



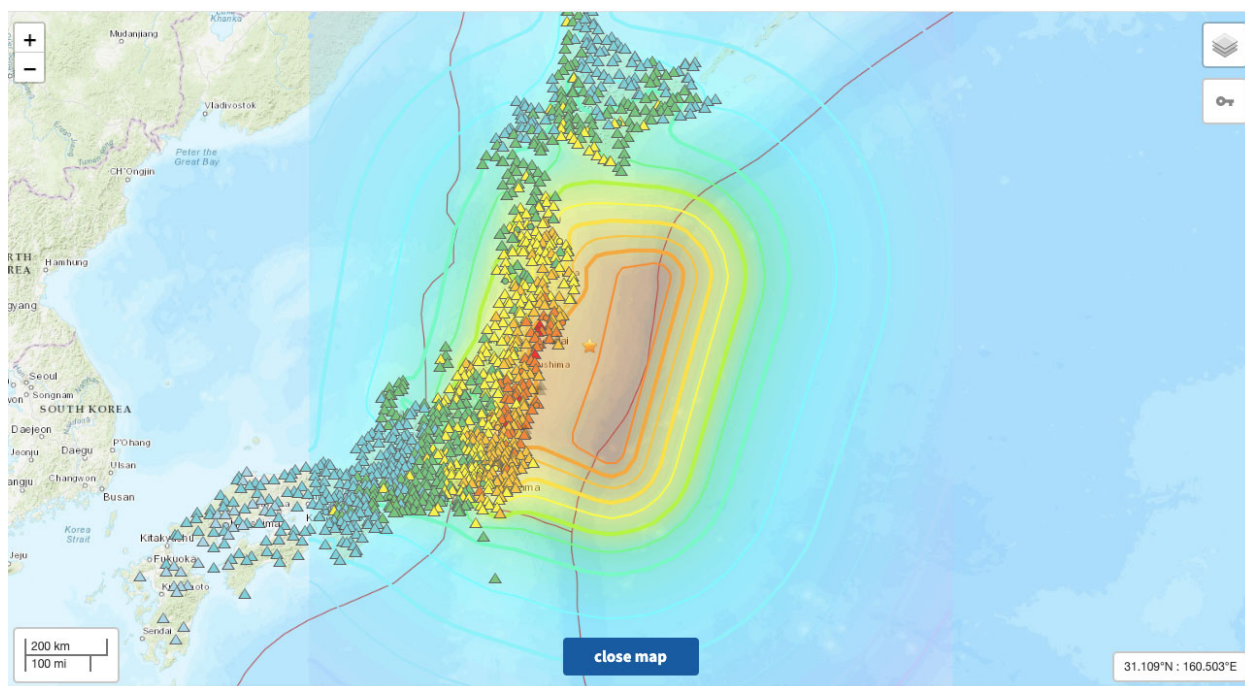
Quake Tales Presents Kanako Nemoto
“Lessons from a Disaster: Be Prepared
Because You Can Do Little After an Earthquake.”

The Tōhoku Earthquake and Tsunami 2011
Interviewed and translated by Megumi Patchett on June 14, 2024



In the BC Earthquake Alliance’s second Quake Tales story, we invited Kanako Nemoto to share her story of the earthquake and the month that followed. Ms. Nemoto has lived in the Esquimalt area since 2018 and was a graduate student at the time of the Great *Tōhoku* Earthquake in 2011.

The earthquake was Mw 9.1 at a depth of about 24 km (Hayes et al., 2016), and the epicentre was about 136 km from Ms. Nemoto’s location. The area of Sendai in *Tōhoku* where Ms. Nemoto resided then experienced the MMI 8 (severe) level of shaking intensity. The event and resulting tsunami killed at least 15,703, leaving 4,647 people missing, 5,314 injured, and 130,927 displaced, utterly devastating the whole region.



The Great East Japan Earthquake occurred at 14:46 on March 11, 2011.
ShakeMap of the Tōhoku event. (Source: U.S. Geological Survey)

2011 Tōhoku Earthquake: What was Kanako's experience with earthquakes?

*The shaking on the 11th floor was significant.
 It was absolutely the largest shaking I ever felt.
 -Tōhoku Earthquake survivor Kanako Nemoto*

I was a graduate student in the life science department at Tōhoku University at the time, but I had been living in Sendai since 2009, and I was on the 11th floor of a rather large apartment building when the earthquake hit. I was studying at my desk. It was daytime, and I was alone.

I really couldn't think about anything during the earthquake. From the beginning, I knew it was an earthquake, but I didn't think it would be that bad. The shaking got worse and worse. The window was open and it was shaking so much that it was banging against the edge of the window frame. I was holding the window down, thinking it might break. The shaking continued for about 5 or 6 minutes and the shaking was so intense that everything standing upright in the room fell down. I was a student living alone at the

time, so I didn't have any great furniture, but I had a lot of cheap stuff. All the furniture like shelving and bookcases standing in my room all fell down. All the glass was broken, and there was nowhere to step safely. I couldn't even stand up, so I just sat there. When I looked out the window, there were no lights in the commercial buildings due to the loss of power in the area. It was so quiet like everything had stopped. There was no dust in particular, because not many buildings collapsed. I didn't see any collapsed buildings in the area. I knew the earthquake-proofing of structures in Japan was very solid, so there was nothing like that.

“The shaking continued for about 5 or 6 minutes, and the shaking was so intense that everything standing upright in the room fell down”

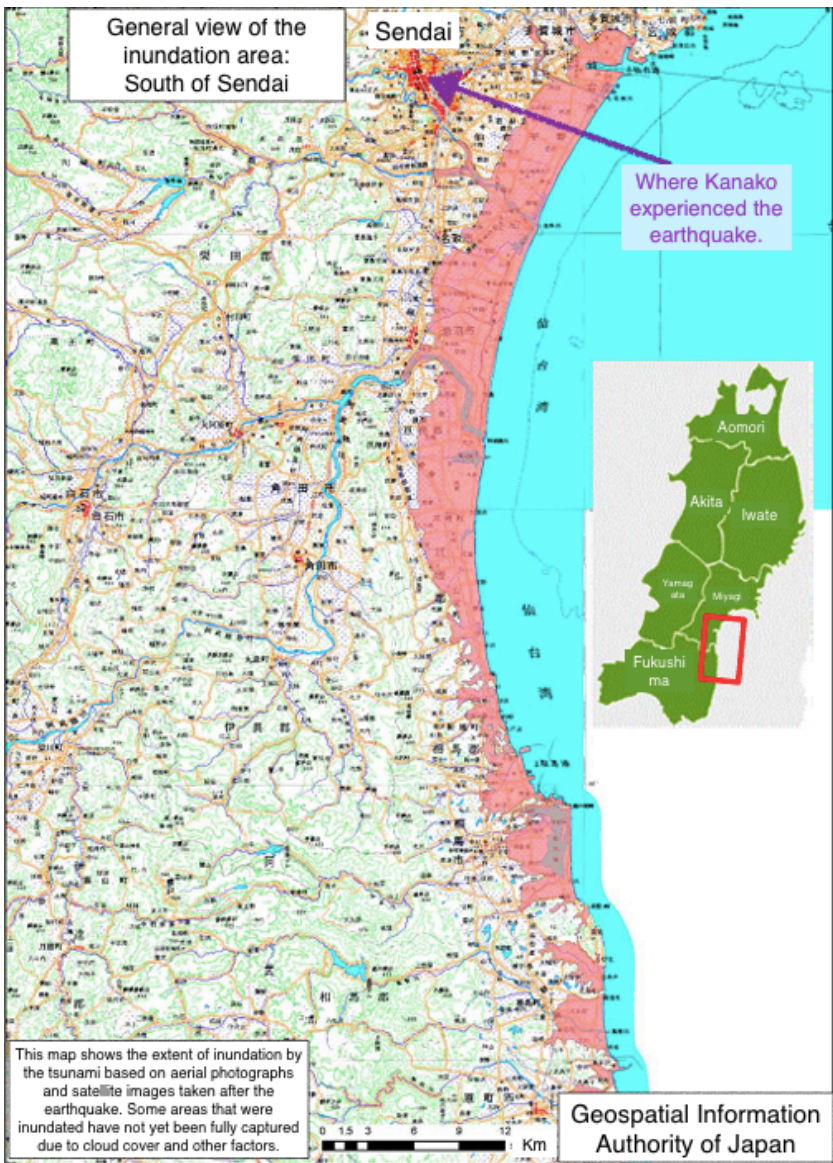
- *Tōhoku Earthquake survivor Kanako Nemoto*

I used to go to the most central campus of Tōhoku University (Katahira Campus), and I lived very close to the campus. I lived about a 15-20 minute walk from Sendai Station. I didn't have a car or anything at the time- all I had was my bicycle. I tried calling my parents, but I couldn't get through. I texted my parents, asking what I should do, but they couldn't get through by phone or text. Because some of the cellular towers were damaged and the power was out from the earthquake, I did not have data on my phone at that time.

My brother lived in Fukushima (Koriyama). After the shaking stopped, my neighbours gave me a ride to Fukushima. We left around 3:00 or 4:00 p.m., and they took me to my brother's place. Normally, it's just a 30 minute train ride, and not long by car. During the car ride, there was a huge traffic jam- everyone was trying to get out. The traffic was so congested that we couldn't go back, so we just kept going. But while we were in the car, we felt many aftershocks too. There were traffic jams and tremors, so everyone was driving very slowly. When we arrived at Fukushima about 8 hours after the event, it was after midnight. While we were driving, we were listening to the radio and heard about the devastation and how there were so many dead bodies washed up along the beach in Miyagi. I didn't fully understand what was happening and didn't know about the tsunami, so we just kept moving, and they dropped me off at Fukushima. I stayed at my brother's place for a few days, and there was electricity there but no water. There were rations available once a day. My brother and I went to the rationing station and could only buy one food item per person. We stood in line for hours.

I tried calling my parents, but I couldn't get through. I texted my parents, asking what I should do, but they couldn't get through by phone or text. Because some of the cellular towers were damaged and the power was out from the earthquake, I did not have data on my phone at that time.

- Tōhoku Earthquake survivor Kanako Nemoto



We were very lucky to have electricity, and when I saw the TV, I really learned about the devastation. At first, I didn't think the event was that widespread; I thought maybe only Miyagi had been affected. The scale of the earthquake was astonishing. I never thought I would experience such a big earthquake.

Image adapted from: Geospatial Information Authority of Japan.

*During the car ride, there was a huge traffic jam -
everyone was trying to get out.*

- Tōhoku Earthquake survivor Kanako Nemoto

While I was there, I learned that the nuclear power plant in Fukushima was in serious trouble, the evacuation zone was gradually expanding from the immediate vicinity of the plant, and people in this area were being asked to evacuate. My brother's house was quite a distance away, so we were still okay for the first few days, but it started spreading a little bit more and more, and we thought that it would be really bad if we stayed in Fukushima. We were wondering what to do because the trains weren't running, and neither of us had a car. My friend offered to pick me up. She lived in Chiba. The highways were all blocked, so she couldn't use the expressway. She came down using the back road, and it took her several hours to get to Fukushima (Koriyama). .

*My brother and I went to the rationing station and could
only buy one food item per person.*

We stood in line for hours.

- Tōhoku Earthquake survivor Kanako Nemoto

I stayed with my friend in Chiba for over a week. The trains were not restored at all. The nuclear power plant in Fukushima had been damaged, so there was a shortage of electricity for the whole country. The power was cut off to the houses one by one, block by block, in order to conserve electricity; it seems that the power shuts off suddenly without warning. The time frame was set like "tomorrow, from this time to this time, this whole area will lose electricity," and we lose power for maybe 2 or 3 hours at a time. It was as if everything would suddenly shut down and be dark for a while for the next two weeks. There was no shortage of food in the Tokyo area, so we didn't have to stand in line to buy anything, but when the power went out, we couldn't do anything. All the stores would be closed because there was no electricity. That was really inconvenient. I think it lasted about two or three weeks after the earthquake.

When the power went out, we couldn't do anything. All the stores would be closed because there was no electricity. That was really inconvenient. I think it lasted about two or three weeks after the earthquake.

- Tōhoku Earthquake survivor Kanako Nemoto

I went to Ibaraki, where I'm from, when the trains were restored. I thought I would go home after the trains were restored because I felt bad for my friend that I was staying at her place for a long time, and about two weeks later, the trains were restored. I went back to my parents' house, which was almost completely undamaged. Ibaraki is along the coast, but there was only a slight impact from the tsunami. The inside of the house was completely safe, and the electricity and water were functional.

I was able to stay at my parents' house after that, but I was worried about the mess in my room after things had settled down in Tōhoku. Since everything was left as it was, we decided to go back to the apartment room to clean it up about a month after the earthquake. Even at that time, the water still was not running, but I think the electricity was back on. We cleaned up my room and went back to Ibaraki. I wanted to wait to see things settle down a little bit more. The damage to the nuclear power plant stopped there, and the radiation was not spreading any further, but I wanted to wait for things to settle down a bit more before returning back to stay at my apartment.

I was a graduate student, and still had research to complete, so around the end of April or so, I decided to go back to Sendai again. All my schoolwork had been put on the back burner.

It was absolutely the largest shaking I ever felt. The building I was in sustained quite a lot of cracks despite being made with reinforced concrete.

We decided to go back to the apartment room to clean it up about a month after the earthquake. Even at that time, the water still was not running.

- Tōhoku Earthquake survivor Kanako Nemoto

Previously, I had only heard about the Great Hanshin Earthquake (1995), but I do not remember it at all. I was in elementary school. I only saw it on TV later, but I had no memory of it at that time. Tōhoku was the next big earthquake, and I had never heard of many other big earthquakes.

Looking back on the Tōhoku earthquake, what left the greatest impression on you at that time?

The most memorable recollection that really shocked me was when I saw that everything (shelving, bookcases and items) had fallen down all at once. I was by the wall, so fortunately, nothing hit me, but I didn't expect the whole thing to fall over, so I had put microwave ovens, toasters, and other machines on the iron or metal shelves, which were quite tall and heavy. I was quite shocked to see all of them fall over. Then, when I was in the car, I heard that many dead bodies had been washed up on the beach, and I was really shocked. Later, I heard that it was a tsunami, and that was also quite shocking and still remains in my mind. It was quite vivid, and it was happening in the same prefecture where I was living.

...the one that really shocked me was when I saw that everything (shelving, bookcases and items) had fallen down all at once...

- *Tōhoku Earthquake survivor Kanako Nemoto*

After the main shock, I heard a lot of aftershocks. I could hear them coming. The sound of the ground shaking comes first, and the shaking comes later.

Even if it was a small quake, there were times when there was a lot of noise, even if it was only 3 or 4 on the Japanese shaking intensity scale (Shindo). That kind of thing (aftershocks) was going on for about a month or two until May. At the university, you can hear the blast of Earthquake Early Warning. Now that I think about it, at that time, all I could think about was earthquakes. Aftershocks continued for a long time. Even if it was an aftershock, it was like a magnitude 5 earthquake would hit again a month later.

At the university, you can hear the blast of Earthquake Early Warning. Now that I think about it, at that time, all I could think about was earthquakes.

- *Tōhoku Earthquake survivor Kanako Nemoto*

Were there many earthquakes before the magnitude 9 quake?

I don't remember any. I think there were occasional earthquakes, like the ones that happen everywhere in Japan. I don't remember it happening that often, but there were many more after the main shock.

How do you think your life changed after the Tōhoku earthquake? Please tell us about the changes you saw in the long term and in the short term.

I think there were some changes immediately after the earthquake, like having to extend my graduate school life a little. As for the long-term change, perhaps I grew more sensitive to earthquakes. I also feel more immune to earthquakes. I guess I feel a little more prepared for them, but that's about it.

Do you think that the experience of this earthquake impacted what you tell the important people in your life?

I came here as an adult and have never been taught information (about earthquake and tsunami preparedness in BC). It would be very helpful if an organization like BCEA could send out information. Especially because there are so many immigrants in Canada.

It would be very helpful if an organization like BCEA could send out information. *Especially because there are so many immigrants in Canada.*

- *Tōhoku Earthquake survivor Kanako Nemoto*

Why did you want to share your story of your experience of this disaster with others?

I think that just knowing what to do afterwards, or what to do if something like this really happens, will help all of us prepare better for future events. I hope that my experience will be of some help.

I think that just knowing what to do afterwards, or what to do if something like this really happens, will help all of us prepare better for future events. I hope that my experience will be of some help.

- Tōhoku Earthquake survivor Kanako Nemoto

Do you have any messages you would like to convey to others from your experience of the disaster?

I think the best advice is to prepare yourself ahead of time. After an earthquake you can do nothing, and cell phones and other devices become useless. Since everything is on the Internet now, if the electricity goes out, you really can't do anything, so it is best to be aware of such information beforehand. After an earthquake, you may be unable to buy food even if you want to, so I think it is best to be prepared.

Do you have any useful tips for disaster preparedness that you can remember now?

I think it is best to check information such as maps in advance and know where the safest place to live is, and it is important to know whether your home is safe from tsunamis and the tsunami evacuation route. When I was in Sendai, I was lucky that the people there took me to my brother's place, but without them, I really had no idea where to go or where to buy or get food. If I had stayed there, I would have been really lost. There was no one close to me like my family. Many of my friends and acquaintances in graduate school were from Tōhoku, so many of them had their parents' homes there.

It is best to check information such as maps in advance and know where the safest place to live is, and it is important to know whether your home is safe from tsunamis or not and the tsunami evacuation route.

- Tōhoku Earthquake survivor Kanako Nemoto

What is Quake Tales?



The Quake Tales Project is curated by the BC Earthquake Alliance and features stories of British Columbians' earthquake or tsunami survival stories. Stories with local connections resonate deeper with audiences,

so we collect them to help spread awareness and further increase the culture of preparedness across our province.

For more information about what to do in an earthquake :

<https://www.shakeoutbc.ca/what-to-do-in-an-earthquake/>. In BC, residents are asked to stay in their homes if it is safe to do so.¹ If evacuation is required, you are asked to evacuate by foot or bicycle if possible in order to leave the roads clear for emergency services.

Want to share your story? Contact us at: office@bcearthquakealliance.ca

Thank you to the BCAA and the Government of Canada Community Services Recovery Fund for their support of this project.

References:

Geospatial Information Authority of Japan. *The Tsunami inundation map is adapted from* https://www.fdma.go.jp/singi_kento/singi/items/h23_shingi/01/1-4/07.pdf

Hayes, G.P., Myers, E.K., Dewey, J.W., Briggs, R.W., Earle, P.S., Benz, H.M., Smoczyk, G.M., Flamme, H.E., Barnhart, W.D., Gold, R.D., and Furlong, K.P., 2017, *Tectonic summaries of magnitude 7 and greater earthquakes from 2000 to 2015: U.S. Geological Survey Open-File Report 2016–1192*, 148 p., <https://doi.org/10.3133/ofr20161192>.

U.S. Geological Survey M 9.2 2011 Great Tohoku Earthquake, Japan ShakeMap: https://earthquake.usgs.gov/earthquakes/eventpage/official20110311054624120_30/shakemap/pgv

¹ Province of British Columbia. Prepared BC. (March, 2024). *Earthquake and Tsunami Preparedness Guide*, pp. 20.