Fukushima Prefecture, an agricultural region on Japan’s coastline, suffered massive losses in the earthquake and tsunami that struck Japan in March of 2011. The disaster caused catastrophic damage to the nuclear power plant located in Fukushima and eventually forced anyone living within 20 km to evacuate their homes. While no longer in the international headlines, the Fukushima Dai-ichi nuclear crisis continues today and humanitarian needs in Fukushima persist, with many residents still unable to return to their homes more than six months after the disaster.

Background

Fukushima is the third largest prefecture in Japan, spanning approximately 13,800 km and is located roughly 200 km north of Tokyo. Before the tsunami/earthquake disaster, Fukushima was home to approximately two million people, many of whom lived in the capital, Fukushima City.

Based on its diverse climate, ranging from snowy mountains and lush forests, to 159 km of Pacific coastline, Fukushima was a highly productive food source for Japan. Prior to the disaster, its Nakadori region was the fourth largest agricultural region in Japan, yielding rice, peaches, apples, pears, tomatoes, and cucumbers. Livestock was also a major export, as well as tobacco and raw silk. Fukushima was also one of the highest yielding fishing areas in the country.

The Earthquake-Tsunami Disaster

Although the epicenter of the earthquake was located off the coast of Miyagi Prefecture to the north, Fukushima was still greatly affected by the earthquake’s force, with parts of Hama-dori region experiencing more than 6.0 magnitude and Fukushima City, in Naka-dori region, measuring more than 5.0. The earthquake triggered a massive tsunami that hit the eastern coast of Fukushima, causing widespread destruction and loss of life. More than 1,900 were killed and another 1,600 were injured within the Prefecture.

Infrastructure damage was sporadic and in some cases severe. Nearly 190,000 residential buildings were damaged, 17,000 of which were completely destroyed. An estimated 17,700 public buildings, businesses, and other non-residential units were also damaged, including the Fujinuma Dam and the Fukushima Dai-ichi nuclear power plant.
The Nuclear Crisis

Based on international radiation scales, the damage at the Fukushima Dai-ichi power plant sparked a nuclear disaster on par with the 1986 Chernobyl explosion in Ukraine. Although officials estimated that the actual radiation leakage was only 10 percent of what occurred at Chernobyl, it is likely to have long-term effects on health and the environment.

Due to the radiation risk from damaged nuclear reactors, 64,000 people were forced to flee their homes. Evacuations were conducted in phases, with anyone living within a 20 km radius of the plant required to leave. Those in the “Deliberate Evacuation Area,” 20-30 km northwest of the damaged plant, face a risk for higher radiation within the next year due to the area’s specific climate and geography. Other areas in the 20-30 km radius, or “Evacuation Prepared Area,” were originally encouraged to prepare for an evacuation, however, additional information in August prompted the government to end its warning.

Restricted Area, Deliberate Evacuation Area And Regions including Specific Spots Recommended for Evacuation (As of September 30, 2011)

Early Response to the Nuclear Crisis

March 11, evening:
Tokyo Electric Power Company (TEPCO) dispatched a power-supply car to the nuclear power plant, but it had trouble reaching it due to earthquake and tsunami damage and traffic. Electric supply by helicopter was planned but the idea was discarded due to a weight restriction.

March 12, morning:
A few power-supply cars arrived at the plant and TEPCO staff worked to recover the electrical supply.

March 12, 3:30 pm:
First explosion occurred in the first nuclear reactor.

March 14, 11:01 am:
A second explosion happened in the 3rd reactor.

March 15, 6:00 am:
Another explosion struck the 2nd reactor.

March 15, Evening:
Helicopters began to spray seawater onto the plant, as did water cannon and fire trucks.

March 19:
Firefighters were dispatched from several municipalities to pump water to the plant.

Instruction to Fukushima Residents

March 11, 8:50 pm:
The governor of Fukushima Prefecture instructed residents in Ookuma town and Futaba town living within 2 km of the Fukushima Dai-ichi (1st) Nuclear Power Plants to leave.

March 11, 9:23 pm:
The Prime Minister instructed residents of Ookuma town, Futaba town, Tomioka Town, and Namie Town living within radius 3 km of the power plant to leave, while those within 10km should stay inside.

March 12, 5:39 pm:
The evacuation instructions were expanded to 10 km from the power plant.

March 12, 6:25 pm:
An hour later, evacuation instructions were expanded to 20 km.

March 15, 11:00 am:
The Prime Minister told residents living 20-30 km from the plant to stay indoors.

March 25:
The Government of Japan acknowledged the need for livelihood support for those who were told to stay in their houses and advised those living 20-30 km from the plant to prepare for an evacuation.

April 22:
The Prime Minister designated the 20km radius around the Fukushima Nuclear Power Plant as an emergency zone and prohibited entry into the area. On the same day, the Government made the area where radiation was predicted to accumulate to 20mSv within a year the new evacuation zone.

According to the Disaster Countermeasure Basic Act, the local government is in charge of emergency environment monitoring. After the accident, Fukushima Prefecture allocated staff for monitoring activities, along with related organizations. Monitoring began on March 13 which showed some areas with radiation levels of 30 microsieverts ($\mu$Sv). In addition, concentrated radioactive iodine and radioactive cesium were found in surface soil and on plants. Today, the Ministry of Education, Culture, Sports, Science, and Technology is in charge of monitoring radiation levels and issues reports daily.
Population Displacement
The majority of the local population left Fukushima for other prefectures, mostly to Yamagata and Niigata to the east and Tokyo to the south. Most evacuees are now staying in the homes of friends and relatives or in temporary/rented housing.

The number of people living in evacuation centers in Fukushima has dramatically decreased because Fukushima’s prefectural government had planned to close all the evacuation centers by the end of October. However, the governor decided to keep three evacuation centers in the prefecture open for those who had not yet been allocated temporary housing. The number of people who are living in hotels or guest houses has also decreased because most of them have moved to temporary housing sites.

Where Evacuees Fled Outside of Fukushima
As of Nov 21st

<table>
<thead>
<tr>
<th>Prefecture</th>
<th>Number of Evacuees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yamagata</td>
<td>12,542</td>
</tr>
<tr>
<td>Tokyo</td>
<td>6,542</td>
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<tr>
<td>Niigata</td>
<td>6,451</td>
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<tr>
<td>Chiba</td>
<td>3,259</td>
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<tr>
<td>Gunma</td>
<td>1,922</td>
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<tr>
<td>Tochigi</td>
<td>2,556</td>
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<tr>
<td>Hokkaido</td>
<td>1,827</td>
</tr>
<tr>
<td>Other prefectures</td>
<td>16,087</td>
</tr>
<tr>
<td>Total</td>
<td>58,769</td>
</tr>
</tbody>
</table>

Where Evacuees are Living Inside Fukushima

In Primary Evacuation Centers
- Minami-Souma: 27
- Iwaki: 11
- Aizu-Wakamatsu: 1
- Total: 39

In Secondary Evacuation Centers
- Fukushima City: 5
- Minami-Aizu town: 5
- Inawashiro town: 5
- Kita-shiobara village: 2
- Nihonmatsu City: 119
- Aizu-wakamatsu City: 40
- Kitakata city: 3
- Total: 61

At Temporary Housing Sites
- Fukushima: NA
- Kunimi town: 159
- Kuwaori town: 37
- Kooriyama City: 0
- Sukagawa City: 362
- Tamura City: 10,39
- Kagamiishi town: 214
- Sirakawa City: 254
- Nishigou village: 54
- Yabuki town: 208
- Senzaki town: NA
- Nishiaizu town: NA
- Shinchi town: 1,504
- Souma City: 2,637
- Minami-Souma City: 5,409
- Iwaki City: 421
- Total: 12,298

In Rented Apartments
- Fukushima: 510
- Kunimi town: 43
- Kuwaori town: 40
- Kooriyama City: 2,271
- Sukagawa City: 1,186
- Tamura City: 876
- Kagamiishi town: 328
- Sirakawa City: 524
- Nishigou village: 23
- Yabuki town: 157
- Senzaki town: 37
- Nishiaizu town: 0
- Shinchi town: 107
- Souma City: 860
- Minami-souma City: 9,971
- Iwaki City: 4,466
- Others: 146
- Total: 21,545
Radiation still persists in areas throughout Fukushima, preventing many from returning home. In addition, many farmers and food producers throughout the prefecture were forced to dispose of crops and other food and beverage products because their radiation levels exceeded those considered safe by The Nuclear Security Commission of Japan.

<table>
<thead>
<tr>
<th></th>
<th>Northern part of Fukushima</th>
<th>Central part of Fukushima</th>
<th>Southern part of Fukushima</th>
<th>Aizu region of Fukushima</th>
<th>Iwaki City</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highest:</strong></td>
<td>1.97 μSv/h at Date city Reizan Parking</td>
<td>0.99 μSv/h at Fukushima prefecture agriculture sogo center</td>
<td>0.71 μSv/h at Shirakawa city hall Daishin building</td>
<td>0.17 μSv/h at Yukawa village community hall</td>
<td>0.38 μSv/h at Iwaki city Suetsugu assembly hall</td>
</tr>
<tr>
<td><strong>Lowest:</strong></td>
<td>0.37 μSv/h at Fukushima Jichi Kenshuu center</td>
<td>0.10 μSv/h at Ono town hall</td>
<td>0.12 μSv/h at Yamatsuri town hall</td>
<td>0.09 μSv/h at Nozawa elementary school (Nishi-Aizu town)</td>
<td>0.09 μSv/h at Nozawa elementary school (Nishi-Aizu town)</td>
</tr>
</tbody>
</table>

Together with local partner Association for Aid and Relief Japan (AAR Japan), International Medical Corps is distributing kits containing cooking, cleaning, bathroom, and other essential items to 450 evacuee households living in subsidized housing outside of Fukushima.
Due to the scale of the damage from the disaster and ongoing nuclear crisis, Fukushima is still facing massive challenges to its recovery and reconstruction. The extent of the devastation was beyond what the Japanese government was prepared for and the national and local governments are still struggling to provide essential public services, such as medical and mental health care, as well as infrastructure repair.

Because Fukushima faces an ongoing nuclear crisis, many of its residents still live in fear and uncertainty. Those who had homes within 20 km of the damaged plant are still not allowed to return. The nuclear crisis has also stalled relief efforts in central Fukushima and along its coast. As a result, many people continue to live in scattered temporary residences in and outside of Fukushima with no information on when or if they will be able to return to their homes and communities.

We partnered with local organization, Shapla Neer, to create a community space for evacuees living in temporary housing in Iwaki City, Fukushima. The space provides a central location where evacuees can interact with peers, seek counseling, and receive information on assistance programs and other related topics.

Shapla Neer’s information corner has useful material for evacuees like updates on local government services. The center also promotes local events and activities to bring evacuees and Iwaki City residents together.
The Road Ahead

In this post-emergency phase, International Medical Corps believes it is vital to continue supporting both local governmental and non-governmental agencies to implement mid- to long-term assistance projects. Currently, we are supporting two programs targeting evacuees who are struggling to rebuild their lives after the disaster. Starting in October 2011, International Medical Corps partnered with the local organization, Shapla Neer, to create a community space for evacuees living in temporary housing in Iwaki City, Fukushima. The space will provide evacuees with a central location where they can interact with peers, seek counseling, and receive critical information on assistance programs and other related topics.

The second program is delivering key household items to families who had to flee Minami-Soma City for other prefectures such as Miyagi, Tochigi, Niigata, and Yamagata due to radiation levels. Together with local partner, Association for Aid and Relief Japan (AAR Japan), International Medical Corps is distributing kits containing cooking, cleaning, bathroom, and other essential items to 450 households (1,400 individuals) living in subsidized housing outside of Fukushima.

Additional Outreach Includes:

1. Livelihood Opportunities for Evacuees: Upon leaving evacuation centers for their own damaged homes or temporary housing (kasetu), many survivors lost the support system provided by the current Disaster Relief Act. As a result, many are now living without government assistance as well as the public and community services that were available to them before the disaster, including hospitals, clinics, and elderly care facilities. In addition, due to a lack of public land, many kasetu were built away from towns and central road lines, making it difficult for evacuees to travel. Without accessible livelihood opportunities, many are unable to support themselves and start the process of rebuilding their lives.

2. Economic and Jobs Recovery for Coastal Communities: Prior to the disaster, coastal towns and villages relied primarily on fishing for income. The tsunami destroyed boats, equipment, and processing facilities, which will require large capital investment in order to recover. In addition, the nuclear crisis in Fukushima sparked fears of tainted fish, lowering the demand for seafood from the region. As a result, unemployment is rampant in areas where fisherman, who typically lack higher education, traditionally supported their immediate and extended families. On top of this, those living in kasetu have housing for two years, but they do not have substantive cost-of-living support and there are few job opportunities available to them.

3. Psychosocial Support for both Evacuees and Residents: The residents of Fukushima have been subjected to various stressors and ongoing challenges that include sudden displacement from family and community, the difficulties of living in temporary shelters, loss of livelihood, fear of the potential long-term consequences of past and ongoing radiation exposure, and uncertainty about the future.

International Medical Corps Japan

On the ground 48 hours after the earthquake and tsunami, International Medical Corps was able to reach isolated communities that had been entirely cut off from the outside world and deliver critical relief. International Medical Corps immediately partnered with well-established Japanese organizations to augment our work through material support as well as training and education for front-line workers in mental health and psychological first aid. Today, we remain committed to helping Japanese communities recover and rebuild. Just as we did with our emergency response, International Medical Corps will continue to collaborate with local and national government agencies and partner with a variety of Japanese organizations so that our recovery efforts have maximum impact.

Our Organizational Capacity

For more than 27 years, International Medical Corps has demonstrated the ability to implement effective relief and development programs, improving lives and strengthening local capacity through health care and training programs. International Medical Corps has responded to complex emergencies and implemented transitional development programs in more than 65 countries worldwide.