

Bridge For Fukushima¹

My hope is that we could say sometime in the future, “Fukushima has been able to change and become what it is today because of the disaster.”

— Kenichi Bamba, Representative Director, Bridge For Fukushima¹

At the end of January 2014, Kenichi Bamba, Representative Director of Bridge For Fukushima (hereafter BFF), was going back to Fukushima from Narita airport, after the 10-day tour to visit U.S. towns affected by a hurricane and economic crisis. Thinking that he should do something about his hometown Fukushima using his wide experience and extensive network in the field of development, Bamba established BFF right after the disaster and gradually expanded the BFF activities by trial and error. The tour in the U.S. reminded Bamba of how much he should do from. But at the same time it reassured him that what he had tried to do was right.

Fukushima was having a complicated and long-term set of problems, having affected not only by the tsunami but the Fukushima Daiichi nuclear power plant accident. As its name indicated, could BFF bridge people, resources and feelings to Fukushima and by doing so bridge Fukushima to the brighter future?

Pre-disaster Fukushima

Among 47 prefectures in Japan, Fukushima was the third largest in size following Hokkaido and Iwate. Fukushima was divided into three districts from the side of the Pacific, Hama-dori, Naka-dori and Aizu, and each district had different climate, culture and industry (**Exhibit 1**). Having two million population in the entire prefecture, Koriyama and Fukushima in Naka-dori district as well as Iwaki in Hama-dori district were cities with over 200,000 population, creating large economic blocs. The prefecture's GDP had been steady around 8 trillion yen but it started to decline since 2008 and that of 2010 was 7.1 trillion yen (**Exhibit 2**). The major industry was the service-based (tertiary) industry, having 70% share in the total production. The manufacturing (secondary) industry was also active as many electronics and automotive component manufacturers located their production facilities in Fukushima and its shipment value was the largest among six prefectures in Tohoku region. The primary industry, rice and fruit growing such as peach, was 2% of the prefectural GDP (**Exhibit 3**).

¹ This case was written by Mayuka Yamazaki with support from Learning Initiative Co. and Fumika Yoshimine.

Since Meiji period, Fukushima started hydropower generation making use of its abundant water resources and landscape and became a provider of electricity to support the development of Japan's modern industry such as spinning and metal. In the post-war economic growth period, in addition to Tohoku Electric Power, Tokyo Electric Power Company (TEPCO, covering Kanto region) built power plants along the coast including two nuclear power plants (Fukushima Daiichi and Daini) and a thermal power plant in Hirono. Fukushima became the only prefecture outside Kanto region which provided electricity to the greater Tokyo area.

Triple Disaster

The Great East Japan Earthquake on March 11, 2011 was called a “triple disaster” as it was the combination of the three disasters, earthquake, tsunami and the nuclear power plant accident, and Fukushima was the very place the triple disaster hit. Fukushima's coastal cities measured a higher on the Japanese earthquake scale of 6 and about 1,600 living in northern coastal cities like Minami Soma, Soma, Iwaki, Namie and Shinchi were perished by the tsunami. Furthermore, Fukushima Daiichi nuclear power plant located in Okuma town experienced a total blackout due to the earthquake² and 15-meter tsunami which prevented from supplying water to the reactor or a pool of spent nuclear fuel. This caused a meltdown at three out of six reactors. It was classified as Level 7 accident on the International Nuclear and Radiological Event Scale (INES) which meant “major release of radioactive material with widespread health and environmental effects, requiring implementation of planned and extended countermeasures”.

On March 11, the government ordered those living in areas within three kilometers from Fukushima Daiichi nuclear power plant to evacuate, but the next day, the boundary was extended to 20 kilometers and those living in areas within 30 kilometers were also ordered to stay at home. On April 22, areas within eight kilometers from the plant were classified as “security zone” in which people would be forced to evacuate and punished if not following the order, and areas within 20 kilometers were classified as “evacuation zone”. In addition, even if located outside the 20-kilometer evacuation zone, areas such as Iidate in which an annual cumulative dose might exceed 20 mSv of radiation were classified as “planned evacuation areas” and people were ordered to evacuate within a month and “areas prepared to evacuate in an emergency” in which people should be ready anytime to stay home or evacuate were also set (**Exhibit 4**). As of the end of August 2011, 73,000 people were evacuated to other cities in Fukushima and 42,000 people to outside Fukushima from evacuation zone and 36,000 people living outside the zone voluntarily evacuated.ⁱⁱ In December 2011, evacuation zone was redefined and divided into three areas. The first was “areas where it is

² The Diet Investigation Committee argued that AC power supply for emergency at the first reactor was lost not by tsunami but the earthquake.

expected that residents will face difficulties in returning for a long time” and people are restricted to reside at least for five years – an annual cumulative dose in these areas might exceed 50 mSv and it might not fall below 20 mSv after five years. The second was “areas in which residents are not permitted to live”. In these areas an annual cumulative dose would exceed 20 mSv. The third was areas in which an annual cumulative dose would surely fall below 20 mSv and preparation for return of residents would start, defined as “areas to which evacuation orders are ready to be lifted”. According to a dose of radiation, the boundaries of these three areas were periodically changed. As of August 2012, the number of residents in the communities classified as either of these three areas was 80,600; 24,700 in “areas where it is expected that residents will face difficulties in returning for a long time”, 23,000 in “areas in which residents are not permitted to live” and 32,900 in “areas to which evacuation orders are ready to be lifted” (**Exhibit 5**).

The death toll from causes indirectly related to the disaster such as worsened physical conditions and extreme fatigue due to prolonged life as evacuees was about 3,000 in total as of September 2013, half of which was from Fukushima.³ While in other disaster-stricken prefectures, Miyagi and Iwate, debris disposal would be completed by the end of FY2013, only 60% of debris from the tsunami was disposed in Fukushima as it took time to decide where to put debris temporarily due to anxiety to radioactive contamination. Bamba talked about Fukushima’s situations:

In Fukushima, there are towns in which residents still do not know whether they can return home or not. The longer it takes to figure out when or whether they can return, the more, particularly the young, make a decision not to return. In fact, according to the recent survey, most of those who said to return home are over 50s. That is, even if people return home some day, there will be only old people. The main industry in these towns has been the service industry. How much employment can be created if there were only old people?ⁱⁱⁱ

Yusuke Kato who joined BFF since April 2012 also noted:

In the areas where residents are evacuated, it is unlikely that customers will come back soon even after the evacuation order is lifted and it will become harder to secure employees as many have already evacuated permanently. For example, Odaka district in Minami-Soma city (currently classified as “areas to which evacuation orders are ready to be lifted”) is a town of subcontractors. If a company is a family business with only

³ 417 in Iwate, 873 in Miyagi and the total is 2,916. “The number of the disaster-related death toll” December 24, 2013. https://www.reconstruction.go.jp/topics/main-cat2/sub-cat2-1/20131224_kanrenshi.pdf.

one or two employee, it may survive but if it has over 10 people the company is likely to go bankrupt. Then the entire Odaka town will disappear.^{iv}

The entire Fukushima industry was damaged, as demands shrunk not only in the evacuation zones in which life and business activities disappeared but in other areas as well, due to the outflow of 40,000 population to outside Fukushima and the decline in household expenditures.^v The primary and tourism industry particularly suffered from harmful rumors – people would stay away from Fukushima or made-in-Fukushima products regardless of actual safety. As of summer 2013, over two years after the disaster, agriculture in Fukushima started to recover slowly thanks to various initiatives such as establishing safety check systems, securing transparency, conducting campaigns against harmful rumors and advancing decontamination. The fishery industry was on the other hand still in ambiguity - they did not know when they could fully restart their operation due to leakage of contaminated water to ocean.⁴

The nuclear crisis also caused serious problems in communities. The residents in the evacuation zone lived in temporary or borrowed houses in or outside Fukushima, physically dispersed, so as the evacuation period was extended the unity of the original community was weakened. Also, compensation from TEPCO made the community issues even more complicated. Whether you could receive compensation was determined purely on the distance from the power plant, whether your house was located within 20 kilometers from the plant, and the amount of compensation varied depending on the number of family members. This caused a sense of unfairness and separation among community members. Shizuka Kume, from Odaka district Minami-Soma city, explained about how the compensation system affected her community, “We often hear someone saying ‘Oh you are on the 100,000 yen course – how lucky you are.’ If I meet someone with many family members, I sometimes find myself thinking ‘As this family has five members, they receive 500,000 yen per month.’”^{vi}

Kenichi Bamba

Born and brought up in Fukushima, Kenichi Bamba worked at a bank in Fukushima for six years after graduating from college. Developing a strong interest in microfinance, which was emerging in the field of development, he changed his job and started to work at a healthcare-related international non-governmental organization (NGO). At the NGO, Bamba was involved in projects of microfinance and primary healthcare in Cambodia and Zambia as a program officer. He then worked as a consultant at a country office in Cambodia of Food and Agriculture Organization of the United

⁴ Fukushima fishing association started an experimental operation in which limited the types of fish they could catch since fall 2013.

Nations, getting involved in poverty reduction and food security. He then studied at London School of Economics and Political Science as a trainee of Japan International Cooperation Agency (JICA), got a master degree in NGO management and then worked mainly in Africa as a JICA expert.

At the time of the disaster, Bamba was in Ethiopia as a JICA's consultant. As he happened to have a plan to come back to Japan in the middle of March in order to renew the contract with JICA, he came back to Japan on March 14th. Thinking that he should do something about the devastated his hometown Fukushima, Bamba called as many institutions as he could think of, such as Fukushima prefectural government and a social and welfare coordination association and explained his experience and expertise in the field of development and NPO management. However, none called him back for his help. Bamba concluded that it would be faster if he would do on his own than finding an existing institution which could accommodate him. He decided to work on a project offered by Japan Foundation to deliver masks and water, which was scarce in the market, to people in Fukushima. This was where Bamba started his activities in Fukushima.

Establishing Bridge for Fukushima

Aid supplies had been delivered to Fukushima but initially there were no logistics to deliver these supplies to people in Fukushima. Bamba met people working at an NPO called Horai. Horai was working on community building and health enhancement in Horai district in southern Fukushima in which large-scale public houses had been built in the economic growth period and therefore had issues of rapid aging. There were farmers in Horai members and they had to suspend their farming due to concerns over radioactive contamination. They agreed to drive their own light trucks to deliver supplies for a month.

Around the same time when Horai members were delivering masks and water to people in Fukushima, Bamba's friends who had worked with him in the field of development in Kenya and Cambodia came to Fukushima, asking whether they could do something. With them, Bamba went to see the tsunami-stricken coastal areas of Fukushima. He recalled:

People who have worked in the field of development like us have seen more things than ordinary people, such as extreme poverty or a town right after the war. We thought we were a kind of people who would remain unruffled to any situations. However, even for us, the scene of the coastal areas was a total shock. We then decided we should do something about this.

Bamba and his friends immediately had a meeting to discuss what would be the most critical issue in Fukushima at that moment and came up to a conclusion that the region needed an organization which would manage people and resources as well as disseminate what was going on in Fukushima to outside. During the Golden Week, they rushed to establish “Bridge For Fukushima”, hoping that “building a bridge over Fukushima by dissemination information about Fukushima and bringing people to Fukushima”. Bamba was thinking that there would be no future for Fukushima unless he started to bridge to Fukushima at that point:

One of the major characteristics of the 3.11 disaster was that it damaged three prefectures. And I think, while some areas were heavily covered by media, the situations of other areas were not reported much. I fully understand the devastating situations of towns like Minami-Sanriku and Otuchi but there was very little media coverage on Fukushima. For example, as of the mid-April, there were so many volunteers in Kesenuma and Otsuchi, actually too many for these towns to accommodate, whereas there was not even a system to accommodate volunteers in Fukushima. I thought that was a serious problem. We had better hurry.

We were feeling pressed. If we compare the recovery speed from natural disaster and that from the Fukushima nuclear disaster, it was obvious that the latter would take longer time. Once people go to a certain area as volunteers, they develop interest and affection to the area. If there are few volunteers in the initial phase, the number of supporters will be small accordingly. We were feeling pressed that we should increase the number of volunteers as much as possible.^{vii}

Bamba, however, did not devote himself fully to the BFF activities. During 2011, he went back to Ethiopia and spent for a few months there, working as a developmental consultant. He did so because he was clear on his role in the recovery process which would take long time.

I am a person who has skills and expertise for the recovery and developmental phase than for the phase of emergency response. I thought the first year was not time for me. Therefore, strategically, I did not change the contract with JICA and earned as much money as possible so that I could stay and spend substantial time in Fukushima in the second and third year from the disaster. I knew I could be more useful that way.^{viii}

Initial Phase

The project BFF worked on was to organize a volunteer bus tour to help clear debris and dirt in the coastal areas of Fukushima. BFF partnered with organizations like Lenovo, JICA and Fukushima University and brought 20-30 people at a time. In consideration of people's anxiety towards radiation, BFF gathered data and made them available to participants. If there was a rain, even a little, BFF stopped the activity immediately, and the bus took a long detour to stay away from the mountain areas in which had higher dose of radiation. BFF organized the total of 13 tours between May and November 2011, bringing 600 people to Fukushima.

In August 2011, receiving a mandate from Second Harvest Japan (2HJ) which got to know that Bamba had delivered masks and water right after the disaster, BFF started to deliver water to Soma city and Futaba town in which people were growingly concerned about radioactive contamination of tap water. 2HJ, an NPO which would provide disposed food to homeless people or shelters, had been actively engaged in providing food to the disaster-stricken areas after 3.11. BFF set up "Soma base" and provided people who came to the base with water and other needed goods such as clothes, food and heaters till March 2012.

Entering Recovery Phase

As the first year was ending, Bamba was thinking that it was time for BFF to shift its focus to activities which would contribute to the long-term recovery. Around that time, NPO Horai, which Bamba had established trust through working together on delivering water right after the disaster, started to ask advice to Bamba on what they should do in the future. Given that quite a few organizations had emerged after the disaster, Bamba realized that, like Horai, some of them would start seeking for hands-on support to strengthen the systems and develop their activities.

Bamba had a chance to get to know ETIC, an NPO with a mission to nurture entrepreneurship in Japan, and its "right-hand" program, a program launched after the disaster to dispatch people to support leaders working on recovery from the disaster. BFF was chosen as an institution to which ETIC's "right hand" people were dispatched: Yusuke Kato (25) who had an experience in studying in China and working at a consulting firm started to work at BFF in April 2012 and Ryo Konuma (31) who had worked at a housing maker and an NPO in Miyagi started to work in July 2012. With these two "right hand" people, BFF was greatly strengthened as an organization.

Kakehashi (bridging) Tour

Bamba was thinking how they could organize a tour in a way to contribute to the long-term recovery of Fukushima, building upon their experience of offering volunteer tours. He felt the strong need for

such a tour when he made a tour with Kato and Konuma from north to south on the tsunami-affected coastal areas in August 2012. He recalled:

What I saw there was what we had feared in April 2011 became a reality. In Minami Sanriku, there were so many large buses coming in and its temporary Sansan shopping mall was full of people. On the other hand, none was coming to Fukushima at that time.^{ix}

Then the idea of offering “kakehashi (bridging) tour” came up. Local people whom they got to know through BFF activities would provide their narratives as storytelling guides so that the tour participants would have a deeper understanding on situations in Fukushima. Kato took a lead in planning and partnership with Fukushima Transportation (a bus and tourism company) and in January 2013 the first kakehashi tour departing from Tokyo was offered. The first local storytelling guide was Nagamasa Takahashi who founded an NPO in Soma which organized morning markets for soup kitchens, food sales and events as well as distributed aid supplies from all over Japan in exchange of small fees. Following Takahashi, Shizuka Kume from Odaka district in the evacuation zone who first came to the Soma base to pick up supplies and then started to help BFF as a volunteer and Tomoko Kusaka from an NPO Miraito, a network of young business people who stood up to restore the tsunami-stricken Shinchi town.

Indoor Park

Toppan Printing asked BFF to operate two-week-long temporary indoor park in various public gymnasiums in Fukushima. It was quite a big and challenging project for BFF, a team of three, as they had to mobilize 20- 30 adults at a time and move from one facility to another all over Fukushima. The budget size of this single project was equal to BFF’s annual budget size. However, having Konuma as a leader, BFF managed the project well. This became a chance for BFF to work equally with a company and grow as an organization. Inspired by this project, BFF set up its own indoor park at their Soma base so that kids could play and mothers could communicate each other.

Hands-on Support

Taking its support to NPO Horai as a model case, BFF started to expand hands-on support to other organizations. The support included setting vision and mission, making a business plan, fund raising and marketing. BFF supported “Moms’ Power Project” in which a group of mothers evacuated from Iidate village cook lunch boxes and produce food products and “Veteran Moms Association” which offered medical information and community activities to mothers and the elderly in Minami-Soma city.

Beyond Many Failures

Bamba was thinking that his experience of “creating something from scratch” in the field of development allowed him to keep taking actions and moving forward in the post-disaster Fukushima in which there was no precedent. He said:

I start taking an action and creating something from scratch while I am still thinking.
That is why I have made so many failures.^x

A number of ideas such as selling vegetables grown outside Fukushima and producing local beer did not work and disappeared. Bamba also knew that the activities BFF continued to engage including indoor park and hands-on support were not yet successful. For example, Bamba had expected that the indoor park at the Soma base would facilitate more proactive engagement of mothers who came to the base. However the reality was that very few got proactively engaged and the number of people using the base was declining. Among groups BFF provided hands-on support, some struggled to shift from “a bonus stage” in which they were able to get subsidies and support easily to a phase in which they had to sustain their activities on their own.

However, Bamba had a feeling; “Among many seeds I planted in the first and second year, one out of 10 has started to bloom in the third year.”^{xi} One of these flowers was a project with Fukushima High School from which he graduated. Asked to support a business plan competition at the high school, he went to the school and found “something very promising, a light” there and the relationship with the school started to be built. Bamba and a teacher who had a passion to provide education to enable students to think and act proactively came to trust each other. BFF helped organize a series of projects such as a project to make the students define issues of Fukushima and provide solutions, a career seminar, an exchange program with high school students in China and workshops with entrepreneurs and students in the U.S. Through getting involved in these projects, the high school students grew rapidly and took actions as a responsible member of the society. For example, the idea presented at the business plan competition to grow miracle fruit using geothermal heat from hot spring was put into practice and the students already succeeded in commercializing the miracle fruit. Kato, who had studied in China and helped the exchange program with high school students in China, said:

I hope that these kids start taking actions for the future of Fukushima on their own and also developing those who are younger than them, as it will create a self-sustained cycle of human development. Until I see the cycle, I will stay in Fukushima.^{xii}

Bamba said:

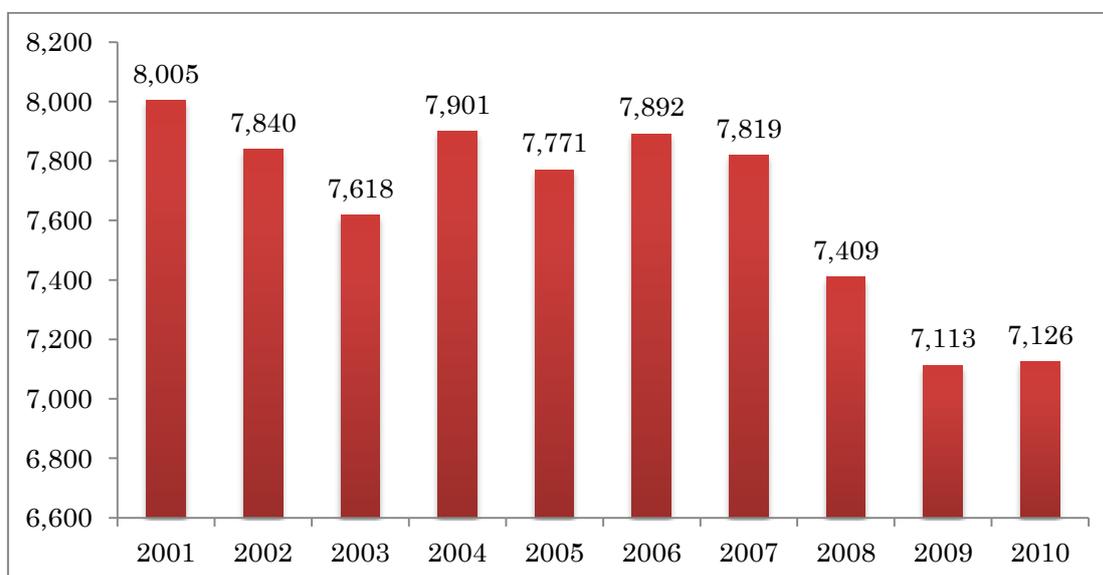
The current first year students – many of their close friends went out from Fukushima. They said, “We are left out in Fukushima.” If you are a grown-up, you have an option to leave Fukushima if you are worried. However, if you are a kid, you have no option but follow your parents’ choice. These kids had such anxiety – I thought what we should do at least was to do something so that they would later say, “My high school life was fun”. I might have felt a responsibility as an adult.^{xiii}

Exhibit 1 Three districts in Fukushima



Source: Trip to Fukushima <http://www.tif.ne.jp/lang/en/outline.html>

Exhibit 2 GDP of Fukushima prefecture (FY, 1 billion yen)



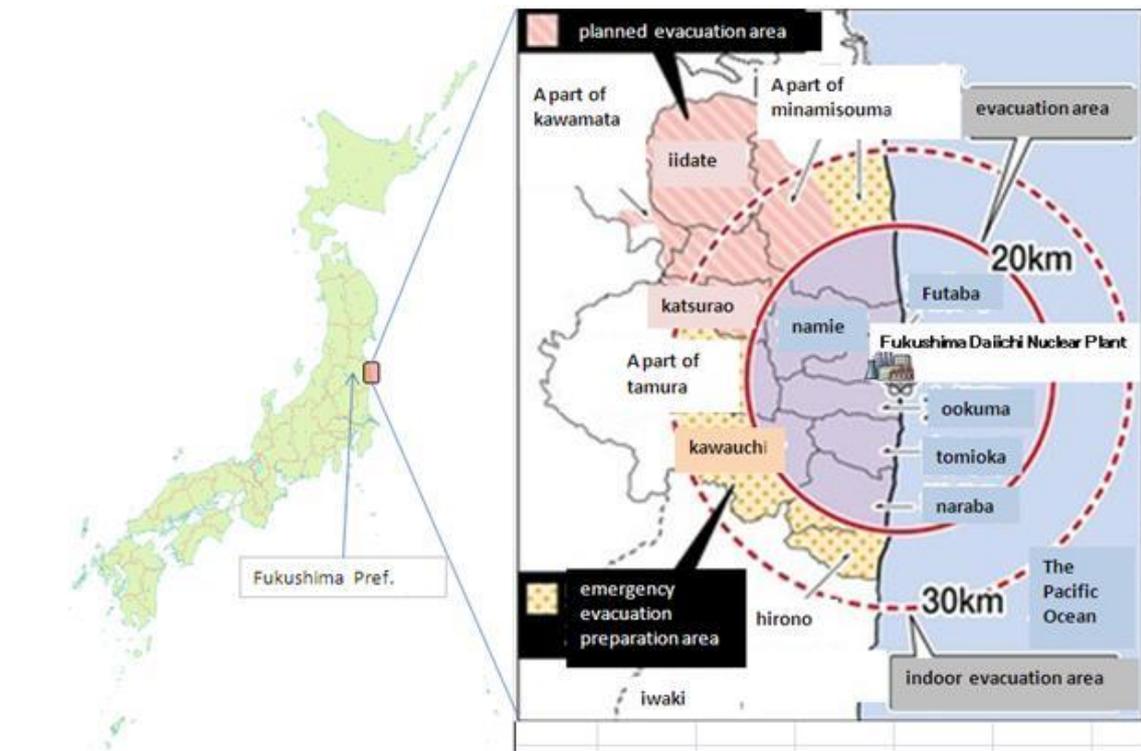
Source: Prefectural accounting, Cabinet Office

Exhibit 3 Industrial structure of Fukushima (FY, 1 billion yen)

	2001	2004	2007	2010
Primary	144	144	140	148
Manufacturing	2,476	2,591	2,498	1,988
Service	5,374	5,143	5,149	4,958
Total	7,994	7,878	7,788	7,093
Primary	1.8%	1.8%	1.8%	2.1%
Manufacturing	31.0%	32.9%	32.1%	28.0%
Service	67.2%	65.3%	66.1%	69.9%

Source: Prefectural accounting, Cabinet Office

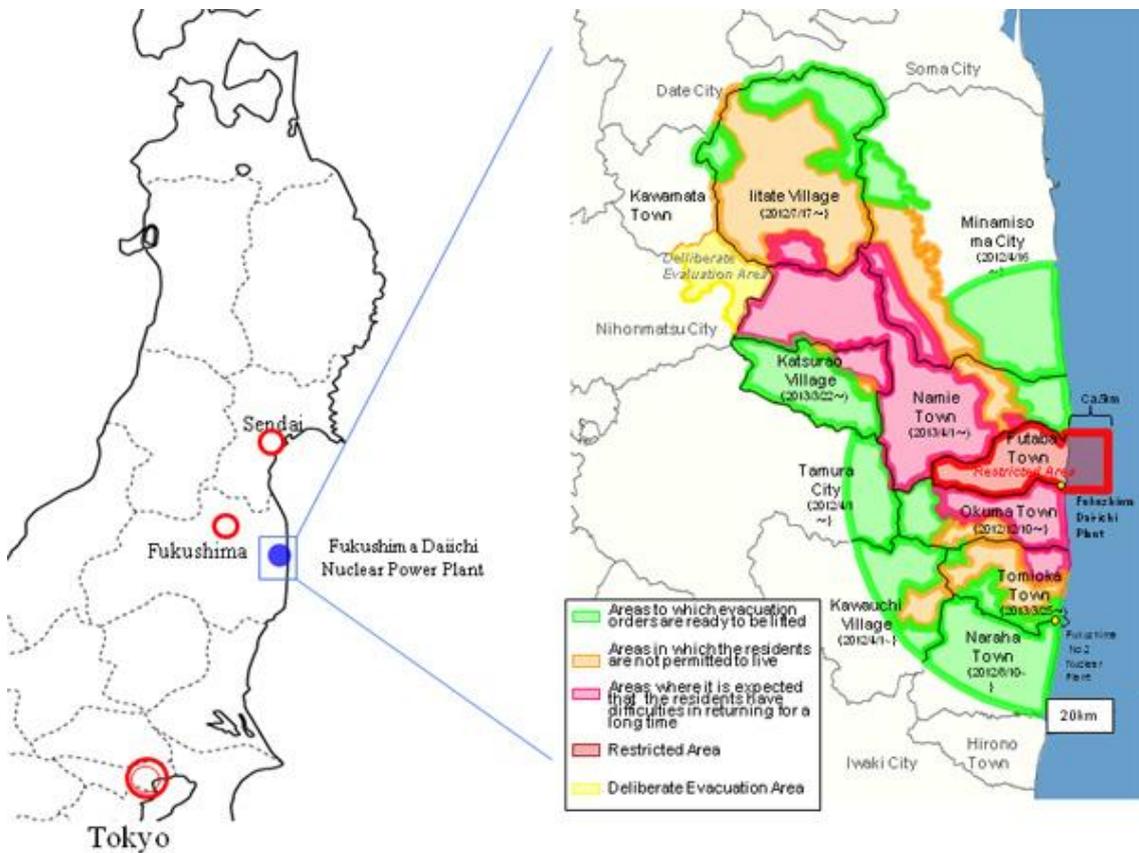
Exhibit 5 Evacuation Zone as of April 2011



Source: Ministry of Agriculture, Forestry and Fisheries

http://www.maff.go.jp/e/quake/press_1104018-1.html

Exhibit 6 Evacuation zone as of August 2013



Source: Reconstruction Agency

<https://www.reconstruction.go.jp/english/topics/2013/03/the-status-in-fukushima.html>

- ⁱ Interview by case writers, January 29, 2014.
- ⁱⁱ Evacuation status in Fukushima, Ministry of Economics, Trade and Industry, September 2011. http://www.mext.go.jp/b_menu/shingi/chousa/kaihatu/016/shiryo/_icsFiles/afieldfile/2011/09/21/1311103_1_2.pdf
- ⁱⁱⁱ Explanation at the Human Tourism Tour organized in December 2013.
- ^{iv} Interview by case writers, February 10, 2014.
- ^v “How the outflow of population after the disaster affects Fukushima economy” Fukushima no shinro, May 2012. http://fkeizai.in.arena.ne.jp/pdf/cyousa/cyousa_2012_05_2.pdf.
- ^{vi} Explanation at the Human Tourism Tour organized in December 2013.
- ^{vii} Interview by case writers, January 29, 2014.
- ^{viii} Interview by case writers, January 29, 2014.
- ^{ix} Interview by case writers, January 29, 2014.
- ^x Interview by case writers, January 29, 2014.
- ^{xi} Interview by case writers, January 29, 2014.
- ^{xii} Presentation to Harvard Business School students, January 8, 2014.
- ^{xiii} Interview by case writers, January 29, 2014.