooperation of bread factories in the city, Japan Agriculture Iwaki City and so forth.



Disaster Countermeasures Headquarters around 2:30am, 12th March

Evacuation Order & Advisory from Earthquake and Tsunami

(1) Evacuation Orders to Coastal Area in Iwaki

At 2:49pm, 11th of March 2011, Japan Meteorological Agency announced a Major Tsunami Warning.

At 2:51pm, Iwaki City ordered the residents to evacuate through the public PA radio. Fire stations and volunteer fire fighters in the coastal area announced the evacuation order using the fire engines and other vehicles.

At $3:45 \,\mathrm{pm}$, the City used siren to urge evacuation to the whole coastal area.

Tsunami measuring device installed on the pier of Wharf No. 4 of Onahama Port by Japan Meteorological Agency detected the first tsunami of 1.1 metres at 2:52pm, followed by the 3.3 meter tsunami at 3:39pm as the highest one.



Volunteer Fire Corps vehicles making announcements for evacuation from tsunami around 3:25pm, 11th March Photo courtesy: Iwaki Minpo

At 5:58pm, 13th March, the Japan Meteorological Agency lifted the tsunami advisory. Accordingly, at the same time, Iwaki City lifted the evacuation order as well.

The tsunami washed away many houses and other buildings, and there were many citizens who were forced to evacuate and live their tentative lives in the pre fab housings.

(2) Evacuation Orders & Advisories

Amongst the countless numbers of aftershocks since the March 11 main earthquake, aftershocks of seismic level 6-lower on 11th and 12th of April struck Iwaki City. As the earthquakes caused landslides, and the City had to issue evacuation orders and advisories as shown in the right.

For Tabito district, the evacuation order was lifted on the 16th April as signs of further landslides could not be detected. For Kami Kawado District in Watanabe machi, evacuation advisory was lifted on the 31st of August when tentative repair of the Major Regional Road Iwaki-Ishikawa Route was completed. However, for Chuda district in Joban Nishigo machi

Evacuation Orders and Advisories

Regions	Evacuation Orders/Advisories
Chuda, Joban Nishigo	8:30am, 17 th March
Kaiya/Kamiyama/Saibachi/ Horigoshi, Tabito	Order at 2:30pm 15 th April Lifted at 6:00pm 16 th April
Aoya, Kami Kawado, Watanabe 6 residents in 2 households	Advisory at 4:00pm 22nd April Lifted at 3:00pm 31st August
Takahashi, Uchigo Takasaka 8 residents in 3 households	9:00am, 28 th June

and Takahashi district (partially) of Uchigo Takasaka machi, evacuation advisory is still in effect as the recovery works still have not been completed.

3 Voluntary Evacuation due to Nuclear Power Plant Accident

(1) Rapid Decision of Voluntary Evacuation

Fukushima Daiichi Nuclear Power Station had a hydrogen explosion at 3:36pm, 12th of March, and the nuclear accident related situation was getting serious. Evacuation order from the Japanese government was expanded from 10 to 20 km areas, and no information on the Fukushima



Damage to Chuda district of Joban Nishigo machi, 12th of March

Daini Nuclear Power Station, which is closer to Iwaki City, reached the City, which deepened the concerns of Iwaki citizens.

Iwaki City prepared evacuation plans for the areas 30, 40 or 50 kilometres from the Fukushima 1 NPP. The City also made its own decision of requesting the local residents in Hisanohama/Ohisa to evacuate voluntarily and prepared buses for the citizens to move on the early morning, 13th of March. At 9:30am, 15th of March, the City requested voluntary evacuation to residents of the areas within 30 kilometres from the power stations; Towada, Kami Ogawa (23 households, 57 persons) and Shidamyo/Ogi, Shimo Okeuri, Kawamae (46 households, 131 persons) placing the first priority on the safety of citizens.

The indoor evacuation order from the Prime Minister to the residents of 20 to 30 km area from the power plants was announced at 11:00am, 15th of March. On the 22nd of March, Prime Minister lifted the indoor evacuation order for the 20-30 km area, and ordered to set up the "Planned Evacuation Areas" and "Emergency Evacuation Preparation Areas." No part of Iwaki City was included in these areas.

(2) [Voluntary Evacuation Area] Designated by the Iwaki City Mayor

No part of Iwaki City was included in the restriction area due to the nuclear power station accidents after the 22^{nd} of April.

However, in Shidamyo/Ogi districts of Shimo Okeuri, Kawamae, radiation was detected higher than other districts in the city. On the 5th of July, Iwaki City took its own measures to appoint the districts as "Voluntary Evacuation Area designated by the Mayor," and provided temporary housings to the residents who wished to evacuate.

In addition, the City decided that decontaminating the area was the first priority. Problems related to the tentative depot of radioactivity-



Decontamination of households in Kawamae, 14th December

contaminated disposals arised, but as the storage of the contaminated materials in the site of decontamination was permitted, the City launched decontamination works from December.

On the 28th of December, Iwaki City was designated as "Area for Focused Investigation of Contamination" (municipalities where the radiation level is 0.23 or more microSieverts per hour).

4 Announcements from the Mayor and Disaster Countermeasure HQs

Iwaki City announced various information such as request of orderly behavior and cooperation to the citizens, city's countermeasure to the shortage of petrol, daily supplies and so forth through FM Iwaki, TV, website and other media. Furthermore, the Mayor and the Deputy Mayor appeared on TV and newspaper interviews to make strong appeals on the distress the Iwaki citizens were under.

Also, in order to improve the terrible situation caused by ①earthquake, ②tsunami, ③nuclear power station accidents, and ④harmful rumours, the City made a request to the related parties nationwide for their assistance and cooperation.



Mayor appeared on "Prime News" BS Fuji to appeal the challenges in disposing debris (13th July)

5 Requests to the Related Parties

Outage of essential infrastructures and the hindered goods distribution due to harmful rumours forced Iwaki citizens into a difficult situation and the citizens were unable to continue normal lives.

Iwaki City put first priority on securing foods, water, medical supplies, daily supplies, petrol and so forth to stabilize citizens' lives especially for the 10 days after the earthquake.

In addition to appealing our distress through the media, the Mayor, as the leader of Disaster Countermeasure HQs, repeatedly called and met the national Diet members, national/prefectural organizations and so forth to improve the situation.

As a result, foods supplied from national government and relief



Mayor requested Prime Minister for emergency request (6th June)

supplies from all over Japan helped us to fill in the shortages. On the 22^{nd} of March, some convenience stores reopened, which was a sign of recovery of distribution of goods and supplies.

Almost all gas stands in Iwaki City were forced to close after the earthquake, but on the 16^{th} of March, petrol supplied by Japanese Government was supplied to 11 gas stands, which resulted in a gradual increase of supply from

Requests to the Related Parties

Date	То:	Contents
15 Mar	DPJ LDP	○Preparation for evacuation ■ Evacuation plan for 350,000 lwaki citizens ■ Securing of supplies lwaki city is in shortage of
26 Mar	Government DPJ LDP	Stable lives of citizens Living aid for affected people Securing citizens' stable lives Elimination of harmful rumours
28 Mar	Government DPJ LDP	OHarmful rumours on agricultural, forestry and fishery products ■ Compensation and loan systems ■ Distribution of vegetables ■ Publicizing of data ■ Use of Iwaki vegetables in public facilities ■ Dispatch of skilled officers, countermeasures against radiation
From 1st Apr 2011 to 19th Jan 2012 **more than 30 times	Government DPJ LDP House of Representatives House of Councilors Fukushima Pref Governor Nuclear and Industry Safety Agency	ONuclear power stations accidents Earlier solution of nuclear accidents Elimination of harmful rumours Appropriate compensation for the nuclear accidents Explanation on lease of radiation-contaminated water to the sea Enhancement of the Emergency Planning Zone Agreement on Safety Assurance of Fukushima 2 NPP Definite safety measures on Fukushima 2 NPP Definite safety measures on Fukushima 2 NPP Decontamination of radioactive substances Health management of citizens Measures against radiation and radioactive substances Onahama Port Rapid restoration of Onahama Port Comprehensive reconstruction of overall Onahama Port area Fishery Fisheries Assistance and guidance to fishery workers Towards the resumption of fishing operations Reconstruction of fishing ports Assistance to tourism industries Repair of expressways, JR and other transportation Countermeasures to landslides Countermeasures to dangers in residential areas Disposal of rubbles Collection of businesses related to renewable energies Financial aid to small water supply facilities Establishment of National and Prefectural disaster response organization in Iwaki area Assistance to Iwaki City's reconstruction The above requests were made more than 30 times

the 20th of March.

Furthermore, the city administration repeatedly requested the National and Prefectural government and other parties concerned for an earlier solution and compensation for the nuclear accidents, elimination of harmful rumours, financial aid for reconstruction and many more, which requires mid to long-term plans. On the 6th of June, Iwaki City Mayor visited Tokyo and met the Prime Minister and other ministers to request urgent assistance in various aspects towards Iwaki's reconstruction.

Iwaki City will continue to request the national government for the issues Iwaki City cannot solve itself such as, interdisciplinary lawmaking, further support for Iwaki City's activities towards its reconstruction.

6 Against the Tokyo Electric Power Company (TEPCO)

Iwaki City made many requests and demands to the National and Prefectural Government, Nuclear and Industry Safety Agency and other organizations to resolve the nuclear power station accidents as soon as possible. On the 30^{th} of June, three months after the earthquake, TEPCO visited Iwaki City to notify the change of their President.

Advisor Masataka Shimuzu, the former President of TEPCO visited Hirono Machi Disaster Countermeasures HQs on the 4th of May. The Hirono Machi office evacuated from the town closer to the nuclear power stations and established their tentative office in Iwaki. TEPCO Advisor Shimizu visited Iwaki on the day, but did not visit Iwaki City Disaster Countermeasures HQs. Iwaki Mayor lodged a strong protest against his behavior and failure in taking appropriate measures, and demanded a rapid settlement of nuclear problems and appropriate compensation.



TEPCO apologized to Iwaki City Mayor (30th of June)

Also, the Mayor visited the TEPCO Disaster Countermeasure Office on the 30th of September, and requested them to complete the agreement on the safety assurance of the area around the Fukushima 2 Nuclear Power Station.

7 Iwaki City Assembly

(1) Disaster Response HQs

Iwaki City Assembly formed "Iwaki City Assembly Disaster Response HQs against Tohoku Region Pacific Coastal Earthquake" on the 28th of March, and changed its name into "Iwaki City Assembly Disaster Response HQs against Great East Japan Earthquake" on the 2nd of April. City Assemblers discussed and implemented requests to the National and Prefectural government, TEPCO and other organizations.

(2) Special Committee on Reconstruction from the Great East Japan Earthquake

On the 16th of June, Iwaki City Assembly reformed the "Iwaki City Assembly Disaster Response HQs" into "Special Committee on Reconstruction from the Great East Japan Earthquake" and set up three sub-committees, ①restoration and advancement of citizens'life ②revival of local industries and employments and ③city planning for disaster prevention and countermeasures to nuclear problems. Discussions were concluded in the proposals to Mayor, and three proposals have been submitted to the Mayor since the 29th of July.

On the 25^{th} of July, the committee demanded TEPCO board members to attend the Committee meeting. TEPCO explained, apologized and answered the questions from the committee members.



Making a request to Chair of Fukushima Prefectural Assembly, 5th April



TEPCO board of management attended Iwaki City Assembly Special Committee Meeting, 19th July

On the 26^{th} of December, Chair and Vice-Chair of City Assembly,

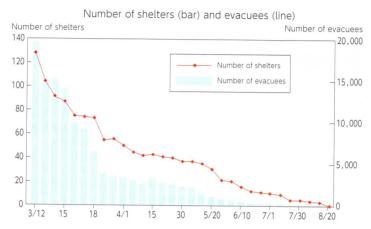
Management Commissioners, Chair and Vice-Chair of Special Committee on Reconstruction from the Great East Japan Earthquake visited TEPCO HQs to submit "Petition to Protest against and Withdrawal of Plans on Release of Radiation Contaminated Water from Fukushima 1 NPP into the Ocean."

Evacuation Shelters

The largest ever disasters brought a tremendous amount of damage to the coastal areas of lwaki City. On the morning of the 12th of March, 19,813 citizens had to evacuate to 127 shelters around the city. The people of Futaba County were also urged to leave their homes to evacuation shelters in lwaki.

1 Evacuation Shelters

Iwaki City opened evacuation shelters on the day of the earthquake, and the number reached 127 on the next day, 12th of March. However, damages to four shelters were too severe to serve as an evacuation shelter, therefore the City had to also use temples, elderly persons care facilities and other facilities on the high land which the city did not intend to use as evacuation shelters



2 Life in the Evacuation Shelters

(1) Provision of Meals

Iwaki City provided city-stored dried bread and other food supplies to people in the evacuation shelters on the night after the earthquake. On the 12^{th} of March, we started the provision of rice balls made with the rice Iwaki City administration procured.

One week from the earthquake, relief supplies arrived in Iwaki, which enabled us to provide canned food and other food products.

Local residents and volunteers from out of the city opened their stove kitchens, which allowed to serve hot meals to the evacuees.



Evacuation shelter which served people from Iwaki and Futaba, 1st April Photo courtesy: FM Iwaki

(2) Assistance on Daily Life

We conducted mobile medical service with the cooperation of JMAT (Japan Medical Assistance Team) and Iwaki City Medical Society, and provided individual consultation on nutrition with cooperation of Iwaki Branch, Fukushima Dietetic Association. Also, we ran free buses to and from the shopping area, and to and from the JSDF and private bathing facilities.



Health Consultation provided by public health nurses (9th May)

3 Closure of Evacuation Shelters

On the 12th of March, the number of citizens who evacuated to shelters were as high as 19,813 people. From there onwards, the number of people in the shelters gradually decreased, however, the seismic level 6-lower earthquake of April 11-12 resulted in citizens to evacuate again, which made the complete closure of the shelters more difficult.

However, the City began providing temporary housings on the 16^{th} of April, and could close all the evacuation shelters on the 20^{th} of August, 162 days after the earthquake.

Fire Defense Headquarters

Tsunami ruined the functions of the two fire stations along the coast. Petrol which is vital to their works was in shortage. Iwaki City Fire Defense HQs have made utmost efforts in rescue, search, and conducted many other operations with the cooperation of Self Defense Forces, Police, Emergency Fire Response Team, Volunteer Fire Corps, Disaster Medical Assistance Team, and many others, to protect the citizens' lives and properties.

1 Guide for Evacuation and Rescue

Iwaki Fire Defense HQs announced the Major Tsunami Warning to the citizens in the coastal areas immediately after the warning was in effect. After the Tsunami, they carried the injured to hospitals, searched for missing persons, and also conducted other activities for safety assurance and lifesaving.

On the 12th of March onwards, they searched for missing people with the cooperation of JSDF, Police, Emergency Fire Response Team, Volunteer Fire Corps, and DMAT. Their activities continued until the 4th of April mainly in Hisanohama, Yotsukura, Usuiso, Toyoma, Obama, and Iwama districts, where the tsunami damage was more severe.

Earthquake of seismic level 6-lower struck Iwaki on the 11th of April, which caused large landslides in Tabito district. The Iwaki Fire Defense HQs again launched rescue efforts and searched under the cooperation of the Fire Defense HQs of other municipalities in Fukushima Prefecture and the Emergency Fire Response Team.



Search and rescue by Volunteer Fire Corps Taira Usuiso, 28th March



Search and rescue by Iwaki City Fire Defense HQs Ishizumi, Tabito machi, 11th April

2 Fires due to Earthquake

When the earthquake struck the city, it also triggered fire in some places. Damages to water pipes which caused water outages made fire extinctions more difficult.

Iwaki City Fire Defense HQs prepared water-loaded tank trucks and also took other measures to minimize the fire from spreading.

Number of Fires, Fire Crews, and Fire Fighters

Date	Number of Fires, Crews, Fire Fighters
11 Mar	4 buildings, 30 crews, 111 fighters 1 vehicle, 3 crews, 11 fighters
12 Mar	2 buildings, 18 crews, 75 fighters 1 vehicle, 3 crews, 12 fighters
26 Mar	1 building, 6 crews, 23 fighters
7 Apr	1 building, 8 crews, 23 fighters
11 Apr	2 buildings, 5 crews, 20 fighters
12 Apr	1 building, 6 crews, 20 fighters

3 Transporting Critically-Ill Patients to Medical Institutions

The earthquake also brought damage to medical institutions, which caused a decrease in the number of hospitals that can maintain operations, and accept new patients. Iwaki City Fire Defense HQs carried 149 persons to well-equipped medical institutions in and out of Iwaki City by ambulance, 17 by Prefecture's helicopters, and 11 by JSDF helicopters between the $15^{\rm th}$ and $30^{\rm th}$ of March.



Moving patients by JSDF helicopter Yomogida Temporary Heliport, 23rd of March

Medical Institutions

Severe damage to essential utilities and shortage of medical supplies forced many medical institutions to stop their operations. Iwaki Kyoritsu Hospital devoted the whole facility to maintain its roles as the City Hospital and Disaster Base Medical Centre by treating emergency and critically-ill patients.

1 Iwaki Kyoritsu Hospital

(1) For In-Patients and Incoming Patients

Iwaki Kyoritsu Hospital set up the Disaster Control Headquarters in their hospital immediately after the earthquake. They made the best to secure safety of patients by making patients evacuate outdoors and inspecting the damages to their facilities.

Electricity, water and gas were restored on the 14th of March, but expansion of evacuation areas was in effect due to nuclear problems. As a result, the Kyoritsu Hospital and DMAT (Disaster Medical Assistance Team) secured ambulances and helicopters to move the patients to medical institutions out of Iwaki City. The medical doctors or nurses of Kyoritsu Hospital accompanied the patients who were more vulnerable to radiation; NICU (Newborn Intensive Care Unit), Pediatrics, Obstetrics patients, or the patients who needed artificial respirators.

In addition, Kyoritsu Hospital accepted critically-ill patients from the medical institutions whose functions were deteriorated due to the natural disasters, and the citizens injured by the earthquake and tsunami. All the hospital staff made the best efforts to accomplish the role as the core medical centre of Iwaki City.



Patients Evacuated Outdoors Kyoritsu Hospital, 11th March



Over-crowded Emergency Centre

(2) For Out-Patients

Kyoritsu Hospital restricted non-emergency outpatients and regular surgical operations due to the admittance of disaster-affected patients and to deal with shortage of materials resulting from the nuclear problems.

They switched their usual out-of-hospital pharmacy system into in-hospital service since there were many patients who visited Kyoritsu hospital because many hospitals and pharmacies in Iwaki were closed. When there were shortages of medical supplies, Iwaki City officers drove to wholesalers out of Iwaki to secure necessary medical supplies.

2 Medical Institutions in Iwaki

Many medical institutions in Iwaki were forced to close. To maintain their operations, the hospitals accepted DMAT (Disaster Medical Assistance Team) from the 12^{th} of March to the 17^{th} of April, JMAT (Japan Medical Association Team) from the 12^{th} of March to the 3^{rd} of May, and visited the evacuation shelters in cooperation with the Iwaki City Medical Society.

On the 13^{th} of March, Emergency After Hours & Holiday Clinic re-opened. On the 20^{th} & 21^{st} of March, Iwaki City Medical Society opened temporary clinics in the Medical Society Hall and Iwaki City General Health and Welfare Centre.



Medical Care at Evacuation Shelters by JMAT 3rd April,

Photo courtesy: THE IWAKI MINPO Co.

Between the 15th of March and 3rd of April, Iwaki City Dental Association provided first aid dental treatment in the Emergency After Hours and Holiday Dental Care Centre.

Meanwhile the medical institutions in Iwaki gradually resumed their operation as water, gas, electricity, and infrastructure needed for treatment and preparing prescription medicine. Most medical institutions except for those in the tsunami-affected areas resumed operations in early April.

Relief Supplies

Harmful Rumours resulting from the nuclear power station accidents prevented distribution of goods to Iwaki City and made it difficult for citizens to procure foods and daily necessities. Iwaki citizens could manage to survive with the relief supplies from municipalities, enterprises, organizations and individuals from all over Japan. To correspond with the courtesy and intent of the donors, the relief goods supplied were distributed to the citizens promptly.

1 Shortage of Goods

Immediately after the earthquake, Iwaki City set up the Relief Supplies Group in the Disaster Countermeasure HQs. On the 12th of March, Relief Supplies Distribution Centre was set up in the Iwaki Taira Velodrome. In addition to the natural disasters, harmful rumours blocked goods and petrol distribution, which resulted in a critical situation.

Iwaki City repeatedly requested National, Prefectural government and municipalities for supplies of foods and water. On the 20th of March, Iwaki City Mayor appealed the terrible situation to the Minister of Agriculture, Forestry and Figheries, and was able to receive 50,000 meals per day from the next day onwards.

Iwaki citizens helped greatly in distribution of the goods and supply of medical supplies and goods for infants and children.



Iwaki City Tokyo Office could store the relief supplies with cooperation of Minato Ciry administration, 28th March Photo courtesy: Minato City, Tokyo

2 Relief Goods from Japan and Overseas

Iwaki City received supplies of dried bread, rice, blankets and more from municipalities, enterprises, organizations and individuals from the following day of the earthquake. Relief supplies included 100 items; 910,000 litres of water, 90,000 pieces of blanket, 280,000 cup noodles, and 180,000 pouched food.

These relief supplies were delivered to the evacuation shelters twice a day from the following day of earthquake onwards, and contributed greatly to the more stable lives of evacuees.



Relief goods stored in Onahama Shisho (city branch office) 30th March

3 Distribution of Relief Supplies to Citizens

Even after one week from the earthquake, harmful rumours on the nuclear problems kept blocking the distribution of goods to Iwaki, and the citizens still had difficulties procuring foods and other daily necessities.

Iwaki City distributed relief supplies at 24 places including Kominkan community centres, six times between 21st and 28th of March under the cooperation of administrative counsellors, chief of communities, social workers, volunteer fire corps, and volunteers. Then the relief goods were delivered to social welfare facilities, hospitals, kindergartens, elementary and junior high schools, and temporary housings.

As the distribution of goods improved two weeks after the earthquake, Iwaki City limited the distribution to elderly persons living alone and others that were in most need between the 29th of March and 10th of May.



Distribution of relief supplies by volunteer fire corps, 28th April

Relief Funds

Relief funds have been offered from all over Japan and overseas to the people whose houses were swept away, collapsed, or heavily damaged. Iwaki City has made the utmost efforts to distribute the fund rapidly and evenly to the citizens.

1 Relief Funds from Japan and Overseas

Iwaki City started accepting relief funds on the 17th of March. The City asked the donors to select categories for either ①living assistance to affected citizens or ②restoration and reconstruction of Iwaki City.

As at the 1^{st} of February 2012, 1.4 billion yen has been funded to Iwaki City, and 31.1 billion yen including the fund allocated by national government, Red Cross Society, and Fukushima Prefecture.



"Little IWAKI" group composed of students from Iwaki handed the fund raised from their charity event at university festivals in Tokyo, $28^{\rm th}$ December

Breakdown of Relief Funds, as at 1st of Feb 2012

Purposes		Amount (Number of donations)
Relief fund to Iwaki City		JPY 1,399,712,267 (4,598 donations)
	For living assistance	JPY 711,924,279 (2,361 donations)
	For reconstruction	JPY 687,787,988 (2,237 donations)
Allocation from national government		JPY 25,219,012,228
Allocation from Fukushima Prefecture		JPY 4,529,500,000

Distribution of Relief Funds: Fastest in Fukushima Prefecture

In order to distribute the relief funds, \bigcirc for living assistance as early as possible, the first conference of relief fund distribution was held on the 14^{th} of April, and the first distribution of 50,000yen per household started on the 16^{th} of April. The first distribution was the earliest in Fukushima Prefecture.

Second conference was held on the 25th of July. City decided to distribute the fund to individuals instead of households, and started distribution on the 29th of July. As of the 1st of February 2012, the fund was distributed to 31,804 households; 95.3 percent of 33,369 households which applied for the fund. Iwaki city will continue the policy of rapid distribution of relief fund.

Relief fund donated to ②fund for reconstruction will be added to the City budget and used as the financial source of the city's reconstruction in the year 2012 or later.

In addition, Iwaki City has its original scheme of Disaster Relief Expenses to assist the citizens whose housings were damaged by 50% or more.

Distribution of Relief Fund

	Amount of relief money	
Categories	per household	per person
Total destruction of house	450,000yen	230,000yen
Half or heavy destruction of houses	280,000yen	115,000yen
Evacuation from the area within 30 kilometres from Fukushima 1 NPT	450,000yen	30,000yen
Deceased	350,000yen (per person)	730,000yen
Orphans with guardians	-	1,000,000yen
Orphans without guardians	_	500,000yen

**Amount of the above includes allocation of relief funds from national government, Red Cross, and Fukushima Prefecture.

**Funds for either evacuation due to nuclear accidents or for damages to home was granted. One cannot be eligible for both funds.

Mountains of Debris

Catastrophic Tsunami attacked the coastal areas of Iwaki City, and produced a huge amount of debris. Devastating aftershocks of 11th & 12th of April also caused damage to the inland areas. The amount of debris is estimated to be a total of 700,000 tons. Iwaki City will move forward to the removal and disposal of debris in order to enhance search and rescue operations, and for the earlier restoration of lives of the people affected.

1 Removal of Debris

On the 12th of March, Iwaki City started the removal of debris on the streets with the cooperation of local builders based on an agreement with Iwaki City Construction Industry Cooperative. At the same time, search and rescue of missing people were conducted by JSDF, Prefectural Police, Fire Defense HQs and volunteer fire corps.

On the 6th of April, as most of the debris on the streets were removed, the City started the removal of debris in housing sites. This operation was almost completed at the end of July. From July, the City is removing debris from broken houses under the consent of the house owners.



Removing debris with heavy construction equipment Hisanohama, 26th April

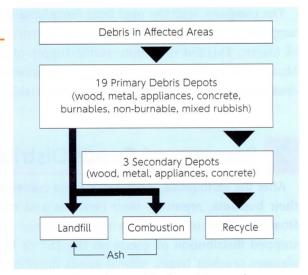
2 Collection and Disposal of Debris

Iwaki City has set up 19 primary debris depots in the city. For a better efficiency of recycling, the City also established three secondary depots. The City conducted sorting and storing the debris in an organized manner using primary and secondary depots.

There was a restriction on disposal of debris created by the disaster by the National government, however on the 23rd of June, "Guideline for Disposal of Disaster Debris in Fukushima Prefecture" was finalized by National government and the City could start the disposal from July.

In particular, concrete and asphalts are recycled into road materials, iron and aluminum into steel stock materials, wood into housing materials.

The guideline allows the rubbish disposal facilities with a certain level of gas exhaustion treatment facilities to combust the rubbish, and permits landfills under City management as the final disposal place with non-burnable rubbish. Iwaki City holds briefing sessions in the areas near the facilities.



Flowchart of Debris Disposal



Divided debris Athletic Ground of Shinmaiko Heights 11th January 2012

Shortage of Petrol and Supplies

The prevention of goods distribution due to damage to infrastructure and harmful rumours with nuclear power station accidents caused tremendous difficulties in citizens' lives. We had to wait in a long line to purchase daily necessities and petrol. Iwaki City administration urged for assistance from the national and prefectural government and other related parties, and achieved an earlier restoration of the supplies of goods and petrol.

1 Shortage of Petrol

Iwaki City suffered from severe shortage of petrol straight after the earthquake as the oil refining plants in Eastern Japan were damaged and roads were closed. Harmful rumours worsened the situation, and caused big chaos to the citizens' lives.

Iwaki City made utmost efforts to procure petrol. The city strongly and repeatedly made a request to the national and prefectural governments and the related parties, and as a result, petrol was supplied by the national government on the 16th of March, however, the destination of the delivery was Koriyama. Iwaki City urgently prepared eight tank trucks and 20 fire fighters to obtain the petrol and distributed them to 11 gas stands in Iwaki. On the 16th of March, Iwaki City Mayor requested Onahama Petroleum Co., Ltd. to provide the stored petrol.

The company, with the urge from Fukushima Prefectural government, supplied a total of 2,828 kilolitres of petrol between 20th and 26th of March. This led to a more stable supply of petrol. On the 29th of March, a large oil tanker arrived in the repaired Onahama Port, which dramatically improved the petrol supply in Iwaki.



Cars waiting in line for petrols, 28th March, Photo courtesy: Sekisho Shoji



Tanks of Onahama Petroleum Co., Ltd.

2 Recovery of Goods Distribution

After the earthquake, supermarkets and convenience stores continued their business, repairing their facilities and controlling their stock. However, most of them were forced to close their shops due to the stopped distribution of goods on the 15th of March. Although relief supplies reached Iwaki, normal goods distribution was not resumed. General Iwaki citizens could not purchase sufficient daily necessities.

Iwaki City Mayor appealed the predicament of Iwaki citizens to the Minister of Internal Affairs, and with the request from the Minister of Economy, Trade and Industry, the retailers trade organization started taking actions. Convenience stores in Iwaki gradually opened their shops from the $22^{\rm nd}$ of March. Meanwhile Iwaki City distributed relief supplies to the citizens in Kominkan or other public facilities.

The distribution of goods were gradually restored, and most shops reopened around 28^{th} of March even if they had to shorten their business hours.

As a result of the City's request to the Minister of Internal Affairs, Japan Post resumed their operations around the $25^{\rm th}$ of March, which contributed to the improvement in the distribution of goods.



Long line of people who needed to buy daily necessities, 12th March Photo courtesy: THE IWAKI MINPO Co.



Empty shelves in the supermarket, 12th March

Major Water Outages

Both the earthquakes of 6-lower of 11th of March and 11th of April caused major water outages in a wide area of Iwaki City. Iwaki City Waterworks Bureau conducted its 24-hour repair works and water supply operations, and could recover the water service earlier than intended, with the cooperation of water supply corporations and volunteers from all over Japan.

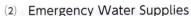
Extreme Difficulties in Recovering Water Services

The March 11 Earthquake damaged the major water pipes between the water purification plant and the distributing reservoir. Water leakage made it impossible to distribute water to approximately 130,000 households in Iwaki.

(1) Restoration of Water Services

Iwaki City Waterworks Bureau started its 24-hour repair works straight after the earthquake. On the 12th of March, they completed the repair works on the major water flowing pipes and could start flowing water to the distribution reservoir. On the 13th of March, water distribution from the reservoir gradually resumed, and was provided to the Kyoritsu Hospital and other medical institutions. The Waterworks Bureau had difficulties in procuring the materials needed for repairing, but they started a rapid emergency repairs using the materials stored for emergencies. Their round-the-clock repair works achieved a 97 percent restoration of water services by the 11th of April.

On the 23rd of March, they set up the plan for restoration of water services, and announced it to the citizens.



In addition to the repair works, they started the operation of water supply vehicles to hospitals and the release of water stored in underground tanks. On the 12th of March, they set up water supply points in many locations around the city, and supplied water to evacuation shelters with portable water tanks.

However, this could not completely meet the citizens' requirement due to the limited number of vehicles and petrol. The supply of petrol was blocked by harmful rumours. Assistance from waterworks corporations of other regions in Japan started at a later date, which enabled to supply water to apartment complexes and others, and the City was able to set up 55 water supply stations around the city.



Repair works on water pipes, Shimogawa, Izumi machi, Route6, 25th March



Citizens lined for water supply at the Taira Gymnasium, 12th March



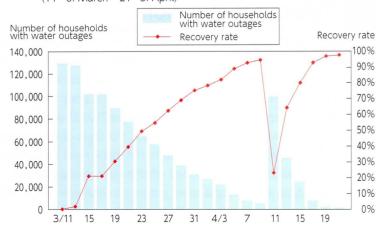
Emergency water supplied by Nobeoka City officers, 27th March Photo courtesy: Nobeoka City

Repeated Water Outages

When the supply of water was about to restore its operation, the severe after shocks on the 11th of April caused electricity outage in the water pump facilities and running water was stopped again in around 100,000 households.

This second water outage in a wide area around Iwaki was expected to take a long time to recover, but the strong will to maintain the vital infrastructure led to restoration of water in most areas by the 21st of April. We sincerely appreciate the cooperation of waterworks corporations and water pipe contractors, which enabled the restoration of water supplies faster than planned.

Households with water outages (bar) and the recovery rate (line) (11^{th}) of March – 21^{st} of April)



Essential Utilities

Most areas in Iwaki City suffered from electricity and gas outages, and difficulties getting connected on mobile phones. The natural disasters severely affected our vital infrastructure. Each corporation made the best efforts to restore its services, and took various measures for the disaster-affected people.

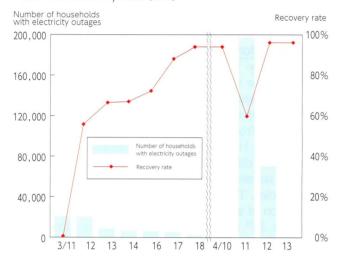
1 Electricity

Tohoku Electric Power Co. Ltd. reported that 20,670 households had electric outage immediately after the March 11th earthquake, and 199,731 households in the April 11 aftershock.

A total of 9,237 Tohoku Electric Power employees tried their best in emergency repair works which started immediately after the earthquake, which resulted in restoration of electricity within one week (except in tsunami-affected districts) after the March 11th Earthquake, and within one day after the April 11th aftershock.

Repair works to areas damaged by the tsunami and landslides required the removal of rubbles and sediments, but electricity was restored in most households on the 28th of April, 48 days after the earthquake.

Number of households with electricity outages (bars) and the recovery rate (line)



2 City Gas

The March 11 earthquake damaged the gas pipes and caused gas leakages, which resulted in gas outage in 14,572 households in Joban/Uchigo/Yoshima districts (covered by Joban Kyodo Gas Co) and in 646 households in Nishiki (covered by Joban City Gas Co). Tobu Gas Co. temporarily stopped their gas supply for 91 households in Taira district for safety measures.

Repair works on city gas required a long time due to the ground buried pipes, the necessity for inspection of gas facilities in each household, and shortage of materials due to harmful rumours, but the gas services were restored in most districts by the end of April.

Each gas company lent portable gas stoves and provided small gas cylinders for free to improve the citizens lives until the full recovery of usual gas services.



Repair works of gas supply, Kami Yunagaya, Joban, 15th April Photo courtesy: Joban Kyodo Gas

3 Telecommunication

Many people tried to call to ensure the safety of family members and friends after the natural disasters. To secure the lines for emergency calls, NTT East conducted the maximum of 90 percent restriction on calls, and mobile phone companies the maximum of 80 percent. Switching centres for home phones and base stations for mobile phones were stopped due to electric outage, which caused poor telephone connections all over the city.

Fukushima Branch of NTT East reported that 70,000 optic fibre lines and 40,000 home telephone lines were out of operation immediately after the earthquake, but most of them were recovered by the 18th of March. Facilities related to mobile phones resumed its function to the usual level by the end of April.

Each telephone company provided emergency message services, free public phones in evacuation shelters, setting up of mobile base stations and other services to maintain the communication of disaster-affected citizens.

Roads and Streets

The natural disasters caused landslides, uneven road surfaces, road cracks and blocked roads in most part of lwaki City. As roads are vital to the reconstruction of local community and citizens' livelihoods, rapid repair works were required.

1 Expressways

Joban & Ban'etsu Expressways were closed immediately after the earthquake for safety assurances. NEXCO East conducted their repair works promptly, and could allow emergency vehicles go through at 11am, $12^{\rm th}$ March, approximately 20 hours after the earthquake. On the $15^{\rm th}$ of March, Fukushima Prefectural Governor requested to allow the evacuating vehicles to pass the expressways for free.

Collapsed roads causing level differences and cavings due to the earthquake in March totaled 86 on the Joban Expressway and the Ban'etsu Expressway. However the emergency repair works resulted in resumption of Iwaki Chuo - Mito on the $21^{\rm st}$ of March, Iwaki JCT - Niigata on the $24^{\rm th}$ of March, Iwaki Chuo - Iwaki Yotsukura on the 1st of April.

The severe aftershock on the 11th of April caused landslides between Iwaki Nakoso and Iwaki Yumoto. Joban Expressway was once again closed but resumed normal operation on the 14th of April. Currently the Joban Expressway is open up to Hirono IC.



Collapsed Expressway between Nakoso and

Yumoto, 11th of April Photo courtesy: NEXCO East





Temporary road opened on $31^{\rm st}$ of August

2 National and Prefectural Roads

Along Route 6, eight places including Samegawa Ohashi Bridge were heavily damaged and closed. First-aid repair works enabled vehicles to pass the route by the $13^{\rm th}$ of March, except in one place between Yotsukura and Hisanohama.

On the other hand, no significant damage was found on Route 49, and it was not necessary to be closed.

In the Prefectural roads, sediments beneath the elevated road collapsed on Hisanohama Port route due to the March 11 earthquake.

Heavy landslides occurred in Kami Kamado (Watanabe machi) and Saibachi (Tabito machi) on the Iwaki-Ishikawa route. There are a total of 112 damages to Prefectural roads up to this date.

Although the emergency repair works have been completed in most areas, Iwaki City is still working towards the full restoration of roads.

3 City Roads

There have been 2,574 damaged places and 123 places closed on the City Roads. Miyazawa-Hiruuchi Route (Uchigo Uchimachi) and Kita Shirado -Suganami Route (Minami Shirado) are still closed as a long period of time is required for full repairs to be carried out.

Iwaki City has conducted emergency repairs (removal of sediment, repairs of cracks and unevenness) but the repair works are still proceeding towards the complete recovery of City Roads.

Damage to Roads in Iwaki City

		,
Road Categories	Routes	Damage points
Expressways	2	86
National Roads	2	8
Prefectural Roads	44	112
City Roads	8,719	2,574
Total	8,767	2,780

Public Transportation and Ports

Although the railroads were out of service for one month, emergency flights became available from the next day of the earthquake, expressway buses after a week, and local buses after 11 days. Fukushima Airport played its role as the hub for relief supplies. Speedy repair works on the Onahama Port resulted in an earlier resumption of its operation, and the port played an important role in distribution of petrol and other relief supplies.

1 Railroads

Both JR Joban & Ban'etsu To Lines were fully out of service after the earthquake. Electricity polls between Iwaki and Uchigo stations were tilted, which required a long time for repair works to be carried

On the 11th of April, local stop trains resumed their operation on the holiday schedule between Iwaki and Takahagi, which made it possible to travel to Tokyo via the local stops. On the 28^{th} of April, limited express trains also re-started. Railroads north of Iwaki re-started up to Yotsukura on the 17^{th} of April, Hisanohama on the 14^{th} of May, Hirono on the 10^{th} of October.



Repair works between Iwaki and Uchigo Stations (Photo courtesy: Mito Branch, JR East)

Ban'etsu To Line resumed its operations between Iwaki and Ono Niimachi on the 15th of May.

Iwaki City Government provided free substitute bus routes between Yotsukura and Hisanohama stations from the 28th of April to the 14th of May, to maintain transportation required for work and schools.

2 Buses

Shin Joban Kotsu Co., Ltd. reported that the local buses were all closed on the afternoon of the 15^{th} of March due to the shortage of petrol. On the 22^{nd} of March, six local bus routes were resumed on holiday schedule. On the 6^{th} of April, most bus routes resumed their normal operations.

Emergency buses between Iwaki-Nakoso stations and Iwaki-Hitachi stations were provided from the 1st of April until the JR Joban Line was repaired.

Limousine buses to Fukushima Airport continued their services as usual. On the 18th of March, the Iwaki-Tokyo Highway Buses re-started.

Resumption of Public Transportation

Date	Transportation	Contents
	Airport buses	Continued service
3/18	Highway buses	10 roundtrips between Iwaki and Tokyo
3/20	Highway buses	6 roundtrips between Iwaki and Koriyama
3/21	Joban Expressway	Iwaki Chuo-Mito re-opened
3/22	Local buses	6 routes on holiday schedule
3/24	Ban'etsu Expressway	Iwaki JCT - Niigata re-opened
3/28	Highway buses	3 roundtrips between Iwaki and Sendai
4/1	Joban Expressway	Iwaki Chuo - Iwaki Yotsukura re-opened
4/6	Local buses	Mostly normal operations
4/11	JR Joban Line	Local stops (iwaki-Takahagi) resumed
	JR Ban'etsuTo Line	Iwaki- Ono Niimachi re-opened
4/15	Highway buses	1 roundtrip between Iwaki and Kyoto
	Highway buses	4 roundtrips between Iwaki and Fukushima
4/17	JR Joban Line	Iwaki - Yotsukura re-opened
4./20	JR Joban Line	Limited express (Iwaki-Tokyo) resumed
4/28	Highway buses	23 roundtrips of Iwaki-Koriyama-AizuWakamatsu

3 Taxis

Limited public transportation and shortage of petrol prevented Iwaki citizens from driving their own vehicles. Meanwhile taxis could continue their operations as they used liquefied petroleum gas as their fuel, and functioned as an important means of transportation.

Iwaki City Taxi Cooperative Business Association reported that they could secure the liquefied gas since there were no damages to their two gas stations, and most of the taxi companies could continue their services.

Fukushima Airport

Fukushima Airport was not heavily damaged and it operated a total of 290 emergency flights between the 12th of March and the 10th of April. It served approximately 20,000 passengers and secured transportation for the people in Fukushima. The Airport also provided lounge, conference rooms, blankets and drinking water for free to people who had to stay in the airport.

A total of 86 ISDF and private flights carried relief goods to Fukushima Airport between the 14th of March and the 2nd of May. The relief goods including food, daily necessities and medical supplies were distributed all over Fukushima Prefecture.



JSDF Cargo Aircraft at the Fukushima Airport, 20th March Photo courtesy: Fukushima Airport Office, Fukushima Prefectural Government

Onahama Port

(1) Restoration of Damaged Facilities

Tsunami damaged quays and cargo handling equipments, and swept ships onto the docks on Onahama Port.

Fukushima Prefecture started first-aid repairs to Fujiwara Wharf which was not heavily damaged, so the Port could accept emergency vessels loaded with relief goods on the 18th of March. Oil tanker arrived in Otsurugi Wharf on the 29th of March, which helped the City which suffered from a shortage of petrol.

Onahama Port Reconstruction Conference composed of National and Prefectural Government and other related parties Repair Works on Wharf 5 & 6, Onahama Port, 25th July set up the "Onahama Port Reconstruction Plan" on the 18th of



August, and aimed for the completion of rebuilding of the major piers in two years time and all the port facilities in three years time. Currently 70 percent of the piers have resumed operations, but the regular container vessels to Korea and China are still not operating. Iwaki City Mayor visited the Korean sea vessel operators on the 7-9th of November, and explained about the progress of reconstruction of Onahama Port, and appealed for the resumption of the shipping route.

(2) Onahama Port as an International Bulk Strategic Port

International Bulk Strategic Ports are appointed by the Ministry of Land, Infrastructure, Transport and Tourism to secure the port facilities and to ensure the stable supply and controlled prices of the basic raw materials to Japanese industries and consumers. National Government accepted entries of the ports which are used for iron ore, coal, and grains in June 2010.

Iwaki City has made a city administration-private sectors coalition to make efforts to be selected, since Fukushima Prefecture nominated Onahama Port as the port for coal in August 2010. And in May 2011, Onahama Port was selected as the International Bulk Strategic Port and provided good news to the citizens who were stepping forward towards reconstruction.

This appointment is expected to aid in the faster reconstruction of Onahama Port, advance the repair works on the Higashi Port, east of Onahama Port, and increase in cargo handled by the Port. In addition, more effective goods transportation and reduced shipping costs will strengthen the international competitiveness of the enterprises using Onahama Port. This is also expected contribute greatly to the economic development and revitalization of the local community.



Image of Higashi Port, Onahama Port Photo courtesy: Onahama Port Office

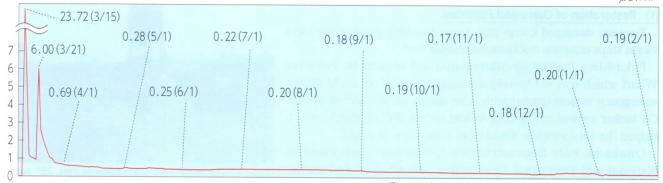
Measures against Radiation

Accidents in the Fukushima 1 Nuclear Power Plant spread radiation into the air. Radiation measured in Iwaki city reached its peak at 4:00am, 15th of March 2011 (23.72 microSieverts/hour) but it gradually declined from there. Iwaki City administration took measures to secure the safety of citizens immediately after the nuclear disasters. Distribution of stable iodine tablets by the city was one of the measures the city took.

Measurement of Radiation in Iwaki City

Fukushima Prefectural Government started the measurement of air radiation levels at 7:00am, 13th of March in the car park of Fukushima Prefectural Government, Iwaki Office, 43 kilometres south-southwest of the Fukushima 1 Nuclear Power Plants. Radiation was measured at the maximum of 23.27 microSieverts at 4:00am, 15th of March, but gradually decreased from there onwards.

Radiation Levels μ Sv/hr



Maximum level of radiation on each day of measurement, Figures in brackets indicates the date (Month/Day). Prepared based on the data announced by the Fukushima Prefectural Government Disaster Response Headquarters

2 Screening of Radiation Exposure, Distribution of Stable Iodine Tablets

(1) Emergency Screening of Radiation Exposure

Iwaki City has conducted screening tests at the General Health and Welfare Centre from the 13^{th} of March to reduce the anxiety of citizens. The City has tested a total of 39,046 citizens as at the end of October 2011, but nobody has been screened to require decontamination treatments.

(2) Distribution of Stable Iodine Tablets

Iwaki City started distributing the stable iodine tablets through the city's own decision, to the citizens under 40 years old and to expecting mothers on the 18th of March. The order to take the tablets has not been in effect so far, however the nuclear problems have not been yet settled, and the tablets distributed in March 2011 expired in December. Therefore Iwaki City distributed a new supply of tablets at the end of December.



Screening of radiation at Iwaki City Health Centre, 17th March Photo courtesy: Mr. Takeshi Midorikawa



Stable iodine tablets distributed to citizens

Radioactive Substances in Water

National Government started measuring the level of radiation in water on the 16th of March. Water sampled on the 21st of March was measured on the 23rd of March to contain radioactive iodine higher than the standard set for infants. Iwaki City made a request to the citizens to refrain from feeding tap water to infants, and

distributed bottled water in the Cultural Centre and City Branch Offices. The level of radioactive iodine went down to the standard set on the 25^{th} of March, and the water sampled in eight Iwaki Water Purification Plants on the 28^{th} of March were measured to have considerably lower than the standard set. The City lifted the restrictions on the 31^{st} of March. From the 4^{th} of April and onwards, no radioactive iodine or cesium has been detected in tap water.

Iwaki City Waterworks Bureau equipped the Water Management Centre with the Germanium Semiconductor Detector on the 24th of October, and has continuously been measuring the radioactive substance in water from the twelve Water Purification Centres in Iwaki.

4 Further Monitoring

Iwaki City started measuring radiation at the City Hall main building and the Shisho Branch Offices on the 13th of June. On the 11th of October, Chuodai, Toyoma, and Izumi Citizens Service Centres were included in the measuring points. Radiation levels has been measured at the 1 metre and 1 centimetre above the ground level at every measuring point. Dosimetres have been distributed to Childcare Centres, Kindergartens, Elementary and Junior High schools. Results of regular measurements has been publicized in the city website and also through other means.

Propulsion of Decontamination

Iwaki City prepared the "Manual of Decontamination for Reducing Radiation" in September to gain citizens' cooperation on the promotion of decontamination and restoration of living environment.

On the 1st of November, Dr. Tsutao Hoshi, Technical Advisor of Japan Atomic Energy Agency, doctor of engineering living in Iwaki was delegated as Iwaki City Advisor on Reducing Radiation. Specifically, the City is taking measures to lower the radiation levels in the spaces for children.



Mayor entrusted Dr. Hoshi as the Advisor, 1st November

(1) Childcare Centres & Schools

Iwaki City is cleaning and decontaminating all the childcare centres and schools, and measuring radiation levels in school yards. If any of them are measured above the city-designated 0.3 microSieverts/hour, City will remove the topsoil of the school yards.

The removal of topsoil was completed in 101 facilities out of 131 by the end of December, which resulted in the maximum of 80% of reduction in radiation levels, and 50-70% in most facilities.

Later the National Government set the standard to 0.23 microSieverts/hour. Iwaki City is monitoring the radiation levels accordingly, and conducting more focused decontamination and other concrete measures to decrease the radiation levels.



Cleaning the Onahama Daisan Elementary School 28th August

(2) Parks

Iwaki City is measuring radiation levels in 455 places managed by the City including the city parks. Removing of topsoil and cleaning of playground facilities were completed by November in nine parks, where the radiation levels were 1 microSieverts/hour and higher.

(3) School Routes

Iwaki City set up a scheme called "Activities to Reduce Radiation Levels in Living Environment." The scheme provided financial aid up to 500,000 yen per organization which cleaned and decontaminated the school routes and parks where children spend a lot of time in.

(4) Decontamination Plan

Iwaki City set up the "Decontamination Action Plan" (period of the plan: December 2011 - March 2016) in December 2011. The plan targets 1 miliSieverts or less of additional exposure to radiation in any place in Iwaki. First two years of the plan is designated as a focus period, and the decontamination of the districts with higher radiation levels, childcare centres and schools where children spend the most time in will be prioritized.

6 Promotion of Health Management

(1) Rental of Dosimetres

Since October, Iwaki City is lending portable digital dosimeters to expecting mothers and parents who have infants so that they can measure radiation levels and manage their own health. The service has been expanded to high school students by February 2012. Since November, Iwaki City lent film badge dosimetres to childcare centres, kindergartens, elementary and junior high students. In January 2012, the City started lending the dosimetres to general adult citizens.

(2) Inspection of Internal Exposure to Radiation with Whole Body Counter

Iwaki City started tests for internal exposure to radiation using a Fukushima Prefectural Government-owned whole body counter installed in Iwaki Kyoritsu Hospital. In the fiscal year 2012, Iwaki City will purchase two whole body counters so that more citizens can measure the exposure to radiation.

(3) Inspection of Radiation in Home-Grown Vegetable

From November to December, Iwaki City visited many places in Iwaki and conducted the screening of surface soils for the citizens who grow vegetable for their own consumption and requested screening. In addition, Iwaki City will prepare Becquerel Monitors and other radiation measuring equipments, and secure human resources to conduct the measurements.



Dosimetre for lending to citizens



Mobile Screening at the Kawamae Local Activation Centre, 27th November

Tests on Radioactive Substance in School Meals

Iwaki City is using safe materials for meals provided in childcare centres, and elementary and junior high schools. To ensure the provision of safe food, the City started testing the food materials for school meals in January 2012. The test results have been announced on the City website.

8 Organizations Responding to Nuclear Hazards

For the reconstruction of Iwaki City, the settlement of the nuclear hazard is an urgent issue. The City established the "Nuclear Hazard Response Project Team" in the Disaster Countermeasures HQs in July. The Project Team has conducted comprehensive coordination for radiation monitoring, tests, decontamination manual, preparation of equipment and personnel for decontamination, and so forth.

On the 1st of January 2012, the City set up the Nuclear Hazard Countermeasure Division and Crisis Management Office under the Department of Administration and Management. Nuclear Hazard Countermeasure Division will conduct decontamination with a comprehensive view on the problems. Crisis Management Office will manage the Nuclear Hazard Countermeasure Section and the Crisis Management Division to take advanced actions against the Problems. On the same day, the City established the Radiation and Healthcare Centre in the Iwaki City Health Centre to eliminate the citizens' concerns on the impact of radiation, and to enhance the citizens' health management against radiation.

Measures for Livelihood

Massive earthquake and the devastating tsunami heavily damaged the buildings in Iwaki City. The City administration has been trying its best to aid the affected citizens immediately after the disasters through the rapid supply of temporary housings, prompt issuance of damage certificate, emergency repairs on housings, deconstruction of heavily damaged buildings and removal of debris and so forth.

1 Temporary Housings

Iwaki City has made the best efforts to provide Employment Promotion Housings or private apartments prior to the construction of pre-fab housings by Fukushima Prefectural Government, to provide a better living environment to the people whose houses are swept away and destroyed by the natural disasters.

The City started accepting applications for city-provided temporary housings on the 29th of March, and citizens could start living in the temporary housings on the 16th of April.



1,000 Pre-fab Housings were built in Iwaki New Town, 12th July

As at the 1st of February 2012, 3,086 households reside in 143 pre-fab housings, 2,379 households in private apartments, 558 in employment promotion housings, and 6 in school teachers' housings. When the citizens first moved into the temporary housings, six home appliances were provided by the Japan Red Cross Society and telephone sets were supplied by NTT.

2 Damage Certificates

Damage Certificate is required when the people affected by the disasters apply to receive relief fund and other assistances. On the 28th of March, Iwaki City began inspection on all the buildings in the coastal area which are heavily damaged by the natural disasters. On the 4th of April, the City prioritized the issuance of the certificates to the buildings which were inspected to be "Totally Destroyed."

When the inspection of the coastal areas were completed on the 22^{nd} of April, the City inspected each building and issued damage certificates. As at the 27^{th} of January 2012, the number of applications totaled 85,319, and the certificates for 83,172 buildings were issued.



Inspection of damaged houses by the officers from other municipalities, 2nd April Photo courtesy: Fukuyama City

3 Emergency Repairs on Housings

Iwaki City subsided a maximum of 520,000yen per household for those who needed repair works to be done on their own houses and continue living there. The City accepted applications from the 11th of April, with a total number of 15,500 applications as at the end of December. 6,227 households among these applications have completed the repair works.

4 Demolishment of Destroyed Housings and the Removal of Debris

Three 6-lower leveled earthquakes and the continuous aftershocks heavily damaged many houses in Iwaki. Iwaki City administration started accepting applications for demolishment of damaged houses and the removal of debris on the 1st of June. As at the 14th of January 2012, the City has accepted 4,220 applications and 1,300 houses has been demolished and the debris has been removed.



Demolishing a damaged house, 15th July

Administrative Support Officers

Since the Great East Japan Earthquake, in addition to the relief fund and supplies from all over the country, administrative officers from various municipalities, Self Defense Force members and many other administrative organizations have supported the City in various fields of city administration,.

1 Support from Administrative Organizations

Officers from municipalities, JSDF and many other organizations supported the Iwaki City administration in various levels; emergency repair works on water facilities, emergency water supplies, management of evacuation shelters, handling of relief supplies, processing of damage certificates and more.

The number of officers from other municipalities totals 15,000 excluding police and JSDF) up to this date and some of them are still working for the Iwaki City administration.



JSDF members from all over Japan conducted search and rescue, 21st March, Photo courtesy: 8th Infantry Regiment, Ground SDF



Applications for exemption of city tax handled by Yurihonjo City officers, 14th September

Administrative Organizations who supported Iwaki City

ONational Government

Ministry of Economy, Trade and Industry, Ministry of Finance (Tohoku Regional Development Bureau, Iwaki Tax Office and others)

OSelf Defense Forces

[Ground SDF]

6th Artillery Regiment (Koriyama), 6th Antiaircraft Artillery Battalion (Koriyama), 6th Band (Higashine), North Eastern Army Signal Group (Sendai), 2nd Infantry Regiment (Joetsu), Central Readiness Force Regiment (Utsunomiya), Command Unit, Central Readiness Force Regiment / Eastern Army Signal Group / Eastern Army Military Police Group / Central Band (Asaka), 1st Airborne (Narashino), Eastern Army Combined Brigade (Yokosuka), 8th Infantry Regiment (Yonago), 8th Chemical Weapon Defense Unit (Kumamoto)

[Maritime SDF]

Maritime Disaster Relief Task Group
[Air SDF]

Disaster Relief Task Group of Air SDF

OMunicipalities(C: City, T: Town, V: Village)

[Prefectures] Tokyo, Nagasaki, Oita [Municipalities] Iwamizawa C, Kita Hiroshima C, AomoriC, Yuri Honjo C, Minami Aizu T, Samegawa V, Takahagi C, Ashikaga C, Maebashi C, Kawagoe C, Ageo C, Toda C. Tsurugashima C, Ina T, Ogawa T, Funabashi C, Cities in Tokyo (Minato, Ohta, Setagaya, Shibuya, Hachioji, Machida, Kiyose), Tokyo Association of Mayors, Kurobe C, Shibata C, Itoigawa C, Gosen C, Joetsu C, Uonuma C, Ueda C, Gifu C, Motosu C, Gujo C, Toyohashi C, Nishio C, Yokkaichi C, Nagahama C, Higashi Omi C, Kobe C, Matsue C, Kurashiki C, Tamano C, Hiroshima C, Fukuyama C, Miyoshi C, Hatsukaichi C, Ube C, Hofu C, Shunan C, Sanyo Onoda C, Takamatsu C, Marugame C, Sakaide C, Kannonji C, Uchiko T, Kochi C, Iizuka C, Karatsu C, Nagasaki C, Shimabara C, Omura C, Beppu C, Miyakonojo C, Nobeoka C, Kagoshima C, Akune C, Izumi C, Hioki C, Minami Satsuma C, Satsumasendai C

Pollice

Tokyo, Hokkaido, Osaka, Kyoto and 35 other Prefectural Police HQs

Emergency Fire Response Teams

Chiba, Kanagawa, Gunma, Shizuoka, Gifu, Shiga

OFire Prevention HQs in Fukushima Pref

Fukushima City Fire Defense HQs Inter Regional Administration Cooperatives of Koriyama, Sukagawa, Kitakata, Adachi, Date, Shirakawa and Aizu Wakamatsu

Waterworks Bureaux

[Prefectures] Tokyo, Kanagawa, Okinawa [Municipalities] Aizu Wakamatsu, Koriyama, Furudono, Kita Ibaraki, Moriya, Bando, Kiryu, Saitama, Yokohama, Kofu, Fukuyama, Kita Kyushu, Karatsu, Nagasaki, Shimabara, Oita, Beppu, Kitsuki, Miyazaki, Miyakonojo, Nobeoka, Hyuga, Kanoya, Akune, Tarumi, Satsumasendai, Naha, Urazoe, Nago [Waterworks Groups] Futaba, Sakado&Tsurugashima, Nishi Saga

*Including those who are still working for Iwaki City

Volunteer Works

To respond to volunteer offers from all around Japan, Iwaki City and Council of Social Welfare established the Volunteer Centre to bridge between the volunteers and the people in need. More than 50,000 volunteers have provided assistance and support for the restoration and reconstruction of Iwaki City.

1 Kind Help from Volunteer Workers

Iwaki City, the Council of Social Welfare, and the organization "Disaster Volunteer Iwaki" started accepting the volunteers on the 16^{th} of March. The NPOs and the citizens also established volunteer centres on their own. Through these centres, more than 50,000 people in and out of Iwaki provided various aid, assisting evacuation shelter management, supporting emergency water supplies, consultation on livelihood and so forth.

There have also been many different groups that the volunteers formed themselves to help in distribution of relief supplies, removal of debris, moving of furnitures, cleaning and more.



Volunteer works in Hisanohama, 5th June

2 Volunteer Centres

(1) Volunteer Centre for Disaster Aid

Iwaki City, the Council of Social Welfare, and the organization "Disaster Volunteer Iwaki" established the "Iwaki City Disaster Response Volunteer Centre" on the 16th of March. They listened to concerns of the people affected and accepted registration of volunteers, and acted as a bridge between them.

Then they also established the "Nakoso District Volunteer Centre" on the 9th of April, and the "Onahama District Volunteer Centre" on the 19th of April. A large number of volunteers registered to the volunteer centres and provided assistance on house cleanings, rubble removing and many other activities.

In the management of these volunteer centres, Iwaki received cooperation of more than 200 people including those of the social welfare councils in Kyushu and other areas, such as the organization "Project Conference on Assistance to Disaster Volunteers Activities" and more.



Registration at the City Disaster Response Volunteer Centre, 21st April Photo courtesy: Council of Social Welfare

(2) Volunteer Centre for Reconstruction Assistance

As the people affected by the disasters moved into temporary housings about 6 months after the natural disasters, their needs changed from "disaster rescue" into "livelihood assistance" and "forming communities."

To respond to the changes, Nakoso District Volunteer Centre changed its name into "Nakoso Reconstruction Project" on the 6th of June. On the 8th of August, the Iwaki City Disaster Response Volunteer Centre also changed its name and functions into "Iwaki City Reconstruction Assistance Volunteer Centre," and the Onahama District Volunteer Centre into "Onahama District Reconstruction Assistance Volunteer Centre."

They are currently providing assistance towards life reconstruction based on the needs of affected people such as salons, tea parties and other opportunities for community exchange, regular visits to people in need, and more.



Consultant visiting pre-fab housings 17th November Photo courtesy: Council of Social Welfare

Elementary and Junior High Schools

Elementary and junior high schools re-started on the 6th of April except for the schools which were forced to close due to the Great East Japan Earthquake, but were forced to close again on the 12th of April due to severe aftershock on the 11th of April. Iwaki City moved students of affected schools tentatively to different schools, provided "school lunch" instead of the usual Kyushoku, and took other measures so that children and students can have an active school life.

1 Towards the Re-Opening of Schools

The Great East Japan Earthquake caused damages to around 90 percent of public elementary and junior high schools in Iwaki. Particularly, Nagasaki ES, Toyoma JHS and Yotsukura JHS had their ground floor flooded by tsunami.

Hisanohama Daiichi ES, Hisanohama Daini ES and Hisanohama JHS were included in the indoor evacuation area (lifted on the 22^{nd} of April).

Despite of this damage, elementary and junior high schools in Iwaki could host the entrance ceremony on the 6^{th} of April and start the school semester. Entrance ceremony of four elementary schools and three junior high schools were held in the Cultural Centre, and started their academic year moving the classes to other schools in the city.

All the schools were closed again on the 12^{th} of April due to the April 11 massive aftershocks, but re-opened on the 18^{th} of April. Hisanohama Daiichi ES, Hisanohama Daini ES, Hisanohama JHS, Tabito JHS and 3^{rd} year students of Yotsukura JHS were gradually moved back to their original schools from their temporary schools.



Dreadful cracks in the Ueda Elementary School, 6th April



Only the 3rd year students resumed their studies at Yotsukura JHS, 17th January 2012

2 Kyushoku and the Simplified School Lunch

Natural disasters damaged all the eight school meal preparing facilities and they were unable to provide meals to elementary and junior high schools. Restoration of all the facilities in a short time was impossible. They started providing bread and milk on the 25^{th} of April, and started providing bread, milk, simple dishes and desserts on the 2^{nd} of May.

Iwaki City proceeded the repair works on the facilities and could provide the usual kyushoku school lunch and the simplified school lunch in alternate weeks from the $6^{\rm th}$ of June. The usual kyushoku school lunch service was resumed from the beginning of the autumn semester.

However, the operation of the kyushoku preparation facilities could not be resumed fully, and could not provide usual kyoshoku lunch to junior high schools. For a better balance of nutrition and the satisfaction of students' appetite, the City started the simplified school lunch service to junior high schools from autumn semester.

Measurement of radiation levels in food materials for all the elementary and junior high schools in Iwaki has been conducted since the beginning of the third (winter) semester.



Lunch prepared and served by JSDF members, Ena Elementary School, 27th April



Simplified School lunch served from the Autumn semester

Against Harmful Rumours

After the nuclear power station accidents, agricultural products labeled "Fukushima made" or "Iwaki made" were often rejected by the market and consumers. The reluctance to purchase Iwaki local specialties and industrial products and the decrease in number of tourists were caused by harmful rumours. Upholding the slogan "Ganbappe! (We can do it!) Iwaki," Iwaki City strived to eliminate the harmful rumours in various ways.

1 Agricultural Products

Iwaki City "All Nippon Caravan" has hosted events more than 50 times starting with the first events in front of Shimbashi Station in Tokyo in April. In this event, agricultural produce and other Iwaki specialties was displayed and promoted to eliminate the harmful rumours.

Also Iwaki City is striving to convey accurate information to the consumers via various media such as "Iwaki Brand Veggie Newsletter," "Iwaki Postcards," "Umaibe! Iwaki (Tastes good! Iwaki) website," "We will show you! Iwaki Information Station website," and TV PR films. "Iwaki Agricultural Produce Visualization Project" announces the methods and results of radiation tests, efforts and mind of farmers, and many other information to the consumers.



Iwaki-grown vegetable sold in "Iwaki Restoration Festival in Nakano, Tokyo" 21st November

2 Tourism & Local Produce

Harmful rumours due to the accidents at nuclear power stations degraded the status of Iwaki local products tremendously. To regain its reputation, Iwaki City has participated in more than 50 events held in Tokyo metropolitan area with the cooperation of Iwaki City Tourism and Creative City Planning Bureau. The City also promoted Iwaki products to enhance the sale channels which were damaged by the harmful rumours.

Regarding the drop in the number of tourists to Iwaki, the City tried to deepen the coalition with municipalities to attract more visitors to the City.



Iwaki local products sold in Mito station "Welcome Iwaki Caravan" 31st August

3 Industrial Products

Harmful rumours also affected the industrial products of Iwaki. For the restoration of manufacturing industry of Iwaki City, the City participate in expos held in Tokyo to promote local products and to enhance sale channels.

On the 20^{th} of April, the donation of dosimetres by the Onahama Rotary Club enabled the city to conduct measurement of radiation of industrial products, and the City started the measurements of radiation levels in industrial products on the 25^{th} of April.

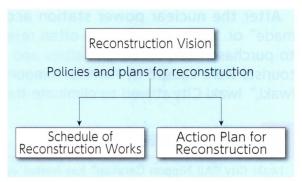
Iwaki is still progressing towards the elimination of harmful rumours and restoration of production, shipment and business tradings to the level before the earthquake as the second largest industrial city in the Tohoku region.



Iwaki local enterprises opened their booths in the " 13^{th} Eco Products 2011" In the Tokyo Big Sight, 15^{th} December

Steps toward Reconstruction

Iwaki City launched its utmost efforts to reconstruct our city and to make a city that is more active than before the disasters. The City has completed its administrative reform, drawn up various plans for reconstruction, restoration events and more. Furthermore, we shall step forward to a city where all the citizens can live a safe and comfortable life, with the principles "Iwaki as a whole" and "Reconstruction of Iwaki will lead to the reconstruction of Japan."



Relation of various plans

1 Administrative Structure for the Reconstruction of Iwaki

Iwaki City set up the "Iwaki City Reconstruction Headquarters against Great East Japan Earthquake" on the 1st of June. The Executive Director is the Iwaki City Mayor, and the headquarters promote the unity of the whole city administration towards the reconstruction of Iwaki. The administrative reform launched on the same day includes the establishment of the "Director-General for Reconstruction," which governs the various measures toward reconstruction, and also launched the "Office for Reconstruction Assistance" which promotes various assistance in rebuilding the lives of the citizens affected by the disaster as a whole city administration.

2 Iwaki City Reconstruction Vision

The City prepared the "Iwaki City Reconstruction Vision" on the 30^{th} of September to clarify the prospective, process and the goals of Iwaki City's reconstruction and share them with Iwaki citizens.

The Vision with the slogan "Reconstruction of Japan starts from Iwaki," and 5 basic philosophies; Coalition, Comfort, Vitality, Fascination, and Challenge, aims at the foothold of reconstruction of Hamadori region striving for maximum safety and comfort of the citizens, and towards a city with more vitality than before the natural disasters, and setting a reconstruction model which can set an example to the world.

The Plan visions Iwaki City 10 years ahead of this time and determines a five-year period (Fiscal Years 2011-2015) of intensive enforcement of reconstruction.

Purpose of Reconstruction Policies of Reconstruction 1. Coalition 2. Comfort 3. Vitality 4. Fascination 5. Challenge Contents of Reconstruction 1. Livelihood Reconstruction 2. Substantail Living Environment 3. Improved Social Infrastructure 4. Economy and Industries 5. Promotion of Reconstruction

Outline of the Reconstruction Vision



Restoration and Reconstruction Committee lodged proposals to the Iwaki City Reconstruction Vision, 28th September

3 Schedule of Reconstruction Works

Tremendous earthquake and devastating tsunami of the Great East Japan Earthquake and the massive aftershocks in April has brought an extensive damage to the social infrastructures of Iwaki City. Currently Iwaki City administration is making the best efforts to recover the vital infrastructure and to repair the city facilities that are related to citizens' daily lives in order to restore the comfortable lives of the citizens.

To strive for a steady and consistent progress required for restoration of damaged public facilities, road and other infrastructure, the City established the "Schedule of Reconstruction Works" on the 18^{th} of October.

Iwaki City will implement a speedy reconstruction of the city by accomplishing the set plan.

4 Action Plans for the Reconstruction of Iwaki City

The City prepared the "Iwaki City Action Plan for Reconstruction" on the 26th of December based on the "Reconstruction Vision."

The plan includes 168 activities based on the five key plans regulated by the Reconstruction Vision, and there are nine points of emphasis from the plan, including the reconstruction of tsunami-affected areas, public housings, countermeasures against nuclear hazard, and so forth.

[Key Factors of the Action Plan for Reconstruction]

Key 1: Livelihood Reconstruction (30 plans)

Comprehensive measures to rebuild each citizen's housing and lives

[Public housings, Monitoring of radiation]

Key 2: Substantial Living Environment(59 plans)

Strengthening of medical and welfare system, creating a better environment for child raising and education, while improving community ties [Improved community disaster prevention plan, decontamination]

Key 3: Improved Social Infrastructure (16 plans)

Strengthening infrastructures such as social capital with a stronger resistance to natural disasters, making reconstruction plans in accordance with each area's characteristics and needs.

[Reconstruction and Land Readjustment in the disaster-affected areas]

Key 4: Economy and Industries (49 plans)

Revival of agriculture/forestry/fishery and creation of new industries for reconstruction of local economy as the foundation to revive the city's vitality

[Research and development of offshore wind power generators, promotion of incitement of plants and factories]

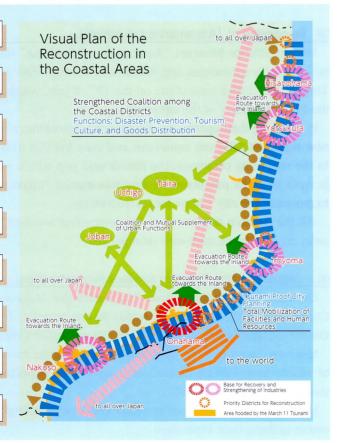
Key 5: Promotion of Reconstruction (14 plans)

Stronger coalition with the National and Prefectural Government, structural reform and providing financial resources necessary for reconstruction

[Reform and improve administrative structures for reconstruction]

[Focal Points of the Action Plan for Reconstruction]

- 1 Plan on land usage towards reconstruction
- 2 Preparation of disaster-resistant public housings
- 3 Mental care project
- 4 Project against Nuclear Hazard
- 5 Reconstruction of Onahama Port Area
- 6 Promotion of Renewable Energy Industry
- 7 Recovery of Conventional Local Industries
- 8 Project to attract investments from Enterprises
- 9 Coalition with the Disaster-Affected Municipalities



5 Steps toward Reconstruction

Iwaki City implemented various events and other activities to recover the ties within the community and to create a city which has more vitality than before the disasters. Major tourist attractions resumed their operations within one year from the earthquake. Main recoveries since the earthquake are listed below.

(1) [Ganbappe!(We can do it!) Iwaki Supporters]

"Ganbappe! Iwaki Supporters" was launched in May including public administration, enterprises and individuals who wished the reconstruction of Iwaki to generate the energy for everyone to step forward and to spread the support nationwide.

Approximately a 1,000 people have registered as a supporter, and supported their hometown Iwaki through the purchase of Iwaki local products, participating in the reconstruction events, and many more.

(2) Restart of the [Iwaki Taira Velodrome]

Iwaki Taira Velodrome was used as a station to store the relief supplies from all over Japan, and it also provided accommodation for the DMAT (Japan Disaster Medical Assistance Team) and public officers from other municipalities around Japan, while the repair works on the cracks on the race tracks and other parts of the velodrome was still undertaking. The repair efforts resulted in the re-opening of off-site betting office on the 2^{nd} of June, and the main velodrome on the 20^{th} of June.

Races named "Race for Reconstruction," events hosted by the Japan Professional Cyclist Union, and many other events have been held to support the reconstruction of Iwaki City.

(3) Re-opening of [Aquamarine Fukushima]

Marine Science Museum "Aquamarine Fukushima" had their power supplies damaged and was forced to close their facilities. They resumed their operations on the $15^{\rm th}$ of July, which was on the $11^{\rm th}$ anniversary of the aquarium.

In resuming their operations, Aquamarine Fukushima received a new supply of fish from aquariums and zoos from all over Japan. In the reopening ceremony, the harbor seal pup which was born in April while its parents evacuated was named "Kibou (wish)" to represent the city's hope for reconstruction.

All the children who came to the re-opening watched the fish swim actively in the tank with shining eyes.

(4) [Agreement on Coalition towards Reconstruction]

On the 10th of August, Iwaki City signed the "Agreement on Coalition and Cooperation towards Reconstruction from the Great East Japan Earthquake" with the University of Tsukuba.

Measures to protect our lives and properties from the tsunami, or advice from experts on nuclear disasters are expected to be shared from this agreement.

Moreover, the universities in Iwaki City are planning to hold events utilizing their expertises.



"Ganbappe! Iwaki Wrist Band" shows that you are supporting Iwaki



Race for Reconstruction at the Velodrome 21st January 2012



Aquamarine Fukushima with many visitors on the day of the re-opening, $\rm 15^{th}$ July



Iwaki City Mayor and Dr. Yamada, President, University of Tsukuba

(5) [Hamakaze Shotengai] Temporary Shops and Offices in Hisanohama

Iwaki City prepared temporary shops and offices in the part of Hisanohama Daiich Elementary School yard on the 3rd of September as the first temporary commercial facility in Japan. Hisanohama shopping area suffered from devastating damages due to tsunami and fire caused by the Great East Japan Earthquake. For a rapid recovery of the shopping area, support of local businesses, and the convenience of local residents, the City implemented this program under the cooperation of the Organization for Small and Medium Enterprises and Regional Innovation.



Ribbon-cutting ceremony at Hamakaze Shotengai

(6) 『Ganbappe! Iwaki Restoration Festival』

To encourage the people who have lost their family, home, or had their properties heavily damaged to step forward towards reconstruction and to enhance the development of Iwaki City, the City hosted the "Ganbappe! (We can do it!) Iwaki Restoration Festival" on the 1st and 2nd of October, on the 45th anniversary of the City, in the 21st Century Forest Park.

The 2-day festival attracted a total of 100,000 visitors including those from Iwaki, neighboring prefectures, and the metropolitan region.



Citizens dancing, praying for reconstruction

(7) Renovation of [Iwaki La La Mew (Iwaki Tourism and Local Produce Centre)]

Iwaki La La Mew was heavily damaged by the earthquake and tsunami, however as a result of hard effort reconstruction works, it resumed its operations on the 25th of November, 8 months after the natural disasters.

In the renovation works of La La Mew, wave-proof panels of a height of 75 centimetres and a length of 80 metres were installed to reduce damage due to typhoon and high tide. On the day of the re-opening, many citizens visited with their children to let the children play in the "Wanpaku Hiroba Mew Mew," one of the biggest indoor kids playgrounds in the Tohoku region.

"Photo Exhibition on the Great East Japan Earthquake in Iwaki" was also held as an opening event. Many visitors viewed the photos of damage and restoration of Iwaki.



Pre-Reopening Ceremony at La La Mew, 23rd November

(8) [The 3rd Iwaki Sunshine Marathon]

Iwaki City hosted the 3rd Iwaki Sunshine Marathon on the 12th of February 2012 to pray for reconstruction. The marathon was once deemed to be canceled due to the damages to the course and financial problems, but the assistance and support from many people enabled Iwaki City to host the event as scheduled.

On the day of the marathon, a record-high number of participants from all over Japan ran through the hometowm of the Hula girls, and there were many supporters on the streets cheering the runners on.





▲3.860 runners start off to the marathon

♠Mr. Ryuji Kashiwabara, guest runner supporting the runners at the 1st check point.

After the Earthquake: Daily Record

Blue: Measures taken by Iwaki City administration Red: Accidents in the Fukushima 1 NPP

Friday, 11th of March 2011



Calm Usuiso Beach around 6:00am Photo courtesy: Mr. Kouichi Seya

2:46pm	Great East Japan Earthquake of magnitude 9.0, measured
	shindo level 6-lower in Iwaki
	Reactors 1-3 automatically stopped

2:49pm Major Tsunami Warning by the Meteorological Agency

2:50pm Disaster Countermeasures HQs set up in Fire Defense HQs Evacuation shelters opened, procuring food and blankets

2:51pm Evacuation order to the coastal areas

2:52pm First Tsunami of 1.0 meters observed in Onahama

3:39pm Tsunami of 3.3 metres observed in Onahama

3:42pm Power supply to Reactors 1-3 failed

3:45pm Siren evacuation order to coastal areas

4:30pm Requested Fukushima Governor to send JSDF

4:36pm Reactors 1&2 lost cooling function

5:55pm Mayor's press conference on efforts towards overcoming the earthquake

6:00pm Waterworks Bureau announced water outage and requested to save water / Water supply vehicles to emergency medical centres and artificial dialysis clinics

7:03pm Declaration of nuclear emergency (Fukushima 1 NPP)

9:23pm Prime Minister ordered evacuation to 3 km and indoor Evacuation to 3-10 km radius of Fukushima 1 NPP

11:00pm Ground JSDF arrived in Iwaki and started operations

• Delivery of foods to evacuation shelters (until 19th Aug)

•Water outage in 130,000 households

Emergency water supply to citizens using underground water

●JR Joban Line & Ban'etsu To Line closed

●Joban & Ban'etsu Expressways closed

Buses to Fukushima Airport continued normal operations

Saturday, 12th of March

4:10am Requested Red Cross Fukushima to dispatch DMAT

5:44am Evacuation order by Prime Minister to the 10 km radius area of the Fukushima 1 NPP

7:45am Declaration of Nuclear Emergency Situation for Fukushima 2 NPP (lifted on 26th Dec) / Prime Minister ordered evacuation to 3 km radius area, indoor evacuation to 3-10 km radius area of the Fukushima 2 NPP

8:00am Rescue efforts in coastal areas by Iwaki City Fire Defense

HQs, Volunteer Fire Corps, and Disaster Medical Assistant

10:00am 127 shelters set up for a total of 19,813 evacuees

10:17am Ventilation began in Fukushima 1 NPP

11:00am Joban & Ban'etsu Expressways designated as emergency roads

3:00pm Rescue efforts on coastal area by Emergency Fire Response Team

3:36pm Hydrogen explosion at Reactor 1

5:39pm Prime Minister ordered evacuation of 10 km radius area of the Fukushima 2 NPP

6:25pm Prime Minister ordered evacuation of 20 km radius area of the Fukushima 1 NPP

7:04pm Sea water poured in to cool the Reactor 1

Mayor requested citizens to calm down and stay indoors

Safety confirmation of elderly and people in need

Major water pipes restored, began supplying water to reservoirs

• Emergency water supply at 21 water supply stations, and by water supply vehicles with portable water tanks

•Relief Supply Distribution Centre set up in Taira Verodrome

Safety information displayed in Disaster Countermeasures HQs

Removal of rubbles on City Roads (until early April)

•JSDF, Emergency Fire Response Team, Iwaki City Fire Defense HQs, and Volunteer Fire Corps launched search and rescue in coastal areas.

•JMAT launched operations (until 3rd May)

• Emergency flight route, Fukushima-Itami (until 31st Mar)

Sunday, 13th of March

5:10am Loss of cooling function at Reactor 3

8:30am Iwaki City requested voluntary evacuation to Hisanohama & Ohisa districts and provided emergency buses (Evacuation order by the national government was at llam, Tue, 15th Mar)

8:30am JSDF, Police, Emergency Fire Response Team, Iwaki City Fire Defense HQs, and Volunteer Fire Corps launched search and rescue efforts in coastal areas (until 14th Mar)

5:58pm Tsunami Advisory lifted, Evacuation order lifeted

●24-hour water supply at major water purification plants and waterworks bureau

Partial restoration of water in Tabito, Tono & Kawamae area

Running water restored in Kyoritsu and Rosai Hospitals

After Hours Emergency Clinic re-opened

Request to save petrol & canceled rubbish collection service

Radiation screening at City Health Centre

 Medical staff of Kyoritsu Hospital visited evacuation shelters to provide medical treatments (until 28th March)

●Emergency flight routes; Fukushima-Haneda (until 10th Apr), -Chubu (until 31th Mar), -Shin Chitose (until 24th Mar)

Monday, 14th of March

11:01am Hydrogen explosion at Reactor 3

1:25pm Reactor 2 lost cooling function

Partial restoration of City Hall counters

5 Post-Earthquake Timeline

- Consultation counter for foreigners opened
- Regular collection of rubbish and septic wastes in evacuation shelters
- Disaster related pages open on the City Website
- Patients in affected areas moved (also on 24th & 25th Mar)
- Relief supplies arrived in Fukushima Airport, and was distributed to various places in Fukushima (until 2nd May)

► Tuesday, 15th of March

- 4:00am Highest radiation levels in Iwaki; 23.72 μSV/hr
- 6:10am Explosive sound in Reactor 2
- 6:14am Explosion and damage in Reactor 3
- 9:30am City requested voluntary evacuation to Kami Ogawa and Shimo Okeuri districts (evacuation order by national government was on 11am, 15th Mar)
- 9:45am Mayor requested to refrain from going outdoors
- 11:00am Prime Minister ordered indoor evacuation to 20-30 km radius area →including parts of Ogawa, Kawamae, Hisanohama and Ohisa
- 1:17pm Miwa, Ono, Nakoso, Yumoto, Chuo entrances to expressways opened for evacuation
- Requested DPJ & LDP to secure temporary housings and relief supplies
- After-Hours Emergency Dental Clinic re-opened (until 3rd Apr)
- Critically ill patients moved out of the city (until 30th Mar)

▶ Wednesday, 16th of March



Deserted Iwaki station street around 8:30am Photo courtesy: FM Iwaki

5:45am Fire in the 4th floor of Reactor 4

- 8:30am JSDF, Police, Iwaki City Fire Defense HQs and Volunteer Fire Corps started search and rescue (until 26th Apr)
- 10:40am Mayor requested orderly behavior, announced the supply of medicines, goods distribution to shelters, repair works on water supply pipes
- Radiation levels of tap water tested
- Evaluations on the of degree of damage and danger of damaged buildings (until 5th of June)
- •Petrol to 11 gas stands supplied by 8 tank trucks with the cooperation of the national and prefectural government
- Requested Onahama Petroleum to release their stored petrol
- •Disaster Volunteer Centre opened
- Fujiwara Wharf of Onahama Port repaired to accept relief good vessels

► Thursday, 17th of March

- 8:30am Evacuation advisory to Chuda district, Joban Nishigo
- 9:30am Mayor made an announcement on distribution of petrol
- 9:48am Land SDF helicopter poured 30 tons of sea water to Reactor 3 (until 10:01am)
- Started accepting relief fund to Iwaki City
- •JSDF bathing service at Kusano ES (until 19th Mar)

Friday, 18th of March

- 9:00am Mayor announced distribution of stable iodine tablets→started distribution to expecting mothers and citizens under 40 years old
- 5:48pm Nuclear and Industry Safety Agency announced that Reactors 1-3 were evaluated as the Level 5, Reactor 4 Level 3 according to INES tentative evaluation standards. (Evaluation of Reactors 1-3 raised to Level 7 on 12th Apr)
- Graduation ceremony of city kindergartens and ES postponed
- ●Iwaki-Tokyo expressway buses resumed operation
- First vessel loaded with relief supplies arrived in Onahama Port

Saturday, 19th of March

- 8:00am Mayor announced the assistance for citizens with difficulties
- 6:30pm Mayor announced the supply of petrol

Sunday, 20th of March

- Fukushima Prefectural government and Onahama Petroleum supplied petrol to gas stands (until 26th Mar)
- •33 mentally disabled citizens moved to Kanagawa by boat
- •Relief supplies to centres for the disabled (until 4th April)
- Relief supplies to elderly care centres (until 6th April)
- Iwaki Medical Association opened emergency clinic (until 21st Mar)

Monday, 21st of March

- 1:30pm Mayor announced distribution of emergency foods
 →Distributed foods to citizens (6 times until 28th Mar)
- ●Joban Expressway (Mito-Iwaki Chuo) re-opened

► Tuesday, 22nd of March

- Kyoritsu Hospital resumed outpatients operations
- Once-a-week collection of burnable rubbish resumed
- •6 local bus routes re-started temporarily on holiday hour schedule
- Some convenience stores re-opened

▶ Wednesday, 23rd of March

- 7:12am Earthquake of magnitude 6.0, shindo 5-upper occurred
- 7:36am Earthquake of magnitude 5.8, shindo 5-upper occurred
- 5:30pm 103 becquerel of radioactive iodine detected in tap water, an anouncement made to restrict feeding tap water to infants (lifted on 31st March)
 - →Distribution of bottled water to families with infants

5 Post-Earthquake Timeline

(until 31st March)

6:55pm Earthquake of magnitude 4.7, shindo 5-upper occurred 9:00pm "Restoration Plan" announced by Waterworks Bureau

- ●50 percent of water services recovered
- Buses for shopping to/from evacuation shelters (until 26th Mar)
- Relief supplies for Iwaki accepted in Minato Sports Centre, Tokyo (until 31st Mar)

▶Thursday, 24th of March

- Distribution of disinfectants to disaster-affected houses (until 22nd Jul)
- Ban'etsu Expressways (Iwaki-Niigata) re-opened

Friday, 25th of March

11:46am Chief Cabinet Secretary urged voluntary evacuation to 20-30 km radius area of Fukushima 1 NPP

- •Drinking water supplied to childcare centres (until 7th Apr)
- Post deliveries gradually resumed



JSDF briefing to Mayor prior to his inspection in a helicopter

Saturday, 26th of March

11:00am Mayor's message "Two weeks after the earthquake"

 Requested national government, DPJ and LDP for living assistance, security of living standards and the elimination of harmful rumours

Monday, 28th of March

- Started inspection for issuing damage certificates
- ●Iwaki City Assembly set up Disaster Response HQs
- Mayor's announcement on opening of general counter for affected people and provision of temporary housings
- Requested Government, DPJ, LDP to stop the spread of harmful rumours
- Emergency radio station in FM Iwaki boosted its output from 20 watts to 100 watts (until 27th May)
- ●18 childcare centres re-opened
- Supermarkets and convenience stores resumed normal opeartions

▶Tuesday, 29th of March

- Ocity General Counter opened in Cultural Centre
- Mayor's press conference on full resumption of rubbish collection,

acceptance of rubbish from damaged homes

- Applications open for subsidies for affected citizens
- Applications for temporary housings open until 8th Apr
- First private oil tanker arrived in Onahama Port



City General Counter at Cultural Centre

▶ Wednesday, 30th of March

- Rubbish from damaged homes accepted at 3 depots
- JSDF provided bathing facilities in Chuodai Kominakan (until 30th May)

▶Thursday, 31st of March

• Consultation on nutrition at evacuation shelters (until 20th Aug)

Friday, 1st of April

5:31pm Cabinet announced the name of the disaster as "Great East Japan Earthquake"

- Medical consultation at shelters
- Requested Government, DPJ, LDP, Governors for faster settlement of the nuclear problems and harmful rumours
- ●Joban Expressway (Iwaki Chuo-Yotsukura) re-opened

Sunday, 3rd of April

• Temporary bathing facility available at shelters (until 28th May)

► Monday, 4th of April

- Emergency Countermeasure HQs moved to Cultural Centre
- Special loan for living assistance started
- •Full service of rubbish collection restored
- Began issuing the damage certificates
- Disaster Relief Volunteer Centre merged and set up the general counter in the Social Welfare Commission

▶Tuesday, 5th of April

•Mayor's press conference on demolishing of damaged houses

▶ Wednesday, 6th of April

- Entrance Ceremony at Elementary and Junior High schools, heavily damaged schools held the ceremony at Cultural Centre
- Requested Fukushima Governor for assistance on fisheries

5 Post-Earthquake Timeline

- Made a request to the Nuclear and Industrial Safety Agency against the release of contaminated water into the ocean
- Began the removal of rubbles (until end of July)
- •Local bus routes resumed normal operation

▶ Thursday, 7th of April

11:32pm Earthquake of Magnitude 7.1, shindo 4 occurred 11:34pm Tsunami Advisory (lifted at 0:05am, 8th April)

Entrance ceremony at city kindergartens

Friday, 8th of April

Mayor's press conference on emergency employment

Saturday, 9th of April

- 「Ganbappe! (We can do it!) Iwaki All Iwaki Caravan」 in five places in Iwaki (until 10th April)
- Requested Government, DPJ, LDP to deal with the fishery problems
- ●Nasoko Volunteer Centre opened (until 20th May)

Sunday, 10th of April

- Water supply resumed in most areas in Iwaki
- Public health nurses visit to disaster-affected areas (until 7th June)

Monday, 11th of April <One Month from the Great East Japan Earthquake>



Prayer in Silence in the Disaster Countermeasure HQs

2:46pm Silent prayer with siren

5:16pm Earthquake of Magnitude 7.0, shindo 6-lower

5:18pm Tsunami Advisory by the Japan Meteorological Agency (lifted at 6:05pm on the day)

6:19pm Landslides at Aza Kaiya, Ishizumi, Tabito. Launched rescue works in the areas where houses collapsed

7:00pm Mayor announced that Iwaki is not included in Emergency Evacuation-Ready Zone)

7:30pm Waterworks Bureau announced water outage caused by the aftershocks and requested to save water

- Water outage in approximately 100,000 households
- Started accepting applications for emergency repair works on damaged housings

- Joban Line (Iwaki-Takahagi) Re-opened, but stopped again due to the aftershock
- ●Joban & Ban'etsu Expressways closed

► Tuesday, 12th of April

2:07pm Earthquake of Magnitude 6.4, shindo 6-lower

- Elementary and Junior High schools closed (until 17th Apr)
- "Ganbappe! (We can do it!) Iwaki All Nippon Caravan" in Minato, Tokyo (until 13th Apr)
- Joban Expressway (Yumoto-Yotsukura) & Ban'etsu Expressway (Iwaki-Ono) re-opened

▶ Wednesday, 13th of April

8:00am Launched rescue works in Aza Saibachi, Tabito (until 16th Apr)

- Joban Line local trains resumed
- First domestic vessel reached Onahama Port

▶ Thursday, 14th of April

- First Conference on the distribution of relief funds
- Mayor's announcement on the supply of temporary housings and distribution of relief funds
- Requested Fukushima Prefecture Governor for a faster solution of NPP problems
- ●Joban Expressway (Nakoso-Yumoto) resumed



Mayor visited Tabito for inspection

Friday, 15th of April

2:00pm Evacuation order to Kaiya, Kamiyama, Saibachi, and Horigoshi district in Tabito (lifted at 6:00pm, 16th April)

- Started accepting application for City relief funds
- ●Ban'etsu To Line (Iwaki-OnoNiimachi) resumed

▶ Saturday, 16th of April

- Started providing temporary housings
- Started the distribution of relief funds
 (fastest distribution in Fukushima Prefecture)

Sunday, 17th of April

•Joban Line local stops (Iwaki-Yotsukura) resumed

Monday, 18th of April

- Citizens Affairs Division of City Hall moved to Alios Annex (until
- Special issue of the City Monthly Newsletter
- Elementary and junior high schools re-started
- Requested House of Representatives, national government,
 DPJ and LDP for a faster settlement on nuclear problems and
 elimination of harmful rumours



Public Affairs Division of City Hall temporarily moved to Alios Annex

▶ Tuesday, 19th of April

 NPOs established the Onahama District Disaster Volunteer Centre

▶ Wednesday, 20th of April

 Requested Fukushima Pref Governor for a faster settlement of nuclear problems

►Thursday, 21st of April

11:00am 10km Evacuation area of Fukushima 2 NPP changed to 8 km radius area (lifted on 26th Dec)

Water services recovered in most areas

Friday, 22nd of April

0:00am Fukushima 1 NPP 20km radius area determined as no-go zone

9:44am Fukushima 1 NPP 20-30km radius area as Indoor
Evacuation area lifted and "Planned Evacuation Area
and "Ready-for-Evacuation Area" set → Lifted indoor
evacuation order in Ogawa, Kawamae, Hisanohama, Ohisa
districts

11:00am Mayor's press conference on radiation levels of industrial products

3:45pm Mayor announced that the indoor evacuation order has been lifted

4:00pm Evacuation advisory to Aoya, Kami Kamado, Watanabe machi (lifted at 3:00pm, 31st of August)

 Started granting of various subsidies to the citizens affected by the disasters

Saturday, 23rd of April

11:00am Mayor's Press Conference on announcement by the Chief

Cabinet Secretary on the lifting of indoor evacuation order

Monday, 25th of April

- National Health Insurance Divisiton of City Hall moved to Alios Annex (until 7th Oct)
- •Measurement of radiation levels in industrial products
- Kvushoku school lunches partially resumed



Radiation measured at City Environment Monitoring

▶ Wednesday, 27th of April

 "Ganbappe! (We can do it!) Iwaki All Nippon Caravan" in three locations in Tokyo (until 28th April)



Caravan in the Tennoz Isle station in Tokyo, 27th Apr

Thursday, 28th of April

1:30pm Mayor's press conference on the second application of city-provided housings

- •JR Joban Line Limited Express (Iwaki-Tokyo) resumed its operations
- •Re-Opening of expressway between Yotsukura and Hirono IC

Friday, 29th of April

- The second application opened on city-provided housings (until 5th May)
- Announcement from the Mayor regarding harmful rumours on school meals

Saturday, 30th of April

Mortuary for disaster victims closed



Devastating damage to Usuiso district in Taira. The tsunami almost reached Toyoma Elementary School in the lower left of the photo, 25th March
Photo courtesy: JSDF 8th Infantry Regiment

Photograph Collection







Sea water drew back offshores before the tsunami attacked the Kanegasawa district in Hisanohama. Rocks which are supposed to be under the sea water became visible.

Around 4:00pm, 11th March Photo courtesy: Fire Fighting Disaster Prevention Air Corps,

Fukushima Fire Defense HQs







Bentenjima Island and Torii (Shrine's red gate) off the Hattachi Beach were engulfed by the tsunami. Around 3:25pm, 11th March Photo courtesy: Mr. Michihiro Suzuki



Tsunami-attacked Suetsugi district in Hisanohama on the next day of the tsunami Photo courtesy: Fire Fighting Disaster Prevention Air Corps,

Fukushima Fire Defense HQs

Hisanohama ~ Yotsukura ~ Shinmaiko ~ Numanouchi



Route 6, Yotsukura was flooded by sea water caused by the tsunami.

Around 3:45, 11th March Photo courtesy: THE IWAKI MINPO



The tsunami went over Route 6 and approached Yotsukura Shisho (City Branch Office). Around 3:40, 11th March Photo courtesy: Mr. Hironori Yoshida



Michi no Eki Yotsukura Ko (Local Produce Promotion Centre Yotsukura Port) directly after the tsunami drew back. Around 5:25pm, 11th March Photo courtesy: Mr. Takeshi Midorikawa



Boat drifted inland by the tsunami, near Yotsukura Fishing Port 12th March Photo courtesy: Mr. Masaru Suzuki



Sea water reached rice fields near Shinamiko Beach 12th March Photo courtesy: Fire Fighting Disaster Prevention Air Corps, Fukushima Fire Defense HQs



Prefectural Road along the Shinmaiko Beach were damaged by the earthquake and tsunami. $5^{\rm th}$ June



Numanouchi district shown upper right of the photo. Usuiso, heavily damaged by tsunami in the left. Around the centre of the photo is Numanouchi Fishing Port.

12th March

Photo courtesy: Fire Fighting Disaster Prevention Air Corps, Fukushima Fire Defense HQs



Usuiso district on the following day of the tsunami. Toyoma Elementary School in the upper centre of the photo suffered the least damage, but in the left side of the phoro, Toyoma Junior High School had their ground floor engulfed by the tsunami. 12th March

Photo courtesy: Fire Fighting Disaster Prevention Air Corps, Fukushima Fire Defense HQs

View of Shioyazaki Lighthouse from Usuiso district. Breakwater and seaside roads were greatly destroyed.

Photo courtesy: Mr. Takayuki Sato





Sea looked extremely different from usual, showing the tremendous power of a natural disaster. Tsunami went over the breakwater and struck Toyoma district. Around 3:40pm, 11th March Photo courtesy: Mr. Toshiaki Suzuki

Usuiso ~ Toyoma ~ Ena ~ Orito ~ Nakanosaku ~ Nagasaki



Pale green color roof in the centre of the photo is Toyoma Hoikuen childcare centre. Children and staff escaped immediately so all of them were safe. 12th March

Photo courtesy: Fire Fighting Disaster Prevention Air Corps,

Fukushima Fire Defense

HQs



Ena local residents evacuating to highlands in icy rain after the first wave of the tsunami struck. Evening, 11th March Photo courtesy: Ms. Mami Ito



Orito district where many seafood processing facilities were damaged by the tsunami 12th March

Photo courtesy: Fire Fighting Disaster Prevention Air Corps, Fukushima Fire Defense HQs



Following morning after the tsunami. Toyoma local resident looking at the streets which look totally different from before the tsunami struck.

12th March
Photo courtesy: Mr. Yuji Hakozaki



Ena Abalone Fishery Cooperative Office is supposed to be busy in the peak season of abalone and sea urchin catchings is deserted by the tsunami. 12th June



Taihei Bridge in Nagasaki district was destroyed by the tsunami. Nagasaki Elementary School shown in the back had its ground floor struck by the tsunami. 12th June



Nakanosaku Old Port.

The boat capsized by the tsunami was left there even three months after the tsunami.

12th June





Tsunami flooding Onahama Port. Nobody could foresee to what level the high tide would reach. Birds seem to be surprised with the unfamiliar scene.

Around 4:50pm, 11th March

Photo courtesy: Onahama Pelagic Trawler Fisheries Cooperative



A large boat was drifted to the pier of Onahama Port, and showed the tremendous power of the tsunami. 12th March Photo courtesy: Mr. Koichi Sagawa



Tsunami made La La Mew into an island. La La Mew re-opened on the 25th November Around 3:50pm, 11th March Photo courtesy: Fire Fighting Disaster Prevention Air Corps, Fukushima Fire Defense HQs



Cargo yard of Onahama Station. Containers were scattered everywhere.

Photo courtesy: Fire Fighting Disaster Prevention Air Corps, Fukushima Fire Defense HQs



Quay of Aquamarine Park was totally destroyed. Aquamarine Fukushima in the upper left of the photo re-opened on the $15^{\rm th}$ July.

25th March

Photo courtesy: Mr. Takayuki Sato

Onahama ~ Iwaki Sun Marina ~ Obama ~ Iwama ~ Ueda ~ Nishiki ~ Nakoso



Pleasure boats anchored at Iwaki Sun Marina were drifted away with the landing piers

Around 3:50pm, 11th March Photo courtesy: Fire Fighting Disaster Prevention Air Corps, Fukushima Fire Defense HQs



sunami hit the small community of Obama. Around 3:45pm, 11th March Photo courtesy: Fire Fighting Disaster Prevention Air Corps, Fukushima Fire Defense HQs



Breakwaters were swept over the street by the tsunami in Iwama district. Chimney shown in the photo is from the Nakoso Power Plant, Joban Joint Power Co., Ltd. The power plant was also damaged by the tsunami, but restored their main generators 8 & 9, and then they also recovered the generators 6 & 7 which were stopped, and supplied electricity to TEPCO and Tohoku Electric Power Co. 25th March Photo courtesy: Ms. Akemi Itoi



Suka district of Nishiki machi. In the damaged house site, there remains a fish flag to pray for boys' health and the sea bells flowers bloomed as usual. 12th June





Sekita Oshiro Mae crossing in Nakoso. Tsunami reached this area, a little behind Route 6. Right off the three-street crossing is the Kyu Hamakaido coastline street. Around 4:00pm, 11th March Photo courtesy: Iwaki National Highway Office

Ueda and Nishiki districts were protected by the river dikes, and the

water flooding under the floor. Around 3:45pm, 11th March

Central Taira Area





JR Iwaki Station, immediately after the earthquake. From the citizens squatted down on the ground, confusion can be detached. Around 3:05pm, 11th March Photo courtesy: THE IWAKI MINPO



Earthquake of seismic level 6-lower collapsed the shelves in Iwaki City Hall. Iwaki City Administration was unable to set up the Disaster Countermeasure HQs in the City Hall but instead in the Fire Defense HQs. Around 2:55pm, 11th March



Goods scattered in a convenience store Around 3:00pm, 11th March Photo courtesy: THE IWAKI MINPO



Historical building in Taira shopping street was greatly damaged 20th March Photo courtesy: Monthly Read



The street to Iwaki Station two weeks after the earthquake, which showed a gradual recovery from the earthquake but the waved pavement reflects the damage from the strong quakes. 25th March Photo courtesy: Mr. Takayuki Sato

Damage Situation from the April 11&12 Aftershocks

Tabito ~ Izumi ~ Joban



There are multiple faults running through underground Tabito machi. The April aftershocks created a level difference of 2 metres in many places.

13th April



Search and rescue efforts were conducted all night in the site of landslides in Ishizumi, Tabito. Around 2:00am, $12^{\rm th}$ April



The April 11 aftershock caused thermal water to burst out from the ventilator top of Joban coal mine in Izumi. The vapor looked like smoke caused by fire.

17th June





Major local road lwaki-Ishikawa route in Joban Fujiwara machi. There are crack in the rice field. The different color of pavement shows the emergency-repaired part. 18th April

Photo courtesy: Fire Fighting Disaster Prevention Air Corps, Fukushima Fire Defense HQs



The April 11 & 12 severe aftershock woke up the long-sleeping fault. Cracks in Kentokuji Temple in Joban Fujiwara machi. $2^{\rm nd}$ of May

Photo courtesy: Mr. Hiroshi Shishido



Prince and Princess Akishino visited the tsunami-affected Usuiso district, and had the damage situation explained, 17th June





"Ganbappe! (We can do it!) Iwaki All Nippon Caravan" in front of JR Shimbashi Station. Direct sales of Iwaki local agricultural products. Volunteer students from Iwaki and the people who have roots in Iwaki

joined and supported the event. 12th & 13th April JSDF arrived in Iwaki on the day of Earthquake, and launched their search and rescue efforts. Ground SDF Central Band hosted a concert in Yumoto Daini Junior High School for the students who were exhausted from the disasters 23rd May





To entertain the children who had to stayed in evacuation shelters for a long time, volunteers hosted story-telling events. This is a photo of one of the events held in Alios. $26^{\rm th}$ April





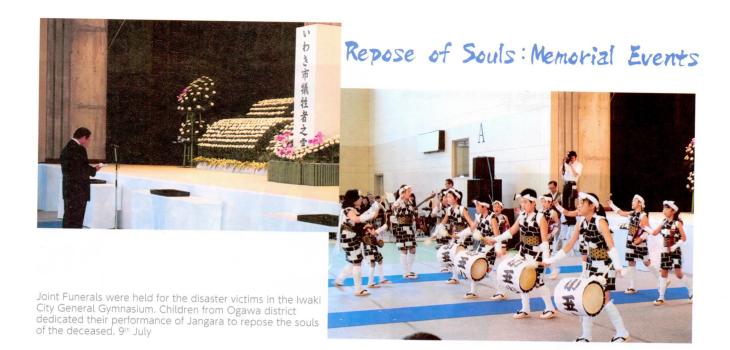
Many reconstruction events were also held around the year-end period. (Left) "Ganbappe! Iwaki Rakugo Comedy Show" in Alios on the 2nd December. (Right) "Battle of the Souls in Iwaki" at Iwaki Meisei University on the 4th December. Visitors could forget about the hardships in their daily lives and enjoy the events.



More than 20,000 people were forced out of their hometown close to the Fukushima Daiichi Nuclear Power Plant, and evacuated to Iwaki. In Iwaki New Town, 1,000 pre-fab housings have been built, and Naraha machi (lower left) and Namie machi (lower right) opened their branch offices. Ganbappe (We can do it) Hamadori







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Iwaki City Council of Social Welfare

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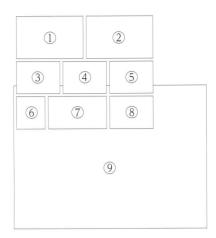
Mr. Hironori Yoshida

The Koriyama Military Station, Ground SDF

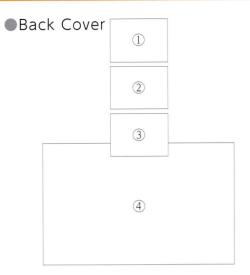
The 8th Infantry Regiment, Ground SDF

Mr. Kouichi Seya

Cover



- ①Research efforts conducted by JSDF, Volunteer Fire Corps and others in Taira Usuiso district 1st April Photo courtesy: Mr. Takayuki Sato
- ②Iwaki City Mayor visited Hisanohama for inspection of the tsunami-damaged area 13th March
- ③Tsunami struck the residential area of Hisanohama 11th March Photo courtesy: Ms. Hiroko Ishii
- ④FM Iwaki radio station continued broadcasting information even after the earthquake.
 11th March Photo courtesy: FM Iwaki
- $\mbox{\$Dawn}$ on the first morning of the year 2012, offshore Shioyazaki $1^{\rm st}$ of January 2012
- 6Message towards reconstruction displayed in the "Bamboo Lights to Repose the Souls in Iwaki" event held in the Taira Nichome Shopping Street 11^{th} June
- ⑦Re-opened Spa Rsort Hawaiians. Hula Girls giving an encore performance in the Grand Polynesian Show.
 8th February 2012
- ®Seal pup named "Kibo (wish)" in Aquamarine Fukushima 15th July Photo courtesy: Fukushima Kaiyo Kagakukan Foundation
- Tsunami reached Iwama district Around 3:45pm, 11th March Photo courtesy: Fire Fighting Disaster Prevention Air Corps, Fukushima Fire Defense HQs



- ①Training Ship "Fukushima Maru" departed for offshore training 19th May Photo courtesy: THE IWAKI MINPO
- ②Nissan Motor Iwaki Plant fully recovered its operations. CEO Carlos Ghosn continued his concerted efforts together with the employees.

17th May

Photo courtesy: Nissan Motor Co., Ltd.

- ③Toyoma Elementary School children holding up the calligraphy by the Master Nan Gaku. 14th November
- (4)1,000 local residents engaged in agriculture got together in the shooting of "Misemasu! (We will show you!) Iwaki Agricultural Products" promotion film 20th August

One Year from the Great East Japan Earthquake **Documentary Record of Iwaki City**

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