

Road To Recovery From The Nuclear Accident

— Current Situation Of Okuma Town And Issues To Be Resolved —

Okuma Town Office

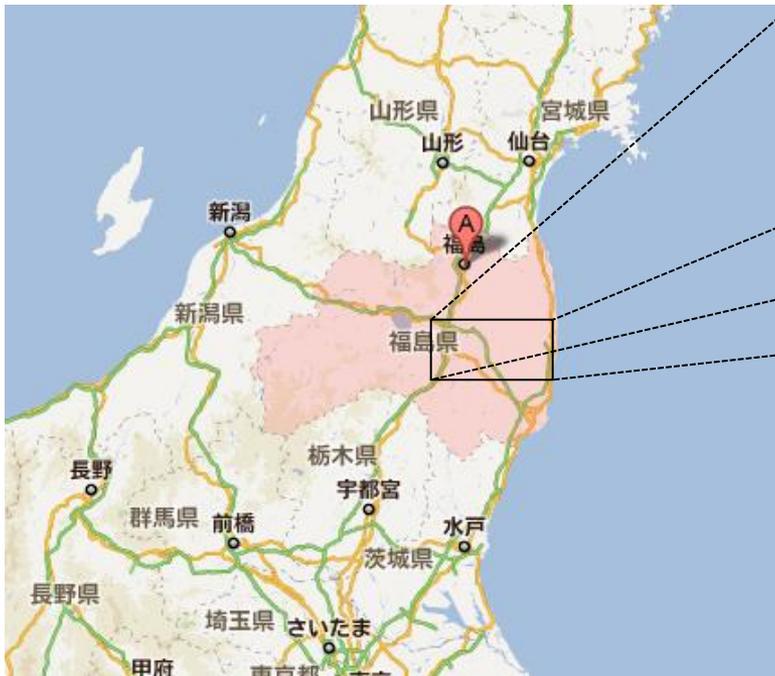
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1. Introduction to Okuma Town (1)

Okuma Town in Futaba County has an area of 78.7km² and is located in the costal region (the Pacific Ocean side) of Fukushima Prefecture. The town is surrounded by Namie Town and Futaba Town in the north, Tomioka Town and Kawauchi Village in the south, Tamura City in the west, and the Pacific Ocean in the east.



From the Google map

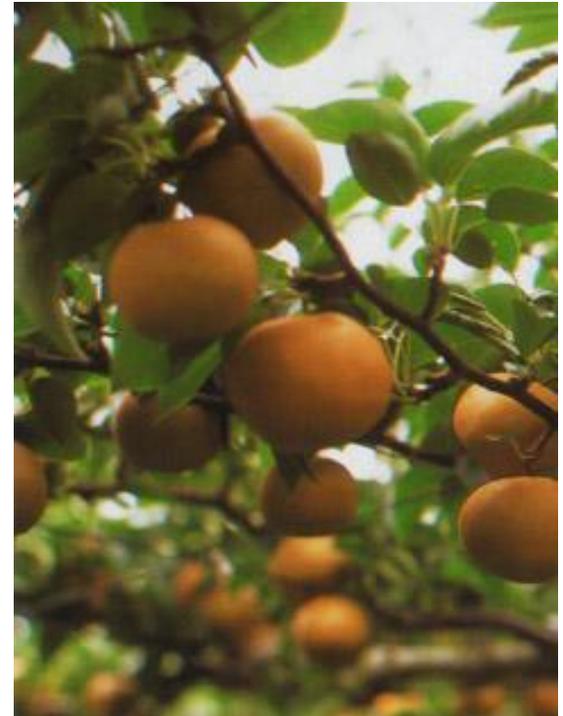


A picture of Okuma Town Office

1. Introduction to Okuma Town (2)

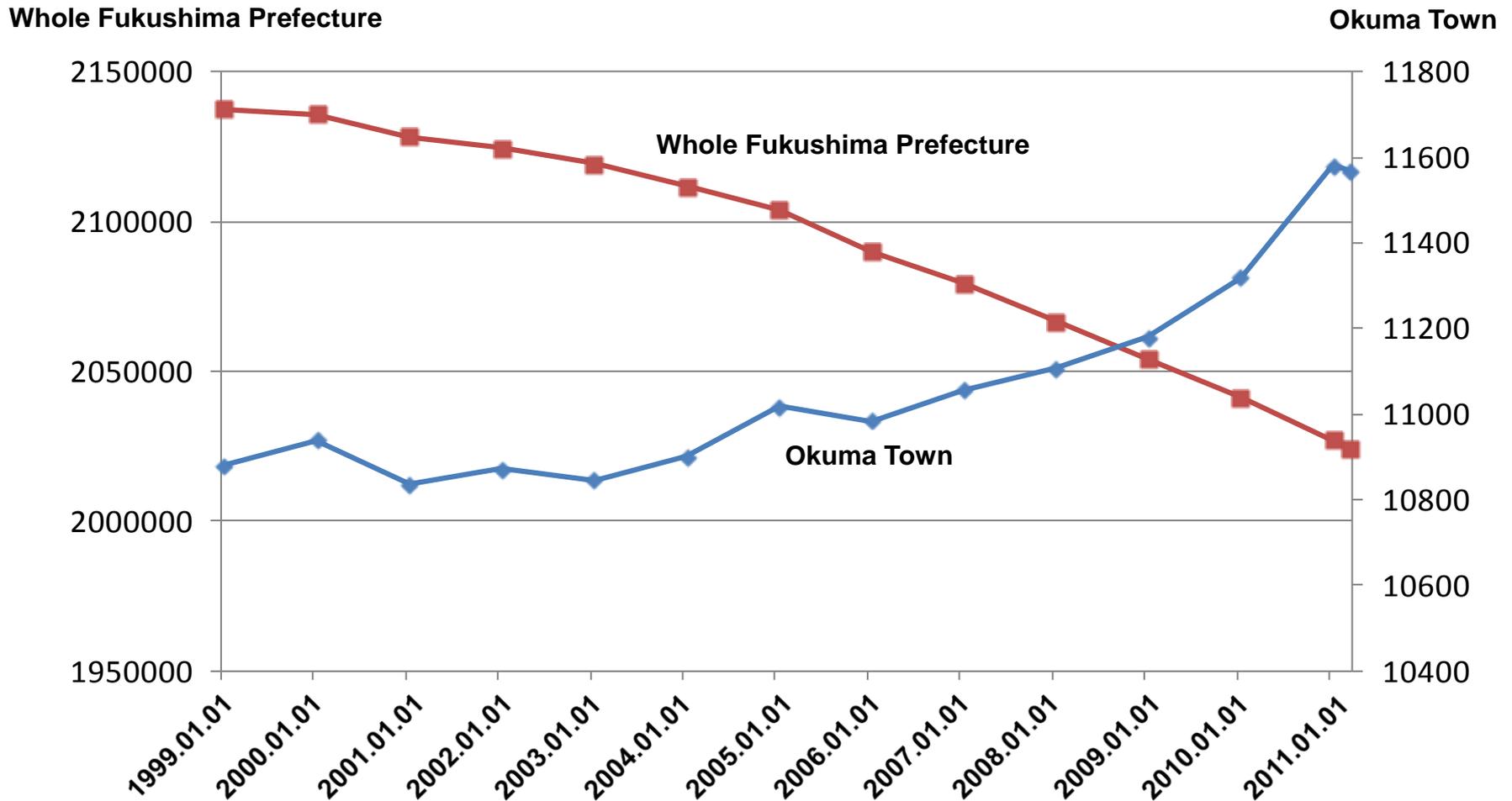
The main industry of the town is agriculture. The major part of it is mixed husbandry, which includes rice growing, stock farming, fruit farming such as pears and kiwi fruits, and also producing vegetables and flowers on the side.

While commercial business of the region shows no increase recently, industrial business is increasing both in production and delivery of goods, as many companies started business in the industrial complex of the region.



1. Introduction to Okuma Town (3)

Although the population of the whole Fukushima Prefecture had been decreasing in the past, Okuma Town's population has been on the slight increase.



1. Introduction to Okuma Town (4)

- Population: 11,500 (As of March 11. 2011)
 - Many are involved in the business related to the Nuclear Power Station in Fukushima.
- Under the initiative of the Japanese government and the Fukushima prefectural government, the Tokyo Electric Power Company (TEPCO) build the First Fukushima Nuclear Power Station in this area. The Reactor Unit No.1 started its operation in March 1971.
 - This contributed to the Energy Policy introduced by Japanese Government.



2. Earthquake Damages and Nuclear Accident (1)

On March 11, 2011, at 14:46, the Great East Japan Earthquake of magnitude 9.0 occurred off the Pacific coast of the Japanese mainland (the northeastern area which ranges from Iwate Prefecture to Ibaraki Prefecture).

The Earthquake attacked Okuma Town with the damages of:

- 1) great shake of the earthquake and the accompanying Tsunami (tidal wave) and
- 2) the Nuclear Power Plant accident occurred after the Earthquake and Tsunami disaster.

The damages by these two disasters to the area and the people of Okuma Town were different from those of other quake-hit areas.

2. Earthquake Damages and Nuclear Accident (2)

Immediate damages for the town, caused by the Earthquake, included:

- fully destroyed houses: 30 houses
- missing persons: 8 persons

The infrastructures, such as electricity, water and sanitation systems, road-network and so on, were also heavily damaged and are still not completely restored

However, the whole disaster scale of the town was smaller compared to that of the coastal area of Miyagi Prefecture which was significantly affected by Tsunami.

2. Earthquake Damages and Nuclear Accident (3)

A photo of the road immediately after the Earthquake.



2. Earthquake Damages and Nuclear Accident (4)

A photo of the town immediately after the Tsunami wave.



2. Earthquake Damages and Nuclear Accident (5)

A photo of the town immediately after the Tsunami wave.



2. Earthquake Damages and Nuclear Accident (6)

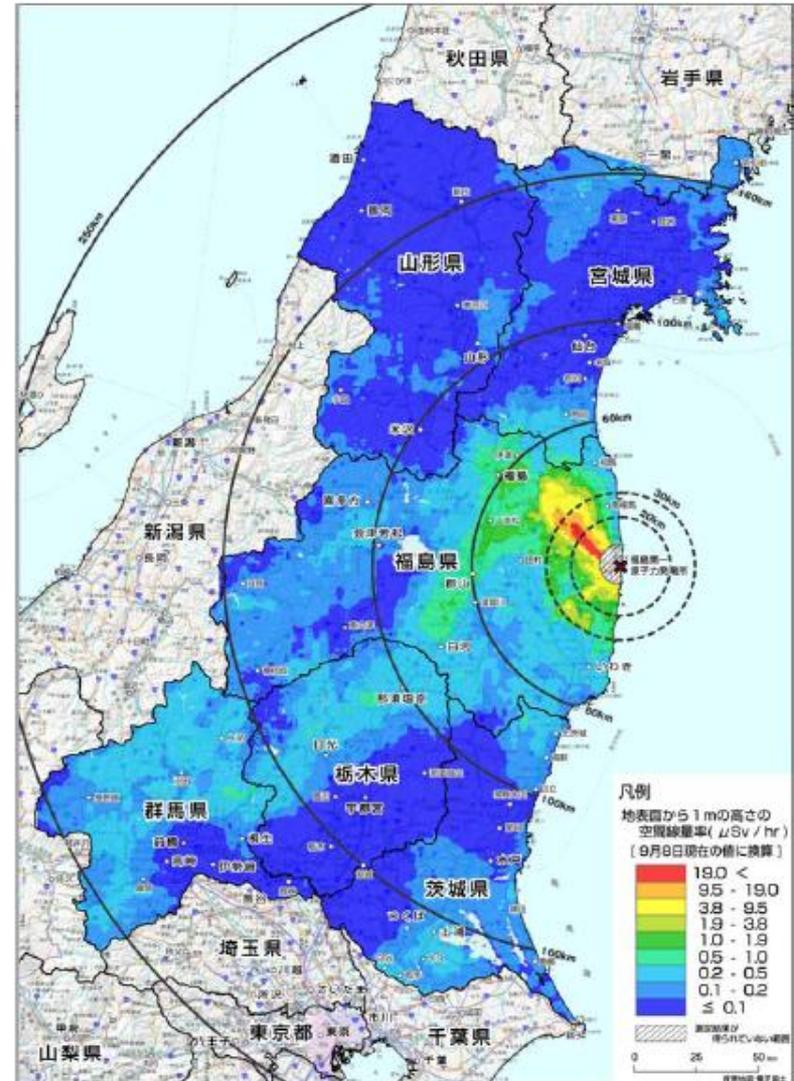
A photo of Kumagawa area near the ocean immediately after the Tsunami wave.



2. Earthquake Damages and Nuclear Accident (7)

The Nuclear Power Station was damaged by both Earthquake and Tsunami. As a result, radioactive isotopes were released in the air and the ocean and contaminated the environment.

The map of radiation fallout measured at 1 meter above the surface by Aerial Monitoring



Source: Ministry of Education and Science, <http://>

2. Earthquake Damages and Nuclear Accident (8)

Because of the nuclear accident, all the residents in Okuma Town were forced to evacuate. As of January 2012, the national government cannot even predict when the residents will be able to return homes.



2. Earthquake Damages and Nuclear Accident (9)

As for nuclear issue, there are our own circumstances and deficiencies in Japan.

- Japan is the only atom-bombed country. We have particular sentiments on nuclear issues.
- The peaceful use of nuclear technology has been allowed on overconfidence in safety of the nuclear power system.
- This was an unthinkable accident, as we could not come up with simulation planning for the various accident patterns under the previous circumstances.
→ Such simulation planning means denial of safety of the nuclear power system.
- There is a lack of shared understanding as to how to deal with nuclear incidents among local governments in the areas related to nuclear power stations.
Nuclear power technology is a complex of many engineering fields, such as nuclear engineering, electric engineering, machine engineering and so on.
→ Safety of the nuclear power system cannot be ensured by one field of expertise.

2. Earthquake Damages and Nuclear Accident (10)

Request to the Japanese National Government

- Presently, there is no outlook on when the situation would be resolved, and therefore disclosure of reliable information by the National Government is essential for alleviating fears of radiation, setting standard allowable level of radiation exposure for the residents to return home and safety standard of radiation for children, pregnant women, and foods.
- We request to set governance criterion of radiation level, especially minimum standard for safe environment for local life.

3. Residents Evacuation (1)

Situation immediately after the Earthquake

At 14:46 on Friday 11th in March, 2011 the Earthquake occurred.

- At 15:00 Disaster Response Headquarter was established in Okuma Town local government office.
- At around 15:40 The first wave of Tsunami hit the town.
- Shortly after 16:00 Article 10 notification of the Special Act* on “total loss of A.C. power line in the Power Station” was issued.
(* Act on Special Measures concerning Nuclear Emergency Preparedness)
- At around 16:50 Article 15 notification of the Special Act on “no watering into the Emergency Core Cooling System” was issued.
- At around 21:20 The Prime Minister’s instruction was given “to evacuate in an area within a 3-km radius, and to stay indoors in an area within a 10-km radius of the Nuclear Plant.”
- At around 21:50 Via the community wireless system and the loud speaker system of town’s fire company cars, instructions were announced for the people in the town’s western part to take shelter in a junior high school building of the town and for the people in the other parts of the town to stay indoors.

3. Residents Evacuation (2)

On Saturday March 12th, 2011

- At 5:44 , the Prime Minister’s instruction was given “to evacuate in an area within a 10-km radius from the Nuclear Power Station”.
- At around 6:30, the evacuation started in a chaotic situation. Troops of the Japan Self Defense Forces, was dispatched for rescue, stood by waiting for the order from Headquarters. And the town’s police induced people to use private cars for evacuation, although the initial instruction was bus transportation.
- At 7:47. A notice of “the vent *in the reactor” was given by TEPC.
(* to open the valves to release rising steam pressures within the reactor)
It took 3 hours for shuttle buses of the town people to evacuation centers, which was 3 times longer than usual due to the traffic jam of the main roads.
- At around 14:30. In the final stage of transportation (evacuation?) of the town people, remaining people were instructed to stand by in the town till 17 o’clock.
- At 15:36. The hydrogen explosion broke out in the reactor unit No.1.
The remaining people left the town right away.

3. Residents Evacuation (3)

On March 12, 2011

- At around 17:00, town's Disaster Response Headquarter was set up in the gymnasium of Tamura City, to which town people evacuated.
- Initially, in Tamura city, 6,000 town people were split up into 6 shelters and finally they were separated into 27 shelters together with evacuees from other areas.
- At 18:25 the Prime Minister's instruction "to evacuate in areas within a 20-km radius from the Nuclear Power Station" was announced.
- At around 23:00, the evacuation finished or completed.

3. Residents Evacuation (4)

On March 12, 2011

A photo of the town people, waiting for the start of evacuation at a parking lot in front of the town hall



3. Residents Evacuation (5)

On April 2, 2011

A photo of the gymnasium of Tamura City to which town people evacuated.



3. Residents Evacuation (6)

On July 24, 2011

A photo of the Okuma Town seashore damaged by Tsunami attack.



3. Residents Evacuation (7)

On July 24, 2011

A photo of the town road destroyed by Earthquake.



3. Residents Evacuation (8)

On August 23, 2011

A photo of a road, damaged by landslide caused by Earthquake.



3. Residents Evacuation (9)

People were gradually moving to temporary housings from shelter. Currently Okuma Town people are spread nationwide in temporary housings, rented housings by local government and other type of accommodations.

As at December 31, 2011:

- Area for evacuation 42 prefectures, including Tokyo, Osaka and Kyoto
- Numbers of evacuees 11,459 people

In Fukushima Prefecture 8,029 persons (approx. 70% of town people) live in temporary housings and rented housings provided by the local government.

- Living environments in temporary housings and others is improving gradually, however, prolonged life as evacuees is increasing people's stress to the limit.

3. Residents Evacuation (10)

Approximately 3,700 town people evacuated to Aizu Wakamatsu City in Fukushima Prefecture. Coming from Okuma Town, an eastern part of Fukushima Prefecture (facing the Pacific Ocean) that has little snow, they are unfamiliar to cold climate, snowy roads, and other inconveniences in the winter.



temporary housings in Aizu Wakamatsu City

4. Current Situation (1)

On November 30, 2011

At parking space of the government office.



4. Current Situation (2)

On November 30, 2011

In the government office there are still a lot of things to be cleared from Earthquake damages.

A clock stays stopped since the Earthquake occurred.



4. Current Situation (3)

On November 30, 2011

A view from the roof top of the town hall.



4. Current Situation (4)

On November 30, 2011

A baseball ground with cracks resulting from the Earthquake.



5. The Road to Recovery (1)

Basic concept for the reconstruction of Okuma Town

(1)Revival of the soil

We set out to revive the ground of Okuma Town by decontamination work, according to the data of detailed monitoring radiation level of the town area.

(2)Rebuilding the living environment

We set out to reconstruct the most advanced education system, medical care and welfare system, as well as infrastructure of the town, after keeping the accommodation space with minimum radiation contamination in Okuma Town.

(3)Industrial recovery

To secure stable employment, we set out to reconstruct industry of the town by regenerating and developing the damaged sector, by reviewing and practicing advanced agriculture, and by generating new industry which will contribute to future growth of the town.

(4)Messages from Okuma Town

We will provide the information about the recovery process of Okuma Town and bring hopes and confidence to Japanese people. Also, we would like to express our sincere gratitude for all the supports we have received after the Earthquake.

5. The Road to Recovery (2)

Feelings for the hometown now vary among town people. The differences are as follows:

- (1) Difference of thoughts between native group, such as indigenous people, land and building owners, and non-native group who live and work as resident of the town.
- (2) Difference of thoughts by age.
- (3) Difference of thoughts depending on school attendance or work stage of people's children on the age of middle and high school.

Trends of the questionnaire for the residents of Okuma Town, who expressed their Intension not to return home.

9% will not return home. (In the questionnaire by Okuma Town in June 2011)


30% will not return home. (In the survey jointly made by Okuma Town and the neighboring municipality in October 2011)

The figure shows people's increasing fear not to return home because of the unsolved nuclear accident problem, high level of radiation in the area, and progression of the damage on houses by damp and moss with passing days.

6. Principal Policies for Reconstructing Okuma Town (1)

Our town's basic policy consists of the following four lines.

(As of the end March 2012)

Policy 1: “Decontaminate work Okuma and regain the natural environment and the rich soil.” (Estimated time frame : 10 years later)

In Okuma Town there are No.1- No.4 units of Fukushima No.1 nuclear power generation facility. The decontamination of the whole town is the essential requirement for the safety of personnel who work on the decommissioning project of the reactors and also for the information transmission of decommissioning technology to the world.

Policy 2 : “Set up a base for the decontamination work and security maintenance in Ogawara area.”(Estimated time frame : Two years later)

The town area with yearly integral dose of 20~50 millisievert should be decontaminated first and set up as a primary base. The main role of this base is to streamline the decontamination and decommissioning work, and to keep security in Okuma Town area. It also works as a hub for townspeople's temporary visits to their home.

6. Principal Policies for Reconstructing Okuma Town (2)

Policy 3: “Set up a base of town (designated area of the town) near Iwaki City.”(Estimated time frame : Five years later)

In order to return to Okuma Town, it is desirable to keep a base in the area close to the town and of similar climate. In this designated area we will set up local government office and educational facilities. To set up and utilize the latter facilities, collaboration with other municipal governments of Futaba County will also be considered. Other necessary facilities will be gradually set up and when housing environment in the area will be improved, people who are ready for moving will change their living place to this designated area. As for town people’s housing environment in the area surrounding Aizu Wakamatsu City, further improvement of its quality is to be pursued.

Policy 4: “Maintain and improve the temporary town facilities in Aizu Wakamatsu City”

Until the move of local government office and educational facilities to the area near Iwaki City, we will maintain and strengthen these functions in Aizu Wakamatsu City. On the other hand, in Aizu Wakamatsu City or other area for evacuation, we will enhance measures to increase private and public housing for evacuees rented by the local government, which will contribute to improving the quality of living for town people in these areas.

Thank you for reading.

Okuma Town Office

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