

FOLENS FIELD TRIP TO FUKUSHIMA

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Introduction

After hit by 9.0 magnitude earthquakes, followed by more than 10 meter high tsunami in March 11-2011, Japan, especially the north-east part, have been devastated by several after-math incidents. Thousands of people died and lost, and a huge area including settlements was destroyed. Due to a massive destructed area, reconstruction has not been finished even after 2 years passed. The most famous and biggest problem of all caused by earthquakes and tsunami on 3/11 is the Fukushima nuclear power plant accident. The power plant emitted radioactive materials through a series of manual venting and explosions. The explosion of radioactive materials to the air carried by the wind has polluted a very wide region nearby the nuclear power plant and affected many aspects such as environment and agriculture. These two aspects have also creating other problems such as social, politics, economics, health, even tourism problems for the polluted area.

On December 17 to 18, 2012, we visited Fukushima prefecture specifically Nihonmatsu City and Minami Soma City to investigate and study about the present condition after the disaster that happened almost 2 years ago. Nihonmatsu is a city located around 40 km away from the nuclear power plant whereas Minami Soma City is located around 25 km away. In Nihonmatsu, we interacted with the local farmer community to study the impact of radiation pollution on agriculture they are working on. We also spent time together to work with the farmer and did a little discussion. The local radiation level was also measured in some field where TUAT's researchers are conducting some investigation. In Minamisoma city, we studied mostly on the social impact and livestock problem by listening to local people representatives. We also visited Odaka area which is an area afflicted by tsunami.

Problems

Emission of radioactive materials especially Cesium-137, Cesium-134 and Iodine-131 has polluted a wide area in the Fukushima district. There are 5 types of areas based on pollution level near the nuclear power plant: area 1, area 2, area 3, restricted area and deliberately evacuation area. Area 1 is the area to which evacuation orders are to be lifted. Area 2 is the area in which the residents are not permitted to live. Area 3 is the area where it is expected that the residents have difficulties in returning for a long time. Restricted area is areas within 20 km from the power plant, no entry is allowed in this area. Deliberately evacuation area means area which has high radiation levels (>20 mSv/year), in this area temporary visits are allowed but no overnight stay. Nihonmatsu city, in this city, the radiation level was very low (0,23 mSv/year). After visiting Nihonmatsu City, we passed through Iitate village which is categorized as area 3 because the radiation level in this village was up to 6 mSv/year. It is reported that the area that was highly polluted by Cs-134 and Cs-137 need at least 20 years to be categorized back as a safe area. This condition therefore impacts other

sectors of living for Fukushima citizen because they had to move out from their homes to a strange area and live over from the beginning.

In Minamisouma city we learned the social impacts from a local citizen: Ms. Mikako Takahashi. She mentioned mostly about how she opposed the nuclear power plant and how they started to move back to her abandoned home town because it was highly contaminated. She also spoke about how the radioactivity contamination feared the people of Minamisouma during the early period after the accident which was very difficult. In order to prevent such this incident happen in the future, she is active in the activity to against the operation of nuclear power plant all across Japan.

Environmental pollution gave impacts on agricultural aspects since Fukushima district is very famous for its agricultural products such as rice, vegetables, mushroom, livestock and milk. After the accident, almost all areas were restricted to produce all kinds of agricultural products. The government even instructed all the farmers to abandon their cattle and to stop cultivation. For those who obey this regulation, the government will pay some kind of allowance. In Minamisouma city we learned from a farmer who had to abandon his kettle for some weeks to go to the evacuation area. He mentioned that after he got back, there were so many died and dying kettle at the farm and area around it. The kettle mostly killed by hunger and unable to move for grassing because they were left as it was in the first place without any preparation. It was happened because, after the power plant explosions, farmers just left everything behind and moved away to evacuation areas. The government then instructed all the farmers to kill the rest living kettle because they said it was too dangerous and highly contaminated and there was some fear that it could spread the radioactive to its surroundings.

Disagree with the government regulation, Mr. Masami Yoshizawa, disobey the instruction and collected the entire abandoned kettle instead. He is even husbanding the kettle up until now in the area where the contamination level reached 5 mSv/year in order to provide and to make the kettle as research sources for the future. During the journey to Minoma city we visited Farm Sanctuary Fukushima where Mr.masami Yoshizawa is now taking care of his kettle. In this area, we could see the border between restricted and unrestricted area (figure.) and we also measured the radioactivity level that reached 6 msV/year.

The agricultural problems are not just the direct effects of the radioactivity pollution that damaging health, it is also causing indirect effect to the farmers that are living in a save area, far away from the nuclear power plant but still within Fukushima prefecture. People outside Fukushima is scared to buy Fukushima agricultural products because they are generalizing all the products from it are hazardous. This problem is also creating economics problem for the farmers because they sale and the price have been decreasing. In order to help out, Japanese government made a regulation that is they pay all the price difference. In other words, the farmers could still get usual profit as before. In Nihonmatsu city, we had an opportunity to work together with local farmer and spent a night together. Through a little discussion they seem do not have a very serious problem about this issue.

The problems around the area that was destructed by tsunami are mainly about economics and social problems. Hundreds of people living in Odaka, Minamisouma lost their settlements and livelihood. This has causing a huge loss financially because they have to rebuild their city all over again. Acording to Mr.Yoshiki Konno, head of Tsukahara district, Odaka, the government are also helping them out by providing budget in order for the victims to restart all over again. Restoration a city from a huge damage would need a very long period and time. This condition has causing another social problem between the young generation and old generation of Odaka city. The young generation would prefer to move out from the city and continue living in the present place they are living now after evacuation than rebuilt from the beginning. They think this is a better decision especially for the children. The old generation in reverse, wanted to back to the city and do the restoration because they think there are no place for them outside Odaka city which is their hometown and the place they was born in.

Hopes

After coming back from the field trip and after I got so much information about Fukushima and its problems, I can conclude that the hope of every single person in Fukushima is that: they want to live normal as before the accident happened. They want their ordinary lives back, working in their field, gathering with their separated family, and continue living as it was before. They want to live without invisible fear of death by horrible cancer in the future haunting their daily lives. They want to live as other Japanese people live outside the contaminated area. And last, they want to stop every nuclear power plant in Japan and the world.

Lessons

At first, especially when I knew what nuclear power plant is for the first time, this kind of power generation seems safe and efficient. However, after this field trip, I realized that in fact it is too risky and when accident happens every profit that was saved during the operation of the power plant must be spend on the damaged that it cause in the future. On the other words, it is not more profitable compare to the other types of power plant and it is having too many risks instead.

Hearing the talks especially by the speakers in Minamisouma have strengthened my image and thought about Japanese people. I have always admired them because of their “gambaru” motto of lives. They always do the best in everything and this kind of spirit has been empowering Japan from the destructive atomic bomb in the World War 2 and becoming such a great country in the recent days. From the speaker I could say every victim in Fukushima is also doing their best to revive.

Things I want to do

Nowadays, the desire to build nuclear power plant has been increasing especially in the developing countries including Indonesia. After this field trip and after going back to my country, I want to prevent my government to build a nuclear power plant. My effort might me

not significantly enough but at least I want to put my energy to against it. Another thing to do is that I want to promote some kind of this field trip where we go to a disaster area, learn everything from our mistakes and prevent the same accident to happen again in the future. In my country, field trip has always been travelling to a vacation area or just visiting national parks whereas there are so many abandoned disaster areas. With this kind of education, people would do the same mistakes all over again.

Figures



Lecture in Nihonmatsu city (left) and local community farming shop (right)



TUAT's investigation site in Nihonmatsu city (left) and local radiation measurement



Working together with a local farmer and discussion



Iidate village seen from the bus (left); talks and discussion with local people in Minamisouma city



Farm sanctuary Fukushima, we can see the border between restricted and unrestricted area (left) ; radiation measurement near the gate (right)



Scenery from Odaka city – the area afflicted by earthquakes and tsunami