# Fukushima: The View From Ground Zero

# Arkadiusz Podniesiński

### Introduction

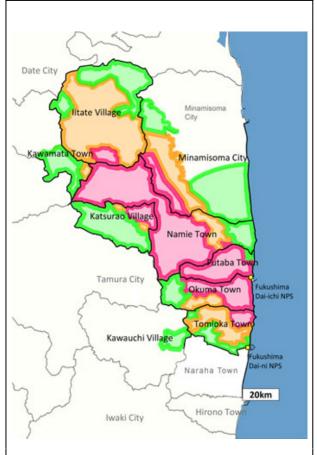
Photographer and filmmaker Arkadiusz Podniesiński, who began visiting and photographing Chernobyl in 2007, documents his 2015 visit to the radiated zone around the Fukushima Daiichi Nuclear Power Plant. His photographs show the far-reaching and continuing effects of the triple disaster of March 11, 2011 compounded by earthquake, tsunami and nuclear meltdown. Podniesiński highlights both the desperate lives of thousands who continue to live in limbo, in government emergency housing, unable to return home, but also the plight of some who have chosen to return.

# The Asia-Pacific Journal



The damaged Fukushima Daiichi Nuclear Power
Plant

### **Radiation or Evacuation**



 $\label{lem:eq:continuous} Fukushima\ Evacuation\ map\ showing\ differential\ radiation\ levels,\ September\ 2015$ 

Immediately after the disaster at the Fukushima power plant an area of 3 km in radius, later extended to 20 km, was designated for evacuation. Approximately 160,000 residents were forcibly evacuated and received government subsidies and temporary housing; others chose to flee without state support or housing provision. Chaos, and an inefficient system of monitoring radiation levels, resulted in many families being divided



up or evacuated to places where the contamination was even greater than in the evacuation zone. In the months and years that followed, as radiation readings became more precise, the boundaries of the zone evolved. The zone was divided according to the level of contamination and the likelihood that residents would be able to return.

Four years later more than 120,000 people still cannot return to their homes, or what is left of those homes. Many of them continue to live in temporary government accommodations built for them. As with Chernobyl, some residents defied the order to evacuate and returned to their homes shortly after the disaster. Some never left.

Entry to towns and cities located in the zone with the highest levels of contamination, marked in red, is not permitted except by special permit. Due to the high level of radiation (> 50 mSv per year), no repair or decontamination work has been carried out there. According to the authorities' forecasts the residents of those towns will not be able to return for a long time, if at all.

The orange zone is less contaminated but is also deemed uninhabitable, but with lower levels of radiation (20-50 mSv/y) clearing up and decontamination work is being conducted here. Residents are allowed to visit their homes but they are not allowed to live in them.

The lowest level of radiation (< 20 mSv/y) is found in the green zone where decontamination work has been completed. The clean-up is in its final stages, and the evacuation order is to be lifted soon.

#### **Decontamination**









Dump sites with sacks of contaminated soil are usually located on arable land. To save space the sacks are stacked in layers, one on top of the other.



The roofs of all the buildings are hand-cleaned tile by tile.

When entering the zone, the first thing that one notices is the huge scale of decontamination work. Four years later, twenty thousand workers are painstakingly cleaning every piece of soil. Removing the top, most contaminated layer of soil, they put it in sacks, supposedly to be taken to one of several thousand dump sites. The sacks are everywhere. They are becoming a permanent part of the Fukushima landscape.

Decontamination work is not limited to removal of contaminated soil. Towns and villages are being cleaned as well, methodically, street by street and house by house. The walls and roofs of all buildings are sprayed and scrubbed. The scale of the undertaking and the speed of work are impressive. The workers are making every effort to clean the houses so that residents can return as soon as possible.

Some contaminated soil has been transported out of town, however, often only to the outskirts. This expensive operation is only shifting the problem from one place to another so that residents will be able to return.

It is still not clear where the contaminated waste will end up, especially as residents protest against location of long-term dump sites near their homes. Many are unwilling to sell or lease their land for this purpose. They do not believe government assurances that 30 years from now the sacks containing radioactive waste will be gone. They fear that the radioactive waste will be there forever.

Many areas cannot be decontaminated at all because of thick forests or because they are in mountainous areas. Only houses and areas surrounding houses, as well as 10-meter strips along roads, are being decontaminated. This gives rise to the fear that any major downpour will wash radioactive isotopes out of the mountainous and forest areas and the inhabited land will become contaminated again. These fears are not without foundation; in the last year this has happened at least twice in Chernobyl.

Given continue fears of radiation and the slow pace of cleanup, many residents who distrust the authorities and fear contamination do not want to return to their homes. A survey of former residents of the red zone shows that only 10% of those polled want to return to their homes, while as many as 65% of evacuees do not intend to return. Fear of radiation is hardly the only problem. Lack of work, infrastructure, and medical care are all effective deterrents to returning, and with each year, the residents get older, like the deserted houses whose conditions deteriorate the longer they are not renovated and lived in.

There are also reasons for the unwillingness to return that residents do not like to talk about, including the compensation and the various subsidies and tax relief that evacuees receive. Compensation for the accident alone was set in 2012 at 100,000 yen (approximately 850 dollars per month) per evacuee. The government has announced that compensation will end one year after a zone is officially opened as the green and orange zones presently are. Some residents have protested and are planning legal action against the government on the ground that the area remains unsafe. Many fear that the authorities will attempt to coerce them into returning, particularly since the government in 2012 arbitrarily raised the permitted level of exposure to radiation per year from 1 to 20 mSv.1

# No-Go Zone

A separate permit is required to enter each of the towns in the red zone. Permits are issued only to those who have a legitimate, official reason to enter. No tourists are allowed. Even journalists are not welcome. The authorities, wary of journalists, enquire about the reason for visiting, the topic being covered, and the attitude of journalists towards the disaster.

Unable to visit the red zone, I entered the orange zone. There, in Tomioka, I met Matsumura Naoto, a farmer who returned

illegally not long after the accident to what at the time was still the red zone. He returned to take care of the abandoned animals, unable to bear the sight of herds of cattle wandering aimlessly in the empty streets when their owners had fled the radiation. He tells of animals that were starving to death or were being killed by the authorities.





Matsumura Naoto His blog can be read here.

Learning that I visit Chernobyl regularly, Matsumura asks how the evacuation and decontamination were carried out in Chernobyl, and about the levels of radiation. It is still illegal for residents to return permanently to towns in the orange zone. They are only allowed to spend time there during the day, but even then there are few residents who do. Most do not want to return, and soon they won't have anything to come back to. Many of

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the deserted houses, especially the wooden ones, are in such disrepair that soon it will be not be financially viable to renovate them, and if they are not renovated they will start to collapse.

Young residents or families with children left Fukushima long ago. In pursuit of a better life, many went to Tokyo or other large cities. Many older residents, more attached to the place they have lived for several decades, prefer to live nearby, in specially built temporary housing. Others went to relatives, but not for long, so as not to be a burden. Most soon return to their temporary housing: two tiny rooms and a kitchen.







Nozawa Yōko shows me the temporary housing she was moved to after weeks of shuttling from place to place during the evacuation.

Yōko in the kitchen Yōko's husband, Kōchi

#### **Namie**

Although Namie, one of three towns in the nogo zone, is completely deserted, the traffic lights still work, and the street lamps come on in the evening. Now and again a police patrol drives by, stopping at every red light despite the area being completely empty. They stop our car and check our permits carefully.



Liquor store



Here the earthquake did not seriously damage the houses, and being situated a long way from the sea there were also no threat from the tsunami. It was radioactivity that forced residents to flee.





The Ukedo primary school building survived just 300 meters from the ocean.



Tajiri Yukiko showing the wreckage in the house she lived in before evacuation

In order to see the effects of the tsunami we go to the coast, where all of the buildings were destroyed. Four years have passed. The cleanup is continuing, but most damage has been cleared. One concrete building stands out. A school built using TEPCO money withstood the destructive force of the tsunami. The children fortunately escaped to the nearby hills.



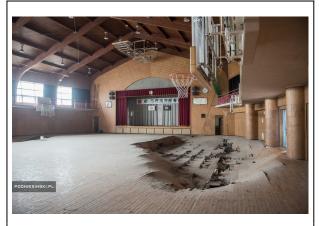
Remains of destruction in the aftermath of the tsunami, seen from the school's observation tower.



**School computers** 

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In one classroom on the first floor, a mark below the blackboard shows the level of the tsunami. On the blackboard are words written by former residents, schoolchildren, workers and soldiers to keep up the morale of the victims: "We will be reborn," "You can do it, Fukushima!" "Stupid TEPCO." "We were rivals in softball, but always united in our hearts!" "We will definitely be back!" "Despite everything, now is precisely the beginning of our rebirth." "I am proud to have graduated from the Ukedo primary school." "Fukushima is strong." "Don't give up, live on!" "Ukedo primary school, you can do it!" "If only we could return to our life by the sea." "It's been two years now and Ukedo primary school is the same as it was on 11 March 2011."





A fissure in the earth caused by the earthquake in Yoshizawa's farmland.

Yoshizawa Masami,like Matsumura, returned to his ranch shortly after the disaster to take care of the abandoned animals. Now there are approximately 360 cattle on his farm.





Not long after the accident his cows started to get mysterious white spots on their skin. Yoshizawa suspects that this is from eating contaminated grass. Trying to publicize the case, he has been in contact with the media, and has protested in front of the Diet in Tokyo, even taking one of his cows. However, apart from financial support for regular testing of the cows' blood, extensive tests have not been conducted.



Namie at dusk. Despite being totally deserted, the traffic lights and street lamps still work.

# **Futaba**

Futaba, which borders the ruined power plant, has the highest level of contamination in the

no-go zone. There has been no clean up or decontamination due to high radiation. We were issued protective clothing, masks, and dosimeters.





Sign above one of the main streets of Futaba proclaims: "Nuclear power is the energy of a bright future"







Tani Kikuyo (age 71) regularly visits the house from which she and her husband Mitsuru were evacuated, but they are permitted to enter only once a month for a few hours at a time. They continue to visit even though they have long ago given up hope of returning permanently. They check to see if the roof is leaking and whether the windows have been damaged by the wind or wild animals. Their main reason for returning however is a sentimental one.





A school in Futaba. A dosimeter showing a radiation level of (2.3 uSv/h).

In the vicinity of the red zone, many abandoned vehicles are neatly organized in several rows. They are contaminated, releasing 6.7  $\mu Sv$  per hour.

Seven years ago I ended my first documentary on Chernobyl with these words:

"An immense experience, not comparable to anything else. Silence, lack of cries, laughter, tears and only the wind answers. Prypiat is a huge lesson for our generation."

Have we learned anything since then?

See Arkadiusz Podniesiński's full photographic essay on Fukushima here, and his work on Chernobyl here. See here also.



See the accompanying article by David McNeill and Androniki Christodoulou, Inside Fukushima's Potemkin Village: Naraha

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### **Related Articles**

Asia-Pacific Journal Feature, "Eco-Model City Kitakyushu and Japan's Disposal of Radioactive Tsunami Debris"

David McNeill and Lucy Birmingham, "Meltdown: On the Front Lines of Japan's 3.11 Disaster"

# Notes

<sup>&</sup>lt;sup>1</sup> Fukushima Minpō, 1 March 2012.